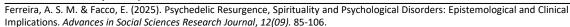
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Psychedelic Resurgence, Spirituality and Psychological Disorders: Epistemological and Clinical Implications

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ABSTRACT

The scientific interest in spirituality has increased in recent years, paralleled by promising findings on the effects of spiritual experiences induced by psychedelics substances (PS), in the treatment of psychiatric disorders. However, these experiences may also bring challenges, depending on a variety of nonpharmacological variables. This article argues that an undiscerning use of PS to induce spiritual experiences, may facilitate the development of psychospiritual pathology, of which spiritual bypassing is a common example. This conclusion is based on a combination of three arguments: a) the ability of PS to trigger transcendental phenomenology; b) the unfamiliarity of the ruling mechanisticreductionist scientific paradigm with the nature and implications of spirituality; c) the influence of New Age beliefs promoting PS as vehicles for spiritual and psychological growth. Considering the common occurrence of transcendental phenomenology in psychedelic experiences, the use of appropriate tools of assessment and support should be encouraged. Bearing in mind that both Eastern and Western philosophical and spiritual traditions are living repositories of wisdom on how to address spiritual experiences, a possible solution points towards the selective incorporation of this millenary knowledge, from a secular, transcultural perspective, to support informed uses and practices in psychedelic research and therapy.

Keywords: Psychedelic Substances, Spirituality, Spiritual Bypassing, Non-ordinary States of Consciousness, Non-ordinary Mental Expressions.

INTRODUCTION

A few decades ago, John Welwood [1] coined the term 'spiritual bypassing' after observing a tendency, among members of spiritual communities, to use spiritual practices to rise above identity crises, personal problems and difficult psychological issues. Spiritual bypassing is a psychospiritual disorder marked by the illusory use of spiritual tools and techniques to achieve premature states of transcendence, while bypassing the crucial developmental stages that an authentic spiritual path requires. The pervasiveness of this psychological subterfuge, led Masters [2] to consider spiritual bypassing as an inescapable shadow side of spirituality.

Spirituality can be defined as an attribute of those who are actively committed to an idiosyncratic search for the transcendent [3], in contrast to participating in formal religions as organized, social phenomena, even if they share overlapping aspects deriving from a common quest for the sacred. In the West, mystery schools and spiritual traditions have been largely overlooked in academic circles, even if spiritual themes are starting to be loosely re-examined, for two main reasons: a) cumulative evidence regarding the importance of religion and spirituality in health and well-being [4,5]; b) the influence of the psychedelic resurgence movement, rooted on a shared interest, from the biomedical community and several socioeconomic sectors on the promising effects of psychedelic substances (PS) in psychiatric conditions, including addiction, post-traumatic stress disorder, and a wide spectrum of mood and anxiety disorders [6-9]. Unexpectedly, part of the reputation of psychedelic-assisted psychotherapy as a potential breakthrough treatment [10], has been associated with the subjective quality of the experience [11,12], including its ability to galvanise spiritual or mystical-type phenomenology [13-18].

The growing interest in non-mainstream self-care modalities integrating spiritual tools and techniques [19], stems from a post-modern dissatisfaction with religious dogmas and practices, as well as with the limitations of psychiatric and psychological treatments [20-24]. However, the inclusion of spiritual variables in psychedelic research and therapy brings its own caveats, since the current scientific paradigm remains unacquainted with the non-ordinary aspects of the human experience. As a result, it also remains permeable to the cultural influence of an all-pervasive New Age programme [25], that has been held responsible for nesting a variety of misconceptions into contemporary Western spirituality and the "new healing" industry [26]. Therefore, when hyperbolic claims are made regarding PS, as being endowed with an inherent spiritual and transformative value, there is a risk of mistaking the vast spiritual forest for the isolated psychedelic tree, leading to an underestimation of risks and an overestimation of therapeutic potentials, based on underexplored variables.

SPIRITUAL AND MYSTICAL-LIKE EXPERIENCES INDUCED BY PSYCHEDELICS AS DOUBLE-EDGED SWORDS

In this article we discuss the risks associated with spiritual and mystical-like experiences (SMLEs) induced by PS, when the appropriate assessment and support tools are not duly considered. Specifically, SMLEs may sometimes lead to serious psychospiritual challenges – seldom considered in mainstream psychology or psychiatry [27] - of which spiritual bypassing and "spiritual emergencies" are prominent examples. Because of their chaotic and seemingly odd nature, that includes expressive transcendental phenomenology, spiritual emergencies are at the risk of being confused with psychotic events, and wrongly addressed as such. However, real spiritual emergencies are non-pathological events that should be approached as unusual non-ordinary states of consciousness with an inherent transformative potential, that can lead towards psychological renewal when specialized support is available [28]. But besides being a vehicle for ostensibly peculiar transcendental experiences, PS can also be at the root of a variety of soothing spiritual and mystical-like events which, by covering unresolved psychological conflicts, might be wrongly understood as undisputedly positive. And, as such, unworthy of psychological attention and/or spiritual support, even when they can become a source for unacknowledged psychospiritual pathology. A generalized lack of awareness in psychedelic science regarding the nature of spiritual experiences, including their downsides, creates the

ideal terrain from where a variety of common manifestations of spiritual bypassing can grow [1,2,29-32], including:

- 1. Excessive bias towards positive thinking, while denying negative aspects of reality;
- 2. Repression and emotional alienation;
- 3. Exaggerated disidentification and detachment;
- 4. Compulsive goodness, blind compassion or excessive tolerance disregarding boundaries and personal accountability;
- 5. Overestimation of one's own spiritual evolution and overinflation of spiritual achievements;
- 6. Distortion of spiritual teachings;
- 7. Repression of undesirable or painful emotions;
- 8. Spiritual narcissism.

The exploration of this topic aims to address the generalized unfamiliarity with spirituality and non-ordinary states of consciousness affecting medical sciences and psychology in the West. Apart from notable exceptions [33], psychedelic science remains severely constrained within the limits of the biomedical model, essentially focused on the pharmacological effects of PS, but mostly unable to understand and manage the psychospiritual aspects of the experiences they induce. Indeed, a recent systematic review on the relationship between SMLEs induced by PS and long-term spiritual growth, overlooked the influence of other variables besides the effect of substances themselves [34]. Furthermore, there is an inclination to believe that SMLEs, when not beneficial, are close to innocuous. This belief is disproved not only by anecdotal accounts, but also by recent studies describing extended difficulties after psychedelic experiences - including ontological shock and existential distress - as well as an array of potential risks and benefits, including spiritual [27,35,36]. Overall, these elements suggest the need to appraise the challenging aspects of PS, including the risks carried by unsupported spiritual experiences, as there is no reason to believe that 'controlled' settings are exempt from the influence of the same complex psychological mechanisms that use spirituality to bypass human limitations.

This reflection was based upon three conceptual vectors – neuropsychological, psychosocial or philosophical, and cultural – from where we analyse the reasons why, the prevailing reductionistic approach in mainstream science is unprepared to deal with the psychospiritual challenges that psychedelic experiences often bring. The first vector addresses the inevitability of SMLEs following the breakdown of the neurological network induced by PS; the second addresses the current scientific approach to non-ordinary mental experiences, in contrast with their enduring transcultural relevance; and the third analyses the cultural influence of New Age-like cultural beliefs upon the current mass-consumption of spiritual experiences. In fact, an insidious New Age-influenced cultural attitude may have already distorted the lens from where spirituality and spiritual experiences are approached in scientific environments, as something that is automatically accessible through the use of PS *per se*, encouraging unsubstantiated ideas around their potential as vehicles for lasting psychological transformation, while dismissing risks, including the provisional character of the experiences they provide.

Neuropsychological Aspects

The *entropic brain hypothesis* defines the neurophysiological mechanism of action of PS, by focusing on the collapse of the default-mode network (DMN), a complex midline fronto-

occipital circuit, serendipitously discovered in the beginning of this century [37-39]. The DMN is preferably active when the individual is engaged in introspective activity – including memory, language, and semantic representations –, creating a coherent "internal narrative" that reflects the sense of self, the other, and the world [40-42]. By establishing a complex interrelationship with the salience and the central executive networks - the balance or imbalance of which guides behaviour towards healthy or unhealthy directions - it plays a key role in human consciousness.

Even if the therapeutic role of disrupting the DMN following the administration of PS is still unclear, it seems to be correlated with increased brain entropy, and the parallel dissolution of inflexible mental structures. From a psychological standpoint, a focused chemical disruption for the rapeutic purposes can bring awareness to otherwise hidden unconscious material, as it happens with other mind-altering activities such as meditation and hypnosis [43-46]. Mindaltering procedures can also trigger a wide variety of self-enhancing and superconscious experiences with therapeutic relevance, commonly designated under the umbrella term of nonordinary states of consciousness [44,47,48] - or better, non-ordinary mental expressions (NOMEs). NOMEs comprehend a diversity of non-pathological, unusual and ostensibly odd experiences, - e.g. fusional, mystical, out-of-body and near-death experiences, and other higher states of consciousness, including James' spiritual self, Arieti's concept of self-expansion and Assagioli's superconscious mind and enlightenment - as well as a wide variety of nonpharmacological procedures (e.g., meditation and hypnosis) capable of eliciting them [49]. The term NOMEs emphasizes the fact that, by reflecting a deviation from the adopted Weltbild (image of the world), the ostensible oddity of these experiences is epistemological in nature, rather than dysfunctional in itself. More, their non-pathological nature is consistent with their transformative potential, questioning the belief that only consensual experiences in "ordinary", waking consciousness provide valid and healthy perspectives towards reality.

