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Petter Grahl Johnstad

Entheogenic Spirituality

NTNU
Norwegian University of Science and Technology
Thesis for the Degree of
doctor philosophiae
Faculty of Humanities
Department of Philosophy and Religious Studies



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Articles included in this dissertation

Johnstad, P. G. (2021f). Who is the typical psychedelics user? Methodological challenges for research on psychedelics use and its consequences. *Nordic Studies on Alcohol and Drugs*, 38(1), 35–49. <https://doi.org/10.1177/1455072520963787>

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Johnstad, P. G. (2020b). Cannabis as entheogen: Survey and interview data on the spiritual use of cannabis. *Journal of Cannabis Research*, 2(30), 1–17. <https://doi.org/10.1186/s42238-020-00032-2>

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Johnstad, P. G. (2021d). How to disappear completely: Entheogen-induced experiences of self-dissolution. Manuscript submitted for publication.

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Johnstad, P. G. (2021c). Entheogenic spirituality: Characteristics of spiritually motivated psychedelics use. Manuscript submitted for publication.

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For the articles based on the Cannabis and Psychedelics User Survey (Johnstad, 2020b, 2021a, 2021b, 2021c, 2021e), the survey questionnaire and dataset in SPSS format are available at <https://doi.org/10.6084/m9.figshare.13121846.v1>

Related works

- Johnstad, P. G. (2012). *Religiøs bruk av rusmidler* (Religious use of psychoactive drugs) [Unpublished bachelor thesis]. University of Bergen.
- Johnstad, P. G. (2015). User perceptions of the mental health consequences of hallucinogen use in self-identified spiritual contexts. *Nordic Studies on Alcohol and Drugs*, 32(6), 545–562. <https://doi.org/10.1515/nsad-2015-0053>
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- Johnstad, P. G. (2021e). The psychedelic personality: Personality structure and associations in a sample of psychedelics users. *Journal of Psychoactive Drugs*, 53(2), 97–103. <https://doi.org/10.1080/02791072.2020.1842569>

Abstract

This dissertation presents and discusses a range of articles related to studies in entheogenic spirituality. As these studies have understood the matter, entheogenic spirituality is a phenomenon involving the use of entheogenic drugs – LSD, psilocybin, DMT, MDMA, and cannabis – in informal settings for spiritual purposes. It is connected to entheogenic experience, but also to the integration of experience for purposes of personal growth. The most common characteristics of entheogenic experiences were connected to insight, positive feelings, and improved connections to other people and to nature. Experiences with mystical-type characteristics such as ego dissolution and unification with transcendent forces were important to many spiritual entheogen users, but not to everybody, and rarely to spiritual cannabis users.

The individual articles relate the specific findings they discuss to extant research, although most of this research has been performed by academics working in fields outside the Study of Religions. There is also a small but growing literature on entheogenic spirituality by scholars of religion, however, and the overview article discusses how my research relates to this literature. In addition, it discusses the issue of how entheogenic spirituality challenges our understanding of religion in an overall sense, and particularly from the perspective of the relationship between religion and power. As a largely non-institutionalized form of religion, entheogenic spirituality does not conform to an understanding of religion as involving institutions. Nevertheless, it can be understood in relation to discourse, practice, community, and experience as a form of institution-less religion. Since entheogens are apparently highly efficacious means of inducing experiences with mystical-type characteristics, furthermore, and since such characteristics may serve as a basis for claims to spiritual authority, entheogenic spirituality has the apparent capacity to challenge the authority and power of religious institutions. The overview article discusses how a power-centric perspective on religion may help us understand both the position of entheogenic spirituality in modern western societies and the position of studies in entheogenic spirituality in the modern academy.

Avhandlingen presenterer og diskuterer ulike studier i det jeg har kalt enteogen spiritualitet. Slik disse studiene har forstått saken, handler enteogen spiritualitet om bruk av rusmidler som LSD, psilocybin, DMT, MDMA og cannabis i uformelle sammenhenger men med spirituell hensikt. Enteogene opplevelser er knyttet til innsikt, positivitet og forbedrete relasjoner, samt noen ganger til ego-oppløsning og en følelse av kontakt med transcendent størrelser. Den innledende oversiktsartikkelen i avhandlingen diskuterer hvordan disse studiene bidrar til en forbedret forståelse av hva religion er, samt av forholdet mellom religion og makt. Som en i hovedsak ikke-institusjonell form for religion bryter enteogen spiritualitet med forståelsen av religion som et institusjonelt fenomen, men denne formen for spiritualitet kan dog forstås i relasjon til diskurs, praksis, samfunn og opplevelse. Siden enteogener tilsynelatende er meget effektive i å indusere spirituelle opplevelser og slike opplevelser kan fungere som en kilde til spirituell autoritet, argumenterer jeg for at enteogen spiritualitet kan utfordre etablerte religioners (i hovedsak) institusjonelt baserte autoritet, og dermed også deres makt. Denne posisjonen som en potensiell kilde til motmakt overfor etablerte religioner kan hjelpe oss å forstå hvorfor enteogen spiritualitet er den eneste storskala spirituelle bevegelse i den moderne verden som er forbudt etter internasjonal lov.

Introduction

Entheogens are a group of psychoactive drugs named after their alleged ability to generate altered states of consciousness conducive to spiritual or mystical “experience”. The word is derived from the Greek ἔνθεος (*entheos*) and γενέσθαι (*genesthai*), which mean ‘inspired’ or ‘filled with god’ and ‘come into being,’ respectively, and the proper use of an entheogen is thus believed to potentially elicit or at least occasion contact with divine or transcendent forces (Ruck et al., 1979). While any drug that is believed to possess these divinity-manifesting properties might therefore be called an entheogen, the term is in general use reserved primarily for drugs such as psilocybin (the active ingredient in “magic mushrooms”), lysergic acid diethylamide (LSD), N,N-dimethyltryptamine (DMT), and perhaps cannabis and 3,4-methylenedioxy-methamphetamine (MDMA, also known as “ecstasy”). The category of entheogens is therefore broadly overlapping with those of psychedelics and hallucinogens, but the term is sometimes preferred to these because of their air of controversy and, in case of the latter, because hallucination is not a dominant or even especially common response to these drugs (Nichols, 2004, 2016).

The academic interest in entheogens and their users has been undergoing something of a renaissance during the last decade, with numerous new studies especially into the therapeutic effects of entheogen use. This newfound interest does however follow a period of several decades where the subject was almost entirely ignored, and there is for this reason much to catch up with. Furthermore, the interest in these drugs has predominantly been confined to the disciplines of Psychology and Psychiatry, which is natural with regard to their putative therapeutic effect, but perhaps less so when it comes to the religious and spiritual ramifications of entheogen use; as far as I know, this is the only large-scale spiritual phenomenon that has been studied mainly by psychologists and psychiatrists. The primary motivation behind this project is therefore linked to the perception that the western world may have a long-standing, fairly sizeable, and apparently thriving community of entheogen users that remains largely unknown to outsiders, including academics. In the words of western esotericism scholar Wouter J. Hanegraaff:

Whether we like it or not, we are dealing here with a vital and vibrant dimension of popular Western spirituality that has been with us for more than half a century now, and shows no signs of disappearing. It challenges traditional assumptions about what religion is all about, and its radical focus on ecstatic gnosis within a cosmotheistic context makes it particularly interesting from the perspective of the study of Western esotericism. Specialists in the field of contemporary religion should become aware of their inherited blind spots regarding the role that entheogens have been playing in these contexts for half a century. That role is not marginal, but central, and requires serious study. Scholars may have agendas and preoccupations of their own, but these cannot be an excuse for refusing to take notice of what is happening right in front of our eyes (Hanegraaff, 2013, p. 409).

The articles included in this dissertation are part of a multidisciplinary research project into the use of psychoactive drugs in spiritual contexts. The project started in 2012 with a bachelor thesis in the Study of Religions that examined archaeological, textual, and iconographic evidence indicating the use of psychoactive drugs in religious contexts in certain prehistoric communities, in ancient India, Egypt, Greece, and Scandinavia, and in early Christianity (Johnstad, 2012). Two years later, this line of research extended into the contemporary era with an interview study of modern westerners who used psychedelics and related drugs in self-identified spiritual contexts. This study started out as a bachelor project in Psychology, which focused on the mental health consequences of psychedelics use, and then morphed into a broader investigation of what I called entheogenic spirituality as a master project in the Study of Religions (Johnstad, 2016). The first part of this study was later

published in modified form as Johnstad (2015), while aspects of the second part were published as Johnstad (2018a), which is included as one of the articles in this dissertation. Soon after, an independent extension of this interview study focused on the use of psychedelic drugs in microdoses, or in other words in very small doses, either as a treatment for medical conditions or for cognitive enhancement purposes, which was published as Johnstad (2018b). Much at the same time, a historical investigation into the use of psychedelic drugs as an experimental treatment for psychiatric conditions at Modum Bad was conducted for a bachelor project in History, and published as Johnstad (2020a).

A new major phase of the research project started in 2019 with the initiation of a quantitative study of survey data from the Cannabis and Psychedelics User Survey. This study was developed for a bachelor project in Sociology, and resulted in a gold mine of useful data that has formed the basis for a number of publications (Johnstad, 2020b, 2021a, 2021b, 2021c, 2021e). The formulation of the survey questionnaire was based on previous qualitative findings, and the resulting data has served to support, expand, and occasionally correct these previous findings. At the same time, further qualitative interviews of specific practices or experiences were conducted, and this material was used as the basis for two articles (Johnstad, 2020c, 2021d) and as supporting evidence for two others (Johnstad, 2020b, 2021a). In addition, I wrote a review and discussion of methodological challenges pertaining to the study of psychedelics use, published as Johnstad (2021f).

All of these studies have involved the concept of spirituality at some level, although sometimes mostly as a backdrop for a research focus directed elsewhere. For this dissertation, I have selected the five articles that focus explicitly on the spiritual aspects of psychoactive drug use (Johnstad, 2018a, 2021b, 2020b, 2021d, 2021c), as well as the methodology article (Johnstad, 2021f), which is not connected to any specific academic discipline. The remaining six articles (Johnstad, 2015, 2018b, 2020a, 2020c, 2021a, 2021e) engage with the issue of health ramifications of psychedelics use as well as various experiential aspects that were not presented by respondents as explicitly spiritual.

The dissertation is structured as follows. The overview article connecting the various threads of the dissertation is presented as Chapter 1. In this chapter, Section 1 attempts to clarify the use of the terms “religion” and “spirituality”, and provides overviews of the historical use of psychoactive drugs in spiritual or religious contexts and of recent research literature on such drug use. Some of the material in this section is adapted from my master’s thesis in the Study of Religions (Johnstad, 2016). Section 2 thereupon discusses some methodological points of interest that the article format leaves little space for. Finally, Section 3 summarizes the content of the articles included in this dissertation, and discusses how the articles relate to each other and how they contribute to the scholarly literature on religion in general and on the spiritual use of entheogens in particular.

Following the introductory chapter, Chapters 2–7 presents the articles that are included in the dissertation in their published form or, for two of them, in the form they were submitted to a publisher. However, I have transferred tables and figures to their appropriate place near the text that discusses them, rather than leaving them at the end of the manuscript as required for some submissions. Furthermore, it might be noted that each chapter includes its own list of references. Although there is considerable overlap in cited works, it did not seem appropriate to excise the reference lists from published works. Consequently, in order to maintain a common standard, a separate reference section has been added to the overview article as well. The original pagination of published articles (and works submitted for publication) has been maintained, and references to specific pages in the overview article adheres to their original pagination.

Chapter 1: Overview article

1. Background

This section reviews and discusses the scholarly literature that has served as the foundation for my studies of entheogenic spirituality. The first part engages with the long-standing terminological debate about the core term in the Study of Religions – namely “religion” – as well as its relation to “spirituality”. After reviewing several well-known definitions of “religion”, I explain why the contribution by Lincoln (2003) is arguably the most appropriate for the present discussion, and then proceed to modify this definition in order to adapt it to “spirituality”. Section 1.2 discusses why it may be important to study entheogenic spirituality from a perspective of the Study of Religions, and Section 1.3 discusses spiritual experience and the tension between the spiritual authority such experience may seem to confer and the authority inherent to the hierarchy of institutional religion. Finally, Section 1.4 reviews some historical evidence of spiritual or religious use of entheogens and other psychoactive drugs, and Section 1.5 reviews contemporary research on spiritual entheogen use.

1.1 Terminology

This investigation into the phenomenon I have called entheogenic spirituality involves the use of a number of complex terms. This section will attempt to clarify my use of these terms, and I will start with a discussion of the most foundational of them, namely “religion”. The range of definitions of this term that are discussed in this section will subsequently, in my concluding discussion in Section 3.8, be analyzed in relation to entheogenic spirituality. In an early definition by Tylor, religion was seen simply as “belief in spiritual beings” (quoted in Schilbrack, 2005a, p. 49). While elegant in its simplicity and probably adequate for the correct categorization of most forms of religion, scholars of religion eventually realized that both its main terms were problematic. The emphasis on spiritual beings was problematic because not all of the cultural traditions that we would normally regard as religious concern themselves with such beings. This applies especially to some forms of Buddhism (e.g., Schilbrack, 2013; Southwold, 1978; Turner, 2011). In addition, Tylor’s emphasis on belief can be criticized for relying on a Protestant Christian understanding of religion (see Asad, 1983 or Hanegraaff, 2020 for discussions of this general issue).

Tylor’s approach to defining religion has since been given the designation “substantive”, in the sense that this strategy attempts to demarcate the religious from the non-religious in terms of a focal object that is (supposedly) distinctive of the former – in this case spiritual beings. A common objection to such approaches is that they may seem “to assume that all religions understand their focal objects in the same way” (Schilbrack, 2013, p. 294). As an alternative, scholars attempted a different approach, usually given the designation “functional”, which demarcates religion from non-religion in terms of what purpose the former (supposedly) serves for its community – what needs or problems they address. A common objection to this approach is that it is overly promiscuous, in the sense that it accepts many phenomena as religious that we would not normally (especially as a non-scholar) think of as religious, and that it therefore actually serves to confuse the project of demarcating religion from non-religion (e.g., Spiro, 1966).

Many well-known 20th century definitions of religion have tended to combine the substantive and functional approaches to defining religion. James (1902/1997) defined religion on several occasions, but his most discussed version saw religion as “the belief that there is an unseen order, and that our supreme good lies in adjusting ourselves thereto” (p. 59). Here, the functional element lies in the project of achieving the supreme good via some process of adjustment, and the substantive element

lies in the “unseen order” that religion supposedly helps us to adjust ourselves to. James’ “unseen order” is a more abstract concept than Tylor’s “spiritual beings”, however, and might reasonably seem to include forms of Buddhism that are relatively unconcerned with personified spiritual beings. On the other hand, such Buddhists might insist that the unseen order is not unseen in the sense of being unrecognized and un-identified, because their traditions go to some length in order to explicate elements of this underlying order.

We see a similar tendency in the much-discussed definition by Geertz (1973). According to this definition, religion is:

(1) a system of symbols which acts to (2) establish powerful, pervasive, and long-lasting moods and motivations in men by (3) formulating conceptions of a general order of existence and (4) clothing these conceptions with such an aura of factuality that (5) the moods and motivations seem uniquely realistic (Geertz, 1973, p. 90).

While emphasizing functional elements, this definition also includes a substantive element in the phrase “a general order of existence” (Schilbrack, 2013), although this element might seem even more abstract than James’ “unseen order”. In his elucidation of this phrase, Geertz quoted the philosopher Langer as saying that “[Man] can adapt himself somehow to anything his imagination can cope with; but he cannot deal with Chaos” (p. 99) and referred to Albert Einstein’s dissatisfaction with the apparently foundational position of randomness in quantum physics – besides discussing the desire for order and interpretability among a number of cultures including the Azande, Javanese, Dinka, and Navajo. I understand him to say that the desire to make sense of the world is the underlying motivation behind the religious impulse, although it is not clear to me that his erudite collection of examples establishes the universality of this motivation, and much less its centrality. Even if this sense-making motivation could be established in every (putative) religion of the world, it is not thereby also established as the *central* motivation behind the formation of religion, and it would seem possible to imagine that such sense-making is more important to some cultures than it is to others. By emphasizing this quality as a definitional trait, it therefore seems to me that Geertz’ definition runs the risk of imposing a cultural emphasis among some groups upon other groups that may have different priorities.

Furthermore, it is not clear to me that “conceptions of a general order of existence” are readily identifiable as religious. As far as I can see, this abstract phrase would apply equally well to philosophy and science, which would allow us to fit these cultural projects into Geertz’ definition of religion. Take Democritus’ theory of atoms, which it seems possible to understand as a conception of an underlying order that applies generally to the (material) universe. These atoms are symbols serving as the core of a broader philosophical (or scientific) system, which acts to establish moods (e.g., satisfaction and joy at having identified the underlying order) and motivations (e.g., the wish to know more, or to utilize the insight as technology). That the conceptualization of matter as a system of atoms is also clothed in an aura of factuality, thus making the moods and motivations seem uniquely realistic, is obvious. To my reading, therefore, Geert’s definition does not succeed in establishing a clear line of demarcation between religion and non-religion. While being insufficiently general on the level of cultural comparison – it is not clear that the desire to escape chaos and make sense of the world is equally important to every cultural group – this definition is also overly general in the sense that it seems to encompass a broad range of cultural projects that we would not normally think of as religion.

Before we move on from Geertz, I also wish to discuss Asad’s (1983) critique of his definition, which I believe is important. In my reading, Asad presented two objections to Geertz’ definition that it is

necessary to consider in further detail: that it ignored the dimension of power, and that it overemphasized the dimension of belief. The latter point is perhaps surprising, since Geertz did not mention belief at all in his definition, and this aspect of Asad's critique has itself been subject to subsequent criticism (Schilbrack, 2005b). Asad was, nevertheless, correct in pointing to an emphasis on belief in Geertz' discussion, especially in the sentence "The basic axiom underlying what we may perhaps call 'the religious perspective' is everywhere the same: he who would know must first believe" (Geertz, 1973, p. 110). Asad saw this statement as evidence of an influence from a modern Christian understanding of religion, and such an influence is problematic for any project of formulating a universal, a-historic definition of religion (p. 238, 247). For myself, I am wary of any talk of basic axioms being everywhere the same with regard to such a matter: it is not at all clear to me that this statement about belief is true, and it is also not clear what sort of analysis might suffice to persuade me that it would be true; certainly it would require more than just presenting a universalizing statement in the discussion of an example from Christianity. I would connect Asad's point with my earlier point about sense-making and make the observation that Geertz seems focused, perhaps overly so, on the cognitive aspects of religion – symbols, conceptions, factuality, seeming realistic – which it would be possible to understand as being closely aligned with a modern western mentality. Perhaps other cultures are as concerned with such cognitive aspects as the modern west (arguably) is, but if so, I am not convinced that Geertz succeeded in establishing that fact.

