Mystical Experience Under the Magnifying Glass: A Terminological Study of the Psychedelic Science Lexicon

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Abstract

In recent decades, psychedelic science has gained attention in media and the public due to breakthrough discoveries regarding the efficacy of psychoactive compounds like magic mushrooms (psilocybin), LSD (lysergic acid), and DMT (endogenous dimethyltryptamine) to treat mental health conditions (Carhart-Harris & Friston, 2019). According to Johnson et al. (2014), in many cases, the high rate of success, more than 70% in the treatment of disorders like major depression, PTSD (post-traumatic stress disorder), or tobacco addiction, owes its efficacy to mystical experiences induced by high doses of classic psychedelics. However, the characterization of fundamental traits of mystical experiences needs to be clarified because most clinical trials use psychometric scales that lack a formal definition of concepts like ineffability, paradoxicality, sacredness, noetic quality, and universal connectedness, among other terms. Therefore, the following article aims to explore terminological concepts employed by psychedelic research to refer to psychedelic-induced mystical experiences. Thus, this investigation draws on terminological extraction techniques to illustrate the context-based meaning of specialized concepts. Results show a significant qualitative agreement in terminology across multiple contemporary specialized sources in concepts related to phenomenological traits of substance-induced mystical experiences.

Keywords: Psychedelic Science; Mystical Experience; Phenomenology; Terminology.

1. Introduction

Psychedelics have a long history of use in human cultures. Since ancient history, these mind-altering substances have been part of religious rituals and ceremonial sacraments. The Ancient Greeks and Romans performed a ritual ingestion of a psychoactive drink called Kykeon during the seasonal religious rites of the Eleusinian Mysteries (Hoffman, 2019). The Amazonian cultures developed a psychoactive beverage called ayahuasca that dates as far back as 900 B.C., which is still in use today (McKenna et al., 1998; Sayin, 2014). Whether it is in ancient or contemporary, indigenous or non-indigenous, religious or secular societies, psychedelics are interesting because they invoke profound changes in states of consciousness. Remarkably, psychedelics have once again gained attention in the public sphere in the last two decades due to the prominent research work conducted in the field of medicine and neuroscience to treat different psychological conditions (Griffiths et al., 2006; Brogaard, 2013; Carhart-Harris et al., 2016; Johnson et al., 2019; Andersen et al., 2021).

However, psychoactive compounds such as psilocybin –the active ingredient of magic mushrooms-, LSD, DMT, MDMA, ayahuasca, and mescaline remain illegal in most countries of the world, with exceptions in use for research purposes under strict regulatory conditions.

The status of psychedelics as a symbol of the *hippie* and counterculture of the United States during the 60s and 70s had legal consequences due to political friction.

Youngsters involved in this subculture advocated for a peaceful end to the Vietnam War. As a result, associations of psychedelics with the antiwar movement and the spread of non-scientifically grounded propaganda about the negative effects of these substances soon reached conservative lawmakers' attention. This polarized context resulted in the declaration of the War on Drugs by President Richard Nixon, which led to the complete prohibition of psychedelics from recreational and scientific use in the United States and also in the UN member countries.

However, the context is different now. Psychedelics have become part of popular culture and media due to promising clinical trials, with researchers and writers advocating for a reevaluation of the illegal status given to these compounds. Among them, Michael Pollan, a famous New York Times journalist, has written *How to Change Your Mind*, a bestselling book and Netflix documentary series that describes how psychedelics work in detail, including a series of interviews with people who have had experiences with these substances. Contributions such as Pollan's work and scientific research have reduced stigma and informed the public on the subject. Information on psychedelics is now abundant and, although there are specialized debates on the nomenclature, the scientific community agrees on the following definition:

> Psychedelics are compounds that alter consciousness by acting on serotonin receptors in the brain. The term psychedelic, from the Greek for mind manifesting, refers to the drugs' subjective effects and was first proposed by Humphry Osmond in 1956 (Kelmendi et al., 2022, p. 63).

Since Osmond's definition, different terms have been used in psychedelic research to emphasize shared pharmacological aspects of various chemicals that have different subjective effects in humans. For instance, compounds that affect perception are called hallucinogens, while those interacting with spiritual, social, and emotional domains are respectively referred to as entheogens, empathogens, and entactogens.