Although the use of PS seems to carry the surface advantage of immediacy and repeatability (50), NOMEs occur in a variety of non-psychedelic states, suggesting the existence of common neural pathways that can be synergistically combined [39] for psychological and spiritual purposes, but also to manage psychiatric disorders [51-54]. But even if SMLEs can be galvanised by PS, psychological and spiritual development are never the singular outcome of any transcendental experience, however remarkable. Essentially, PS are neutral chemical vehicles or, as Grof and Grof [28] defined, "non-specific amplifier agents that facilitate the manifestation of previously unconscious contents". As such, they do not carry intentions, meaning, moral, ethics, or any intrinsic truth in themselves. Instead, following a DMN breakdown, and much like a fishnet, PS can unselectively bring to awareness whatever mental contents are most accessible from the unconscious, whether beneficial or detrimental including what Jung [55] defined as 'the thing a person has no wish to be'. As the unconscious speaks through metaphors and symbols, it is not surprising that psychedelic experiences are often infused with fantastic, spiritual and/or mystical elements. According to Jungian Analytical Psychology, they represent an essential part of the human psyche - including the ideas of 'spirit' and 'soul' as archetypical expressions of the collective unconscious [56,57], understood as an universal container of blueprints for all human experience.

Evidence for the timeless use of psychoactive agents across cultures [58] provides solid bases for inferring that our ancestors, though oblivious of neurological correlates, were proficient in

the use of a wide variety of NOMEs - often triggered by natural PS - to activate spiritual phenomenology and expose hidden aspects of the psyche. Due to their revelatory and transformative potential - that included potentially transformative death-and-rebirth experiences [59] - PS were called plants of power, master plants, plants of knowledge or plants of the gods in shamanic cultures. Narby [60] hypothesized that shamans gained access to crucial survival information by communicating with natural organisms through visionary experiences, while McKenna [61] attributed cultural innovation - including language - to the repeated exposure to complex psychedelic rituals. This intimate and timeless association between master plants and the genus Homo suggests an intriguing and dynamic connectedness, where the availability of natural PS combined with matching brain receptors might have provided selective advantages [62,63]. But even considering this hypothetical evolutive role, the DMN collapse following the administration of PS may indistinctively trigger life-enhancing or destructive contents of the unconscious psyche. This ambivalent quality was poetically phrased by Humphrey Osborn – who coined the term psychedelic from the Greek ψυχή (psyche, vital blow, soul) and $\delta\eta\lambda\tilde{o}\tilde{v}$ ($d\bar{e}lo\hat{u}n$, to manifest) - in a letter to Aldous Huxley [64] through the following rhyme:

"To fathom Hell or soar angelic Just take a pinch of psychedelic"

The unescapable unpredictability of PS led shamanic cultures to develop ritualized practices, where non-pharmacological variables were manipulated to modulate potentially overwhelming effects, within an all-inclusive worldview, where spiritual phenomena were seen as innate aspects of the human psyche. Given the lack of experience in scientific environments on how to deal with some of the effects of PS, Winkelman [59] suggested that modern psychedelic research and therapy should adopt a shamanic biogenetic paradigm to optimize administration. Considering the challenging nature and the high variability of effects – touching all areas of human experience, including spirituality – the importance of handling their administration carefully, cannot be overstated.

Psychosocial and Philosophical Aspects

In contrast with the current Weltbild, a vast transcultural repository of spiritual knowledge can be found not only in hunter-gatherer cultures, but also in a worldwide variety of highly developed philosophical and spiritual-religious traditions. Well-aware of the complexities and risks of psychospiritual transformation, they illustrated the challenges of the spiritual initiate with powerful allegories, metaphors and symbols, through examples like Christ's temptations by the devil in the desert, Mara the tempter in Buddha's biography*, Arjuna's trials and tribulations in the $Bhagavadg\bar{\imath}t\bar{a}$, or Makyo, the malicious phenomena region in Zen meditation. The inexorability of spiritual ordeals calls for awareness and metacognitive mastery of mental tools like will-power, motivation and concentration to prevent the initiate from getting lost along the spiritual path. Examples of solid anchorage points are prayer and the rosary in the Christian tradition, mantras and $mudr\bar{a}s$ in Eastern meditative practices, or the mindful intention ($kawwan\dot{a}$) and the Hebrew alphabet in Kabbalistic meditation, where initiates are

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^{*} Both the devil and Mara symbolically represent outer projections coming from the ego's illusions, hubris and Hobbe's *cupiditas naturalis* (natural lust), that must be purposefully eliminated along the difficult path of spiritual development towards full Self-realization [65].

instructed to develop self-control and the ability to stand "without hands and feet", to avoid burning them within their visions [65]. The necessity of spiritual 'toolboxes' is in itself a warning that the spiritual path is not meant for the faint of heart, requiring a certain amount of heroism and sacrifice to overcome the fires of egoic liberation. Even if the ruling mechanist-reductionist perspective has neglected the wisdom of spiritual traditions [66,67], its inherent value should not be underrated while exploring consciousness resources to promote psychospiritual development.

For this very reason, the ritual use of PS in hunter-gatherer cultures, progressed towards complex ceremonial practices in shamanic tribes, native religions, and across ancient cultures to encourage spiritual development [68]. In Greece, the final stages of the initiation rites in the Eleusinian Mysteries represented the epitome of the ritual uses of PS, when poppy seeds and *kikeon* - a psychoactive potion, possibly containing ergot alkaloids – were used as sacraments to access visionary experiences and *epopteia* (enlightenment) during the ascent, or *anabasis* [69-71]. Rather than aiming for peak experiences for their own sake, the Greeks made a controlled use of substances to support spiritual growth in those who were prepared [68], to the point that Greek philosophy cannot be fully understood unless the lost art of oracles, dream incubation and initiation rites is acknowledged [72,73]. Plato and Aristotle called 'epoptic' that segment of philosophy, where the initiate understands divine revelation by experiencing a spiritual event in material reality, and grasps the essential truth of the immaterial principle, which is no less than the ultimate goal of philosophy.

The ubiquitous and transcultural use of PS indicates that the impulse to step beyond ordinary consciousness is a human feature of paramount importance, in contrast with the ruling Western rationalist attitude, the apex of which lies in the supremacy of Heidegger's "calculative thinking" [74]: dominated by the will to power, it has stronghandedly directed ordinary thinking towards the uncritical manipulation and exploitation of the "ontic" dimension of the world, in detriment of 'being'. This inflexible posture has permeated scientific thought since Descartes' claim to own and master Nature, while his radical dualism and its subsequent development towards scientific reductionism, led to the radical and unquestioned neglect of the world of subjectivity, including NOMEs and their potential for psychological transformation. Accordingly, a science of consciousness was only initiated in the 1980s [75] - over three centuries after the birth of Galilean sciences- where consciousness itself has been mostly considered as an epiphenomenon of brain circuitry, and mental disorders as neurobiological problems to be relegated to pharmacological manipulation.

In this cultural climate, medical science labelled PS as hallucinogens or psychotomimetics, – *i.e.*, inducers of psychiatric-like phenomena – ignoring their ancestral role as *masters* and putting them under the authoritarian wing of last century's draconian 'War on Drugs' laws. Since 1961, the UN Convention paved the way to the worldwide criminalisation of the possession, use, and manufacturing of illicit drugs, labelled by Nixon as 'public enemy number one'. Following the enactment of the 1970's Controlled Substance Act, also research was interrupted, as a collateral damage of the political embargo. Not surprisingly, with the classification of most PS as Schedule I drugs [76], a countercultural spin pushed this puritan mindset towards the opposite direction. Rooted in the 1960's underground hippie counterculture, and in the influence of strong enthusiasts - such as Timothy Leary and Richard Alpert [77,78] - PS were propagandised as shortcuts towards fast-transcendence, carrying labels with softer connotations like

entheogens, entactogens, and empathogens. This conceptual turn towards the virtues of PS, reinforced by the current psychedelic resurgence, suggests that the debate on drug uses and abuses is philosophical and cultural in nature, rather than technical, reflecting another archetypal amplification of the Eastern "hungry ghost" phenomenon [79]. Metaphorically, it represents the human *hubris* and the will to power permeating the ego and ordinary consciousness, when desires become the driving force influencing mental creations. It also shows how ideological spins distract from the truth, by pushing the public debate on drugs towards polarized, heated, and irreconcilable positions. A similar distortion occurred with the crusade against cannabis that was labelled as "the devil's grass" following a surreptitious association with violent crime [80], and finally leading to the Marijuana Tax Act in 1937, through which prohibitive taxes were used to control marijuana use. The recent conceptual twist towards the virtues of PS, including the attribution of intrinsic magical-like qualities, carries an opposite risk: in the attempt to correct the effects of blind prohibitionism, it may be promoting a variety of misunderstandings and complex illusions regarding their therapeutic potential.