We return now to Asad's first objection, which related to power. I agree with Asad that Geertz' definition is susceptible to the critique that it ignores the dimension of power, as did Schilbrack (2005b). In my reading, Asad did not merely want to criticize Geertz' specific formulation of a universal, a-historic definition of religion, but to criticize every such attempt. From an Asadian perspective, as I would understand it, the problem with the a-historic conceptualization of religion is precisely that it ignores history; specifically, it ignores how specific power configurations acted at specific points in history to produce the power structures we might identify today as religions. He said the following with regard to his focus on medieval Christianity:

Religious power was differently distributed, and had a different thrust. There were different ways in which it created and worked through institutions, different selves which it shaped and responded to, and different categories of knowledge which it authorised and made available. A consequence is that there cannot be a definition of religion which is universally viable because and to the extent that the effects of these processes are historically produced, reproduced and transformed (Asad, 1983, p. 238).

I read him as saying that power structures are always historically determined, always a product of specific societal conditions and configurations at specific points in time. There is no such thing as a general power structure: although there may be historical similarities, a power configuration is always specific to its time and place. Insofar as we can understand a religion as a product of such a power configuration, this religion is therefore unique because it was formed by a specific historical configuration of power. Different religions may resemble each other to some extent, but as power structures they will always have a historical specificity that does not allow for universalizing generalizations. The attempt to formulate a universal definition of religion is, therefore, a mistake.

Asad was not the first scholar to criticize the desire for a universal definition of religion, and I will return to the subject below. Before we get to that, however, we will discuss two definitions of religion formulated by Lincoln (1996, 2003) and subsequently criticized by Schilbrack (2005a). Lincoln's first definition was elegantly succinct: "Religion, I submit, is that discourse whose defining characteristic is its desire to speak of things eternal and transcendent with an authority equally

transcendent and eternal” (Lincoln, 1996, p. 225). I take his starting point as being largely congruent with Geertz’: whereas Geertz presented religion as a “system of symbols”, Lincoln spoke similarly, although somewhat more abstractly and generally, about discourse. The two are aligned in seeing self-presentation as fundamental and in finding the basis for religion in ideas and concepts that are shared among social groups. I would not deny that this aspect is important and perhaps fundamental, although it is not clear to me that it is equally important to every culture or group. I would also observe, without necessarily seeing it as a problem, that this approach to religion would not allow for an internalized religiosity that does not see a need for making itself available to social discourse in the form of symbols or concepts. Like Geertz and James, Lincoln also included a substantive element – “things eternal and transcendent” – in his definition, and his choice of words may seem to exclude (putative) religions that are more focused on immanence. Lincoln’s reference to authority, on the other hand, and his implication (as I read him) that religion is concerned with legitimizing authority, align his definition with the Asadian perspective that sees religion in relation to power.

In a later work, Lincoln (2003) defined religion as possessing four domains: discourse, practice, community, and institutions. He declared that “anything we might properly designate as a ‘religion’ normally ought to include

- a) A discourse whose concerns transcend the human, temporal, and contingent, and that claims for itself a similarly transcendent status.
- b) A set of practices whose goal is to produce a proper world and/or proper human subjects, as defined by a religious discourse to which these practices are connected.
- c) A community whose members construct their identity with reference to a religious discourse and its attendant practices.
- d) An institution that regulates religious discourse, practices, and community, reproducing them over time and modifying them as necessary, while asserting their eternal validity and transcendent value (Lincoln, 2003, pp. 5–7).

This definition is no longer particularly succinct, but retains the emphasis on discourse and transcendence evident in his earlier approach. Lincoln also retained the (implicit) emphasis on the legitimation of power, for instance in his insistence that “it is not any specific orientation that distinguishes religion, but rather its metadiscursive capacity to frame the way any content will be received and regarded” (p. 5). With assistance from Schilbrack (2005a), I would therefore understand Lincoln’s approach as a middle way that accepts Asad’s emphasis on power, as well as his criticism of the overemphasis on belief in Geertz, while at the same time rejecting Asad’s position that religion cannot be defined. Schilbrack (2005a) also observed that Lincoln (2003) ignored any reference to religious experience, and on this basis Schilbrack placed Lincoln in what he called the semiotic camp, as a scholar who would define religion “with no reference at all to religious experience. From this perspective, religion is a language game, a discourse, or a system of representations” (Schilbrack, 2005a, p. 53). Such dismissal of the experiential dimension was problematic for Schilbrack, who found that the pendulum has swung too far in the direction of the semiotic perspective:

The fact that a certain discourse must be in place and employed in order for someone to experience a religious experience does not mean that the analysis of discourse exhausts the study of religion, any more than the analysis of fuel would exhaust the study of fire (Schilbrack, 2005a, p. 56).

I understand Schilbrack to say, first, that for an experience to be a religious experience, it must be embedded in a cultural discourse, and second, that there needs to be a place for such religious

experience in the study of religion. The first point is interesting in and of itself: if we assume that (the divine) Persephone is a “really real” entity – an ontologically real being whose existence is not dependent on cultural narratives – who, for reasons best known to herself, decides to reveal her true nature to a person who knows nothing of cultural narratives about Persephone, then this is not a religious experience according to (my reading of) Schilbrack. On the other hand, we would not be surprised if the person who experienced such a revelation of the goddess Persephone would understand this as a religious experience: presumably a revelation of this kind would be a very powerful and unusual experience. My underlying point is that I am not convinced that the scholarly category of religion can afford to deviate too far from the non-scholarly category, and some approaches to the definition of religion seem to open up for a rather substantial deviation at least on the conceptual level. Schilbrack’s second point is perhaps more straightforward, and seems relevant as a critique not only of Lincoln’s (2003) definition of religion, but also of the (in this sense) similarly structured definition by Geertz (1973). If experience is important to religion, then definitions that exclude experience from consideration are clearly problematic.

Instead of surveying other formulations of a definition of religion, I will now turn to the perspective that it would be best to abandon this search for a definition – and perhaps also abandon the term “religion” itself. A natural starting point for this discussion is Smith (1962/1978), who according to Asad (2001) was the first scholar “to argue against essentialist definitions of religion” (p. 205). Smith denied that religion had any identifiable essence and argued for the inadequacy of the term “religion”: to his view, not only are there a number of large-scale religions in the world, but there is also much diversity within each such tradition and, furthermore, the fact of constant change, that complicate any crystallized understanding of what religion is. On this basis, Smith advised that we abandon “religion” and speak instead of faith, tradition, and ritual, although “faith” in particular might seem problematic because of its close relation to Christianity. Asad (2001) identified what he called a “residual essentialism” in Smith’s approach, not least in Smith’s insistence that “Man is everywhere and has always been what we today call ‘religious’” (Smith, 1962/1978, p. 18). Asad explained what he saw as the main problem with essentializing definitions:

My problem with universal definitions of religion is that by insisting on an essential singularity, they divert us from asking questions about what the definition includes and what it excludes – how, by whom, for what purpose, and so on. And in what historical context a particular definition of religion makes good sense (Asad, 2001, p. 220).

Other scholarly perspectives on this issue that I find broadly congruent with those of Smith and Asad are Fitzgerald (1997) and Saler (1987). Saler found that the multivocal use and dubious analytical utility of “religion” today is reflected in the late Roman “religio”, which was equally multivocal and therefore cannot offer any sense of stability to our use of “religion” today. In his most in-depth treatment of this subject, Asad (1993) argued that universalist or essentialist definitions of religion represent a post-Enlightenment discourse that reflects Christian priorities. He criticized the cognitive focus in this definitional project, which I believe is clearly identifiable in both Geertz’ (1973) and Lincoln’s (1996, 2003) approaches, and returned to his focus on the relationship between religion and power, which he found that these other approaches tend to obfuscate. While arguing that the attempt to formulate a universal definition of religion should be abandoned, however, he did not abandon the word “religion” itself. With this language practice, I understand him as saying that although it is impossible to formulate a definition of “religion” as a technical scholarly term that is universally applicable across time and space, it is still possible to speak about religion simply in its ordinary sense. The main reason to do so, I should think, is that we lack better options, since there is no available term with which we could replace “religion”. In my view, using the word in this sense means that we take it as an umbrella term or a placeholder that has no particular analytical power,

and which points only to the set of phenomena that are normally considered to be religious. In other words, this approach entails that we abandon the scholarly category of religion, which is still inundated with problems after more than a century of refinements, and take refuge in the looser, non-scholarly word.

It should be emphasized, however, that such an ordinary-word approach to “religion” would not allow for the analytical application of this term. This approach does not accommodate a desire to speak about humankind’s universal religiosity, in the sense that Geertz (1973) did when he declared that “‘the religious perspective’ is everywhere the same” (p. 110), for the ordinary word “religion” is merely a haphazard collection of everything non-scholars would consider to be religious, without necessarily having anything particular in common. In other words, it is not to be considered a coherent concept, and it has little if any analytical utility. However, I have previously (Johnstad, 2016) argued that we might understand the non-scholarly category of religion on the basis of the *prototype* and *exemplar* approaches to knowledge structures in cognitive psychology (Matlin, 2008) combined with Wittgenstein’s (1953) notion of family resemblance. This approach is generally congruent with that of Saler (2000), although I criticized his choice of exemplars. Fitzgerald (1997) was critical of such an approach, but as I understand him, his criticism related to the project of retaining “religion” as a scholarly tool for analysis, which is not what I suggested. While haphazard and unwieldy, the ordinary word “religion” might have some semblance of a structure, and it could be possible to map the term in a descriptive sense and thereby obtain an overview of its applicability. In the absence of a well-functioning scholarly definition of “religion”, this approach would at least allow us to retain the word as a placeholder that is useful for the purpose of speaking loosely about general phenomena.

In my investigation of entheogenic spirituality, the core terms are, obviously, “entheogen” and “spirituality”. Before I embarked on the studies that underlie the articles here presented, it was my impression that there exists a movement of generally non-organized individuals in the contemporary western world who use certain psychoactive drugs – typically those known as psychedelics – for the purpose of inducing certain forms of inner experience (to borrow a term from Bataille, 1954/1998) that probably deserve the designation “spiritual”. It was also my impression, bolstered by my reading of Hanegraaff (2013), as quoted above, that these individuals were generally ignored by the academic discipline that may seem to have the primary responsibility for investigating spiritual phenomena, namely the Study of Religions.

While having a number of impressions about the state of the world, it was also clear to me that I did not actually understand what was going on with this movement of spiritual drug users. As far as I could determine, no one else seemed to understand this phenomenon very well either. At the foundational level, two issues were unclear. The first and least troublesome issue related to what sorts of psychoactive drug use should be included in the investigation as entheogens. Secondly, and more weighty from a perspective from the Study of Religions, it was unclear in which ways such drug use could be regarded as spiritual. In order to avoid imposing my ignorance of these matters on the people recruited into my investigations of this phenomenon that I have called entheogenic spirituality, I decided to base the investigation on an approach inspired by Ammerman (2014), which left the terms “entheogen” and “spirituality” undefined in interactions with respondents. In practice, therefore, I invited people into a study of spiritual use of entheogens without pretending to know what entheogens are and what it might mean to use them spiritually, and without saying anything

about how they should understand these terms. Whatever sorts of psychoactive drugs the interviewees chose to speak about were then accepted as entheogens, and whatever sorts of experiences or effects these drugs induced, insofar as the interviewee spoke of them in a context of spirituality, were accepted as spiritual.

The main benefit of this approach, at least in my own understanding, is that it served to protect the investigation from being influenced by the author's ignorance about what entheogens are and what it might mean to use them spiritually. Instead of arriving on the scene with a range of preconceptions about what is and what is not spiritual, the task of demarcating the spiritual from the non-spiritual was left to the interviewees. Later, in the survey study that was based on the findings from the interview study, a battery of questions relating to motivations for drug use included the item "spiritual experience", and everyone who checked this item was subsequently analyzed as being spiritually motivated; the types of experience associated with such spiritual motivation in statistical analyses could thereupon be understood as being spiritually relevant. In this sense, the power of definition was imparted to the study participants themselves: whatever they, in a collective sense, described in a context of spirituality was accepted as being spiritual. This approach allowed for the observation and analysis of how participants tended to use the term "spirituality", and opened for the possibility that they would draw a very different set of boundaries around the concept than what the researcher might have expected. If Hanegraaff's (2013) assertion that entheogenic spirituality "challenges traditional assumptions about what religion is all about" (p. 409) is correct, then my democratizing (or respondent-empowered) approach to determining the content of the terms "entheogen" and "spiritual" arguably paved the way for the clear identification of such challenges. By giving respondents the opportunity to fill these terms with whatever content they saw fit, in other words, any challenges to traditional assumptions that their spirituality might entail would have ample room to manifest.

On the other hand, it may be objected to this approach that it confuses scholarly and non-scholarly categories. Allowing respondents' non-scholarly perspectives on their spirituality to supplant the researcher's scholarly informed understanding of the concept might seem problematic in the sense that it, at least in principle, opens up for a complete break with the academic conventions within which scholars of religion understand this term. It seems Lincoln would not have approved:

When one permits those whom one studies to define the terms in which they will be understood, suspends one's interest in the temporal and contingent, or fails to distinguish between "truths", "truth-claims" and "regimes of truth", one has ceased to function as historian or scholar (Lincoln, 1996, p. 227).

Fortunately, it is not quite true to say that my approach permitted interviewees "to define the terms in which they will be understood," nor that their non-scholarly perspectives supplanted those of the researcher. Rather I would see the process as a form of collaboration, where the individual respondent contributed a description of their entheogenic spirituality in whatever terms they saw fit, and I thereupon contributed by making an overall analysis of their contributions. This process of analysis was obviously informed by scholarly perspectives. It is interesting to ask, nevertheless, what the researcher would have done if the respondents ended up describing what they saw as their spirituality in a way that is entirely removed from the scholarly discourse on this term. As it happened, respondents did not have such radically deviant perspectives on their spirituality that it was impossible to discuss these perspectives in terms of established research, but it is true that my democratizing approach opened the door for the possibility of a communication breakdown between the scholarly and non-scholarly discourses on spirituality. The identification of a radical break would

have been interesting, but perhaps the only meaningful conclusion from such a finding would have been to observe that more work is needed.

In the studies presented in this dissertation, at any rate, the respondents described their spirituality in a way that sometimes challenged scholarly notions about what spirituality is about, but only in a manner that was generally relatable to these notions. It is true, nevertheless, that my democratizing approach purposively attempted to shorten the gap between the scholarly and non-scholarly perspectives on spirituality. I think that this is a necessary maneuver, and one that will need to be repeated regularly, because it would be problematic if basic scholarly and non-scholarly categories deviate too far from each other, especially if this would lead to substantial groups of non-scholars speaking of spirituality in terms that scholars of religion do not acknowledge. Thus, while the scholarly conceptualization of spirituality must necessarily be informed by the relevant academic discourse, it must also be informed by the – perhaps continually changing – ways in which non-scholars ascribe spirituality to themselves.

This brings us to the discussion of the relationship between ascriptive and descriptive definitions of spirituality. Because of my democratizing approach, these two means of definition are not entirely differentiable in these studies. The purpose behind this approach was to allow respondents to ascribe spirituality to facets of their lives without imposing a basis for such ascription upon them. Thus, the individual respondents could ascribe spirituality to themselves according to whichever basis might seem appropriate to them. Subsequently, however, the researcher would analyze their responses in the light of other such responses – either qualitatively, with the identification of important themes in interviews, or quantitatively in terms of statistically significant associations in multivariate analyses. As the researcher, therefore, I would identify and describe noteworthy trends in the data, which is to say that I would describe commonalities in their ascriptions. These analyses could therefore be seen as my descriptions of their ascriptions. Thus, both ascriptive and descriptive elements were of central importance: the individual respondent ascribed spirituality to him- or herself on a basis I did not attempt to penetrate directly into, and I described commonalities or trends in the collection of their ascriptions. In principle, it would have been possible to attempt to penetrate into their bases for ascription, for instance by asking why an interviewee would see something they spoke about in a previous sentence as relating to spirituality, but I did not make such attempts and remain skeptical today that anything useful would have resulted from it.

It might be noted, furthermore, that in these studies the term “spirituality” has been preferred over “religion” in all communications with respondents. These two terms are sometimes used to differentiate practices characterized by social hierarchies and adherence to dogma (religion) from their non-dogmatic and anti-hierarchical counterparts (spirituality), which is a conceptualization broadly in agreement with the theoretical perspectives of Hanegraaff (1999) and Heelas and Woodhead (2005). One useful perspective on the relationship between spirituality and religion might be found in Asad’s (1993) insistence that we understand the latter in relation to power. If religion is to be understood – not exclusively, but importantly – as a power structure, then spirituality might be seen as those aspects of religion that are unrelated to configurations of power. Another way of saying this might be that spirituality becomes religion when it crystallizes into a power structure. This attempt at demarcation is not clear-cut, of course, as symbols and ideas might relate to power even in the absence of a formal power structure, and we will therefore have to admit that spirituality also has a connection to power. To increase clarity, therefore, I suggest we ignore generalized power in the form of symbols and ideas, and focus on structuralized power in the form of the institutions that Lincoln (2003) saw as one of religion’s core domains. In Lincolnian terms, spirituality would be what is covered by the domains discourse, practice, and community; when these three crystallize into

institutions or power structures, we can speak of religion. Of course, such crystallization into a power structure does not leave the three other domains unaffected: discourse under the watchful eye of power is not the same as it was before the power structure was established. Power introduces orthodoxy to discourse, orthopraxis to practice, and hierarchy to community.

As Schilbrack (2005a) pointed out, Lincoln's definition of religion ignores experience. I believe that this is an interesting omission, because there is, to my understanding, a certain tension in the relationship between experience and power. There is no doubt that what I have called generalized power, in the form of symbols and ideas, commonly impacts on religious experience. Schilbrack, as we recall, spoke of "[t]he *fact* that a certain discourse must be in place and employed in order for someone to experience a religious experience" (p. 56; my emphasis), indicating that there is no such thing as a religious experience without a relation to symbols and ideas. I do not share his confidence on this matter, although I agree that he pointed to a very common relation between discourse and experience. In the present context, at any rate, I find it interesting to observe that while experience is commonly affected by the power of discourse, it is not equally obvious to me that experience is also directly affected by structuralized power. Of course, as mentioned above, power structures affect discourse, and the impact from discourse on experience affords the power structure with an indirect control over experience. There is, nevertheless, a difference between direct and indirect control, and in this difference we find the cause for tension in the relationship between experience and power.

We do not have to subscribe to the notion that experience is fundamentally private in order to acknowledge that there is, at least, a difference between experience and discourse with regard to their relation to privacy. Discourse is necessarily public and cannot be otherwise. I may hold thoughts that no one knows about, but if I whisper those thoughts to you in a clandestine meeting, thus turning these thoughts into discourse, they now exist in the social sphere. Experience may be related to discourse in many ways, but it is not impossible that I have an experience that I choose not to speak about. While this is as true for thought as it is for experience, experience has a different claim to spiritual authority: my inner experience may, in a sense you cannot easily refute, have connected me to transcendent entities or realities. Such types of experience may seem to provide a person with a transcendent authority for perspectives that, perhaps, challenge the orthodoxy established by a religious power structure: I may claim that God has spoken to me and declared your institution wicked. As such, religious experience holds a claim to authority that is, in principle, independent from the authority inherent to the power hierarchy of institutional religion. While the power structure may hold some degree of control over religious experience via its control over discourse, that influence is only indirect and, or so it would seem to me, not entirely dependable. As a possible means of counterpower authority, therefore, the position of experience in relation to religion-as-power-structure is necessarily precarious. For these reasons, it seems to me that it is important to include experience in Asadian analyses of religion and power.