The subjective effects of psychedelic substances are now studied in clinical and non-clinical settings. Nonetheless, the phenomenology of such altered states of consciousness is so different from waking mental states that it is challenging to provide a framework that fully captures the nuances of mystical experiences. Consequently, terms used across diverse research in this matter may contain divergent conceptualizations on the same phenomena. For this reason, this study seeks to pave the way for a terminological systematization of mystical experience in psychedelic science.

2. Literature Review

2.1. Psychedelics in Contemporary Science

In recent years, Psychedelic science has experienced a scientific renaissance due to the established and rigorous research procedures led by scientists from institutions such as Johns Hopkins University, Imperial College London, University of British Columbia, and University of Zurich, among others. The greatest impact of this renewed scientific endeavor has been on mental health. Compounds such as psilocybin (the active ingredient in magic mushrooms), LSD (lysergic acid diethylamide), and MDMA (3,4-Methylenedioxymethamphetamine) have shown significant potential for alleviating different mental conditions such as major depression and cancer-related distress (Robin, 2002; Griffiths et al., 2006; Carhart-Harris et al., 2016; Nichols, 2016; Mitchell et al., 2021; Nutt et al., 2022), opening the discussion for a new understanding of mental health treatments and the application of effective psychedelic-assisted psychotherapy. Importantly, the Food and Drug Administration (FDA) has called psilocybin and MDMA a Breakthrough Therapy for

severe depression and PTSD (post-traumatic stress disorder). The Breakthrough Therapy status is a process designed to expedite the development and review of drugs that may demonstrate substantial improvement over available therapies (FDA, 2023). In light of these facts, several pharmaceutical companies, psychedelic research centers, and state and privately funded institutions are working and paving the path to the approval of psychedelics for clinical practice and scientific research.

At this point, it is necessary to discuss what is known in contemporary science about psychedelics to avoid the prevalence of misinformation and have a better understanding of how they work. Findings from neuroscientific research using fMRI (functional magnetic resonance imaging), PET (positron emission tomography), and EEG (electroencephalogram) have shown changes in brain activity (Johnson et al., 2019). First, there is a decrease in the activity in brain regions that are normally active during rest and self-referential thought. This causes disruptions in the sense of self and ego boundaries that participants of the studies report (Griffiths et al., 2006). Second, studies have found that psychedelics increase the overall connectivity across different brain regions that do not normally interact with each other, resulting in greater integration and communication in functional networks (Carhart-Harris et al., 2016). In consequence, the hyper-connectedness of diverse brain regions contributes to the blending of sensory modalities and synesthetic experiences (Brogaard, 2013). Third, psychedelics activate 5-HT2A receptors in brain regions such as the prefrontal cortex, the thalamus, and the visual cortex (Nichols, 2016). This latter effect plays a central role in the altered states of perception, sensory intensification, and hallucinations.

These findings have opened discussion and exploration in areas of knowledge such as philosophy, psychiatry, psychology, neuroscience, and theories of learning, among other disciplines. However, the terminology employed by scholars from different disciplines becomes vague at times due to the overlap of concepts which, might not be referring to the intended phenomenon. Therefore, it is necessary to shed light on the concepts that emerge from primary sources, namely, psychedelic science, especially when it comes to complex and opaque psychedelic states such as mystical experiences.

2.2. Psychedelic-Induced Mystical Experience

From contemporary neuroscience, studies have shown that psychedelics induce altered states of consciousness and perception, conducive to what has been termed a mystical experience (Nichols, 2016; Kangaslampi et al., 2020). Nonetheless, the inclusion of this type of terminology in scientific materialism raises some questions about the epistemological stance that researchers take when presenting and assessing the empirical contribution of the phenomenological underpinnings of the psychedelic experience. In other words, what is the value that mystical experiences have within the psychedelic science debate? In this scenario, it is important to discuss the epistemological approximations of psychedelics that are present in the current literature. By doing so, this article adheres to the “progressive initiative to demystify the psychedelic experience” (Carhart-Harris et al. 2018, p. 725) that draws the line between systematic scientific work and pseudo-scientific speculation.