Considering the nature of the debate on drug uses and abuses, it should be clear that PS are neither good or bad *per se*: what confers them a certain quality depends on why and how they are used for, which depends on several factors, including pharmacodynamics, dosage, indications, context, community and the individual in all its complexity. Or, in simpler terms, set and setting [81]. From this perspective, the potential for abuse is more a problem of the human unpreparedness to use them, rather than a property of any substance in itself, as the opioid overdose epidemic demonstrates. This considered, a flexible scientific attitude towards the potential of PS is recommended, grounded not only on observable facts and scientific evidence, but also on informed experience, to prevent an undesirable permeability to ideological spins and epistemological biases that *a priori* deny or dismiss the importance of human subjectivity in all its manifestations, and will inevitably distract from the truth.

Cultural Aspects

In the absence of a consensual definition, the western New Age movement can be described as a "new revivalist religious impulse directed toward the esoteric/metaphysical/Eastern groups and to the mystical strain in all religions" [82]. With its immediate origins located in the 1960's and 1970's counterculture, it emerged as an influential medley of spiritual and pseudo-spiritual knowledge, rooted in the secularization of western esoteric traditions during the 19th century [83]. Even if the term is less used in current language, New Age beliefs and practices are considerably alive, as they intersect with contemporary spiritual and healing practices [26]. Its influence stems from a general loss of connection with the sacred dimensions of life, following the decline of religiosity in modern culture, paralleled by an ascending interest in self-taught forms of secular spirituality and idiosyncratic meaning-making experiences [84,85]. As a result, non-mediated beliefs and subjective practices that leave formal intermediaries out of sacred interactions, have been increasingly replacing culturally institutionalized forms of religion, as off-shoots of what Heelas [86] named *self-spirituality*.

It is worth noting that the etymology of the word 'religion' originates from the Latin *religāre* (rejoin, reconnect). In its essence, the religious impulse aims towards the reconnection of what ordinary consciousness and the mechanics of an overly dominant discriminative mind have inadvertently fragmented (*i.e.* the mind and the body, the 'I' and the 'non-I'). From this

perspective, religion shares a common core with traditional spiritual teachings, as royal roads towards self-knowledge and the full integration of the Self (or the true identity) through inner work. This psychospiritual endeavour is a task that, in the post-modern world, has been underrated by an all-pervasive materialistic and utilitarian attitude towards subjectivity in all its expressions, including spiritual experiences. In this cultural climate, where the intrinsic value of authentic spirituality has lost its relevance, spiritual seekers have been often led to use spiritual experiences as bypasses for healing, in an attempt to find solutions for a mounting epidemic of existential distress. In its most detrimental side, the New Age movement's influence is contributing to a disconcerting renewal of the 'hippie' counterculture of the 1960s, through an appealing discourse of spiritual bliss supported by an endless catalogue of untested therapeutic models, proclaiming the handcrafted transmutation of the fragmented individual into a fully restored Self.

By using an eminently experiential approach, the New Age ideology favours the proliferation of a syncretic amalgamation of decontextualized ready-to-wear spiritual tools of self-exploration, combining religious, spiritual, psychological, philosophical and indigenous elements and ritual practices. This mixture often includes theoretical material adapted from ground-breaking intellectuals who rigorously investigated and experimented with NOMEs, like Alan Watts and Aldous Huxley, and whose legacy shows that the outcome of the experiment is inherently connected with the mind of the experimenter. The fact that this availability of spiritual goods and services is greatly facilitated in a globalized world, led Rindfleish to describe the New Age discourse and practices as "the commodification of the self" [87], Luckman as a "market of transcendence" [88], and Bowman as a "spiritual supermarket" [26]. Separated from the theoretical corpus of spiritual traditions, this "cosmological hybridization" [89] phenomenon favours the proliferation of commercially profitable, albeit inconsistent, pseudo-therapeutic illusions, without considering the need for any type of philosophical and psychological equipment.

Regardless of the undeniable importance of the New Age movement in disseminating spirituality in the West, unabridged spirituality does not accommodate well with commodification principles, where spiritual-religious traditions are edited, cut out, branded, and sold as commercially viable pieces to the spiritually affluent. When separated from critical thinking and healthy discernment, the most detrimental versions of the New Age discourse, may easily undermine authentic spirituality, when what is left is an ill-disguised form of transpersonal propaganda. By supporting the questionable evolutionary supremacy of the highly spiritualized individual, alongside the institution of a sacrosanct right to spiritual development as a path to self-actualization, it is the visible result of a massive cultural shift towards subjective indulgence, disconnected from any legitimate source of wisdom. Aupers and Houtman [90] warned against the New Age movement's contribution to the "spiritual narcissism" epidemic, as a result of underestimating the influence of transcendental experiences in people who are unequipped to assimilate them. An upshot of spiritual bypassing, spiritual narcissism may arise when the inability to address negative emotions and self-esteem issues is compensated with a sense of spiritual mastery, of which 'guru-like' and 'false enlightenment syndromes' are an example of. This countercultural turn towards the richness of subjective life, where the individual is viewed as a unique source of significance and authority - without any other concerns, including natural law, ethics, or the other -, is turning the psychedelic experience into a coveted, high-end product of the spiritual supermarket. However,

it is still to be demonstrated that powerful SMLEs, resulting from a chemical alteration of key brain structures, can restore the fragmented individual into a fully healed original Self – a premature claim, captured by mainstream psychedelic culture, in correspondence to the New Age movement's main tenets (86). If this discussion is correct, there is a risk that this same mainstream psychedelic culture, trapped between scientific reductionism and New Age's cultural predominance, might confound the 'psychedelic baby' with the psychospiritual bath waters. As a result, any premature claims on the psychotherapeutic potential of SMLEs induced by PS might be misleading, when isolated flashes of chemically-induced transcendence are mistaken for authentic psychological breakthroughs or spiritual development. Such assumptions are dangerously naive, not only because they overlook the complexity of the human psyche (including in its spiritual expressions), but also ignore that any possible association between therapeutic outcomes and chemically induced spiritual experiences is not the same as causation.

In fact, psychological health does neither depend upon spirituality, nor spiritual experiences are a sufficient cause for psychological health, even if they might play an important role when certain conditions are met. However, spiritual development and maturity must always deal with the human psyche in its full complexity, and cannot co-exist in the absence of psychological health. If a mature reflexion on the role of spirituality within the complexity of the human psyche is replaced by the urge to provide instant fixes for challenging psychological-existential issues, the contemporary psychedelic movement might contribute to fuel psychospiritual distortions instead of creating reliable and lasting solutions. If our analysis is correct, the current uses of PS for the promotion of SMLEs are tied up within a tangled skein, mixed with an intricate combination of neuropsychological, epistemological and sociocultural threads, carrying several implications. A comprehensive analysis of this topic is hindered by its vastness, and only a few key points will be outlined in the discussion below, in the hope of bringing valuable information to the emerging debate of spirituality in science and the use of PS for psychospiritual growth: for further details *see* [91].

DISCUSSION

This article is focused on the possible occurrence of psychospiritual distortions following the naïve use of PS based on three main factors: a) the unavoidable emergence of latent unconscious contents, including SMLEs, following the collapse of the DMN, with unpredictable consequences; b) the inherent unfamiliarity with spirituality that the ruling mechanistic-reductionist paradigm in medical sciences suffers from; c) the cultural impact of a wide variety of New Age-inspired beliefs and practices promoting the unquestionable value of spirituality.

In combination, these three aspects may contribute to form epistemic blind spots favouring the proliferation of psychospiritual distortions, often expressed as spiritual bypassing manifestations. PS, as "nonspecific amplifiers" [28], may act as vehicles for the random expression of a wide range of inactive mental contents, including spiritual and mystical-like phenomenology. Their unusual character carries the same potential for creating both well-being and illness, as it has been observed with psychiatric patients [92,93], supporting what Berkhin and Hartelius [94] acknowledged: that the value of any state of consciousness depends on what is cognized within that state. And what is cognized closely depends on the experiencer's personality, developmental level, background, worldview and ability to perceive and interpret the experience.

Transpersonal psychology recognizes that NOMEs, including spiritual and mystical-like states, can be used for self-development and therapeutic purposes [95-99], a fact that mainstream psychology and psychiatry tend to sidestep. But it has also emphasized the unavoidable need to work through the shadow aspects of the personality when navigating NOMEs, in the same way that religions and spiritual traditions "developed rites, rituals and practices, in the attempt to purge it of the danger of narcissistic inflation" [100]. From experience, they know that spiritual distortions interfere with spiritual experiences, in all areas and levels of spiritual development, in the same way as psychological defences prevent the exploration of unresolved issues, hindering psychological growth. With spiritual bypassing, a spiritual identity is crested to dress-up and cover unaddressed psychological wounds, reinforcing pre-existing defence mechanisms and worsening psychological conditions.