The identification of power structures as the defining element that differentiates spirituality from religion has support in recent empirical research. A large-scale study from Germany and the United States found that participants tended to understand spirituality in terms of 'privatized, experience-oriented religion' (Keller et al., 2013; Streib & Hood, 2011, 2016), and on this basis Hanegraaff saw spirituality as referring to

types of religion that (1) are focused on the individual rather than the collective, (2) are concerned with the cultivation of personal experience(s) more than with legal or doctrinal matters, and (3) emphasize praxis over belief (Hanegraaff, 2020, p. 78).

Although there is no explicit mention of power in these summaries of how non-scholars tend to understand the category of spirituality, power is clearly implied in terms such as “the collective”, “legal and doctrinal matters”, and, arguably, “belief” (via its connotations to orthodoxy). Of course, the distinction between religion and spirituality is not clear-cut, and has sometimes been subject to criticism (e.g., Marler & Hadaway, 2002). In my analysis, the difficulty in separating the two terms arises especially with regard to people who might be meaningfully referred to as both religious and spiritual. As discussed previously, structuralized power in the form of religious institutions will directly impact upon the domains of discourse, practice, and community, and indirectly on experience, and a subsequent attempt to analyze these domains as if removed from the domain of power is, at best, complicated. It should not surprise us, therefore, that Ammerman (2014) discovered that most of the (American) participants in her study used the two terms interchangeably, although participants who never took part in organized rituals sometimes labelled themselves “spiritual but not religious”, and a group that she called “conservative Protestants” tended to prefer “spirituality” over “religion”. It would seem reasonable that the imposition of a distinction between religion and spirituality is important mainly to people who wish to distance themselves from the former, and that this would contrast with most perspectives from within a religious tradition, where the two terms are perhaps more naturally regarded as inseparably entwined. Thus, it should also not surprise us that the distinction between religion and spirituality is uniquely germane to western users of entheogenic drugs, who largely identify as “spiritual but not religious” or religiously unaffiliated (76.3% of respondents in Heide et al., 2021; 86% of respondents in MacLean et al., 2012).

The findings of the studies presented in this dissertation support the notion that entheogen users, as a collective, understand the term “spirituality” as relating to the individual, to the experiential, and to praxis over belief. In addition, however, they also emphasized matters related especially to personal growth and development as being central to their spirituality. I will return to this issue below, where I also analyze the extent to which the findings from my investigations into entheogenic spirituality correspond to the commonly used definitions of religion discussed above. With regard to the term “entheogen”, on the other hand, respondents generally conformed to expectations, responding to my open-ended inquiries into their entheogen use with narratives about experiences with psilocybin, LSD, and DMT, as well as a variety of similar but less well-known substances, and sometimes including cannabis and MDMA. In practice, therefore, it seems that the term “entheogen” is not particularly controversial in terms of which drugs it refers to: the only major disagreement is whether the term should include cannabis and MDMA, which are here included.

Before we move on, it is also necessary to spend some time discussing the term we might use for the broader religious or spiritual movement in the modern western world that contemporary entheogenic spirituality must probably be understood as belonging to. It is my assessment that we do not, in fact, have a good term for this broader development, and yet it will be necessary to refer to it somehow in the following text. As we have seen, Hanegraaff (2013) spoke of “contemporary religion”, which I would understand in relation to the more commonly used New Religious Movements (NRMs). While NRMs have been described as religions that emerged in the period from the 19th century up to the present (Ashcraft, 2018), the word “contemporary” seems to refer to a much more limited time period, although it may not be clear how far into the past it should be understood to extend. Entheogenic spirituality, as far as it is both sufficiently widespread and

sufficiently coherent to count as a movement, might be understood both as a NRM and as an instance of contemporary religion, although I believe many of the participants in my studies would have resisted the reference to religion in these terms: if I had given survey respondents the opportunity to indicate whether or not they saw themselves as belonging to a new religious movement, I believe a very large majority would have declined to endorse this item. Of course, it is possible to use a term analytically even when non-academics would tend to reject the term based on their informal understanding of the underlying term “religion”, although in my case such imposition of an unwanted designation would stand in some tension with my project of allowing participants to fill the term “spirituality” with whatever content they (collectively) saw fit.

A second problem with speaking about NRMs or contemporary religion is that these terms seem overly broad. They distinguish what is modern or contemporary from what belongs to earlier history, but they do not distinguish between different forms of modern or contemporary movements. To me, it would seem that the Taliban (or the Islamic Emirate of Afghanistan) is clearly a new religious movement, while having otherwise little in common with the new forms of spirituality that have risen to prominence in the western world in recent decades (Armajani, 2021). Thus, it would seem that there is very little one can say about NRMs that applies universally to every form of religiosity and spirituality covered by that term. This was recognized by Barker as early as in 1989. While entheogenic spirituality might be referred to within the context of NRMs, therefore, it is not clear to me that this would add anything to our understanding of what entheogenic spirituality is besides emphasizing its modernity. In sum, the term NRMs is problematic for my purposes because of its reference to religion, and it also does not seem very useful in terms of placing entheogenic spirituality in a framework that might facilitate its analysis.

Another contender for a designation for the broader religious or spiritual movement that has grown forth in the western world during the last 50 years or so is “New Age”. From the 1990s on, scholars started referring to this movement as the New Age movement (Hanegraaff, 1996, 1999; Heelas, 1996), with the name finding its basis in the astrological notion of an approaching Age of Aquarius. In the 1970s and 80s, at least some people in the western world who were interested in nontraditional forms of spirituality would use the term “New Age” to refer to themselves, but by the 1990s the term had largely fallen out of fashion in this milieu (Hess, 1993; Kemp, 2004). Ironically, therefore, scholars of religion started using this term at about the same time as the people who these scholars would be referring to stopped using the term about themselves. In my view, the main problem with speaking about New Age spirituality is related to this resistance to the term from the people it is supposed to refer to, but it is also true that the term is somewhat nebulous in that it mixes and perhaps conflates a wide range of nontraditional forms of spirituality and religiosity. One possible benefit with this term, on the other hand, is that it clearly – although often implicitly – delineates between new spiritual developments in the western world and other spiritual developments elsewhere. While it may seem impossible to exclude the Taliban from the term NRM – seeing that the Taliban is, obviously, a coherent movement formed in the late 20th century that explicitly relates itself to the religion of Islam – I do not believe anyone would refer to the Taliban as New Age. The term “New Age”, in other words, seems to have a higher degree of specificity than NRM has, and it might seem possible to make general statements and analyses about the New Age movement that the low specificity of the term NRM would render impossible (Barker, 1989). Thus, Frisk (2007) could say that in the New Age movement, women generally participate in a 2:1 ratio to men, which is a fairly specific statement, while even a general statement about gender involvement in NRMs would be complicated by the fact that women are, as I understand the matter, barred from any formal involvement in the Taliban, while at the same time playing a dominant role in some recently formed spiritual groups in the west. Similarly, it has sometimes been maintained that New Age spirituality

values self-knowledge and interiorized developmental processes (Hanegraaff, 1996; Heelas, 1996), but it seems impossible to say the same, or anything of equal specificity, about NRMs. I do not know if the Taliban values self-knowledge and interiorized development but, in any case, it seems very likely that there are quite a few religious movements formed somewhere on the planet during the last two centuries or the last fifty years (depending on one's understanding of "new" in the term NRMs) that generally emphasize something entirely different.

Seeing that the terms "New Religious Movements" and "New Age" are not exactly problem-free, we might want to consider some other contenders. One such contender that has been with us at least since the late 1980s is "alternative spirituality" (Ellwood, 1993; Hackett, 1989; Sutcliffe & Bowman, 2000). This term emphasizes the discontinuity between the new type of spirituality – the phenomenon we are trying to frame – and what came before, essentially defining the new type in terms of what it is not. The same might be said for related terms such as "nontraditional spirituality" (Prest & Keller, 1993; Thompson, 2020). On a general basis, I would argue that it is rarely a good idea to attempt to define a phenomenon in terms of what it is not, and one specific problem in this regard is that the set of 'what this phenomenon is not' is very large and, therefore, cannot be explicated. "Alternative spirituality" is generally used to point to a spiritual movement in the western world, with the often unstated implication that it serves as an alternative to more traditional forms of spirituality and religion associated predominantly with Christianity, but there is nothing inherent to the term itself that situates the spirituality it points to in this specific cultural milieu. In principle, it seems that we could refer to the Taliban as a form of alternative spirituality, although in their case the spirituality involved is explicitly related to tradition and is offered as an alternative to modernity. "Nontraditional spirituality" would seem better in this regard, but I would observe that the forms of spirituality that deserve the designation "nontraditional" today may at some point have become sufficiently established in their cultural milieu that they can no longer reasonably be referred to as nontraditional, meaning that a new term will have to be found. There are also those who would maintain that the spiritual movement we might want to refer to as "alternative" or "nontraditional" is much closer related to established forms of spirituality than these terms would seem to imply (e.g., Kapusta & Kostićová, 2021).

A different angle to this type of relative terminology is the term "spiritual but not religious" (Carey, 2018; Fuller, 2001; Parsons, 2018). The strategy here is to pry the related terms "spirituality" and "religion" apart, usually with the understanding that the latter, in putative contradistinction to the former, is connected to concepts such as institutions, social hierarchies, and dogmas (Marshall & Olson, 2018; Russo-Netzer, 2019). As discussed previously, however, scholars have sometimes criticized this attempt at prying spirituality apart from religion, and it might seem possible that people could be religious, in terms of seeing themselves as belonging to a specific religion, and yet not interested in the institutional expressions of this religion. Furthermore, McDowell (2018) spoke of being "Christian but not religious", indicating that it might be possible – at least for some Christian punk rockers – to see themselves as belonging to what we would normally recognize as a religion, namely Christianity, without seeing themselves as being religious. Other scholars have similarly spoken of "religionless" Christianity, especially in relation to Kierkegaard, Barth, and Bonhoeffer (Forrester, 1964; Kirkpatrick, 2011; Pugh, 2009). Thus, it seems that the term "spiritual but not religious" would include certain forms of Christianity. Furthermore, it is not clear to me how the term would be perceived for instance from a South Asian or an indigenous Amazonian perspective, but I suspect that many non-western people would understand this term in ways that are not easily integrated into the use of the term with reference to the contemporary western world, and there is nothing inherent to the term itself that indicates that its use should be reserved to the western cultural sphere.

If these terminological approaches based on conceptual relativity and relatedness – “alternative”, “nontraditional”, “spiritual but not religious” – are not entirely successful, it might perhaps be possible to achieve better results via an approach of temporal relativity. Both “new religious movements” and “New Age” include the word “new”, and Rivadossi (2020), basing her work on a publication by Motak (2008) and earlier work by Shimazono, used the straightforward term “new spirituality” for the movement we are here trying to frame. Shimazono (1999) previously suggested “New Spirituality Movements and Culture” or NSMC, which is more cumbersome but relates to the same principle. “New spirituality” divests from the word “religion”, which seems to generate considerable resistance in the modern western world, thereby in itself suggesting a (perhaps exaggerated) discontinuity with established religious traditions that is further emphasized with the addition of the word “new”. It would seem impossible to use this term with reference to the Taliban, because although the Taliban is a modern movement in the sense that it is a response to and a rejection of modernity, it is explicitly oriented towards tradition. In the term NRMs, what is new is simply the movement itself, whereas the term “new spirituality” indicates that there is something new about the form of spirituality; whereas the Taliban is obviously a new movement, the spirituality emphasized by this movement cannot be characterized as new. In my assessment, speaking of new spirituality is probably the least problematic approach of those we have considered thus far, although it should be noted that what is new today will at some point get old, and “new spirituality” – not unlike the previously discussed “nontraditional spirituality” – is therefore a term with an expiry date. It is also a problem that the term is not well established or recognized.

Finally, the term “postmodern spirituality” (e.g., Ahlbäck, 2008) connects the spiritual movement we are here trying to frame to the largely academic notion of postmodernism. The term is not entirely without merit, as there may seem to be a number of correspondences between this spiritual movement and the thoughts and concepts associated with the postmodern. However, most of the people we might want to refer to with such a term are clearly not postmodernists themselves, and it is not obvious to me that these people would approve, for instance, of the postmodern rejection of grand narratives. The term “postmodern spirituality” is problematic also in the sense that it will entangle discourse about this spiritual movement in the controversies surrounding the notion of postmodernism, thereby contributing to further confusion.

To sum up this discussion, it is not obvious which term to use for the purpose of pointing to the new spiritual movement that most scholars agree rose to prominence during the last decades of the 20th century. Based on the above considerations, I might be inclined to believe that “new spirituality” is the least problematic option, but since this term is not well established, its use runs the risk of miscommunication. If I had asked interviewees or survey respondents whether they saw themselves as being part of the new spirituality movement, I do not believe they would have understood the term “new spirituality” as pointing to essentially the same social phenomenon that I might otherwise use the terms “New Age” or “alternative spirituality” to point to. Because the term “New Age” is well-known and seems not to incur major misunderstanding, and also has some analytic utility as it serves to place the entheogenic spirituality that is the subject of my studies in a fairly well-defined context, I have used this term analytically in the article that presents the findings from my interview study (Johnstad, 2018a). In my survey study, furthermore, I presented respondents with the item “New Age/Alternative” as a possible option to endorse about their own spirituality, thus combining two of the options discussed above. This usage of problematic terms was based on the observation that there are, in fact, no unproblematic terms to choose from, and since it was necessary to employ some kind of identifier for this type of spirituality, I picked what seemed to me at the time to constitute the least problematic ones.

While I acknowledge that the term “New Age” is well past its prime – and has probably been so since scholars first started using it in the 1990s – it is still seeing substantial scholarly use. DeConick, who as Professor of Biblical Studies and chair of the Department of Religion at Rice University has some authority on the matter, spoke of the “Gnostic New Age” as recently as in 2016, in a work that traces aspects of the New Age movement back to the Gnostic Christianity of late antiquity. Similarly, the scholars of my *alma mater* in religion – the Department of Archaeology, History, Cultural Studies and Religion at the University of Bergen – have often preferred “New Age” over possible alternatives when writing in English (e.g., Gilhus et al., 2017), while in Norwegian they would usually speak of *nyreligiøsitet* (“new religiosity” or “neo-religiosity”; it sounds better in Norwegian). Furthermore, “New Age” has also seen plenty of use by other scholars right up to the present (e.g., Cusack, 2021; Huss, 2020; Roussou, 2021; Stokke, 2021; Xavier & Dickson, 2021). In sum, my use of the term might be said to leave me in good company, although I suspect that everybody who is using it tend to hold their noses while doing so.

To get a perspective on the current popularity of these terms in scholarly contexts, I performed searches on Google Scholar that specified results from the period after 2017. For a variety of reasons, we should not have very high confidence in these results, which among other things give equal credence to self-published works and works published under prestigious imprints, but I believe they provide an indication of recent usage that is, at least, interesting. These searches were performed on August 28, 2021, and the number of results will obviously change as new publications are added every day. With these caveats, the search for “New Age spirituality”, “New Age religion”, and “New Age movement” yielded, respectively, 2080, 1300, and 2720 results. “New Age” by itself generated 22400 results, but this included usage of the term in sentences such as ‘the new age of cell-free biology’, while searching for “New Age” and “religion” as two separate terms produced 17500 results. A search for “New Religious Movements” for its parts generated 8830 results. It is not clear, therefore, that scholars currently prefer the term “New Religious Movements” over the term “New Age”. With regard to other terms, “spiritual but not religious”, “alternative spirituality”, and “postmodern spirituality” generated, respectively, 4910, 1360, and 342 results. “New spirituality” yielded 2050 results, but not all of them were necessarily related to the usage of this phrase as a term.

With the above considerations in mind, I will now explain my usage of these terms in the present text. While I have not used the term “religion” in communication with respondents, nor in my discussion of findings, I do employ the term in various contexts in the present text. Furthermore, as we have seen above, the term “spirituality” is usually related in some way to “religion”, and in order to understand the former we must, therefore, first understand the latter. As much as I agree with Asad and others in seeing the attempt to formulate a universal, a-historic definition of religion as problematic, the problem with reaching conceptual coherence across a vast span of history is less pressing for an investigation of a contemporary phenomenon. To obtain some stable ground on which to stand, then, I will take Lincoln’s (2003) definition of religion as possessing four domains – discourse, practice, community, and institutions – as explicated in more detail previously, as the basis for my use of the term “religion”. I would add that experience is also of central importance for entheogenic spirituality.

Furthermore, I will demarcate the point of difference between “religion” and “spirituality” in Lincoln’s institutions. Spirituality, therefore, is that form of religion which is unrelated to regulative institutions, or in other words to formal power structures. It should be noted that this formulation interprets “institutions” in its organizational meaning. The term has sometimes also been used to refer to social phenomena such as conventions (e.g., Lewis, 1969) and languages (e.g., Giddens, 1984), but Lincoln’s elucidation of this dimension refers to “formal or semiformal structures staffed by officials, experts, and functionaries” (p. 7) and thus restricts the term to its organizational sense. In any case, as discussed previously, no aspect of religion – discourse, practice, community, or experience – is unmarked by power. Thus, I am not convinced that this definition of spirituality will work very well for the spirituality of people who are embedded in a given religious tradition. Fortunately, I do not need the term to work in such contexts since I do not intend to speak about them. It is also true, however, that various spiritual groups or movements may sometimes institutionalize, although in these cases I would say that the spiritual group is moving towards its crystallization as a religion. While (perhaps) analytically separable on the conceptual level, religion and spirituality in the real world mix and intermingle freely.

It should be noted, furthermore, that the separation of “spirituality” from “religion” on the basis of Lincoln’s institutions is not entirely straightforward. As stated previously, I read Lincoln’s explications of religious discourse as emphasizing religious institutions’ concern with legitimizing their authority and power. When he described such discourse as one “whose concerns transcend the human, temporal, and contingent, and that claims for itself a similarly transcendent status” (Lincoln, 2003, p. 5), I understand the status claims in the last part of the sentence as referring to such concerns with self-legitimation. In order to modify this definition of “religion” to accommodate “spirituality” by removing the dimension of institutions, it is also necessary to de-emphasize this claim about how religious institutions regulate religious discourse in order to legitimize their authority and power. Furthermore, we see something similar in Lincoln’s elucidation of practice, which he saw as “defined by” discourse: adapting this dimension to “spirituality” would necessitate the exchange of “defined by” with something a bit looser, such as “informed by”.

Finally, I have already used the term “New Age” in communications with respondents, and in publications describing these studies, and will continue to do so in this overview article. I recognize, however, that “new spirituality” might be a better term, and I would be happy to facilitate some kind of glacial-style movement away from “New Age”. For this reason, I will employ the cumbersome “the new spirituality (or New Age) movement” to refer to the contemporary spiritual movement in question. This is intended as a transitional term that might, hopefully, contribute towards the general acceptance of “the new spirituality movement”, so that the scholars of the future can use this term and expect to be understood – which I do not believe is presently the case.