To begin with, psychedelic science explores the neurological, pharmacological, and psychological effects of substances such as psilocybin, LSD, and DMT (N, N-Dimethyltryptamine) in clinical trials. Along with the findings, a progressive systematization of such clinical trials has been proposed (Watts & Luoma, 2020). For

example, researchers seek to control variables related to dosage, set, and setting. In other words, scientists do not only take into consideration the pharmacology of a particular compound but also contextual and personal factors that determine the psychedelic experience. As Dalgamo & Shewan (2005) argue, risk reduction in clinical trials entails the consideration of environmental and internal variables that become relevant for participants' safety. Therefore, the research subjects' mindset (set) and the context of ingestion (setting) are as important as the dosage of the psychedelic substance. According to Zinberg (1984), "the attitude of the person at the time of use, including personality structure" (p. 5) as well as the contextual arrangement directly interact with the chemistry of the substance itself.

Despite the safety framework that characterizes contemporary psychedelic research, most clinical trials aim at fostering peak psychedelic experiences through high doses of classic psychedelics. The effects of a high dose of psychoactive compounds like magic mushrooms (psilocybin) have been equated to a mystical experience. The motif behind this theoretical reasoning is based on psychedelic research itself. Crucially, a pilot study conducted by García-Romeu et al., (2014) used psilocybin to treat tobacco addiction:

> In an open-label pilot study of psilocybin-facilitated smoking addiction treatment, 15 smokers received 2 or 3 doses of psilocybin in the context of cognitive behavioral therapy (CBT) for smoking cessation. Twelve of 15 participants (80%) demonstrated biologically verified smoking abstinence at 6-month follow-up. Participants who were abstinent at 6 months (n=12) were compared to participants still smoking at 6 months (n=3) on measures of subjective effects of psilocybin. Abstainers scored significantly higher on a measure of psilocybin-occasioned mystical experience (p. 157).

This clinical trial shows that participants who had a mystical-type experience during the study were more successful at smoking cessation than those who did not. According to García-Romeu (2014), "smoking cessation outcomes were significantly correlated with measures of mystical experience on session days, as well as retrospective ratings of personal meaning and spiritual significance of psilocybin sessions" (p. 162). These findings indicate that the psilocybin-induced mystical experience has a mediating function in addiction alleviation.

Interestingly, peak effects of psychedelic experiences, e.g., mystical experiences, are considered fundamental in psychedelic research because they trigger lasting meaningful insights and realizations, accompanied by psychological and behavioral changes in participants (Kelmendi et al., 2022). For this reason, it is relevant to discuss the definition of mystical experience in the context of psychedelic research. For Grob et al. (2011), "mystical experiences are characterized by deep feelings of meaning/sacredness, interconnectedness, transcendence of time and space, ineffability, and a strong positive mood" (p. 71). These highly intense experiences share commonalities with conventional mystical experiences, leading scholars to establish shared subjective relations between them. In this respect, Panhke (1969) and Grof et al. (1973) propose nine effects from peak psychedelic experiences that overlap with non-drug mystical-type experiences:

- A sense of unity.
- The transcendence of time and space.
- A deeply felt positive mood.
- A sense of sacredness.
- The noetic quality.
- Paradoxicality.
- Alleged ineffability.

- Ego dissolution.
- Persisting positive changes in different domains, including attitudes and behavior towards the self, others, life, and the experience itself.

These components are among the common effects in psychedelic reports, also known as trip reports, written by people who have undergone a psychedelic journey in a naturalistic or clinical setting. Researchers often rely on the Mystical Experience Questionnaire (MEQ) to register an additional psychometric variable to the studies. Hence, these subjective experiences are valued by scholars because they seem to provide a relevant type of knowledge to the experiencer and the researcher.

Letheby (2019) outlines three main epistemological lines concerning psychedelics and the type of knowledge that they produce in the user. First, the entheogenic conception holds that through mystical experiences, "psychedelics afford direct knowledge of supernatural, transcendent dimensions of reality" (p. 1). That is to say, the nature of knowledge derived from psychedelics is novel and overarching. Grof et al., (1973) compare the entheogenic effect to the experience of being born and facing a new world. The second conception is the psychotomimetic view, also known as hallucinogenic. Under this approach, psychedelics do not produce any knowledge since there is no transcendent reality but a purely physical and objective one. This idea is popular among materialists/physicalists who see psychedelics merely as hallucination-generating compounds: "far from facilitating knowledge gain, psychedelics actively hinder it" (Letheby, 2019, p. 1). A third conception of the epistemology of psychedelic experiences is to reject the existence of a transcendental reality, accept the propositions of physicalism, and still preserve epistemic contributions from these substances.