Therefore, the importance of knowing the meaning, limits and pitfalls of SMLEs should not be understated, regardless of the vehicle of induction – whether a substance or meditation -, for two main reasons. First, because lasting psychological and spiritual transformation is not an algorithmic, replicable outcome of any transcendental experience. Second, because PS *per se* are not pre-programmed psychospiritual catalysts, able to invariably assure psychological growth or spiritual development, even when they elicit overwhelming SMLEs. In fact, a clear-cut causal relationship between psychedelic experiences and outcomes is not established yet, even under so-called "carefully orchestrated conditions" [101]. Regardless of any orchestration, the use of PS resembles the opening of Pandora's Box, where the unexpected should be expected.

Where adverse events are concerned, two opposite phenomena are often observed when overwhelming SMLEs are elicited in unprepared individuals, and/or when appropriate philosophical or psychospiritual frameworks are not available: a) the dissolution of psychological structures and defences following the DMN collapse, can bring to surface highly distressing contents, that may result in psychotic episodes or spiritual emergency crisis; b) pre-existent defence mechanisms may be inadvertently reinforced by the occurrence of comforting transcendental experiences. Even if spiritual emergencies may unexpectedly bring opportunities to engage in processes of 'self-renewal' [28], an overreliance on SMLEs to appease the symptoms of deep-seated psychological or existential issues might easily lead to bypassing root causes.

Even if it is a well-known fact that the psyche can distort anything to its own profit – as in Winnicot's [102] "False Self" – most Western bodies of knowledge remain largely unaware that spiritual experiences can be hijacked by subtle defence mechanisms that are used as masks to deny, dismiss and/or repress pre-existing psychological problems. As a result, the fact that SMLEs often provide the ideal opportunity from where spiritual identities are born is commonly overlooked. This psychological strategy – that blunders the strengthening of egocentric attitudes for authentic spiritual development – has been labelled spiritual materialism by the Buddhist Master Chögyam Trungpa [103]. Its most clear indicator is an unwarranted sense of spiritual importance, a pathological aspect of immature spirituality with which Western psychology is not familiar with. In extreme cases, this sense of grandeur is at the root of attitudes of spiritual fascination with both people and beliefs - commonly observed in religious and spiritual cults – and of diverse degrees of psychological addiction to spiritual experiences, disguised as discipline and commitment. An unbiassed reflection upon spirituality

and SMLEs induced by PS is inevitably recommended, as a step forward in the promotion of good practices when using NOMEs for therapeutic purposes, in areas where reliable information and experience is still scarce.

The problems we have discussed so far, suggest the need to consider the relevance of appraising the bodies of wisdom that Eastern and Western philosophical and spiritual-religious traditions have shaped, on how to approach spontaneous and induced spiritual and mystical events. Throughout millennia of experience, they have systematically explored the inner worlds with introspective activities, that included meditation, and defined, with knowledgeable precision, the challenges that the spiritual path towards self-development and enlightenment brings. Considering the massive epistemic implications that the assimilation of traditional knowledge entails, such a bold initiative should be approached from a secular, metaphilosophical, and transdisciplinary perspective [91], to prevent misinterpretations while preserving epistemological integrity. As the complexity of the topic prevents its comprehensive analysis, an example illustrating its relevance for SMLEs induced by PS will be analysed through the experience of 'ego dissolution'.

Standing as a foreign experience to mainstream psychology and psychiatry, 'ego dissolution' is an event that Eastern philosophies have considered to be, for over 2,000 years, an essential step towards the zenith of the spiritual path. In fact, a key point of Yoga meditation in Patañjali's Yoga-Sūtra is Nirodha – the Śamatha meditation of the indwelling calm in Buddhism – or the intentional arrest of the restless mind. In Zen, the no-mind doctrine aims towards the awareness of the mind in itself, as it exists beyond the Ego, thoughts, categories, views, and the multiplicity of external perceptions and experiences. The final goal is the attainment of the buddhadhātu (or Buddha-nature, original nature), located beyond the Western unconscious, and latent in every sentient creature [104]. In the West, a similar concept is represented through Meister Eckart's and Teresa of Avila's tabula rasa, as the result of a higher and intentional, metacognitive process of emptying the mind, opposing any pathological state. If well managed, ego dissolution can anticipate a deliberate non-egocentric state, where the limits of conceptual thought, egoic illusions and emotional attachments towards ordinary consciousness are overcome, leading towards the possibility of attaining the full expression of the real Self, etymologically expressed by the terms "religiosity" and "Yoga". Deriving from the Sanskrit yujir (binding together, joining), the word Yoga stands for the reunion of the individual ātman with the universal Ātman, the sat-cit-anānda (being-consciousness-bliss), which is eternal, universal, and exists beyond space and time. Samādhi, the deepest level of Yoga meditation, represents the attainment of the final condition where the experience of duality and separation between knower, knowledge and the known are overcome, and ordinary consciousness - conditioned by Māyā, the mask of illusion, a concept in line with Kant's [105] "natural illusion"- is dissolved [104]. In Samādhi, when the lower ego consciousness and all its projections are left behind and a new level of mental clarity is achieved, a state of love – meant as γάπη (agape), rather than ἕρως (eros) and equated with empathy and compassion - can then be experienced. Understandably, such a radical shift in perception represents a massive challenge for the Western mind, traditionally and egocentrically anchored in rationalistic ways of thinking, and inclined to perceive the ego-dissolution phenomenon and its manifestations as odd or utterly dysfunctional. Nonetheless, its transdisciplinary significance suggests the relevance of this concept as a pre-condition for full spiritual development, despite its ostensible conceptual impenetrability, and regardless of the method that is used to achieve it.

It should be clear by now that, no matter how diverse, the process of spiritual development always involves an intentional and difficult progression towards higher and subtler levels of metacognition, insight, and awareness. Which may include non-dual, mystical. spiritual. transcendent, and peak experiences, but cannot be reduced to them. Even if spirituality is an experiential atheoretical phenomenon, spiritual development involves transformation and mature assimilation, rather than the random occurrence or accumulation of experiences, regardless of their source and meaning. This is the reason why in ancient Greece only those who were prepared and ready were admitted to initiation in the Eleusinian mysteries. Fittingly, Ken Wilber highlighted the distinction between translation (the decomposition of the complex contents of mystical traditions into smaller digestible pieces), and true spiritual transformation [106], by stressing that "not a new belief for the self, but the transcendence of the self altogether, is the only path that avails". In sum, lasting psychological change and spiritual development do not happen as an end-product of random flashes of transcendence, however impressive, but from what the experiencer does with the experience. Psychological transformation and spiritual self-realization are the potential outcome of a multifaceted and skilful labour within the inner ecosystem, as a result of assimilating both mundane and transcendent experiences, individually or supported by meaning-making tools, as long as they promote individuation, or the Jungian encounter with the real Self, or one's authentic nature.

Hopefully, the psychedelic resurgence is bringing forth the opportunity of merging relevant, though scientifically neglected, areas of spiritual knowledge and experience, which may contribute to prevent the foreseen burst of the psychedelic hype bubble [107]. Overinflated by a convenient lack of critical thinking, and ingeniously co-fuelled by sensationalist media and psychedelic stakeholders entangled in commercial interests, the 'hype' is strikingly contributing to present PS as miraculous (and profitable) solutions for complex health challenges. Under the effects of powerful misinformative waves created by corporative-type, aggressive, marketing strategies, any inconvenient truths can be easily understated or disguised within a flourishing and still-glittering psychedelic Eldorado.†

Furthermore, the research on PS is still in its infancy, and as a result, the real impact of chemically induced SME can be easily overstated. Decontextualized from the published studies – dealing with preliminary findings obtained from small and homogenous samples resistant to conventional treatments, and short-term follow-ups [109] – the inflation of qualities and the deflation of potential risks can be also used to support unwarranted therapeutic claims based on psychospiritual properties, regarding which the current scientific model is far from being proficient in. This biased proclivity creates the perfect terrain to propagandize PS as spiritual 'Red Pills' capable of inexplicably managing a variety of issues, from existential distress to psychiatric disorders. As a result, unsubstantiated hopes are inadvertently created, reinforcing the same type of misconceptions that lurk in the shadows of New Age spirituality, rather than bringing realistic solutions based on experience and discrimination.

A careful reflection on this complex topic is of paramount importance, given that research is still in its early infancy, and further experience is required to understand the upsides and

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[†] It is worth noting that the market for psychedelic substances promises to soon grow to over 10 billion US dollars, which should be a reminder that when market interests and immense profits are involved, the risk of putting the cart before the horse [108], overriding truth, is high.

downsides of psychospiritual health. As noted, the scientific investigation of SMLEs calls for a meta-philosophical, transcultural reflexion, able to merge the experiential knowledge of spiritual traditions, with a neurophenomenological approach to consciousness [110,111]. From this metacognitive perspective, spirituality and religiosity can be seen as higher-order mental faculties, regardless of any denomination, theology or dogma, but still compatible with the idea of the divine or the numinous. This inclusive perspective acknowledges the fact that there is more to the human experience, than what the egocentric post-Enlightenment rationalist, positivist and physicalist perspectives have admitted so far, including the worlds of subjectivity and NOMEs [112]. Consciousness and subjective phenomena (*a priori* neglected for their incompatibility with the adopted Weltbild), remain the *conditio sine qua non* for the very existence of the world as it is perceived and represented, including the advantages and limitations of the ruling scientific paradigm.