1.2 Reasons to study entheogenic spirituality

In my reading of Hanegraaff’s (2013) statement about how entheogenic esotericism challenges assumptions about what religion is, he seems to imply that such challenges are beneficial. There is, perhaps, something to learn from having one’s assumptions challenged, and the possibility that entheogenic spirituality might challenge our understanding of religion is therefore, in and of itself, a reason to investigate the phenomenon. Arguably, therefore, one primary reason to study entheogenic spirituality is that such an endeavor will help us gain new perspectives on the more general phenomenon of religion.

Furthermore, I read Hanegraaff's (2013) statements about the central role of entheogens in contemporary religion, and about how scholars may have failed to "take notice of what is happening right in front of our eyes" (p. 409), as a call for more work in this area. If entheogenic spirituality is indeed central to contemporary religion, then it would seem that any attempt to understand contemporary religion that does not acknowledge and analyze the role played by entheogens runs the risk of being blindsided. Thus, I understand Hanegraaff's admonishment to imply that a refusal to look at what is taking place right before our eyes is essentially a refusal to do one's job. The academic study of religion is predominantly, as far as I understand it, a publically funded venture serving the purpose of understanding the phenomenon of religion on society's behalf, and a failure to keep abreast with what is (putatively) a centrally positioned practice in the field of contemporary religion is, arguably, to abandon this responsibility.

The perspective that entheogens may be important for our understanding of religion is by no means new to Hanegraaff, however. Back in 1964, Smith similarly rebuked scholars for dismissing or ignoring the import of drugs for religion, finding that "drugs have light to throw on the history of religion, the phenomenology of religion, the philosophy of religion, and the practice of the religious life itself" (pp. 517–518). It might seem careless to let such broad potential go to waste, yet as recently as in 2016 Monteith maintained that "the intersection of substance use and religion remains largely unexplored" (p. 1082). This is not to say that scholars of religion have entirely neglected the role that entheogens have played in religion (or spirituality) either in the contemporary era or in earlier history. As we shall see below, there is some research on psychoactive drug use in pre-Christian – and even more controversially, early Christian – antiquity, and there is also substantial work on the use of psychoactive drugs in indigenous and non-western cultures. Nevertheless, I would contend that there is little work by scholars of religion on the use of such drugs for spiritual purposes or effect among modern westerners. This is not to imply that investigations of Shipibo-Conibo people in the Amazon, Jamaican Rastafarians, or Native Americans in the United States (to mention but a few) are less important than investigations of culturally dominant groups in Paris, Oslo, or New York, nor to deny modernity to any of the above. However, these culturally dominant groups in the western world are also not less important subjects for study than anyone else, and for scholars of religion situated in the western world, the spiritual practices of these groups are literally something that is taking place right before our eyes.

It is possible that the relative dearth of research into entheogenic spirituality among contemporary westerners can be linked to the perception that such entheogen use lacks a foundation in cultural traditions that Shipibo-Conibo use of ayahuasca or Native American use of peyote arguably has. There is no continuous tradition of entheogen use in European cultures, and the contemporary use of entheogens within this cultural sphere is therefore more of a modern invention or importation than it is for indigenous peoples in the Americas. The Native American Church's use of peyote, and a number of similar forms of entheogen use among indigenous groups across the Americas, have been exempted from drug prohibition laws on such grounds (Beeson, 1992; Jones, 2007; Parker, 2001), whereas entheogen use among the general population of most western countries remains illegal and, therefore, more controversial. What is illegal is also often clandestine and hard to study, and I believe there is little doubt that Monteith (2016) was correct when he said that the drug war "appears to have inhibited scholarly inquiry into how substance use can function as a religious practice" (p. 1082). In addition, it is clear at least from my own research into entheogenic spirituality among modern westerners that such users tend not to organize into formal groups, but rather engage with entheogens individually or in informal settings with a small number of friends. The study of such an individualized or atomized spiritual movement is, at least in some ways, more methodologically difficult than the study of hierarchic organizations, because it is hard to know

whether the beliefs and practices of the individuals who are included as participants in such studies are representative of the movement as a whole.

To sum up my views on why entheogenic spirituality deserves more scholarly attention, I would start from the position that the fact that such groups of spiritual entheogen users exist, apparently in sufficiently sizeable numbers to play a central role in contemporary religion, in and of itself mandates such attention. I recognize that other people may disagree with this position, and if they have specific reasons for denying this movement the attention its putative centrality might seem to indicate, I would be willing to listen to them. In the absence of such specific reasons, however, it seems clear to me that the field of the Study of Religions should generally aim to keep abreast with developments relevant to its domain – whether we like them or not, as Hanegraaff put it. As a second point, I would return to Smith (1964) and say that studies in entheogenic spirituality will quite possibly facilitate a deeper understanding of the more general phenomenon of religion. Finally, as a third point, I would argue that studies in entheogenic spirituality may help us gain a better understanding of the relationship between religion and power.

1.3 Entheogenic experience

This section discusses how entheogens and spirituality come together as an experience that is entheogenically induced and spiritual in designation. As a starting point and general framework for this discussion, I use Tart's (1975) conceptualization of (*discrete*) *altered states of consciousness*, before moving on to a brief presentation of ascription theory based on Taves (2009), and an overview of research on mystical experience. Finally, I argue that such mystical experience seems to have a strong claim to spiritual authority, and may therefore constitute a challenge to the authority of religious institutions. Since entheogens appear to induce experiences with mystical-type characteristics in a substantial number of users, we should probably expect some tension between entheogenic spirituality and institutional religion.

Tart's (1975) defined a *discrete state of consciousness* (d-SoC) as "a unique, dynamic pattern or configuration of psychological structures," and counted the ordinary waking state, non-dreaming sleep, dreaming sleep, hypnosis, alcohol intoxication, marijuana intoxication, and meditative states as examples (p. 5). A d-SoC is therefore a "particular region of experiential space" constituted by a cluster of experiences that are similar enough to qualify as a specific *type* of experience (p. 55). Within this typology of states, the ordinary waking state normally serves as the *baseline state of consciousness* (b-SoC), and any d-SoC that diverges from the b-SoC is labelled a *discrete altered state of consciousness* (d-ASC). Tart (ch. 8) analyzed the experiential space of d-SoCs in terms of ten major subsystems: i) exteroception; ii) interoception; iii) input processing; iv) memory; v) subconscious; vi) evaluation and decision-making; vii) emotions; viii) space/time sense; ix) sense of identity; and x) motor output. A d-SoC is characterizable by its influence over each of these subsystems.

Tart regarded d-SoCs, and particularly the b-SoC, as self-stabilizing: they have the capability to channel available energy into stabilization processes that work to maintain state coherence. In order to induce a d-ASC it is therefore necessary to "disrupt enough stabilization processes to a great enough extent that the baseline pattern of consciousness cannot maintain its integrity" (p. 71). If this is successful, a transitional period characterized by the lack of a coherent d-SoC is entered, one example being the hypnagogic phase between waking and sleep. From here, patterning forces may serve to form the d-ASC as a new, self-stabilized structure. A problem with the use of drugs such as LSD and cannabis to induce a d-ASC is that they are pharmacologically reliable only for the first two

steps in the induction process: they will reliably break down the b-SoC and initiate a transition (p. 154). The constitution of the newly formed d-ASC depends, however, on a wide range of non-pharmacological factors including both long-term factors such as cultural background and personality, and immediate factors such as mood, expectation, and social environment (p. 148).

Entheogenically induced states of consciousness are therefore quite unpredictable, both between individuals and within a given individual. Nevertheless, there are certain (moderately) predictable effects on several subsystems. Tart discussed how *input processing* is commonly affected by cannabis intoxication to increase the ability to perceive patterns, to find new qualities in colors and sounds, and sometimes to experience synesthesia (pp. 97–104). He believed that *memory* is to a large extent state-specific, so that an experience in a d-ASC may only be fragmentarily available to a b-SoC perspective and thus believed forgotten, yet may be recalled with great clarity upon subsequent reentry into the d-ASC (pp. 104–109). Entheogens also tend to increase the accessibility of *subconscious* material, which may be a useful therapeutic effect, but which Tart also regarded as one of the dangers of entering a d-ASC: a person risks being flooded with subconscious material, often charged with strong *emotions*, that he or she is not capable of dealing with (p. 111). Some d-ASCs may also make available new emotions – for instance states of ecstasy – that are never experienced in the b-SoC (p. 125). Such emotions are known to sometimes accompany an altered *sense of identity* where a person is disengaged from the habitual relation to his or her ego or self (pp. 129–136).

This brief tour of Tart’s model of states of consciousness indicates that d-ASCs, whether entheogen-induced or not, may have utility for us. On this basis, it has been argued that the capacity to alter consciousness – the mastery of various induction techniques – may offer adaptive advantages (Sidky, 2015; Winkelman, 2010). This hypothesis would seem supported by the findings of anthropologists Bourguignon (1973) and Goodman (1988) that almost every global culture uses some kind of induction technique to gain access to altered states of consciousness. Such techniques include prayer, meditation, fasting, sensory deprivation, chanting, dancing, and the use of entheogens. Primary cross-cultural applications of d-ASCs are healing and gaining access to revelatory knowledge (Sidky, 2015).

In a critique of Tart’s model, Revonsuo et al. (2009) objected to his notion of altered states, which they regarded not as “an alteration of consciousness (or subjective experience) per se,” but rather as an “alteration in the informational or representational relationships between consciousness and the world” (p. 187). This formulation of a relational definition does however end up assuming that there is a “correct” representation of the world that is available to the baseline or “normal” state, and that an altered state of consciousness therefore constitutes only “a general but reversible misrepresentational state of the mind” (p. 201). This is not, I believe, a generally fruitful starting point for a discussion of spiritual experiences, whether naturally occurring or induced by meditative, entheogenic, or other practices, as it would seem to assume that they are all inferior to the “correct” representation of the unaltered mind. We might, nevertheless, criticize Tart’s model for positing discrete states that are in reality continuous and overlapping. The human consciousness is probably not as neatly categorizable as the model suggests, but we can use the model as a heuristic tool to map some overall tendencies and dynamics.

To move deeper into the subject of the entheogenic experience, I will first discuss some perspectives from ascription theory on why people sometimes label their experiences as spiritual or religious. From this perspective, it is not particularly meaningful to say that an experience *is* spiritual, which implies the existence of some kind of objective rule with which the veracity of that statement may be judged, but only that an experience *is deemed* spiritual according to subjective criteria. For Taves, the fundamental category in this regard is *specialness*: thus a spiritual experience is always a special

experience, although the converse is not true. While I suspect there might be Advaitins and Buddhists who would claim that ordinary experiences are just as spiritual as special experiences, I will pass by this point of critique and instead draw the obvious parallel to Tart. A d-ASC is after all for Tart a state out of the ordinary – something special – that occurs by itself or is intentionally produced through some induction technique. Not all d-ASCs give rise to experiences ascribed as spiritual, but we would not be surprised to hear that some do, or that many cultures have practices for inducing d-ASCs in spiritual or religious contexts (Goodman, 1988).

It should be noted that I speak here of spiritual experience, whereas Taves (2009) and others speak of religious experience. As my usage of “religion” and “spirituality”, as per the above discussion, differentiates them from each other on the basis of institutionalization, a religious experience *qua* subjective experience is not, in principle, different from spiritual experience, although we might expect that a religious experience has been affected (in a constructivist sense) by the regulating institution in terms of both the content of the experience and the basis on which it was deemed to be religious. On the other hand, a spiritual experience, which by definition (in my use of the term) occurs in the absence of a regulating institution, would still be affected by what I have previously called generalized power, as expressed through symbols and ideas (but see Jones, 2020 for a critique especially of strong constructivism). Thus, both religious experiences and spiritual experiences are generally affected by discourse, and what characterizes the former is the presence of a religious power structure or institution that imposes regulation on discourse, and thereby (putatively) an indirect regulation on experience.

Taves’ focus on specialness as the criterion on which ascription is made seems particularly applicable to what is sometimes called “mystical experience”, which is often characterized by intensity of feeling and an intimate connection with some kind of transcendent reality. In her foundational study of mysticism, Underhill (1911/1999) stated that “the end which the mystic sets before him is conscious union with a living Absolute [...] which – transcending, as it does, all human powers of expression – he can only describe to us as *dark*” (p. 73; emphasis in original). This perceived inability to describe the object, as it were, of mystic experience, builds on a long Christian tradition of negative or apophatic theology exemplified by such historical figures as Meister Eckhart and St. John of the Cross. Such traditions may be found also in other religions, for instance in the *Bṛhadāraṇyaka Upaniṣad*, where Brahman is described only with the words *neti, neti* (not this, not that).

In an influential analytical work on mysticism, much cited and also much critiqued, Stace (1960) identified nine domains of mystical experience: i) internal unity or merging with ultimate reality; ii) external unity with all beings; iii) transcendence of time and space; iv) a sense of living presence in everything; v) noetic quality or attainment of higher knowledge; vi) sacredness or awe; vii) feelings of joy, peace and love; viii) paradoxicality; and ix) ineffability. We can see that these map particularly to Tart’s sense of identity, space/time sense, evaluation and decision-making, and emotions subsystems.

A prominent application of Stace’s nine dimensions is the Mysticism Scale developed by Hood and collaborators (Hood, 1975; Hood et al., 1993), which is commonly used as a system of measurement of lifetime mystical experience. Factor analysis of responses measured on this scale has revealed that the nine dimensions tend to cluster into three factors: one for introvertive mysticism, another for extrovertive mysticism, and thirdly a separate interpretation factor (Hood et al., 2001). Here the introvertive factor represents “an experience of nothingness” or pure consciousness without any substantive content, while the extrovertive experience “is one in which the self reaches a unity with the multiplicity of objects in the universe”; the third factor for its part constitutes an elaborated interpretation in more cultural-specific terms (pp. 692–693). The attained factor structure was found

to apply not only to various samples of Americans, but also to an Iranian Muslim sample, and was therefore taken as support of the view that there is a transcultural “common core” to all mystical experience (p. 704). Later studies in India and China have found somewhat divergent factor structures, however (see review in MacLean et al., 2012).

There is a long-standing debate as to the extent to which we should understand experiences with mystical-type characteristics to be culturally and linguistically mediated. Katz (1978, 1983) argued that there is no such thing as unmediated experience, thereby founding the highly successful constructivist or contextualist position that most observers recognize as dominant today (e.g., Jones, 2020). Along the way, Katz’ critics have sometimes maintained, for instance, that it is not for philosophers to impose conceptual restrictions on what mystics can or cannot do when it comes to the possibility of unmediated experience (Evans, 1989). I would also understand the abovementioned empirical evidence by Hood et al. (2001) – which they interpreted as indicating “that at certain basic levels of mysticism, Muslims had a Christian experience, and Christians had a Muslim experience (p. 704) – as a critique of constructivism. While strong constructivist positions are still subject to criticism (e.g., Jones, 2020), there is an overall consensus today that human experiences are generally mediated through conceptual and linguistic frameworks, and that these frameworks shape the experience. We will later examine aspects of entheogenic spirituality that suggest some constraints on the constructivist position, although not to the extent of challenging the underlying point of general cultural mediation.

Besides the Mysticism Scale, another commonly employed instrument for assessing mystical experience is known as the Mystical Experience Questionnaire (MEQ), which was developed by Pahnke (1969) for the evaluation specifically of drug-induced experiences. Like Hood’s Mysticism Scale, it is based on Stace’s nine dimensions, but the two instruments differ substantially in wording and structure, and a factor analysis of the MEQ revealed a divergent underlying structure with four separate factors (MacLean et al., 2012). These were labeled “mystical”, “positive mood”, “time/space” and “ineffability”, with the mystical factor including internal unity, external unity, noetic quality and sacredness (p. 733). The authors suggest several possible explanations for these structural differences, including the varying characteristics of the instruments of measurement and the specifics of the samples.

Mystical-type experiences have often been associated with paranormal experiences such as telepathy, clairvoyance, or contact with the dead. Hood et al. (2018) referred to a range of surveys that indicated a positive correlation between the two forms of experience, and concluded that “[p]ersons who report paranormal experiences often report mystical experiences as well, and vice versa. Seldom is only one type of experience reported” (p. 370). These surveys also seemed to indicate that paranormal experiences were at least as common as mystical experiences. Several studies have indicated a somewhat complicated relation between the two in relation to the religiosity of the survey respondents, however, which according to Hood et al. (2018) may reflect a resistance towards such experiences in many religious traditions. They cited one study by Orenstein that found paranormal experiences to be positively associated with religious belief, but negatively associated with participation in organized religion. It would be possible to understand this finding in relation to the difference between religion and spirituality, in my usage of these terms: thus paranormal experiences seem positively associated with spirituality as religion without institutions, but negatively associated with institutional religion.

The relationship between mysticism and spirituality has also been the subject of some discussion, with the two often being understood as closely related to each other. Streib et al. (2021) suggested using the Mysticism Scale as a measure for subjective spirituality, thus essentially equating the two

terms, whereas McGinn (2008) previously suggested that we should understand “mystical consciousness” as the link between the two. In the present text, however, I will prefer to see experiences with mystical-type characteristics as a form of spiritual experience, thus understanding the latter as a broader term than the former. There may be a number of reasons why a person would ascribe spirituality to an experience, and one of these reasons could be that the experience involves the dissolution of one’s sense of a separate identity along with an introvertive or extrovertive sense of unification. These two characteristics – ego death and unity experiences – will here be understood as the core characteristics of mystical-type experiences. While generally distinct from paranormal types of experience, we will see that some respondents to my studies have described a type of telepathic experience where their minds seemed to merge with that of one specific friend or partner, which resembles an extrovertive mystical-type experience in some ways.

If we follow Taves’ (2009) understanding that experiences are often ascribed spirituality on a basis of their specialness, there is ample conceptual space for such ascription of entheogen-induced experiences. Entheogenic experiences invariably involve special or altered states of consciousness, and therefore seem to readily lend themselves to spiritual attribution. Thus “[i]t has long been noted that there is an obvious similarity between various religious/spiritual experiences and drug-induced experiences” (Hood et al., 2009, p. 325). Or as they put it in a later version of this text:

There is little doubt that the facilitation of altered states of consciousness by entheogens is one of the ways in which those likely to identify themselves as spiritual can lay claim to a religious significance for the particular experiences that in Taves’s (2009) terminology are deemed to be religious (Hood et al., 2018, p. 348).

While the relationship between entheogens and spiritual or mystical experience is still controversial, there is little doubt that entheogen users often understand their induced experiences in this light (see Cole-Turner, 2014; Jones, 2019; Partridge, 2018 for approaches to this relationship on the conceptual level, and Griffiths et al., 2006; Pedersen, 2020; Pedersen et al., 2021; Strassman, 2001; Yaden et al., 2017 for empirical approaches). However, one challenge with characterizing entheogenic experience is that, as indicated above, it is often highly heterogeneous and unpredictable (Nichols, 2004, 2016). We can therefore expect no definitive exposition of entheogenic effects, but in the following I will present two noteworthy contributions: one from Watts (1968), based on self-experiments with LSD, mescaline, psilocybin, DMT, and cannabis, and the other from Shanon (2010), based both on self-experiments and interviews with 178 users of ayahuasca.