In this regard, classic psychedelics are particularly potent at offering new, transformative insights that do not require users or researchers to embrace any idealist propositions. These insights are characterized by inner realizations about the users' own lives, reflections on social bonds, and considerations about relation to nature, among other aspects. Peak experiences with psychedelics bring about the reassessment of individuals' emic knowledge, the type of knowledge of a native member of a community that is determined by local custom, meaning, and belief (Bååth & Nordgren, 2022). According to Letheby (2019), this third epistemological attitude to psychedelics can be summarized as follows:

> The most promising idea is that [psychedelics] offer new knowledge of old facts. Rather than helping us learn new factual information, psychedelics allow us to understand or appreciate already known (or otherwise knowable) facts in deep, vivid, affectively, and motivationally significant ways (p. 2).

New knowledge of old facts is what exhibits great potential for therapeutic use to treat addictions and mental conditions. This new knowledge of conventional individual structures emerges from mystical experiences triggered by the ingestion of high doses of classic psychedelics. These peak experiences present challenges to researchers who seek to systematically incorporate and organize the resulting knowledge into scientific discussions. However, it also poses some limitations for knowledge transference to other disciplines that seek to incorporate psychedelics into the development of their theoretical elaboration. Thus, conducting preliminary terminological work can potentially open space for the construction of a unified framework based on clear-cut unambiguous terminological units.

2.3. Terminological Challenges of Mystical Experiences

Despite the cumulative research in the field of psychedelic science in the last two decades, efforts to unify criteria towards the understanding of mystical experiences are still insipient. This might be related to the historical burden that psychedelic science has endured to be taken into consideration in public regulations. Psychedelic compounds are still Schedule 1 drugs according to the UN conventions on substance regulations. This can be explained by the pressure the United States still imposes on this issue. In this regard, the War on Drugs still permeates debates in Parliament, especially among conservative lawmakers.

As a result, psychedelic researchers have historically avoided new-age terminology due to the contradictions that this naturally entails in a physicalist scientific framework. This effort to demystify the psychedelic experience has led to an exaggerated and overflowing use of concepts to account for phenomenological aspects of these altered states of consciousness. However, an excessive variation in terminology runs the risk of creating a niche scientific endeavor with limited dialogue and application to societal challenges that could be otherwise repelled with these breakthrough compounds -the global mental health crisis, for example.

The concept of mystical experience lies at the heart of the intersection between transpersonal subjective phenomena and neuroscientific studies. Therefore, an agreement on salient features of mystical experiences that have the potential to be generalizable must be sought. In this regard, different terminological approaches may encompass a more clearly defined boundary between concepts that are widely used in the field of psychedelic research.

One of the biggest challenges to converging into allying definitions of psychedelic-induced mystical experience is the data itself. The phenomenological traits that characterize psychedelic states are obtained through multiple semi-guided interviews, reconstructive trip reports, and psychometric measurements. This means that detail-rich reconstructions of experience are abundant in the thematization of data. However, as Bååth & Nordgren (2022) note, the psychedelic experience is not only shaped by the compound and dosage itself, but also by psychological, contextual, and cultural factors. Such elements are necessarily incorporated in psychedelic users' narratives because they serve as a background against which new insights and realizations are sorted out. In addition, people's literacy with inner states is also fundamental to consider because not all users may report psychological processes in the same manner.

The need for a psychedelic science lexicon is demanded as this field expands and develops into other areas of knowledge. A proper shared understanding of more entropic states of consciousness is demanded to create a solid scientific framework that can provide solutions to urgent social issues. This article seeks to present candidate terminological units that can effectively account for the characterization of mystical experiences, merging phenomenological with neuroscientific and psychological data. Thus, this work considers up-to-date research publications that incorporate key aspects that define drug-induced mystical states. In this line, possible terminological units are presented in context to provide a seminal analytical basis for further development.