CONCLUSION

This article argues that the current unfamiliarity of science with the nature and implications of spirituality, may be contributing to the dissemination of imprecise ideas regarding the therapeutic potential of SMLEs induced by PS, by overinflating benefits and underestimating risks. The construction of this argument stems from a combination of aspects, including the limits of the prevailing mechanistic-reductionist scientific paradigm – mostly dismissive of the subjective importance of SMLEs – and the cultural influence of New Age beliefs. Even if science and New Age spirituality are located in opposite conceptual poles, their combined influence seems to be at the origin of the same epistemic blind spots regarding the nature of SMLEs induced by PS.

If this assumption is correct, the need to address the unfamiliar topic of spirituality and SMLEs in psychedelic research and therapy should not be understated. An unbiased reflexion is strongly recommended, to find balance between last century's epistemic model's distrust towards the potential of NOSCs on the one side, and unbridled liberalisation, grounded on an overly naïve New-Age influenced type of magical thinking, on the other. Such polarized perspectives deprive patients from their right to safely use PS as tools for psychological growth and spiritual development. The former - especially the 'War on Drugs' movement- highlighted the risks of PS at the expense of their therapeutic potential, and the latter overestimated benefits, while minimizing possible complications, including the danger of PS becoming a source for psychospiritual pathology. This posture, if left unapproached, can easily add more fuel to a serious spiritual bypassing plague, with its excessive focus on transcendental consumerism, in what Lahood [89] called a "growing spiritual malady in these globalizing times ...with its overt inflationary focus on the highly individual self and not the Other".

Therefore, claims that "the current blend of mysticism in science in psychedelic research risks damaging the credibility and potential of psychedelic science," that should be "unambiguously secular" and devoid of any influence of "supernatural or nonempirical belief systems" [113], are not tenable. By *a priori* rejecting so-called supernatural subjective experiences for their ostensible incompatibility with materialist metaphysics, without considering the possibility of using them as objects of scientific inquiry from a first-person perspective, they become blind to the fact that any experience is "real" through the meaning it carries for the experiencer. As any other area of human experience, spirituality is a rationally approachable mental faculty and as such, independent of any denomination. In this regard, SMLEs as objects of enquiry, do not

behave differently from pain, a relevant albeit non-observable subjective experience in clinical practice, beyond the concept of nociception. As far as the idea of the supernatural is concerned, it should be clear that the boundaries between natural and supernatural also shift over time, according to the advancement of knowledge. In that sense, the supernatural may not be ontologically different from the natural, as St. Augustine [114] stated in *De Civitate Dei* (XXI, 8):

"Non esse contra naturam, cum in aliqua re, cuius natura innotuit, aliquid ab eo quod erat notum incipit esse diversum (It's not against nature the fact that in a being, whose nature is known, something begins to be different from how it is known).

Considering the inevitability of SMLEs induced by PS, opinions pointing towards the removal of spirituality from the psychedelic discourse are potentially harmful: not only they *a priori* deny the multi-layered nature of the human experience, but they also disqualify the subjective importance, meaning and potential of SMLEs. By doing this, they also invalidate the risks that go along such experiences. Concerning psychospiritual risks, recent studies have recommended the assessment of non-mystical components of the psychedelic experience for positive change [115], while others have emphasized the need for larger samples, including clinical cases, to examine possible moderators and mediators of effects [116]. A recent study is currently exploring the therapeutic and transformative claims of spiritual practices with PS in ritualized contexts, from sociological, psychological, and anthropological standpoints.‡

In sum, mature spirituality is the end-the result of a long and trying journey, marked by challenging and painful psychological work, a fact that has been recognized by millenary philosophical-religious traditions, with enough experience in the prevention and management of spiritual pitfalls to know that spiritual maturity cannot co-exist without psychological work. Nor as a result of taking shortcuts that trivialise the risks and challenges that the spiritual path inevitably brings. In rare occasions, something as rare as sudden awakening may happen as the abrupt and unexpected result of a unique experience in prepared individuals, with or without PS, and without spiritual or psychotherapeutic support, as Hui-Neng – the 6th patriarch of Zen Buddhism in the 7th century CE-recognized [117,118]. As Joseph Campbell [119] stated, the waters where the yogi and the saint blissfully swim, are the same waters in which the schizophrenic drowns. And even if most of us do not fit into any of these extreme categories, it is important to remember that if substances may be neutral in themselves, the psyche with which they interact never is. And that the importance of learning from the pioneers who, several millennia ago, started charting the web of relationships and forces that non-ordinary experiences set in motion, should not be underestimated by those who are using PS as tools for psychological transformation and spiritual development, and understand the need to know the map before crossing the abyssal threshold leading towards unexplored territories of the mind. Once this passage is verged, there is no going back.

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[‡] SPIRECTS – "Spiritual practices and psychedelic substances in ritualized emerging contexts: therapeutic and sociocultural implications". Funded by FCT – Foundation for Science and Technology, I.P. (Grant nº 2023.13311.PEX) and developed in CICS.NOVA at NOVA FCSH, Portugal. Simões, J.A. (PI), Machado Ferreira, A.S.; Campos, R. et al.

References

- 1. Welwood J. Principles of Inner Work: Psychological and Spiritual*. In 1984. Available from: https://api.semanticscholar.org/CorpusID:148314882
- 2. Masters RA. Spiritual bypassing: when spirituality disconnects us from what really matters. Berkeley, California: North Atlantic Books; 2010. 6 p.
- 3. Hill PC, Pargament KIi, Hood RW, McCullough Jr Michael E, Swyers JP, Larson DB, et al. Conceptualizing Religion and Spirituality: Points of Commonality, Points of Departure. J Theory Soc Behav [Internet]. 2000 Mar [cited 2024 Jul 8];30(1):51–77. Available from: https://onlinelibrary.wiley.com/doi/10.1111/1468-5914.00119
- 4. Moreira-Almeida A, Sharma A, Van Rensburg BJ, Verhagen PJ, Cook CCH. WPA Position Statement on Spirituality and Religion in Psychiatry. World Psychiatry [Internet]. 2016 Feb [cited 2024 Jul 10];15(1):87–8. Available from: https://onlinelibrary.wiley.com/doi/10.1002/wps.20304
- 5. Almeida AM de, Mosqueiro BP, Bhugra D, editors. Spirituality and mental health across cultures. First edition. Oxford, England: Oxford University Press; 2021. 473 p. (Oxford cultural psychiatry series).
- 6. Johnson MW, Garcia-Romeu A, Griffiths RR. Long-term follow-up of psilocybin-facilitated smoking cessation. The American Journal of Drug and Alcohol Abuse [Internet]. 2017 Jan 2 [cited 2024 Jul 8];43(1):55–60. Available from: https://www.tandfonline.com/doi/full/10.3109/00952990.2016.1170135
- 7. Gorman I, Belser AB, Jerome L, Hennigan C, Shechet B, Hamilton S, et al. Posttraumatic Growth After MDMA-Assisted Psychotherapy for Posttraumatic Stress Disorder. Journal of Traumatic Stress [Internet]. 2020 Apr [cited 2024 Jul 9];33(2):161–70. Available from: https://onlinelibrary.wiley.com/doi/10.1002/jts.22479
- 8. Machado Ferreira AS, Martindale S, Luke D. Change in occupational burnout measures in emergency medical service workers after a psychedelic experience induced by a single self-administered dose of psilocybin mushrooms. JPS [Internet]. 2024 Sep 9 [cited 2024 Oct 3]; Available from: https://akjournals.com/view/journals/2054/aop/article-10.1556-2054.2024.00368/article-10.1556-2054.2024.00368.xml
- 9. Griffiths RR, Johnson MW, Carducci MA, Umbricht A, Richards WA, Richards BD, et al. Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer: A randomized double-blind trial. J Psychopharmacol [Internet]. 2016 Dec [cited 2024 Jul 9];30(12):1181–97. Available from: http://journals.sagepub.com/doi/10.1177/0269881116675513
- 10. Heal DJ, Smith SL, Belouin SJ, Henningfield JE. Psychedelics: Threshold of a Therapeutic Revolution. Neuropharmacology. 2023 Sep 15;236:109610.
- 11. Yaden DB, Griffiths RR. The Subjective Effects of Psychedelics Are Necessary for Their Enduring Therapeutic Effects. ACS Pharmacol Transl Sci [Internet]. 2021 Apr 9 [cited 2024 Jul 9];4(2):568–72. Available from: https://pubs.acs.org/doi/10.1021/acsptsci.0c00194
- 12. Yaden DB, Earp BD, Griffiths RR. Ethical Issues Regarding Nonsubjective Psychedelics as Standard of Care. Camb Q Healthc Ethics [Internet]. 2022 Oct [cited 2024 Jul 9];31(4):464–71. Available from: https://www.cambridge.org/core/product/identifier/S096318012200007X/type/journal_article
- 13. Johnson MW, Hendricks PS, Barrett FS, Griffiths RR. Classic psychedelics: An integrative review of epidemiology, therapeutics, mystical experience, and brain network function. Pharmacology & Therapeutics [Internet]. 2019 May [cited 2024 Jul 8];197:83–102. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0163725818302158
- 14. Garcia-Romeu A, Griffiths R, Johnson M. Psilocybin-Occasioned Mystical Experiences in the Treatment of Tobacco Addiction. CDAR [Internet]. 2015 Feb 20 [cited 2024 Jul 9];7(3):157–64. Available from: http://www.eurekaselect.com/openurl/content.php?genre=article&issn=1874-4737&volume=7&issue=3&spage=157
- 15. Griffiths RR, Johnson MW, Richards WA, Richards BD, McCann U, Jesse R. Psilocybin occasioned mystical-type experiences: immediate and persisting dose-related effects. Psychopharmacology [Internet]. 2011