Watts (1968) ignored the effects on sense perception and concerned himself exclusively “with the fundamental alterations of the normal, socially induced consciousness of one’s own existence and relation to the external world” (p. 76). He discovered four dominant characteristics of these drugs: i) a slowing down of time and focus on the present moment; ii) an awareness of the interdependence between seemingly opposite things or events, feeling yourself “as the unified field of organism and environment” (p. 77); iii) an awareness of the relativity of personal identity, enabling you to see other I-centers as “yourself – not, indeed, your personal and superficially conscious ego, but what Hindus call the *paramatman*, the Self of all selves” (p. 78); and iv) an awareness of eternal energy, with the insight that “all existence is a single energy, and that this energy is one’s own being” (p. 79). These four characteristics obviously map well both to Stace’s dimensions and Tart’s subsystems, although they are in a sense more narrowly focused on the dissolution of time and personal delimited identity.

Shanon for his part focused particularly on visual perceptive effects, based on the observation that “the primary language in which Ayahuasca expresses itself is the visual one” (2010, p. 69). I cannot

hope to do justice to his encyclopedic elaboration of various effects here, and it should be noted that his exposition relates specifically to ayahuasca, whose effects should not be conflated with those of other entheogens. Nevertheless, much of what he stated at least about the general effects of ayahuasca has been said also about other entheogens, and probably has some degree of general validity. He described first of all a sensation of *otherworldliness*, where “[t]he feeling is that things are not as they used to be and one has the sense of entering into another, heretofore unknown, reality” (p. 59). With this otherworldliness comes other phenomenological features such as *beautification* and *sanctity*, as the ayahuasca drinkers “usually feel they are the recipients of utmost grace” (p. 61). There is the experience of *meaningfulness* and *insight*, where ayahuasca drinkers may “feel that they suddenly understand why things are as they are” and “discover the true senses of their own lives” (p. 60). Coupled with this is often a feeling of *enchantment* and *powerful energy*, where drinkers come to see that the world “is governed by invisible forces, energies, or beings,” and that “a tremendous force permeates and animates everything around” (pp. 60–61). While these effects seem distinctly non-ordinary (or special), Shanon maintained that it is also very common for ayahuasca drinkers to

feel that they are rediscovering a facet of their existence that is actually very basic, very much their own. It is as if life had estranged one from oneself and made one forget some very basic things pertaining to one’s very essence. Time and again, drinkers say that the brew brings them “back home” – to the true essence of their personality from which they have distanced themselves (Shanon, 2010, p. 62).

Whether such an experience of homecoming or return to the true essence of one’s personality can be regarded as special in Taves’ sense is perhaps debatable, since *being at home* might be regarded almost as the definition of a normal or non-special experience. Nevertheless, Shanon’s description of such homecoming narratives does seem to imply that this is, in fact, a special experience, which further implies that some kind of existential estrangement is a common human experience. Such a perspective of estrangement seems well aligned with Judeo-Christian myths of a fall from grace, but is perhaps more at odds with other religious traditions, and could therefore be regarded as culture-specific. The attribution of specialness to the experience of coming home, which is in daily life a normal event for most people, might also seem to further complicate Taves’ distinction between the normal and the special, since in this case the specialness of the experience is related to the assessment that what *should* be normal is actually rare.

I have previously emphasized the importance of including experience in analyses of religion and power, and this might seem especially pertinent for experiences mystical-type characteristics. Although this is not the place for a general analysis of authority in religion, an experience that might be described as a close encounter with the divine would seem to have an obvious claim to such authority. Furthermore, if the experience also includes paranormal characteristics that might seem to bend or break the laws of the natural world, this would probably strengthen its claim to religious authority. From a perspective of an analysis of religion and power, where we would presume that the people at the apex of the hierarchy are concerned primarily with maintaining their hold on power, it is not difficult to understand that the authority that might seem inherent to experiences with mystical-type and/or paranormal characteristics would be perceived as a potential threat to the power structure. The tension between two different sources of authority, one institutional and the

other experiential, might seem to entail some interesting power dynamics, with two obvious strategies of institutional power consolidation being to bring the source of experientially based authority into the fold of the institution (cooptation), or to negate this source of authority by demonizing and suppressing it. The former strategy would probably seem generally preferable, as this would allow for the expansion of institutional authority via the inclusion of a new instance of experientially based authority. Sometimes, however, the experiences in question may diverge too far from what the institutionally regulated discourse would allow for, in which case demonization and suppression might seem to be the only viable strategy. The treatment of Marguerite Porete and al-Hallaj may reflect such an approach to institutional power consolidation.

For further insight into the power dynamics inherent to the tension between institutional and experiential sources of authority, I will refer to Klass' (1995) model of hierarchical and non-hierarchical religions. Klass labeled the religious specialists for these two types of religion "priests" and "shamans", respectively, although it should be noted that he did not use these terms in exact compliance with their ordinary meaning. We should also observe that what Klass referred to as "non-hierarchical religions" would probably not qualify as religions at all according to the definition from Lincoln (2003) that is used here; instead, because of their lack of formal institutionalization, we should have to consider them as forms of spirituality. At any rate, the non-hierarchical religions of Klass' model impose few if any constraints on religious practices: the individual shaman is free to shape practices according to his or her wishes, and laypersons may play an active role in the proceedings. The shaman

is not part of any formal organization and lacks any corpus of written rules. [...] And if a shaman seeks information about attitudes or desires of divinities or ancestors or whatever, he or she is completely free to go directly to the source – which often means by way of some altered state of consciousness (Klass, 1995, p. 67).

In Klass' hierarchical religions, on the other hand, the hierarchy establishes dogma for proper rituals and acts as a link between the people and divine or transcendent realms. Laypersons are expected to take a more passive role, and the individual is not permitted to seek any form of independent contact with divine realms:

A priest is therefore subject to external authority: that of his present superiors in the hierarchy (where there is one) or that of the dogma written by those who have gone before him. He is not free to reinterpret or to devise new ceremonies or modify old ones. Most particularly, he is not free to seek independent divine guidance – that is, he may not jump the chain of command by communicating with whatever being or power lies above or beyond the formal human organization and literature (Klass, 1995, pp. 66–67).

I would interpret Klass' "independent divine guidance" as indicating a spiritual experience. In Asadian analyses of religion and power, such experiences serve as a potential threat against the authority of the power structure, and especially if it challenges the truthfulness of the orthodoxy over which the religious institution presides. From the perspective of the people at the apex of the institutional hierarchy, it might therefore seem important to contain heterodox forms of spiritual experience. Thus, in order to preserve the authority of the power structure, institutional religions might be expected to discourage practices that give ordinary people the impression of being in personal contact with divine or transcendent realms. As far as psychoactive drugs may elicit spiritual or mystical experiences, it would therefore be helpful to prohibit these drugs. As Fuller stated in his exposition of the role of drugs in American religious history:

The claim to mystical experience by lay members is an implicit challenge to the authority of the ordained clergy who are entrusted with guarding orthodoxy. Mystical experiences imply that

these individuals – on their own – have learned to initiate “contact” with the divine. This helps to explain why religious institutions often develop negative attitudes toward ecstasy-producing drugs (Fuller, 2000, p. 13).

Given these considerations on entheogenic experience and religious authority, we might expect to find institutional religion as a driving force behind the modern regime of drug criminalization, as established in particular by the United Nations’ 1961 Single Convention on Narcotic Drugs, 1971 Convention on Psychotropic Substances, and 1988 Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances. As far as I am aware, however, such an influence from religious organizations on drug policy has been clearly identified only for the suppression of opium use in the late 19th and early 20th century (Lazich, 2006; Lodwick, 1996; Pettus, 2016). Nevertheless, it has been argued that the impact from this religious criminalization campaign has been extensive:

It is not overstating the case to claim that, without the involvement of British and American missionaries in what was then called the Far East, and their multiple energetic home country “societies” and support groups in the centers of imperial power, the global narcotics control system as we know it today would not exist (Pettus, 2016, p. 53).

Furthermore, it is clear that religious organizations have sometimes defended the drug criminalization regime in the contemporary era. For instance, evangelical and Catholic representatives have resisted decriminalization efforts and blocked harm reduction initiatives on a number of occasions (Pettus, 2016). Such representatives have also explicitly warned against the spiritual use of psychoactive drugs (Ratzinger, 2010; Sullivan & Austriaco, 2016).

1.4 A brief history of spiritual or religious intoxication

It was noted above that almost every global culture uses some kind of induction technique to gain access to altered states of consciousness (Bourguignon, 1973; Goodman, 1988), and we have seen that entheogen use has the potential to provide such access. Furthermore, the characteristics of the states of consciousness that entheogens may provide access to seem well aligned with common frameworks for spiritual and mystical experience. This would lead us to expect that the use of entheogens in religious or spiritual contexts might be a rather common practice.

Sullivan et al. (2008) argued that exposure to plant-based drugs probably extends far into our evolutionary past. This assessment was based especially of new insights indicating that the cytochrome P450 system, which plays an important role in the detoxification of plant chemicals, is far older than previously estimated. Mammals have therefore been genetically equipped to deal with psychoactive drugs throughout their genetic history. This observation seems to indicate that our primeval ancestors were exposed to such drugs, and thus

It seems quite probable that many eons ago, at the dawn of human existence, our early ancestors discovered the mind-altering potential of certain plants during the exploration of their environment for food (Nichols & Chemel, 2006, p. 5).

Supporting this notion of proto-human drug use is the fact that animals in the wild are sometimes avid drug users (Samorini, 2002; Siegel, 1989/2005). Of course, even if drug use in general is evolutionary ancient, this does not necessarily entail that the use specifically of entheogenic drugs in religious or spiritual contexts is similarly ancient. Nevertheless, as this section will seek to demonstrate, there is evidence that human cultures have long used psychoactive drugs for religious purposes. While there is barely space here to scratch the surface of what is known about the history of religious or spiritual intoxication, I will in the following review evidence indicating that such

practices have been, and to some extent still are, widespread. According to Fuller (2000), there are at least 150 species of plants across the globe that are known to be used for intoxication, and “[n]early every society in world history has regarded at least one of these intoxicating plants as having religious significance” (p. 3). The use of psychoactive drugs in spiritual practice might therefore be regarded as a majority trend among global cultures. The following whirlwind tour will briefly review some archaeological evidence primarily from prehistoric times, some pre-modern textual sources, and some anthropological accounts of indigenous (or “first”) peoples and European folk traditions in modern times. This leads up to a discussion of the “entheogenic revival” in western cultures from the mid-20th century onwards. In this discussion, I sometimes mention evidence of psychoactive drug use in contexts that are not readily identifiable as spiritual or religious, which I take as evidence indicating simply that these drugs were known to the specified cultures. This opens for the possibility that these drugs would also see some kind of spiritual or religious use, without positively identifying such contexts for use.

Archeologists have abundant evidence of psychoactive drug use among prehistoric and early historic cultures (Samorini, 2019). Interpreting these findings as indications of religious usage is common at least among some schools of archaeology, although it is generally difficult to obtain firm evidence for the specific context of the drug use indicated. Sherratt (1991) described two burial sites in late third millennium Eastern Europe containing charred seeds of *Cannabis sativa* in “pipe-cups”. At the same time, cannabis was cultivated in China (Fleming & Clarke, 1998), and there is evidence indicating its ritual use (Jiang et al., 2006; Ren et al., 2019). Cannabis has also been discovered on what was interpreted as altars in the 8th century BCE Judahite shrine at Tel Arad, indicating a role in worship (Arie et al., 2020). Further north, abundant cannabis seeds and pollen were found at the Mesolithic site known as Abora in Latvia (Zvelebil, 2008), and pollen-analytical studies indicate the cultivation of cannabis around the Oslo fjord and parts of Sweden from the late first millennium BCE (Fleming & Clarke, 1998). Petroglyphs from the same area and period have been interpreted as evidence of mushroom use (Kaplan, 1975). A Viking-age burial site with hundreds of henbane (*Hyoscyamus niger*) seeds, among other exceptional objects, was interpreted as evidence that the woman there interred was “a priestess, a seer, someone in touch with the other world” (Hall, 2007, p. 173). In the Americas, seeds of the so-called mescal bean (*Sophora secundiflora*) and San Pedro cacti (*Trichocereus pachanoi*) have been discovered in association with human shelters from the end of the ninth millennium BCE, while peyote buttons (*Lophophora williamsii*) have been discovered at a site dating to the fourth millennium BCE (Guerra-Doce, 2015). The earliest of the well-known “mushroom stones” of Central America date back to the first millennium BCE, and the practice continued until the arrival of the Spaniards (Devereux, 2008; Rodríguez & Arce, 2019).

Textual sources make the relation between drug use and religion more explicit. The paradigmatic case is the Indian *R̥gveda* with its many hymns to *Sóma*, which is both a drug and a divinity (e.g., Clark, 2019). A direct parallel is found in the Zoroastrian *Avesta*, parts of which are dedicated to *Haoma*. The use of psychoactive drugs in religious contexts has remained part of Indian culture into the present day, with especially cannabis being offered for sale in certain holy cities, such as Puri in Orissa, and being in common use among wandering *sadhus* (Russo, 2005). According to Gnanadason (1996), cannabis is considered to have been part of Indian religious traditions for thousands of years. Scholars have also documented prominently displayed mushroom sculptures at Khajuraho (Maillart-Garg & Winkelmann, 2019) and in Kerala (Samorini, 2001, 2012) that seem to indicate a special role for mushrooms in rituals. Zoroastrians in contemporary Iran and India for their part use the stimulant *Ephedra sinica* in religious rituals (Pendell, 2010).

In New Kingdom Egypt, the 16th century BCE *Ebers* papyrus indicated opium and cannabis for certain illnesses (Aboelsoud, 2010). Meskell (2002) identified a number of references to mandrake (*Mandragora officinarum*) in the love poems of this period, and suggested that the mandrake fruit “may have been used at festival times to enhance an experience psychoactively or may have been used more regularly as a magico-medical ingredient” (p. 152). The 14th century BCE *Book of the Heavenly Cow* presented *Hathor*, goddess among other things of love and intoxication, as a bloodthirsty lioness whose wrath can be mollified only by seven thousand jugs of mandrake beer (Rätsch, 2005, p. 349). Traces of cannabis have been found in the tomb of Amenophis IV and on the mummy of Ramses II (Manniche, 1989). More controversially, tetrahydrocannabinol (THC), which is the main active compound in cannabis, was found along with nicotine and cocaine in the hair, muscle tissue, and bone tissue of mummies spanning the period from the Third Intermediate Period to the Roman Period (Balabanova et al., 1992; Parsche & Nerlich, 1995; for a critique see Buckland & Panagiotakopulu, 2001).

There is a long-standing dispute over whether the *kaneh bosm* (“fragrant cane”) of the Torah is cannabis or calamus, as per the 3rd century Greek translation. One piece of evidence favoring the former is that Israelites buried their dead in *kanabos* shirts, for which purpose cannabis fibers are well suited and calamus is not (Nemu, 2019); the identification as cannabis is also supported by the abovementioned recent discovery of cannabis at the altar of a Judahite shrine (Arie et al., 2020). Other archaeological evidence from Israel includes an apparently ingested piece of cannabis found in the abdominal area of a skeleton of a 14-year old girl who died in childbirth, dated to the late Roman period (discussed in Merlin, 2003). While most likely indicating medicinal use, the identification of cannabis in the Levant of late antiquity is evidence that some groups in this area utilized the plant, and were probably aware of its psychoactive properties.

References to drug use are also found in the *Odyssey* of archaic Greece. In the fourth book (verses 228–230), Helen serves a round of wine spiked with the now unrecognizable drug *nepenthe*, which she had obtained in Egypt –

For Ægypt teems with drugs, yielding no few
Which, mingled with the drink, are good, and many
Of baneful juice, and enemies to life.

Infusion of drugs in alcoholic drinks is a known Egyptian practice, and apparently the Greeks imported this tradition and spread it to other Mediterranean and Northern European cultures:

The Greeks did a great deal to develop the use of herbs in Mediterranean cuisine and were fond of spicing wines and meads. [...] Medicinal herbs would have been served in two ways by their infusion into mead: the alcohol would have been a better extractant for their medicinal compounds, and the mead would have masked unpleasant flavors from some medicinal plants (Schramm, 2003, p. 8).

It is worth noting that classical authors sometimes seem to refer to such reinforced wine simply as “wine”. However, “[l]ike the wine of most primitive peoples, Greek wine did not contain alcohol as its sole intoxicant but was ordinarily a mixture of various inebriants” (Wasson et al., 1978/2008, p. 99). The black wine that Odysseus carries – which is supposed to be mixed with twenty parts of water, and proves sufficient to knock out a cyclops – might be an example of such a reinforced wine. As Classical Greece did not know of distillation, the same can probably be said for the *Falernian* or *Mareotic* wine mentioned by Fulgentius (in Trzaskoma et al., 2004, p. 112), “which is so strong that even a drunkard could scarcely drink a pint over the course of a month.” Ruck (in Wasson et al., 1978/2008, pp. 101–102) similarly mentioned a certain Erasisenus, who is supposed to have died

from drinking two glasses of wine, as well as a reinforced wine that is said to have been used in the Dionysian festival *Anthesteria*. A magico-religious context for Greek drug use is also found in the *Argonautica* of Apollonius, where Medea repeatedly influences the narrative with an assortment of *pharmaka*.¹ There is also evidence indicating the use of entheogens in the Eleusinian Mysteries (e.g., Kerényi, 1967), with one theory pointing specifically to an ergot-infused beer that would putatively produce LSD-like effects (Wasson et al., 1978/2008). Support for this theory was found in the late 1990s in an excavation of what has been called “a sanctuary dedicated to Demeter and Kore-Persephone” (Juan-Tresserras, quoted in translation by Muraresku, 2020, p. 146) in Catalonia. Subsequent chemical analysis confirmed the presence of ergot in the remains of a drinking cup found in this sanctuary, with circumstantial evidence indicating that its consumption may have been intentional. These findings were originally published only in Catalan (Pons, 2002), and were therefore largely overlooked by scholars outside of Catalonia, but were recently presented in English by Muraresku (2020). Dannaway et al. (2006) have also identified psychoactive preparations of ergotized wheat in Islamic traditions, and pointed to fieldwork from Lebanon suggesting that such uses may have survived as late as the 1950s (Phillips, 1958).

The suggestion of entheogen use in antiquity is controversial, and it may be helpful to consider some related evidence that does not have a clear religious context. One interesting archaeological site in this regard is the Villa Vesuvio near Pompeii in Southern Italy, which was buried by the eruption of Vesuvius in 79 CE (Ciaraldi, 2000). At this farmhouse, excavators found an assemblage of psychoactive and medicinal plants including opium, cannabis, and henbane. Ciaraldi suggested that the most likely context for this unusual assemblage was that the Villa Vesuvio was a site of drug preparation, although she acknowledged that other interpretations were possible. Regardless of how the site is interpreted, however, it does seem to indicate that the use of drugs such as cannabis was known to the Roman world of the 1st century CE. Given the context of several kinds of psychoactive plants, it seems improbable that the cannabis cultivated here was valuable only because of its fibers.