3. Objectives

This study aims to develop a clearer understanding of highly ineffable psychological states. To do so, this article draws on terminological strategies of extraction from specialized scientific sources to (1) analyze frequent concepts employed to characterize psychedelic-induced mystical experiences in psychedelic research conducted in English from 2005 to 2023. At the same time, this investigation seeks to (2)

provide an informed list of candidate terminological units (TU) that can pave the path towards a more extensive and systematic revision of the psychedelic lexicon.

4. Methodology

This terminological study encompasses a three-step procedure that involves an online search of specialized sources and in-context processing of concepts to isolate the possible terminological units (TU).

4.1. Examination of specialized sources

This article considers scientific work conducted between 2005 to 2023 in the United States, Switzerland, the UK, and the Netherlands. This is because modern neuroimaging tools have been commonly employed in this new era of psychedelic research. This leaves no room for speculation regarding the pharmacological effects of psychedelic compounds in the brain, leading to a more unified understanding of the chemistry and neurophenomenology of these psychoactive substances. Furthermore, this preliminary selection of terminological sources only incorporated studies looking at peak effects with high doses of psychedelics because they are conducive to mystical experiences.

4.2. Identification and selection of TU

This second step encompassed a computer-assisted search in Google Scholar for keywords in specialized scientific journals. After conducting a thorough literature review, two main tokens were employed in the search: PSYCHEELIC RESEARCH and MYSTICAL EXPERIENCE. In addition, this search included Panhke's (1969) proposition of the phenomenology of psychedelic-induced mystical experiences, which integrates the following concepts:

- Unity.
- Transcendence of space and time.
- Paradoxicality.
- Ineffability.
- Sacredness.
- Ego dissolution.
- Noetic quality.

Although Panhke's characterization of mystical experiences dates back to the late 60s, these terms have been incorporated into modern psychedelic research as they presented seminal theorizations based on strong empirical evidence through psychometric measurements.

4.3. Selection of candidate TU

Panhke's (1969) list of concepts was correlated with terms employed in the selected scientific publications to establish coherent patterns of use. Thus, instances of use where the candidate TU was employed in a way that exhibited definitory features were selected. In addition, more than one context per TU was proposed to further strengthen the intended context of use. Finally, variations in key terms were included based on their prominence in psychedelic jargon.

5. Analysis

5.1. Terminological Extraction

This section shows the use of concepts employed in psychedelic research to describe the phenomenological traits that characterize a substance-induced mystical experience. Concepts are presented in context, with variation in some cases.

Candidate TU 1: Unity

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *Participants consistently reported a profound sense of* ***unity****, as if boundaries between self and others dissolved during the psychedelic experience* (p. 1397).
SOURCE: Carhart-Harris, R. L., Rose, G., Friston, K. J., & Watts, T. D. (2012).

CONTEXT 2: *The experience of **unity** is often accompanied by a sense of dissolution of the ego, the feeling that there is no separation between oneself and others or the world. This experience can be very liberating and can lead to a new perspective on life* (p. 1676).
SOURCE: Griffiths, R. R., Johnson, M. W., Richards, W. A., & Jesse, R. (2016).
VARIATION 1: Connectedness
Word class: noun
Type of Variation: synonym
CONTEXT 1: *The data reveals a common theme of **connectedness**, where individuals describe an oceanic feeling, an interconnectedness with all living beings* (p. 119).
SOURCE: Barrett, F. S., Griffiths, R. R., Wise, R., & Nuland, W. (2015).

Candidate TU 2: Transience

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *Subjects consistently reported a distortion in the perception of time and space, describing a **transience** that felt both elongated and compressed* (p. 163).
SOURCE: Dykstra, P. J., & Schruffen, D. (2018). Frontiers in Psychiatry.
CONTEXT 2: The psychedelic experience induced a profound **transience**, where participants felt detached from the linear constraints of time and the boundaries of physical space (p. 543).
SOURCE: Sze, D., & Carhart-Harris, R. L. (2020).
CONTEXT 3: *Our findings support the idea of **transience** as a key aspect of the psychedelic experience, with participants describing a non-linear and fluid perception of both time and space* (p. 615).
SOURCE: Johnson, M. W., Richards, W. A., Griffiths, R. R., & Jesse, R. (2019).