- Dec [cited 2024 Jul 9];218(4):649–65. Available from: http://link.springer.com/10.1007/s00213-011-2358-5
- 16. Griffiths RR, Richards WA, McCann U, Jesse R. Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. Psychopharmacology [Internet]. 2006 Aug [cited 2024 Jul 9];187(3):268–83. Available from: http://link.springer.com/10.1007/s00213-006-0457-5
- 17. Timmermann C, Kettner H, Letheby C, Roseman L, Rosas FE, Carhart-Harris RL. Psychedelics alter metaphysical beliefs. Sci Rep [Internet]. 2021 Nov 23 [cited 2024 Jul 9];11(1):22166. Available from: https://www.nature.com/articles/s41598-021-01209-2
- 18. Winkelman MJ. The Mechanisms of Psychedelic Visionary Experiences: Hypotheses from Evolutionary Psychology. Front Neurosci [Internet]. 2017 Sep 28 [cited 2024 Jul 9];11:539. Available from: http://journal.frontiersin.org/article/10.3389/fnins.2017.00539/full
- 19. Lopresti AL. It is time to investigate integrative approaches to enhance treatment outcomes for depression? Medical Hypotheses [Internet]. 2019 May [cited 2024 Nov 9];126:82–94. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0306987719300143
- 20. Allsopp K, Read J, Corcoran R, Kinderman P. Heterogeneity in psychiatric diagnostic classification. Psychiatry Research. 2019 Sep;279:15–22.
- 21. Ghaemi SN. After the failure of DSM: clinical research on psychiatric diagnosis. World Psychiatry [Internet]. 2018 Oct [cited 2024 Jul 8];17(3):301–2. Available from: https://onlinelibrary.wiley.com/doi/10.1002/wps.20563
- 22. Insel TR. Disruptive insights in psychiatry: transforming a clinical discipline. J Clin Invest [Internet]. 2009 Apr 1 [cited 2024 Jul 8];119(4):700–5. Available from: http://www.jci.org/articles/view/38832
- 23. Nesse RM, Stein DJ. Towards a genuinely medical model for psychiatric nosology. BMC Med [Internet]. 2012 Dec [cited 2024 Jul 8];10(1):5. Available from: http://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-10-5
- 24. Timimi S. No more psychiatric labels: Why formal psychiatric diagnostic systems should be abolished. International Journal of Clinical and Health Psychology [Internet]. 2014 Sep [cited 2024 Jul 8];14(3):208–15. Available from: https://linkinghub.elsevier.com/retrieve/pii/S169726001400009X
- 25. Lasch, C. The Minimal Self, Psychic Survival in Troubled Times, London: Picador: 1984.
- 26. Bowman M. Healing in the Spiritual Marketplace: Consumers, Courses and Credentialism. Social Compass [Internet]. 1999 Jun [cited 2024 Jul 9];46(2):181–9. Available from: http://journals.sagepub.com/doi/10.1177/003776899046002007
- 27. Robinson OC, Evans J, Luke D, McAlpine R, Sahely A, Fisher A, et al. Coming back together: a qualitative survey study of coping and support strategies used by people to cope with extended difficulties after the use of psychedelic drugs. Front Psychol [Internet]. 2024 May 28 [cited 2024 Nov 14];15:1369715. Available from: https://www.frontiersin.org/articles/10.3389/fpsyg.2024.1369715/full
- 28. Grof C, Grof S. The Stormy search for the Self: understanding and living with spiritual emergency. London: Thorsons; 1995.
- 29. Fox J, Cashwell CS, Picciotto G. The opiate of the masses: measuring spiritual bypass and its relationship to spirituality, religion, mindfulness, psychological distress, and personality. Spirituality in Clinical Practice [Internet]. 2017 Dec [cited 2024 Jul 10];4(4):274–87. Available from: http://doi.apa.org/getdoi.cfm?doi=10.1037/scp0000141
- 30. Cashwell CS, Bentley PB, Yarborough JP. The Only Way Out Is Through: The Peril of Spiritual Bypass. Counselling and Values [Internet]. 2007 Jan [cited 2024 Jul 9];51(2):139–48. Available from: https://onlinelibrary.wiley.com/doi/10.1002/j.2161-007X.2007.tb00071.x
- 31. Caplan M. Eyes Wide Open: cultivating discernment on the spiritual path. Boulder, Colo.: Sounds True; 2009.

- 32. Cashwell CS, Myers JE, Shurts WM. Using the Developmental Counselling and Therapy Model to Work with a Client in Spiritual Bypass: Some Preliminary Considerations. Jour of Counselling & Develop [Internet]. 2004 Oct [cited 2024 Jul 9];82(4):403–9. Available from: https://onlinelibrary.wiley.com/doi/10.1002/j.1556-6678.2004.tb00327.x
- 33. Evans, Jules. The challenging psychedelic experiences project [Internet]. 2024. Available from: https://challengingpsychedelicexperiences.com/
- 34. Schutt WA, Exline JJ, Pait KC, Wilt JA. Psychedelic experiences and long-term spiritual growth: a systematic review. Curr Psychol [Internet]. 2024 Aug [cited 2024 Oct 3];43(32):26372–94. Available from: https://link.springer.com/10.1007/s12144-024-06272-2
- 35. Exline JJ, Schutt WA, Wilt JA, Pait KC. Perceptions of psychedelic use by adults in the United States: Perceived psychospiritual benefits and risks, including spiritual struggles. Psychology of Religion and Spirituality [Internet]. 2024 Apr 25 [cited 2024 Nov 14]; Available from: https://doi.apa.org/doi/10.1037/rel0000529
- 36. Argyri EK, Evans J, Luke D, Michael P, Michelle K, Rohani-Shukla C, et al. Navigating Groundlessness: An interview study on dealing with ontological shock and existential distress following psychedelic experiences. SSRN Journal [Internet]. 2024 [cited 2024 Nov 14]; Available from: https://www.ssrn.com/abstract=4817368
- 37. Carhart-Harris RL. The entropic brain revisited. Neuropharmacology [Internet]. 2018 Nov [cited 2024 Jul 9];142:167–78. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0028390818301175
- 38. Carhart-Harris RL, Leech R, Hellyer PJ, Shanahan M, Feilding A, Tagliazucchi E, et al. The entropic brain: a theory of conscious states informed by neuroimaging research with psychedelic drugs. Front Hum Neurosci [Internet]. 2014 [cited 2024 Jul 9];8. Available from: http://journal.frontiersin.org/article/10.3389/fnhum.2014.00020/abstract
- 39. Gattuso JJ, Perkins D, Ruffell S, Lawrence AJ, Hoyer D, Jacobson LH, et al. Default Mode Network Modulation by Psychedelics: A Systematic Review. International Journal of Neuropsychopharmacology [Internet]. 2023 Mar 22 [cited 2024 Jul 9];26(3):155–88. Available from: https://academic.oup.com/ijnp/article/26/3/155/6770039
- 40. Buckner RL. The serendipitous discovery of the brain's default network. NeuroImage [Internet]. 2012 Aug [cited 2024 Jul 9];62(2):1137–45. Available from: https://linkinghub.elsevier.com/retrieve/pii/S1053811911011992
- 41. Menon V. Large-scale brain networks and psychopathology: a unifying triple network model. Trends in Cognitive Sciences. 2011 Oct 1;15(10):483–506.
- 42. Menon V. 20 years of the default mode network: A review and synthesis. Neuron. 2023 Aug 16;111(16):2469–87.
- 43. Bremer B, Wu Q, Mora Álvarez MG, Hölzel BK, Wilhelm M, Hell E, et al. Mindfulness meditation increases default mode, salience, and central executive network connectivity. Sci Rep [Internet]. 2022 Aug 2 [cited 2024 Jul 9];12(1):13219. Available from: https://www.nature.com/articles/s41598-022-17325-6
- 44. Facco E, Mendozzi L, Bona A, Motta A, Garegnani M, Costantini I, et al. Dissociative identity as a continuum from healthy mind to psychiatric disorders: epistemological and neurophenomenological implications approached through hypnosis. Medical Hypotheses. 2019;130(109274):1–11.
- 45. Vázquez PG, Whitfield-Gabrieli S, Bauer CCC, Barrios FA. Brain functional connectivity of hypnosis without target suggestion. An intrinsic hypnosis rs-fMRI study. The World Journal of Biological Psychiatry [Internet]. 2023 Oct 2 [cited 2024 Jul 9];1–11. Available from: https://www.tandfonline.com/doi/full/10.1080/15622975.2023.2265997
- 46. Zagkas D, Bacopoulou F, Vlachakis D, Chrousos GP, Darviri C. How Does Meditation Affect the Default Mode Network: A Systematic Review. In: Vlamos P, editor. GeNeDis 2022 [Internet]. Cham: Springer International Publishing; 2023 [cited 2024 Jul 9]. p. 229–45. (Advances in Experimental Medicine and Biology; vol. 1425). Available from: https://link.springer.com/10.1007/978-3-031-31986-0_22