At about the same time as the eruption of Mount Vesuvius, Christianity started spreading in the broader Mediterranean region. While the notion of early Christian use of psychoactive drugs in rites of worship is highly controversial, there appears to be a substantial amount of iconographic and (perhaps) textual evidence indicating that some early Christian congregations had a close relationship with such drugs that at least merits further investigation (Allegro, 1970; Brown & Brown, 2019; Merkur, 2001; Muraresku, 2020; Ruck et al., 2000; Rush, 2008, 2011; Samorini, 1998, 2001). Of course, we should recognize that mushrooms have nutritional and culinary value and may be depicted in works of art on that account. With that said, there are (apparent) mushroom trees depicted in a fresco in the Abbey of Saint-Savin-sur-Gartempe, dated to about 1100, in a 12th century fresco in the church in Vic, and in the 12th century Chapel of Plaincourault, all in central France, as well as in the 11th century fresco from the church in Sant Sadurní d’Osormort in Catalonia (Samorini, 1998, 2001). A mushroom motif has also been identified on a capital in the Romanesque basilica at Vézelay (c. 1135), central France, that depicts the struggle between David and Goliath, and the floor of the 4th century church in Aquileia, Italy, presents the unambiguous depiction of a basket or cauldron of mushrooms (Samorini, 2001). Furthermore, there appears to be unambiguous depictions of *Amanita muscaria* mushrooms in chalices in the mosaic in the ceiling above a side chapel in the Lateran Baptistery (c. 500) in Rome and of a centrally positioned mushroom in the mosaics of the apse of the Basilica di Sant’Apollinare in Classe (c. 550) in Ravenna (Rush, 2011). The

¹ The Pocket Oxford Classical Greek Dictionary translates φάρμακον (*pharmakon*) as ‘drug, medicine, remedy; poison, enchanted potion’, while φαρμακεία (*pharmakeia*) is translated as ‘the use of drugs or spells; poisoning, witchcraft; medicine’. Drugs and magical practices thus seem inextricably related in ancient Greece.

Prick of Conscience window in the All Saints' Church in York (North Street, c. 1410) also presents several unambiguous depictions of mushrooms, and Bacci (2015, p. 55) identified "ornamental bands with mushrooms sprouting from vegetal scrolls" in the mosaic at the north wall of the nave of the Nativity church in Bethlehem (c. 1155–1169). Moreover, a mushroom-tree motif has been identified in medieval psalters such as the 9th century Utrecht Psalter and the 12th-13th century Canterbury Psalter, as well as in the 14th century Egerton Genesis and in 15th-16th century Book of Hours illustrations (Benson & Tselos, 1931; Pächt, 1943; Rush, 2011). A mosaic in St. Marks Basilica in Venice appears to depict Christ flanked by several mushrooms (Rush, 2008, 2011). In addition, a number of hidden or semi-hidden mushrooms have been identified in Christian art. A Byzantine 12th century illuminated manuscript known as the Homilies of James of Kokkinobaphos depicts Cain and Abel seated on a distinctly mushroom-shaped red hill with a white stem (Biblioteca Apostolica Vaticana, 2021). While the above evidence should not be uncritically accepted, it should also not be uncritically rejected, and the (putative) fact that the authors presenting this evidence have sometimes overinterpreted it is not in itself reason to reject the evidence altogether.

The use of psychoactive drugs among indigenous peoples in modern times is well documented in anthropological literature. In Siberia, Chukchee, Koryak, Kamchadal, and Yukagir use of *Amanita muscaria* is attested from the early modern period "to facilitate communication with the supernatural, to divine the future, to diagnose the cause of illness, and for general enjoyment on festive occasions such as weddings, when it was offered to guests" (Dobkin de Rios, 1990, p. 32). In the Amazon basin, the ayahuasca drink, which traditionally mixes *Banisteriopsis caapi* with a DMT admixture such as *Psychotria viridis*, has been used for ritual and healing purposes since pre-Colombian times (Dobkin de Rios, 1972; Naranjo, 1979). Central and North American use of *Psilocybe cubensis* ("magic mushrooms") and peyote (*Lophophora williamsii*) is well attested, as is the South American use of the San Pedro cactus (*Trichocereus pachanoi*) (Dobkin de Rios, 1990; Hultkrantz, 1996, 1997; Fuller, 2000; Devereux, 2008). *Tabernanthe iboga* is used for ritual and healing purposes in much of West and Central Africa, and *Cannabis sativa* has a long history of use in South Africa (Deacon & Deacon, 1999; Rättsch, 2005). In Islamic cultures, the use of cannabis has been common among certain Sufi sects, and such cannabis use spread to sub-Saharan Africa and, via the colonial-era slave trade, became an integral part of syncretic religious practices in Latin America (Rosenthal, 1971; Warf, 2014).

European folk traditions are also suffused with psychoactive drugs. Eliade (1970) described the traditional use of mandrake for love magic and healing in his native Romania, and recipes for flying ointments of witch-hunt fame often include psychoactive plants such as wolf's bane (*Aconitum*), hemlock (*Conium*), deadly nightshade (*Atropa belladonna*), henbane, opium, and mandrake (Fuller, 2000; Devereux, 2008; Sidky, 2015). Henbane was also used as an admixture to beer until the Bavarian Purity Law of 1516 specifically forbade such brewing practices (Rättsch, 2005, p. 728).

Despite this cultural heritage, spiritual practices involving entheogens are practically unheard of in early industrialized Europe. Yet the newfound innocence in the ways of spiritual intoxication was not to last. With their growing empires, Europeans found themselves in control of peoples with long-standing cultural traditions involving intoxicant use, as well as of trade routes spanning the globe. Soon enough these traditional intoxicants appeared as commodities for sale in European ports, and De Quincey (1821/1994) could inaugurate the modern tradition of drug literature by describing his own use and abuse of opium; his reported ecstasies included visionary encounters with Egyptian and Indian deities. Samuel Taylor Coleridge, Elizabeth Barrett Browning, John Keats and other luminaries of Romanticism also indulged in opium-induced reveries, and in Paris, the mid-century literary and intellectual elite could gather for experiments with hashish in the *Club des Hashischins* (Fuller, 2000).

It would probably be correct to describe this use as aesthetically rather than spiritually motivated, and although the 19th century also saw the rise of modern western esotericism with groups such as the *Theosophical Society* and the *Order of the Golden Dawn*, little is known about the drug habits of those involved. The exception is Aleister Crowley, who was infamous for his heroin and cocaine use and published his *Diary of a Drug Fiend* in 1922.

The reemergence of entheogen-induced spirituality into western mainstream awareness would have to wait until the post-war era. Its watershed moment was probably the publication of Aldous Huxley's (1954/1994) *The Doors of Perception*. Huxley had a long-standing interest in *Vedānta*, and interpreted his experiences on mescaline – the active ingredient of peyote – accordingly. His 1945 vision of *The Perennial Philosophy*, seeing a shared universal truth behind the world's religions, was empowered by subsequent drug-induced experiences which, he believed, “allowed him to bypass the filtering functions ordinarily imposed upon experience by our limited physical senses” (Fuller, 2000, p. 58). Thus with his doors of perception cleansed by mescaline, as he perceived it, he gained access to what he understood as an unconditioned and primeval view of the world.

Within a decade of the publication of *The Doors of Perception*, the entheogenic revival had reached the magnitude of a mass movement. The drug of choice was not Huxley's mescaline, however, but Albert Hofmann's recently discovered LSD – along with cannabis and a rapidly growing field of other psychoactive plants and chemicals. It is probably no coincidence that this was also a period of rebirth for the tradition of western esotericism – but this time in a scaled-up version that, per the terminological discussion above, I will refer to as “the new spirituality (or New Age) movement” (e.g., Hanegraaff, 1996).

Characterizing the new spirituality (or New Age) movement is complicated by its eclecticism. Like earlier esoteric movements such as the Theosophical Society, it is often characterized as being strongly influenced by Eastern, and especially Indian, traditions, and also by strands of western occultism involving practices such as astrology and magic (Gilhus & Mikaelsson, 2005). Although described as western, the cultural history of these practices stretches back via renaissance figures such as Giovanni Pico della Mirandola and John Dee into the classical Roman and Greek worlds, and from there into Egypt and Babylonia (Campion, 2008–09; Luck, 1985). Unlike earlier western esoteric movements, however, the new spirituality (or New Age) movement is often understood to include (somewhat romanticized) reinventions of the religious practices of various indigenous peoples, which are sometimes labeled “shamanism” (e.g., Harner, 1980).

Interpreters of the new spirituality (or New Age) movement have often pointed to the emphasis on self-development as one of its primary characteristics (Hanegraaff, 1996; Heelas, 1996). Inspired by Eastern religions as well as the *individuation* of Jung (1969, 1971) and *self-actualization* of Maslow (1962/2014) – and with an eye to Socrates and the famous inscription at the Temple of Delphi – this movement values self-knowledge and interiorized developmental processes. These processes are furthermore seen as involving a series of “special” experiences – characterized variously with terms such as *peak experiences* (Maslow, 1962/2014), *Kundalini awakenings* (Greenwell, 2002), or *initiations* (Matthews & Matthews, 2003) – accompanying or manifesting the development of the self. This emphasis on self-knowledge and self-development is sometimes referred to as a psychologization of religion (e.g., Anderstuen, 2014; Sutcliffe & Gilhus, 2013). While not regarded as necessary for this process – and indeed sometimes being frowned upon – there seems to be ample conceptual room in this spiritual program for entheogen-induced altered states of consciousness.

Within a few years, however, the entheogenic revival was met with conservative reaction in the form of the so-called war on drugs. This led to the rise of what Fuller (2000) called “the religious

underground”: a movement of mostly disorganized groups and individuals engaging in the use of entheogens in spiritual contexts outside the boundaries of law. Because of the legal status of their practices, such individuals – although with some notable exceptions – have tended to avoid publicity, but in recent years this situation appears to be changing, as the religious underground is arguably becoming more mainstream.

In summary, this brief historical overview should suffice to demonstrate that the use of psychoactive drugs in religious contexts has been widespread across a broad selection of global cultures. The restrictive attitude to intoxicants that we find in modern Christianity, Islam, and Buddhism is therefore not characteristic of religion in a globally spatial and temporal perspective, and the drug-infused spirituality that remerged in the western world especially from the 1960s onwards was clearly not lacking in terms of historical precedents.

1.5 Studies on spiritual entheogen use

Research on the spiritual aspects of entheogen use goes back at least to Huxley’s (1954/1994) self-experimentation with mescaline, which he described in terms of the Catholic “gratuitous grace” (p. 51). More systematic experiments followed in the 1960s, when Pahnke (1966) conducted a double-blind controlled study that ministered psilocybin and nicotinic acid as an active control to ten pairs of Harvard theology majors in preparation of a Good Friday service, and found that nine out of ten people in the experimental group and only one person in the control group subsequently reported religious or mystical experiences during the service. The validity of this finding was confirmed by a six-month follow-up questionnaire, and also by follow-up interviews conducted by Dobbin (1991) a quarter century later, which found that “[t]he experimental subjects unanimously described their Good Friday psilocybin experience as having had elements of a genuinely mystical nature and characterized it as one of the highpoints of their spiritual life” (p. 13).

Due to legal restrictions, these lines of research were curtailed from the 1970s onwards, but recent policy changes in regulatory agencies have brought experimental studies back on the table and given new impetus to entheogenic research agendas. In my assessment, it is primarily psychologists who have been responsible for this development, and I will start out by discussing this psychological research before turning to the generally more recent contributions from scholars of religion.

Strassman’s (2001) study from the early 1990s set the stage for what was to come with a carefully designed research protocol for the “reexamination of the human psychobiology of the tryptamine hallucinogen of abuse, N,N-dimethyltryptamine (DMT)” (pp. 89–90). He categorized the experiences of his volunteers as *personal*, *invisible*, or *transpersonal*, with *invisible* indicating “an encounter with seemingly solid and freestanding realities coexisting with this one” and *transpersonal* involving “near death and spiritual-mystical experiences” (p. 155). As an example of the latter he offers the testimony of a volunteer named Cleo, who during a DMT session was encouraged by inner voices to stop looking for God outside herself and then turned her attention inwards, resulting in an epiphany where she experienced “[t]hat God is in everything and that we are all connected” (p. 238). Cleo later wrote Strassman to say that “I am changed. I will never be the same. To simply say this almost seems to lessen the experience. I don’t think that anyone hearing or reading this can truly grasp what I felt” (*ibid.*). However, Strassman was disappointed by the fact that a number of such peak experiences did not seem to have any obvious long-term implications: none of his volunteers “began psychotherapy or a spiritual discipline to work further on the insights they felt on DMT” (p. 276).

This concern about the long-term value of entheogenically induced epiphanies is common, and was voiced as early as 1964 in Smith's (reprinted with modifications in 2000) article about the religious import of drugs. According to Smith, "[d]rugs appear to be able to induce religious experiences; it is less evident that they can produce religious lives" (p. 30). There is however conflicting evidence: an editorial in the western Buddhist magazine *Tricycle* did for instance claim that "[f]or the new Buddhists of the 1960s and 1970s it was a rare bird indeed who came through the dharma gates totally independent of 'mind-expanding drugs'" (Tworkov, 1996, para. 1), indicating that drug-induced spiritual experiences can lead to long-term spiritual practice at least for some individuals. Osto's (2016) study of the use of psychedelics in American Buddhism also indicates that, for many people, psychedelics opened a door to long-term engagement with Buddhist practice, some of whom continued to combine these practices as a form of "psychedelic Buddhism". More generally, Hood et al. (2009) similarly reported that

The high rate of former drug use among members converted to new religious movements is well documented. In some new religious movements, the rate of former drug use is reported to be almost 100% (p. 240).

Walsh (2003) may have had a point in this regard when he claimed that "the transformation of experiences and insights into enduring change is one of the challenges of transformative disciplines in general," (p. 4) and that it is therefore not a limitation specific to the use of entheogenic drugs. A burst of research on entheogens during the last two decades sheds some light on this controversy. In a now famous double-blind study of "the acute and longer-term psychological effects of a high dose of psilocybin" (Griffiths et al., 2006, p. 268), thirty volunteers without previous entheogenic experience received psilocybin or methylphenidate hydrochloride (Ritalin) as an active control in individual eight-hour sessions. Assessments of drug effects and mystical experience were conducted immediately after sessions and as a two-month follow-up, with the latter including ratings of changes in attitudes and behavior by community observers. Results were strongly positive, with participants returning high scores on a mysticism scale developed to assess primary mystical experiences, and with two-thirds furthermore scoring the psilocybin session as being among the top five most personally meaningful experiences of their lifetime. These findings on the attribution of personal meaning and spiritual significance to the use of psilocybin endured in a 14-month follow-up (Griffiths et al., 2008), and measurements of personality change also found significant increases in the personality domain of openness more than one year after the session (MacLean et al., 2011). A similar increase in openness was observed in a two-week follow-up questionnaire among participants in a study of the biological effects of LSD (Lebedev et al., 2016).

In more recent research, Griffiths et al. (2018) examined how psilocybin-induced mystical experience would affect participants engaged with meditation or other spiritual practices. They found that participants who received a high dose of psilocybin showed "large significant positive changes on longitudinal measures of interpersonal closeness, gratitude, life meaning/purpose, forgiveness, death transcendence, daily spiritual experiences, religious faith and coping, and community observer ratings" (p. 49). In hierarchical regression models, the intensity of the psilocybin experience and the rates of engagement with spiritual practice were found to contribute significantly to these positive outcomes. A different study by Timmermann et al. (2018) compared the subjective effects of DMT to near-death experiences, hypothesizing "that DMT would induce near-death type experiences of an equivalent intensity to those seen previously in the context of 'actual' NDEs, and to a significantly greater extent than in the placebo condition" (p. 2). Their results supported this hypothesis, as all 13 participants who received DMT injections scored above threshold on the Near-Death Experience scale, indicating substantial overlap between the two types of experience.

Survey data on users of entheogenic drugs support the notion of an association between entheogen use and spirituality. Lerner and Lyvers (2006) obtained cross-cultural samples from Israel (110 respondents) and Australia (73 respondents) and found that users of psychedelic drugs “scored significantly higher than users of other illegal drugs and nonusers on mystical beliefs, such as oneness with God and the universe, the illusory nature of physical existence, and the presence of a transcendental reality” (p. 146). They were also found to be less materialistically oriented than the two other groups. In a study of 337 respondents, Lyvers and Meester (2012) found that the “use of LSD and psilocybin was significantly positively related to scores on two well-known indices of mystical experiences in a dose-related manner, whereas use of MDMA, cannabis, cocaine, opiates and alcohol was not” (p. 410). Similarly, Carhart-Harris and Nutt (2010) obtained over 600 responses from hallucinogen users, of which 18% answered “probably yes” and 63% “definitely yes” to the question of “whether they had ever had a ‘spiritual experience’ while under the effects of a hallucinogenic drug” (p. 288). This survey also asked about perceived health effects, and about two thirds of LSD users reported a positive or very positive long-term effect on wellbeing, while about 60% of psilocybin users, 50% of MDMA users and 40% of cannabis users reported the same. Benefits included alleviating depression, anxiety and insomnia, as well as “improved insight, perspective, self-understanding and acceptance, resolution of existential anxieties, help with mourning and a reduced fear of death, improved optimism, self-esteem and an increased sense of spirituality” (p. 291). Minorities of 14% (LSD), 12% (psilocybin), 21% (MDMA), and 38% (cannabis) of respondents commented on adverse effects and health risks, which included paranoia, panic attacks, psychotic symptoms, anxiety and depression. A roughly simultaneous study with 667 respondents sought to investigate the differences between users of psychedelic drugs, users of other drugs, and nonusers, and found that “the use of psychedelic drugs with a purpose to enhance self-knowledge is less associated with problems, and correlates positively with coping and spirituality” (Móro et al., 2011, p. 188). More recently, Yaden et al. (2017) recruited 739 participants to a survey of religious, spiritual, or mystical experiences, of whom 347 indicated that the experience was psychedelically induced. Comparing the psychedelic and nonpsychedelic experience, they found that the former were rated as more intensely mystical and resulted in a larger reduction in fear of death, a larger increase in one’s sense of purpose, and a larger increase in spirituality. Finally, Heide et al. (2021) studied the respondent-perceived spiritual benefit from cannabis, finding that about two-thirds of their 1087 respondents endorsed obtaining such benefit. The authors interpreted their results as suggesting that “spiritual motives for cannabis use may be widespread” (p. 1).

Interestingly, entheogens sometimes induce personality-transforming spiritual experiences even in committed atheists. One of Anderstuen’s (2014) participants described himself as an atheist, yet reported an intensely emotional encounter with “god” on DMT (pp. 58–59). Another man (in Saunders et al., 2000) described the impact of an LSD trip on his atheist beliefs as follows:

The only faith I had when I had my first spiritual experience was faith that there was no God, only science. [...] I was so against religion that I was preaching atheism to all my friends. But this experience was so powerful that I was changed in a moment (pp. 34–35).