Candidate TU 3: Paradoxicality

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: ***Paradoxicality** in psychedelic experiences is often described in terms of opposites, such as unity and separation, love and fear, and joy and sorrow. This **paradoxicality** can be both confusing and enlightening, as it challenges our conventional understanding of reality* (p. 765).
SOURCE: Carhart-Harris, R. L., & Friston, K. J. (2019).
CONTEXT 2: *The **paradoxicality** of psychedelic experiences can be challenging to integrate into one's life. However, this process can also lead to personal growth and transformation. This is because these experiences can help us to see the world in new ways and to let go of old patterns of thinking and behavior (p. 14).*
SOURCE: Yuhara, Y., & Doose, C. (2022).
CONTEXT 3: *In our study, participants reported a heightened state of **paradoxicality** during the psychedelic journey, describing experiences that were both intensely joyful and profoundly melancholic, blurring the boundaries of emotional opposites* (p. 649).
SOURCE: Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., McCann, U., & Jesse, R. (2011).

Candidate TU 4: Ineffability

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *The **ineffability** of psychedelic experiences can also be challenging to communicate to others. However, this does not mean that these experiences are not real or meaningful. They can be just as real and meaningful as any other experience, even if they cannot be fully expressed in words* (p. 1).
SOURCE: Watts, T. (2016).
CONTEXT 2: *The **ineffability** of the mystical experiences induced by psychedelics poses a challenge to*

researchers seeking to capture the full spectrum of subjective phenomena, highlighting the limitations of language in conveying transcendent states of consciousness (p. 34).
SOURCE: Studerus, E., Kometer, M., Hasler, F., & Vollenweider, F. X. (2011).

Candidate TU 5: Sacredness

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *The induction of* ***sacredness*** *by psychedelics may play a crucial role in their therapeutic potential, fostering a sense of connection and reverence that transcends individual ego boundaries* (p. 520).
SOURCE: Watts, R., Day, C., Krzanowski, J., Nutt, D., & Carhart-Harris, R. (2017).

CONTEXT 2: *Our study demonstrates that the experience of* ***sacredness*** *induced by psychedelics is not confined to religious or spiritual contexts, but can be a universal and transformative aspect of the human psyche* (p. 1).
SOURCE: Walsh, R. (2006).
CONTEXT 3:
SOURCE:
VARIATION 1: Awe
Word class: noun
Type of Variation: synonym
CONTEXT 1: *Psychedelic-induced* ***awe*** *is associated with enduring positive changes in life satisfaction, suggesting that the emotional impact of sacred experiences contributes to long-term well-being* (p. 1).
SOURCE: Fadiman, J., & Grob, C. S. (2010).

Candidate TU 6: Ego dissolution

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *Subjects commonly report* ***ego dissolution*** *during the peak of psychedelic experiences, characterized by a loss of subjective self-identity and a merging with a larger, interconnected consciousness* (p. 1).
SOURCE: Carhart-Harris, R. L., & Friston, K. J. (2010).
CONTEXT 2: ***Ego dissolution*** *can be a valuable tool for psychotherapy, as it can help people to let go of negative thoughts and beliefs about themselves. It can also help people to develop a more compassionate and understanding view of themselves* (p. 7).
SOURCE: Carhart-Harris & Friston (2010).
VARIATION 1: Ego death
Word class: noun
Type of Variation: synonym
CONTEXT 1: ***Ego death*** *is associated with long-term changes in personality traits, including increased openness and decreased authoritarianism, suggesting a lasting impact on self-perception* (p. 34).
SOURCE: MacLean, K. A., Johnson, M. W., & Griffiths, R. R. (2011).