- 47. Franco Corso SJ, O'Malley KY, Subaiya S, Mayall D, Dakwar E. The role of non-ordinary states of consciousness occasioned by mind-body practices in mental health illness. Journal of Affective Disorders [Internet]. 2023 Aug [cited 2024 Jul 9];335:166–76. Available from: https://linkinghub.elsevier.com/retrieve/pii/S0165032723006018
- 48. Machado Ferreira AS, Farinha AP, Simões M. Hypnotically Induced Near-Death-Like Experiences: An Exploratory Study of Phenomenological Similarities to Near-Death Experiences. JNDS [Internet]. 2022 [cited 2024 Jul 9];40(1):47–68. Available from: https://digital.library.unt.edu/ark:/67531/metadc2085592/
- 49. Facco E, Fracas F, Tressoldi P. Moving beyond the concept of altered state of consciousness: the Non-Ordinary Mental Expressions (NOMEs). ASSRJ [Internet]. 2021 Apr 8 [cited 2024 Jul 9];8(3):615–31. Available from: https://journals.scholarpublishing.org/index.php/ASSRJ/article/view/9935
- 50. Luke D. Otherworlds: psychedelics and exceptional human experience. London: Muswell Hill press; 2017.
- 51. Smigielski L, Scheidegger M, Kometer M, Vollenweider FX. Psilocybin-assisted mindfulness training modulates self-consciousness and brain default mode network connectivity with lasting effects.

 NeuroImage [Internet]. 2019 Aug [cited 2024 Jul 9];196:207–15. Available from: https://linkinghub.elsevier.com/retrieve/pii/S1053811919302952
- 52. Barrett FS, Griffiths RR. Classic Hallucinogens and Mystical Experiences: Phenomenology and Neural Correlates. In: Halberstadt AL, Vollenweider FX, Nichols DE, editors. Behavioral Neurobiology of Psychedelic Drugs [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 2017 [cited 2024 Jul 9]. p. 393–430. (Current Topics in Behavioral Neurosciences; vol. 36). Available from: http://link.springer.com/10.1007/7854_2017_474
- 53. Lemercier CE, Terhune DB. Psychedelics and hypnosis: Commonalities and therapeutic implications. J Psychopharmacol [Internet]. 2018 Jul [cited 2024 Jul 9];32(7):732–40. Available from: http://journals.sagepub.com/doi/10.1177/0269881118780714
- 54. Machado Ferreira AS. Induced Near-Death Experiences in Healthy Volunteers: Phenomenology and Aftereffects [Internet]. Northampton; 2023. Available from: https://pure.northampton.ac.uk/en/studentTheses/induced-near-death-experiences-in-healthy-volunteers-phenomenolog
- 55. Jung CG. II The Shadow. Hull RFC (Ed.) Princeton University Press; 2014 [cited 2024 Jul 9]. Available from: https://www.degruyter.com/document/doi/10.1515/9781400851058.8/html
- 56. Jung CG, Hull RFC (Ed.) The archetypes and the collective unconscious. 2nd ed. Princeton, N.J.: Princeton University Press; 1980. 451 p. (Princeton/Bollingen paperbacks).
- 57. Gitz-Johansen T. Jung and the spirit: a review of Jung's discussions of the phenomenon of spirit. J Analytical Psychology [Internet]. 2020 Sep [cited 2024 Nov 14];65(4):653–71. Available from: https://onlinelibrary.wiley.com/doi/10.1111/1468-5922.12611
- 58. Schultes RE, Smith EW. Hallucinogenic plants. New York: Golden Press; 1976.
- 59. Winkelman MJ. The Evolved Psychology of Psychedelic Set and Setting: Inferences Regarding the Roles of Shamanism and Entheogenic Ecopsychology. Front Pharmacol [Internet]. 2021 Feb 23 [cited 2024 Sep 27];12:619890. Available from: https://www.frontiersin.org/articles/10.3389/fphar.2021.619890/full
- 60. Narby J. The cosmic serpent. New York: Jeremy P. Tarcher; 2014.
- 61. McKenna T. Food of the Gods: The Search for the Original Tree of Knowledge A Radical History of Plants, Drugs, and Human Evolutio. S.l.: Random House Publishing Group; 1993.
- 62. Facco E, Zanette G. The Odyssey of Dental Anxiety: From Prehistory to the Present. A Narrative Review. Front Psychol [Internet]. 2017 Jul 11 [cited 2024 Jul 9];8:1155. Available from: http://journal.frontiersin.org/article/10.3389/fpsyg.2017.01155/full
- 63. Rodríguez Arce JM, Winkelman MJ. Psychedelics, Sociality, and Human Evolution. Front Psychol [Internet]. 2021 Sep 29 [cited 2025 Feb 3];12:729425. Available from: https://www.frontiersin.org/articles/10.3389/fpsyg.2021.729425/full

- 64. Kaplan RM. Humphry Fortescue Osmond (1917–2004), a radical and conventional psychiatrist: The transcendent years. Journal of Medical Biography. 2016 Jan 1;24(1):115–24.
- 65. Scholem, G. Major Trends in Jewish Mysticism. New York, NY, USA: Schocken Books.; 1995.
- 66. Appleby DM. Mind and matter. Cornell University LIbrary Hystory and Philosophy of physics. 2013;1–26.
- 67. Facco E, Fracas F, Tagliagambe S. Consciousness and the mind-brain-body-world relationship: towards a transdisciplinary and transcultural approach. Advances in Social Sciences Research Journal. 2023 Jan 31;10(1):414–33.
- 68. George DR, Hanson R, Wilkinson D, Garcia-Romeu A. Ancient Roots of Today's Emerging Renaissance in Psychedelic Medicine. Cult Med Psychiatry [Internet]. 2022 Dec [cited 2024 Oct 4];46(4):890–903. Available from: https://link.springer.com/10.1007/s11013-021-09749-y
- 69. Facco E. Ipnosi ed esperienze di premorte nel continuum delle espressioni non ordinarie della mente. IPNOSI [Internet]. 2018 Jun [cited 2024 Jul 9];(1):13–38. Available from: http://www.francoangeli.it/riviste/Scheda_Riviste.asp?IDArticolo=61762
- 70. Nencini P. The Rules of Drug Taking: Wine and Poppy Derivatives in the Ancient World. VII. A Ritual Use of Poppy Derivatives? Substance Use & Misuse [Internet]. 1997 Jan [cited 2024 Jul 9];32(10):1405–15. Available from: http://www.tandfonline.com/doi/full/10.3109/10826089709039386
- 71. Ustinova Y. Alteration of consciousness in Ancient Greece: divine *mania*. Hist Psychiatry [Internet]. 2020 Sep [cited 2024 Jul 9];31(3):257–73. Available from: http://journals.sagepub.com/doi/10.1177/0957154X20909306
- 72. Kingsley P. In the dark places of wisdom. Poin Reyes, California: The Golden Sufi Center; 1999.
- 73. Facco E, Tagliagambe S. Learning from the past: from incubation in ancient Egypt and Greece to modern hypnosis. Advances in Social Sciences Research Journal. 2021 Jul 29;8(7):268–85.
- 74. Heidegger, M. "Memorial Address." In Discourse on Thinking. New York, NY, USA: edited by J M Anderson and E H Freund, Harper and Row; 1966. 44–46 p.
- 75. Facco E. A neurophenomenological theory of the three worlds. Theory & Psychology. 2022;32(5):733–53.
- 76. DEA Drug Enforcement Agency. Drug Scheduling [Internet]. 2018. Available from: https://www.dea.gov/drug-information/drug-scheduling on 5 December, 2024
- 77. Lattin D. The Harvard Psychedelic Club: how Timothy Leary, Ram Dass, Huston Smith, and Andrew Weil killed the fifties and ushered in a new age for America. 2. [pr.]. New York: HarperOne; 2010. 256 p.
- 78. Russin, J.M., Weil, A.T. The Crimson Takes Leary, Alpert to Task. An Editorial. In The Harvard Crimson [Internet]. 1974; January, 24. Available from: https://www.thecrimson.com/article/1973/1/24/thecrimson-takes-leary-alpert-to/
- 79. Osterhold HM, Fernandes-Osterhold G. Chasing the Numinous: Hungry Ghosts in the Shadow of the Psychedelic Renaissance. Journal of Analytical Psychology. 2023 Sep 1;68(4):638–64.
- 80. Ferraiolo, K. From Killer Weed to Popular Medicine: The Evolution of American Drug Control Policy, 1937–2000. The Journal of Policy History. 19(2):147–79.
- 81. Hartogsohn I. Constructing drug effects: A history of set and setting. Drug Science, Policy and Law [Internet]. 2017 Jan [cited 2024 Jul 9];3:205032451668332. Available from: http://journals.sagepub.com/doi/10.1177/2050324516683325
- 82. Lewis JR, Melton JG, editors. Perspectives on the New Age. Albany: State University of New York Press; 1992. 369 p. (SUNY series in religious studies).
- 83. Hanegraaff WJ. New Age religion and Western culture: esotericism in the mirror of secular thought. Albany, NY: State University of New York Press; 1998. 580 p. (SUNY series, Western esoteric traditions).
- 84. Heelas P, Woodhead L. The spiritual revolution: why religion is giving way to spirituality. Nachdr. Malden, Mass.: Blackwell; 2010. 204 p. (Religion and spirituality in the modern world).