The first quantitative confirmation of this interesting dynamic is found in a recent study by Griffiths et al. (2019), which recruited 4285 participants to a survey of “God-encounter experiences”. Comparing the psychedelic group (N = 3476) to the non-drug group (N = 809), they found “striking similarities in the details and consequences of the encounter experiences” between the two groups (p. 15). In both groups, about 75% rated the encounter to be among the five most personally meaningful and spiritually significant experiences of their lives, and “[m]ore than two-thirds of those who identified as atheist before the experience no longer identified as atheist afterwards” (p. 1), with reductions from 3% to 1% for the non-drug group and 21% to 8% for the psychedelic group.

Besides this line of psychologically oriented research, there is also a long-standing research tradition related to entheogen use among indigenous peoples that was briefly reviewed above (Dobkin de Rios, 1972, 1990; Hultkrantz, 1997; Labate & Cavnar, 2014; Maroukis, 2012; Naranjo, 1979). What has remained less developed, nevertheless, are studies on entheogenic spirituality among modern westerners, although recent years have seen more work in this area. In my assessment, however, this field is largely in its infancy. As Hood et al. observed as recently as in 2018: “Curiously, very few studies to date have used religious variables for directly assessing the religious importance of entheogens” (p. 348).

One early contribution analyzed the relationship between Buddhism and what the author called psychedelic spirituality in the United States (Osto, 2016). According to Osto’s research, entheogens frequently served to open the door to Buddhist practice, echoing similar assessments cited above (Hood et al., 2009; Tworkov, 1996). Some respondents subsequently discontinued their entheogen use, focusing instead on more conventional forms of Buddhist practice, while others continued to use entheogens as an adjunct to conventional practice. Some 49% of respondents regarded the two as compatible, and 37% agreed or strongly agreed with the proposition that “Psychedelic substances have religious value within the practice of Buddhism” (p. 139).

Other scholarly efforts in this field have often maintained the focus on institutional religion, for instance with regard to the Church of the Universe, the Church of Cognizance, or similar groups in North America, whose focus is often on gaining legitimacy and legal recognition for their use of entheogens in religious practice (Cozad, 2018). In Brazil, institutionalized use of ayahuasca for religious purposes has been legal since the early 1990s, and there is a substantial body of scholarly work, much of it in Portuguese, related to these religions and their spread to the rest of the world (for an overview see Dawson, 2017).

In a western context, however, such organized entheogen-using religious groups are rather unusual, and it is not my impression that they are representative for the spiritual entheogen movement in general. As we will see below, there was not a single respondent in my studies who reported to be a member of such an organized religion, nor any who expressed a desire to join one. As I understand the western spiritual entheogen movement, the lack of any formal organization or institutionalization is one of its defining characteristics, and is reflected in how its members describe their spirituality. While studies of institutionalized expressions of entheogenic spirituality – what we might call entheogenic religion – are interesting in their own regard, the tendency to organize oneself into formal hierarchies and institutions is, in my analysis, quite peripheral in terms of its relationship with the broader movement.

Besides this work on entheogen-using institutional religions, scholars of religion have tended to approach entheogenic spirituality either on a conceptual level (Ellens, 2014; Kruger, 2020; Richards, 2014, 2015; St John, 2016) or with regard to the entheogenic movement’s leading figures (Davis, 2020; Monteith, 2016; Partridge, 2020; St John, 2018). While the contributions from such leading figures are obviously of interest, I am not convinced that these people are quite as authoritative in the eyes of ordinary spiritual entheogen users as the scholarly works cited above might seem to indicate. As an extension of the theme of institutionalization discussed above, it seems clear to me that while the entheogen movement has a variety of leading figures, it has no leaders. This is obvious in one sense, as the absence of a formal hierarchy necessarily entails the absence also of positions at the apex of such a hierarchy. In my analysis, however, the lack of leadership extends also to more informal positions of authority, and is arguably as characteristic of this movement of entheogenic spirituality as the lack of formal organization.

I will return to these issues in my concluding discussion below. For now, I will only observe that while scholars of religion have scaled up their investigations of spiritual entheogen use in recent years, they have not focused very much on what I take to be its central aspect in the modern western world, which is entheogen use among ordinary individuals or informal groups as a form of spiritual practice. Psychologists have often tried to fill this gap of knowledge – and sometimes with great success – but have tended to overemphasize certain aspects of this phenomenon, for instance with their focus on experiences with mystical-type characteristics. Arguably, therefore, there is a need for the type of investigation that combines the psychologists’ interest in ordinary individuals with scholars of religion’s understanding of the broader complexities and varieties of spiritual phenomena. After discussing a range of methodological issues pertaining to my studies of entheogenic spirituality in the following section, I will return to the above issues and show how my studies contribute, in their explorative and preliminary ways, to their resolution.

2. Methods

Each of the articles in this dissertation includes its own discussion of methodological approaches and dilemmas, and often with considerable overlap since the articles are based on the same studies. I see no reason to repeat this information here, and instead use this section to discuss some broader methodological issues that the article format, with its emphasis on textual economy, leaves little space for. Thus, Section 2.1 provides an overview of a few overall epistemological concerns related to the inherent difficulties in studying spiritual and mystical experience, and especially so when the means of inducing such experience are criminalized. Section 2.2 deals with gender issues, where the first issue is that female perspectives and experiences seem to be systematically underrepresented in drug studies, and the second is a discussion and critique of how the Cannabis and Psychedelics User Survey dealt with non-binary participants. Section 2.3 thereupon discusses some foundational issues pertaining to recruitment and data collection. All the interview studies in this project have been based on written exchanges transmitted over the internet, which I believe was a very successful form of data collection with unique advantages specifically for the prospect of interviewing users of illegal drugs, and which probably holds similar advantages for other sensitive topics where respondents prefer to remain anonymous. In Section 2.4, I discuss some ethical considerations concerning in particular the need to preserve participant anonymity, and in Section 2.5 I consider to which extent my statistical analyses conform to the assumptions underlying such analyses, with regard especially to normality, homoscedasticity, and multicollinearity.

2.1 Epistemological overture

The basic methodological requirement for each of the empirical studies involved in this dissertation was to gain access to participants with experience in the use of entheogenic drugs, and have these participants describe or characterize such experience in a truthful manner. While seemingly straightforward, this is in truth an ambitious research program that brushes up against a number of epistemological challenges.

A first level of uncertainty relates to the controversy as to whether entheogens bring about “genuine” spiritual or mystical experiences or perhaps serve only to induce hallucinations or psychosis-like episodes. Calling these drugs “entheogens” lends support to the former view, while the terms “psychotomimetic” and “hallucinogen” support the latter. The subjective nature of

entheogenic experiences makes it difficult to reach any consensus on the matter, since all we have to work with are the words people use in retrospect to describe their experiences. The question of whether entheogen-induced spiritual or mystical experiences are “genuine” or evidence of temporary psychosis is, in truth, a sub-topic of the broader question of whether any such experience – either naturally occurring or induced by some means – is “genuine” or evidence of psychosis. Some observers – typically modern western academics – may find that any alteration in the representational relationships between consciousness and the world is only a movement away from the “correct” representation (see Revonsuo et al., 2009), and that any talk especially of mystical experience is, therefore, evidence of delusion. Otherwise, the people who claim to have authority on the matter are often the representatives of various religious traditions, who probably tend to pass judgment according to the level of congruence between the report of the experience and the dogma of the tradition. To the extent that they imply that an experience can be both “genuinely” spiritual and psychotic at the same time, the acceptance of notions of “holy madness” and similar concepts within some religious traditions complicates the matter further.

A second level of uncertainty pertains to the previously discussed issue that “mystical experience” is so termed precisely “because it is considered beyond the scope of language to convey” (Deikman, 1969, p. 23). Parts of these studies may therefore be characterized as an attempt to ask people about a type of mental events – that may or may not deserve to be called “experiences” – whose defining characteristic is that they cannot be described in words. Perhaps it is not entirely unfair to question whether the outcome of such an endeavor has any meaningful relation to what we normally call “knowledge.”

A third level of uncertainty that exacerbates these epistemological ambiguities is the fact that entheogenic drugs have been generally forbidden across the western world for several decades. Views about entheogens are therefore invariably politicized, tending to distribute according to well-defined battle lines. From the establishment or conventional perspective, they are unambiguously evil and their suppression is necessary for the sake of our children; for anti-establishment rebels they are often the very symbol of liberation from evil regimes. Needless to say, such a war of good against evil leaves little room for shades of grey.

This, more or less, is the climate in which politicians, government officials, and publically funded drug researchers have been working for the past five decades. Clinical research on entheogens has been forbidden for much of this period, leaving recovery centers for drug addicts a primary source of research data. That this research has often portrayed illegal drugs negatively should come as little surprise: one would suspect the same from a study on the effects of alcohol in a sample of recovering alcoholics. The unrepresentativeness of these findings on illegal drugs has however remained obfuscated by the fact that the true extent of the drug-using population remained unknown: researchers knew little to nothing about the segments of this population that managed to stay out of sight. Aaslid (2007) described them as the “hidden user population”, and suggested that these population segments may constitute a silent majority (p. 97). Not only do the users themselves actively work to stay hidden, but they also tend to be ignored because they do not fit into the grand narrative: “user perspectives which do not support the prevailing position are consistently overlooked and under-represented” (p. 20). That the lives of these latter groups of people are rather more successful than the lives of people in rehab is obvious enough; that the invisible and well-functioning drug users outnumber the all-too-visible heroin addicts in the streets or in custody or treatment is also getting clear. One recent estimation by the United Nations Office on Drugs and Crime [UNODC] (2020b, p. 20) is that the number of problem users is about 13% of the total number of past-year illicit drug users, and the ratio is probably far higher for opiates than for entheogens.

(The comparable figure for alcohol use in the United States, based on figures from the National Institute on Alcohol Abuse and Alcoholism [NIAAA] (2020), is that 14.4 million people suffer from Alcohol Use Disorder, constituting about 10% of the 146 million adults who drank alcohol during the past year.)

On the other hand, the fact that entheogens are generally criminalized may also affect how participants in studies about their use present themselves. Many entheogen users regard the war on drugs as an unjust persecution of their spiritual and self-developmental practices, and they may be inclined to participate in relevant studies as a part of their political struggle against such persecution. If their participation is thus framed as a contribution to the overall political struggle, it would not be surprising if their communication is sometimes strategic in the sense that they present themselves according to what image they wish to project. Although I do not believe there is any evidence that such strategic participation has actually been taking place, it would not be difficult to argue that the current situation incentivizes this type of behavior. Thus, it would be possible, although speculative, to understand entheogen users' interest in spirituality as an example of strategic communication: since anything that can be labeled "religion" receives special protection in many polities, and in the United Nations' Universal Declaration of Human Rights, it is clearly in their interest to portray their practices as related to religion and spirituality.

While change is imposing itself on the field of drug research, it remains hampered by the fact that illegal drug use often takes place in arenas that are inaccessible to outsiders – be they researchers or undercover police agents. As we lose the illusion that we know who these drug users are, we are forced to realize also that there is no reliable way to obtain a representative sample of the population, as several user segments may remain systematically under-sampled. Highly resourceful and security-conscious users may lie about their practices to preserve their privacy, while low-functioning users may be unreachable because they simply have no capacity or interest in participating in surveys. The challenges in how to interpret the findings of individual studies on drug use when the underlying user population remains essentially unknown is discussed further in the methodologically oriented article in this dissertation (Johnstad, 2021f).

2.2 Gender issues

A gender imbalance is commonly observed in drug studies. "Peruse the bibliography of any scholarly work on drugs," said Lenson (1995), "and you'll find that citations of male authors outnumber those of women by better than ten to one" (p. xv). Aaslid (2007) similarly spoke about "a remarkable predominance of male perspectives" in this field (p. 7). Interview and survey studies with self-selecting participants have also commonly reported substantial gender imbalances in their samples, with participation rates from women in the area of 15% (Carhart-Harris & Nutt, 2010), 22% (Anderstuen, 2014), and 31.5% (Lyvers & Meester, 2012). Even if prevalence rates are also higher for men than for women, these differences are not sufficient to explain the gender discrepancy among study participants (UNODC, 2020a). Thus, it seems to be the case that female perspectives and experiences are systematically underrepresented in drug studies. Unfortunately, such underrepresentation of female perspectives was found also in the studies included in this dissertation, with the Cannabis and Psychedelics User Survey obtaining 81% male participants (and this despite the fact that women were especially encouraged to participate).

Thus far, we have discussed gender in binary terms, which is not necessarily the best way to approach it. The Cannabis and Psychedelics User Survey also allowed for a third gender option,

labeled “Other”, which was chosen by seven participants. By allowing for non-binary gender options, I believe the study became more inclusive at least with regard to gender issues, and in the design phase of the research this seemed like an obvious choice. However, the choice resulted in some unforeseen consequences, which I will detail in the following before outlining how I would approach this issue today.

A first level of critique against the option for a gender option labeled “Other” is that a label indicating otherness may be exclusionary rather than inclusionary, indicating as it does an outsider-status at a distance from the binary gender norm. Arguably, therefore, a better term should be found. Furthermore, a generic term for every kind of non-binary gender might be criticized for conflating the wide range of possible gender positions. I do not know if, or to which extent, this is an issue that non-binary gender individuals might take affront at, and it is certainly possible that many such individuals are happy to be included under the many-colored umbrella of non-binary gender. On a practical methodological level, the inclusion of a broad range of non-binary gender options would make little sense from a perspective of statistical analysis, since the already small group of non-binary individuals would be further divided into segments of just a handful of people, and such small groups are difficult to analyze statistically. Thus, I would argue that further sub-division of non-binary genders is probably not a good option for quantitative studies. In qualitative interviews, on the other hand, it seems straightforward to allow participants to describe their gender in whichever way they want.

Complications with statistical analysis apply even to the inclusion of a third gender, however, which is probably a reason that social scientists often seem to cling to the idea of binary gender. If you allow for only two genders, the resulting gender variable is obviously dichotomous, and can straightforwardly be included in analyses. The same is not true for a three-level gender variable, however. A first, relatively minor, complication is that in a coding scheme where 1 = female, 2 = non-binary and 3 = male, it is assumed that the intermediary option is at equal distance from each of the binary genders, and it is not known to me whether or not this is a reasonable assumption. Even if we ignore this issue, we end up with a three-level ordinal variable, which is not well suited to statistical analysis. It is possible to represent three genders with two dichotomous “dummy” variables, but with the relative scarcity of non-binary individuals in the world today, the resulting variable would require a large group of respondents to have any statistical power.

In order to perform statistical analyses on the data obtained from the Cannabis and Psychedelics User Survey, therefore, I excluded the seven participants with “Other” gender from the dataset. There is an obvious irony here, as the inclusion of a non-binary gender option led to the exclusion of the perspectives of the individuals who chose this gender option, so that the attempt to increase inclusiveness actually resulted in exclusion. This applied only to analyses that used gender as a control variable, so the exclusion was only partial, but it seems entirely possible that some of these individuals would be annoyed to find out that their contribution was partially excluded. To remedy this unfortunate state of affairs, I will in future studies probably go for something like the following: allow for a non-binary gender option labeled “Non-binary”, and include a separate page of the survey for the respondents who pick this non-binary option. On this page, I will try to explain as simply and clearly as possible that responses with non-binary gender may have to be excluded from certain types of statistical analysis, which may not be what they want. If they feel more connected to either of the binary genders, they can then have the option to identify with this gender solely for the purpose of statistical analysis. Of course, it is possible that some respondents will be annoyed at this attempt – as they may see it – to push them into one of the binary genders, so it has to be made clear that they are welcome to participate in the study even if they don’t want to pick a binary

gender, and that their contribution will be included in every type of analysis which does not require mathematical operations with the gender variable.

2.3 Recruitment and data collection

For the basic description of how the studies in this dissertation approached prospective participants for recruitment and data collection, I refer the reader to the methods sections of the individual articles below. In this section, I will look into some underlying issues pertaining specifically to qualitative studies conducted over the internet. For quantitative surveys, recruitment and data collection over the internet is now an established procedure, and is probably the default option for most such studies, but it is my impression that qualitative researchers have not embraced internet-mediated communication to the same extent. There may be some good reasons for this, which I will come back to, but I also want to make it clear that I believe this approach has certain unique advantages.

It should be noted that both the interview and survey studies were based on self-selected participation, in the sense that prospective participants had to respond to recruitment letters in order to take part in the respective study. This approach probably introduced various forms of recruitment bias, since certain types of entheogen users might be more inclined to invest their time in interviews or surveys. Given the nature of these studies and the requirements for privacy, however, no other means of recruitment was feasible. The sample size for interview studies was not predetermined, but recruitment was discontinued when the researcher found, over a period of time, that the responses from new respondents tended to conform to previously established themes, and that the recruitment sample was sufficiently diverse in terms of covering a range of ages, nationalities, occupations, and so forth. These studies did not generally succeed in recruiting a substantial number of female participants, but there were women included in most samples. Since it seemed preferable to include at least some female participants, women were especially encouraged to participate. Because entheogen use is generally criminalized, some participants declined to share demographical information, in which case relevant variables were coded as “unknown”. The interview studies have no claim to generalizability, but the sample for the survey study is possibly representative of the segment of internet-active entheogen users. There is no of accepted consensus about how to assess reliability and validity of qualitative research (Noble & Smith, 2015), but my presentations of these studies have endeavored to acknowledge possible biases in sampling, to ensure the representation of different perspectives, and to include thick verbatim descriptions of participants’ accounts. Interpretations were validated via a procedure of respondent validation that allowed participants to comment upon the use of their data. Finally, data triangulation via the combination of qualitative and quantitative methods supports the overall validity of the findings.

The pros and cons of asynchronous interviewing via email were thoroughly discussed by Meho (2006), who concluded that this methodological approach was cost-effective and allowed access to individuals that might otherwise have been hard to reach. This would certainly seem to be the case for participants asked to describe their use of illegal drugs. By allowing for a high degree of participant anonymity, email interviews (with anonymization protocols as discussed below) probably served to facilitate participation from interviewees who would otherwise have balked at describing illegal activities to an unfamiliar researcher. Meho also discovered a broad range of medium effects from using email to convey interviews, including the disadvantage of losing visual and nonverbal cues from facial expressions and body language. Advantageous medium effects included a possible increase in honesty and self-disclosure, as well as the elimination of transcription errors. In

conclusion, he found no overall negative impact on data quality, quoting some earlier studies that in fact suggested the opposite.

To add some observations from my own experiences with interviews over email or private message, it should first of all be clear that there is no way I could have gained access to entheogen users from different countries and continents without relying on internet-mediated communication. Without such communication, these studies (interviews and surveys alike) would simply not have been possible in their present form. While it may have been possible to use some kind of snowballing approach to gain access to entheogen users in my local area, this would probably have been more difficult than gaining access, for instance, to heroin users. The converse is probably also true: my internet-mediated approach would likely have failed to recruit many heroin users. To understand why, we need to look more closely at these two groups of drug users.