Candidate TU 7: Noetic quality

Word class: noun
Discipline: neuroscience, neuropharmacology, neurophenomenology
CONTEXT 1: *The n****oetic quality*** *brings about leads to a sense of disorientation and confusion. However, it can also be a very positive experience, as it can lead to a sense of insight and clarity* (p. 3).
SOURCE: Grof, S. (2000).
CONTEXT 2: ***Noetic quality*** *can be a valuable tool for psychotherapy, as it can help people access deep-seated knowledge and understanding about themselves and the world. It can also help people to develop a more intuitive and creative approach to problem-solving* (p. 29).
SOURCE: Griffiths, R. R., Johnson, M. W., Richards, W. A., & Alexander, P. (2006).
CONTEXT 3: *Investigating the subjective experiences induced by psilocybin, participants consistently reported a sense of* ***noetic quality****, characterized by an enhanced perception*

of novelty and a profound shift in their cognitive framework (p. 31).
SOURCE: Griffiths et al. (2006).

5.2. Results

The processing of TU employed to describe psychedelic-induced mystical experiences shows coherence across diverse research publications in the same domain. Although some authors emphasize divergent features of these TU, correlations can still be drawn when comparing multiple contexts of use and variation. As a result, the following preliminary definitions can be established:

Unity

Unity is consistently described as the dissolution of boundaries between self and others during psychedelic experiences. It involves a profound sense of interconnectedness and a shift in the cognitive framework. Converging experiences of connectedness and oceanic feelings are common to this phenomenon.

Transience

Transience is characterized by a distortion in the perception of time and space during psychedelic experiences. It involves a feeling of both elongation and compression, with a detachment from linear constraints.

Paradoxicality

Paradoxicality in psychedelic experiences involves the simultaneous experience of opposites, challenging conventional understandings of reality. It can be confusing yet enlightening and leads to personal growth.

Ineffability

Ineffability refers to the challenging communication of psychedelic experiences. Despite difficulties in expression, these experiences are considered real and meaningful.

Sacredness

Sacredness induced by psychedelics fosters connection and reverence beyond individual ego boundaries. It plays a crucial role in the therapeutic potential of psychedelics. A sense of awe is also associated with this term, pointing to the emotional impact of sacred experiences.

Ego Dissolution

Ego dissolution involves a loss of subjective self-identity and merging with a larger, interconnected consciousness during psychedelic peaks. It is a valuable tool for psychotherapy, fostering compassion and understanding of inner psychological structures. Ego death is used synonymously, highlighting its association with long-term changes in personality traits.

Noetic Quality

The noetic quality of psychedelic experiences triggers insights and clarity. It helps access deep-seated knowledge and understanding, fostering intuitive problem-solving. Noetic quality points to the discovery of new knowledge of old facts.

6. Discussion

The terminological extraction reveals the rich and nuanced language used in psychedelic research to articulate the complex and transformative nature of the experiences induced by substances. The identified concepts contribute to a deeper understanding of the phenomenological traits associated with psychedelic encounters in the realms of neuroscience, neuropharmacology, and neurophenomenology.

This terminological analysis demonstrates the existence of intersecting, and sometimes, overlapping phenomena in peak experiences with psychedelic compounds. Apart from that, the presentations of terminological units related to components of mystical experiences show a high degree of qualitative correspondences that predict reference to a similar subjective experience. This finding suggests that despite psychological, contextual, and cultural factors, high doses of psychedelics lead to generalizable entropic mental states due to pharmacological predictors.

Furthermore, the candidate TU presents converging features that align with

the wider phenomenon of substance-induced mystical experiences. Unity, transience, paradoxicality, ineffability, sacredness, ego dissolution, and noetic quality are all accompanied by a profound emotional impact that can predict structural transformation and reshaping of identitarian personality traits. In this regard, psychedelic research emphasizes this deep emotional encounter as a predictor of positive outcomes for psychedelic-assisted psychotherapy.

7. Conclusion

The revision of the terminology used in the new era of psychedelic science to construct the phenomenon of mystical experiences suggests the existence of a coherent and empirically founded scholarly framework to pursue the elaboration of specialized glossaries. The characterization of nuanced aspects of mystical experiences can aid other disciplines interested in the potential of psychedelics to establish more accurate hypotheses. Alongside it, a clearly defined psychedelic lexicon can also provide resourceful contributions to public health policies that aim at promoting medical use and safe ingestion, encouraging informed public and political discussions on the scientific value of psychedelic substances. This latter aspect is fundamental to avoid misinformation, prejudice, and punitive State policies towards these powerful mind-altering compounds. Historical evidence shows that prohibition only extends misuse and risk to the population.

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