- 85. Inglehart RF. Religion's Sudden Decline: What's Causing it, and What Comes Next? [Internet]. 1st ed. Oxford University PressNew York; 2021 [cited 2024 Jul 10]. Available from: https://academic.oup.com/book/33489
- 86. Heelas P. The New Age movement: the celebration of the self and the sacralization of modernity. Oxford; Cambridge, Mass., USA: Blackwell; 1996. 266 p.
- 87. Rindfleish J. Consuming the Self: New Age Spirituality as "Social Product" in Consumer Society. Consumption Markets & Culture [Internet]. 2005 Dec [cited 2024 Jul 9];8(4):343–60. Available from: https://www.tandfonline.com/doi/full/10.1080/10253860500241930
- 88. Luckmann T. Shrinking Transcendence, Expanding Religion? Sociological Analysis [Internet]. 1990 [cited 2024 Jul 9];51(2):127. Available from: https://academic.oup.com/socrel/article-lookup/doi/10.2307/3710810
- 89. Lahood G. Relational Spirituality, Part 1, Paradise Unbound: Cosmic Hybridity and Spiritual Narcissism in the "One Truth" of New Age Transpersonalism. IJTS [Internet]. 2010 Jan 1 [cited 2024 Jul 9];29(1):31–57. Available from: https://digitalcommons.ciis.edu/cgi/viewcontent.cgi?article=1136&context=ijts-transpersonalstudies
- 90. Aupers S, Houtman D. Beyond the Spiritual Supermarket: The Social and Public Significance of New Age Spirituality. Journal of Contemporary Religion [Internet]. 2006 May [cited 2024 Jul 8];21(2):201–22. Available from: http://www.tandfonline.com/doi/full/10.1080/13537900600655894
- 91. Facco E, Al Khafaji BE, Tressoldi P. In search of the true self. Journal of Theoretical and Philosophical Psychology [Internet]. 2019 Aug [cited 2024 Jul 9];39(3):157–80. Available from: https://doi.apa.org/doi/10.1037/teo0000112
- 92. Grover S, Davuluri T, Chakrabarti S. Religion, Spirituality, and Schizophrenia: A Review. Indian Journal of Psychological Medicine [Internet]. 2014 Apr [cited 2024 Jul 9];36(2):119–24. Available from: http://journals.sagepub.com/doi/10.4103/0253-7176.130962
- 93. Mohr S, Borras L, Nolan J, Gillieron C, Brandt PY, Eytan A, et al. Spirituality and Religion in Outpatients with Schizophrenia: A Multi-Site Comparative Study of Switzerland, Canada, and the United States. Int J Psychiatry Med [Internet]. 2012 Jul [cited 2024 Jul 9];44(1):29–52. Available from: http://journals.sagepub.com/doi/10.2190/PM.44.1.c
- 94. Berkhin, I, Hartelius, G. G. Why altered states are not enough: a perspective from Buddhism. 3. International Journal of Transpersonal Studie [Internet]. 2011;30(1):63–8. Available from: https://doi.org/10.24972/ijts.2011.30.1-2.6
- 95. Maslow AH, Maslow AH. Toward a psychology of being. 3. ed. New York Weinheim: Wiley; 1999. 270 p.
- 96. Friedman HL, Hartelius G. The Wiley-Blackwell Handbook of Transpersonal Psychology. Chichester: Wiley Blackwell; 2015.
- 97. Kasprow MC, Scotton BW. A review of transpersonal theory and its application to the practice of psychotherapy. J Psychother Pract Res. 1999;8(1):12–23.
- 98. Shapiro, S.I: Religion, spirituality, and Transpersonal Psychology. International Journal of Transpersonal Studie [Internet]. 1994;13(1):33–41. Available from: https://digitalcommons.ciis.edu/ijts-transpersonalstudies/vol13/iss1/6
- 99. Tart, C. Accessing state-specific transpersonal knowledge: inducing altered states. The Journal of Transpersonal Psychology [Internet]. 2008;40(2):137–54. Available from: https://www.atpweb.org/jtparchive/trps-40-08-02-137.pdf
- 100. Walach, H. Narcissism The Shadow of Transpersonal Psychology. Transpersonal Psychology Review [Internet]. 2008;12(2):1–28. Available from: https://www.researchgate.net/publication/228537005
- 101. Gandy S. Predictors and potentiators of psychedelic-occasioned mystical experiences. JPS [Internet]. 2022 Jun 23 [cited 2024 Jul 9];6(1):31–47. Available from: https://akjournals.com/view/journals/2054/6/1/article-p31.xml

- 102. Winnicott DW. The maturational processes and the facilitating environment: studies in the Theory of Emotional Development. London: Karnac Books The Institute of Psychoanalysis; 1990.
- 103. Trungpa C. Cutting through Spiritual Materialism. Baker J, Casper M, editors. Boston, Massachusetts, [New York]: Shambhala; Distributed in the U.S. by Random House; 2002.
- 104. Facco E. Meditation and Hypnosis: Two Sides of the Same Coin? Int J Clin Exp Hypn. 2017;65(2):169-88.
- 105. Kant, E. Critique of Pure Reason. Cambridge, UK: CAmbridge University Press (1998); 1781.
- 106. Wilber, K. A Spirituality that Transforms. [Internet]. Shambhala Publications Online.; 2000. Available from: etrieved March, https://web3.isss.org/primer2/asem29kw.html
- 107. Yaden DB, Potash JB, Griffiths RR. Preparing for the Bursting of the Psychedelic Hype Bubble. JAMA Psychiatry [Internet]. 2022 Oct 1 [cited 2024 Jul 9];79(10):943. Available from: https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2795948
- 108. Phelps J, Shah RN, Lieberman JA. The Rapid Rise in Investment in Psychedelics—Cart Before the Horse. JAMA Psychiatry [Internet]. 2022 Mar 1 [cited 2025 Jun 4];79(3):189. Available from: https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2787968
- 109. Ko K, Knight G, Rucker JJ, Cleare AJ. Psychedelics, Mystical Experience, and Therapeutic Efficacy: A Systematic Review. Front Psychiatry [Internet]. 2022 Jul 12 [cited 2024 Jul 9];13:917199. Available from: https://www.frontiersin.org/articles/10.3389/fpsyt.2022.917199/full
- 110. Olivares FA, Vargas E, Fuentes C, Martinez-Pernia D, Canales-Johnson A. Neurophenomenology revisited: second-person methods for the study of human consciousness. Front Psychol [Internet]. 2015 May 29 [cited 2024 Jul 9];6. Available from: http://www.frontiersin.org/Theoretical_and_Philosophical_Psychology/10.3389/fpsyg.2015.00673/abstr act
- 111. Varela, F.J. Neurophenomenology: a methodological remedy to the hard problem. Journal of Consciousness Studies [Internet]. 1996;3(4):330–49. Available from: https://unstable.nl/andreas/ai/langcog/part3/varela_npmrhp.pdf
- 112. Carnap R. Der logische Aufbau der Welt. Hamburg: Meiner; 1998. 290 p. (Philosophische Bibliothek).
- 113. Sanders JW, Zijlmans J. Moving Past Mysticism in Psychedelic Science. ACS Pharmacol Transl Sci [Internet]. 2021 Jun 11 [cited 2024 Jul 9];4(3):1253–5. Available from: https://pubs.acs.org/doi/10.1021/acsptsci.1c00097
- 114. Saint Agustine. The City of God (de Civitate Dei) [Internet]. 1945. Available from: https://archive.org/details/in.ernet.dli.20
- 115. Kangaslampi S. Association between mystical-type experiences under psychedelics and improvements in well-being or mental health A comprehensive review of the evidence. JPS [Internet]. 2023 Apr 27 [cited 2024 Jul 9];7(1):18–28. Available from: https://akjournals.com/view/journals/2054/7/1/article-p18.xml
- 116. Luoma J.B., Chwyl C., Bathje G.J., Davis A.K., Lancelotta R. A Meta-Analysis of Placebo-Controlled Trials of Psychedelic-Assisted Therapy. Journal of Psychoactive Drugs [Internet]. 2020 Aug 7 [cited 2024 Jul 9];52(4):289–99. Available from: https://www.tandfonline.com/doi/full/10.1080/02791072.2020.1769878
- 117. Suzuki D.T., Humphreys C. The Zen doctrine of no mind. 2nd ed. London: Rider; 1991.
- 118. Hui -Neng. The Sutra of Hui Neng. The Buddhist Society; 1966.
- 119. Campbell J. Myths to Live By. New York, N.Y., U.S.A: Arkana; 1993. 276 p.

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