I live in Bergen, Norway, and if I want to interview local heroin users, I know that they tend to gather in specific areas. I believe that my town is, in this respect, fairly typical for much of the western world. However, if there is an area where entheogen users tend to gather, this is not known to me; in fact I very much doubt that such an area exists. Conversely, I know that entheogen users have shared experiences and viewpoints on internet fora since the mid-1990s, while heroin users seem less oriented toward internet communities. There may be several reasons for these discrepancies between the two user groups, but one in particular stands out: my impression of heroin users is that they are largely a low-functioning group of people in terms of their education, careers, and other socioeconomic variables, whereas the findings of the studies I have conducted indicate that entheogen users are largely high-functioning in these terms. It is possible that this judgment is biased: my impressions of heroin users, whom I have never studied, might be heavily influenced by social prejudice, while the internet-mediated studies I have conducted on entheogen users may have systematically excluded the (putative) segment of low-functioning users. For all I know, there may be a number of well-functioning heroin users in my area who are able to maintain a balance between their drug use and the requirements of their jobs and families, but I have not seen much evidence of such a user segment. Similarly, it is possible that there is a number of low-functioning entheogen users around these parts who are unable to balance their drug use with work and family life. While the issue is not settled, there is evidence available to support the notion that heroin users and entheogen users are substantially different in terms of their level of social functioning. If this is true, then it is probably also true to say that entheogen users have more to lose – reputations, social standing, careers, financial assets – than heroin users do, which again entails that they have better reasons to keep their drug use a secret. Some tentative observations to inform our methodological approach could therefore be:

- 1) In order to be recruitable over the internet, a person must have access to an internet connection and use this access regularly. Furthermore, they must also visit relevant internet communities in order to read our recruitment posters.
- 2) In order to be willing to share information about illegal drug use, a person must either trust their interviewer not to betray or misuse their identity, or the interview must take place in such a manner that their identity can remain hidden, or the person must not care about keeping their identity as a drug user hidden in the first place.

High-functioning entheogen users typically have stable homes with internet connections, and many of them visit various internet fora regularly. Since they have a lot to lose, they may be concerned with privacy issues. Some form of internet-mediated communication therefore seems highly appropriate for such prospective participants. Low-functioning heroin users may lack stable homes with internet connections, but many of them visit physical gathering places regularly. Since they may

feel that they have little to lose, they may be relatively unconcerned with privacy issues. Therefore, internet-mediated studies seem like a poor choice for such prospective participants. However, it should also be recognized that internet-mediated studies will tend to exclude the (putative) segment of low-functioning entheogen users, and studies based on street-level interactions will tend to exclude the (putative) segment of high-functioning heroin users. If a researcher wants to study heroin use among people in the financial industry, for instance, an anonymous internet study seems more appropriate than a study based on approaching people in the street.

For some other observations about internet-mediated interviews, I quickly learned that it is much easier for a participant to abandon an anonymous email exchange than a face-to-face conversation. For this reason, I found that it was sometimes hazardous to pose critical or difficult questions in email interviews, since the result could be that the interviewee was never heard from again. Researchers using asynchronous interviewing via email are therefore advised to delay such questions until the end of the interview. One clear advantage of such asynchronous interviewing, however, is that they allow for plenty of time to think through one's responses. It sometimes happened that an interviewee included subtle hints about new topics that were actually of great interest to the research, but which I sometimes missed in my first reading of their reply and had to come back to later. It is easy to imagine that such hints could also pass unrecognized during a face-to-face conversation, and that the asynchronous nature of email exchange allowed for a higher degree of responsiveness to such openings. Finally, interviewing via email also allowed for conducting several interviews during the same time period, which was in many ways helpful but which also carried the risk of confusing the interviewer. I often had to check the interview log before posing a new question to make sure I had not asked a similar question before, which would probably have seemed careless and perhaps disrespectful to the interviewee. I believe there were times when a high work load and significant amounts of stress on my own part made my questioning less responsive to the participant than it ought to have been, damaging the natural flow of the conversation. While I did not receive any complaints, it is possible that some participants discontinued the interview for such reasons.

2.4 Ethics

A basic ethical requirement for any kind of research is that its participants should not come to harm. In interview and survey studies of illegal drug use, this could be taken to have a range of different implications, with one obvious point relating to privacy: if the information respondents divulge can later be traced to their person, this could be detrimental for them on a number of levels. One prominent challenge for these studies was, therefore, to maintain the anonymity of the participants. Measures implemented to obstruct the identification of participants are here referred to as anonymization protocols. According to the Norwegian Social Science Data Services [NSD] (2020), data may be regarded as anonymous when it is free from informational content that might either directly or indirectly identify sources. Direct identification takes place through supplying names, addresses, ID numbers, email addresses and so forth, while indirect identification might occur especially via a combination of information relating to background, geographical location, and narratives about recognizable events.

In order to preserve the anonymity of the participants in interview studies, interviewees were encouraged to construct new email addresses, under pseudonyms, that were used solely for communication relating to the study, or to use anonymized private messaging at specific discussion fora. Furthermore, they were encouraged not to reveal any specific information about their location, background or circumstances that might indirectly reveal their identities. To minimize the chance

that participants accidentally revealed de-anonymizing information, the encouragement to speak in general terms was repeated with every question relating to background and life circumstances; in cases where sensitive information was nevertheless transmitted I rewrote their statements in a re-anonymized form for my records and immediately deleted their email (and again deleted it from the trash folder). In accordance with the guidelines for Internet research from the National Committee for Research Ethics in the Social Sciences and the Humanities [NESH] (2014), I have not employed any participant pseudonym in published reports, as these are often traceable across a variety of Internet sites. Instead, each respondent is given a unique ID number. Furthermore, quotations obtained from publicly available discussion threads were rephrased in order to confound Internet search procedures, and the presentation of demographic information about interviewees was delinked from the presentation of narratives. I also organized the presentation of informant narratives according to shared topics and themes, so that the quotations from each interviewee appear as fragments scattered throughout the text. This approach discourages the reader from becoming familiar with any informant, in the sense of being able to see how his or her views and experiences relate to each other. Doing so, at any rate, requires a close reading of the material. The use of ID numbers rather than pseudonyms strengthens this tendency towards fragmentation and anonymization. Thus the overall effect from this method of presentation is to protect participant anonymity, as a casual reading of the material will fail to divulge any obvious links between narrative fragments that are not recognizable on their own but might be so when juxtaposed. Of course, this approach also carries a cost, since it makes it more difficult for the reader to understand a given statement in the context of other statements from the same individual. Before publication, participants were asked to read through and verify the use of their quotes, and on some occasions, inconsequential details in potentially recognizable narratives were changed to preserve anonymity.

Securing participant privacy was somewhat more straightforward for the Cannabis and Psychedelics User Survey. The survey was conducted via SurveyXact, which has an agreement with the University of Bergen guaranteeing General Data Protection Regulation (GDPR) compliance and participant privacy. The SurveyXact platform allows for fully anonymous surveys that record no identifying participant information, including IP addresses, thus minimizing privacy concerns. It might be noted that SurveyXact itself has the technical capability to record IP addresses, but their agreement with the University of Bergen specifically prohibits abuse of such information. There are also a few loopholes (or trapdoors) in this system, especially when the number of respondents remains small. In a presentation of average data stratified according to gender, for instance, a small dataset might include only a single respondent with non-binary gender, and the average responses for this gender would therefore be equal to the responses from this individual. When I published descriptive data summaries for different communities, I therefore had to check that these did not inadvertently reveal individual (or small-group) responses.

In combination, these anonymization protocols probably sufficed to provide an acceptable degree of participant privacy at least in the sense of allowing for communication between researcher and participants without the former knowing the identity of the latter. They did not however ensure protection from eavesdroppers: email service providers probably know and store the participants' Internet Protocol (IP) addresses, which can be used to trace their identities, and also have the capability to read emails passing through their servers. To protect one's identity in this regard might require the use of The Onion Router (Tor) Internet browser and Virtual Private Network (VPN) services for IP scrambling and encryption software for scrambling of email content. I encouraged the use of Tor and published a public encryption key at the website for the initial interview study, but communication at this level of privacy demands a high level of technical competence and was therefore not insisted upon.

The emphasis on anonymity furthermore entailed a number of negative consequences. One practical complication was that the need for special email accounts used only for the purpose of taking part in the study raised the cost of participation, since constructing and maintaining a separate account requires a fair bit of time and effort. The insistence on anonymization therefore probably had a negative effect on recruitment. Another negative consequence was the inability to obtain properly signed informed consent letters. Since a personal signature would compromise privacy, participants were asked to “sign” the letter using only their email address. This approach was presented by Meho (2006) as a useful way of acquiring informed consent for email interviews, and was approved by the Data Protection Official for Research / NSD. It does obviously result in a signature with no juridical validity, but still serves to express the participant’s declaration that they have read and accepted the letter of consent. Furthermore, anonymization made it impossible, both in the interviews and survey, to ensure that minors did not enroll in the study under false pretenses. Segadal (2015) warned that “when obtaining consent online, it might be a challenge to be certain of the actual age of the person granting consent,” (p. 44) and this challenge was exacerbated in this study as participant anonymity at least vis-à-vis the researcher made it impossible to check the identities of interviewees. This opened for the prospect of minors passing off as adults and thus gaining access to a study discussing the use of illegal drugs.

2.5 Assumptions for statistical analyses

Several of the articles in this dissertation are based on statistical analyses, and the validity of such analyses are based on certain assumptions about the variables in the data set and the relations between them (Hair et al., 2006). The most demanding set of assumptions pertain to multivariate regression analysis, which will therefore be the focus of this section. I will discuss the issues of normality, homoscedasticity, and multicollinearity.

Before going into these issues, it should be noted that one formal assumption for multivariate regression analysis is that the variables involved are measured on a continuous scale, which means that they are either interval or ratio variables. However, this assumption is often ignored, as ordinal variables with a sufficient number of possible values are commonly included in such analyses as “approximate” interval variables. In the present studies, five-level ordinal variables were used in multivariate regression analyses on a number of occasions. I do not believe this would normally be regarded as problematic, although these variables do create some minor complications down the line, especially in the sense that they make scatter plots of residuals difficult to interpret.

It should also be noted that several of the regression analyses in the articles in this dissertation were performed not because of an interest in the overall model, but to obtain statistical control on a relationship between two variables. This applies in particular to the regression analyses in Johnstad (2020b, 2021c). In these cases, an effect from having a spiritual motivation for psychedelics or cannabis use was identified with a *t*-test, and subsequent regression analyses were performed in order to ascertain that the effect was independent from putative influence from demographic variables and variables relating to personality structure and drug use. When the regression model as such is unimportant for the analysis, issues with the model pertaining to normality and homoscedasticity largely lose their relevance (multicollinearity issues might still be problematic). For the sake of thoroughness, this section nevertheless discusses issues of normality and homoscedasticity for all regression analyses.

The issue of normality refers to the distribution of a variable as compared to the normal distribution. Multivariate regression analysis assumes that the residuals (or error terms) in the model are approximately normally distributed, and this is usually tested by visual inspection of either distribution histograms or plots of observed versus predicted values for the dependent variable. Appendix A provides both graphs for each of the multivariate regression analysis in this dissertation. Unfortunately, there are no clear rules for determining how much deviance from the normal curve (or line) is acceptable, although minor deviances are generally accepted. According to Hair et al. (2006), large sample sizes reduce the detrimental effects of nonnormality, so that deviations that could be problematic for small samples of 50 or fewer observations may be negligible for sample sizes of 200 or more (pp. 80–81). Furthermore, they stated that “regression analysis has been shown to be quite robust even when the normality assumption is violated” (p. 236). The figures in Appendix A generally conform to normality, however, although the model predicting spiritual experience (Figures A4 & A5) has a somewhat higher level of deviance than the rest.

Homoscedasticity “refers to the assumption that dependent variable(s) exhibit equal levels of variance across the range of predictor variable(s)” (Hair et al., 2006, p. 83). This means that, in a scatter plot, the residuals of the model are equally distributed. It should be noted, however, that when the dependent variable in a regression model is an ordinal-level variable with a limited number of possible values, residuals tend to form lines in the scatter plot for each of these values. Appendix A presents scatter plots for each model, and especially in the models for consequences of cannabis use (described in Johnstad, 2020b) and consequences of psychedelics use (Johnstad, 2021c) we see that residuals form lines corresponding to the five possible values for the dependent variables. Nevertheless, I would interpret these plots as indications that the residuals, although patterned according to the possible values of the dependent variable, are nevertheless equally distributed for each such value of the dependent variable. In any case, as mentioned above, these specific regression analyses were performed only to obtain statistical control for bivariate relationships, and the overall model was not important to the analysis.

Some of the scatter plots for residuals (e.g., Figures A21 & A33) indicate that outliers may have affected the analysis. Casewise diagnostics for the regression models similarly identified a few cases with large residuals. When these cases were removed, however, the resulting models invariably improved in terms of explained variance and the significance level of individual independent variables. As such, these outliers were clearly not driving the analyses, but were rather reducing effect sizes. Since it is not clear to me when it is legitimate to remove evidence that contradicts one’s hypothesis, the outliers were retained.

Multicollinearity means that there are high intercorrelations among the independent variables in the multivariate model. In SPSS statistics, variance inflation factor (VIF) scores can be produced for each variable in the model, with a score of 5-10 or higher indicating that multicollinearity is a problem. In the regression models for this dissertation, the highest VIF score was 1.583, which means that multicollinearity was not an issue.

Furthermore, as there were no time series included in any of the analyses, autocorrelation was not a problem, with all scores on the Durbin-Watson statistic being within the range 1.797–2.048 (and therefore well within the accepted range of 1.5–2.5). There was some missing data relating to respondents who dropped out at various points of the survey, but the analyses have only included respondents with data on all variables included in the specific analysis, and missing data was therefore not regarded as a problem within the analyses (there were some indications, as discussed in Johnstad (2020b), that drop-outs tended to differ from other respondents, which might indicate broader validity concerns).

In conclusion, multicollinearity was not a problem and there were only minor deviations from normality. There were also no clear indications that heteroscedasticity was an issue, and in the regression models where scatter plots were hard to interpret and heteroscedasticity issues therefore were hard to rule out, the overall quality of the model was not important for the analysis. Thus, even if heteroscedasticity was a problem for these models, it was not a problem relevant to the analyses performed in the study.

Before moving on, I also wish to acknowledge the existence of a set of assumptions for principal components analysis. Such an analysis was carried out in Johnstad (2021b) on dichotomous data. Hair et al. (2006) indicated that the inclusion of dichotomous (or dummy) variables in factor analysis is unproblematic, although they stated that “[i]f all the variables are dummy variables, then specialized forms of factor analysis, such as Boolean factor analysis, are more appropriate” (p. 112). As a sensitivity analysis, therefore, I ran the CATPCA (Principal Components Analysis for Categorical Data) procedure available in IBM SPSS Statistics 25, as developed by the Leiden SPSS Group, on the same data. With this procedure, the number of factors to extract must be predetermined, but after specifying the same number of components as was extracted from the original analysis, the CATPCA analysis produced exactly convergent results.

3. Contributions

As the final step of this review article, I will provide a summary of the articles in the dissertation and a discussion of how they relate to each other and to published research. In order to give the reader an overview of the content of these articles, this section starts with a summary that also positions each article in relation to the others and, in a limited sense, to extant research. My concluding discussion thereupon relates the overall findings from these studies to the broader literature of the Study of Religions. This step of explicating what my studies contribute to the overall literature is somewhat complicated by the fact that these studies necessarily had an explorative approach, their main purpose being to make a foray into a previously uncharted terrain. Consequently, all findings should be regarded as tentative until confirmed by future research. As far as this body of work serves to support or challenge schools of thought among scholars of religion, therefore, such support or opposition must be regarded as preliminary: as a basis for future investigations into this field.

3.1 Who is the typical psychedelics user? (Johnstad, 2021f)

This methodologically oriented article asks whether, or to which extent, we can be confident that the results obtained from studies based on samples of psychedelics users are representative of tendencies in the overall population of psychedelics users. While referring to other people’s clinical or survey studies, these issues of representativeness are, of course, equally pertinent with regard to my own studies. In the studies presented in this dissertation, prospective participants had to volunteer for being interviewed over a period of weeks or for spending half an hour filling in a survey, and it is not given that every type of psychedelics user is equally inclined towards such voluntary work. Perhaps those who did volunteer for participation tended to have particularly strong opinions on psychedelics use, and that the sampling processes were therefore skewed towards strongly opined individuals, whose assessments of the merits and demerits of psychedelics use may have differed from the residual group of less strongly opined individuals who decided not to participate.

In a review of a selection of published studies, it was found that participant samples tend to skew in either a positive or a negative direction. It might be noted that this was not a systematic review, but was rather based on a selection of studies seen as especially important and/or as being representative for a particular methodological approach. To start with my own research, it is probably true to say that these studies were biased towards positive results, because they were based on self-selecting participants recruited from internet communities where the discourse on psychedelics use tends towards positive interest and enthusiasm. This does not mean that the research is erroneous in identifying spiritually motivated entheogen use, but it does mean that this type of user may be overrepresented in my research compared to their prevalence among the general population of psychedelics users. Thus, in order to understand the position of entheogenic spirituality within the overall picture of psychedelics use, we probably need to compensate for some degree of selection bias in the recruitment process.

Other methodological approaches come with different biases. Clinical pilot studies investigating the spiritual and therapeutic effects of psilocybin have, for both ethical and pragmatic reasons, strict exclusion criteria for psychiatric conditions and drug abuse. The people who are enrolled in such studies tend to be middle aged, and therefore not inclined toward youthful excess. These studies have obtained very promising results, but it is necessary to understand these results in light of the fact that the participants were mature and responsible individuals without psychiatric conditions and unstable lifestyles. This does not mean that these studies were erroneous in identifying positive effect from psilocybin, but it is probably true to say that the identified effect would be less positive if the studies also recruited younger and less stable individuals.

Research into the harms resulting from drug use has, for its part, tended to recruit participants from the population of nightclubbers, or from rehabilitation centers. These participants were typically young, often in their late teens or early twenties, and their use of MDMA – which these studies have tended to focus on – took place in a recreational context with heavy alcohol and polydrug use. That a lifestyle of partying and nightclubbing is not very healthy over the long run should probably come as no surprise, and studies recruiting from rehabilitation centers obviously draws from a population of people who have been harmed by their drug use. The harms identified in such research are not erroneous, but they must be understood in the appropriate context: the fact that heavy MDMA use in a context of partying with alcohol, cocaine, and amphetamines is harmful does not necessarily mean that the moderate use of MDMA for therapeutic or spiritual reasons is also harmful. Making such claims is, in my view, like studying the harms of alcohol use in a population of alcoholics, and then drawing the conclusion that it is harmful to have an occasional beer with your pizza.

The problem with controlling for possible selection bias in studies of psychedelics users is that, because these drugs have generally been illegal to use in most of the world since the 1970s, and since the years up to the early 2000s saw very little research in this field, we do not know much about the user population. My own research indicates that the spiritually motivated users of classical psychedelics constitute a majority of the user population for these drugs, but there is not much other research on this specific issue with which to compare and perhaps calibrate these results.

The main implication from this article for the research presented in this dissertation is to emphasize the tentativeness of these findings. At present, the representativeness of the participant samples these studies are based on is indeterminable, because we do not know very much about the underlying population of psychedelic drug users and, therefore, have no means of comparing the samples to an empirically formed model of the population. While it may be possible to calibrate samples via comparisons to other samples obtained in different studies, the point of this article is that such samples tend to be biased in the same way. There are only so many ways to find

participants for studies of illicit drug users and, to my assessment, every such approach to participant recruitment comes with its own package of biases. At present, therefore, we have no way of avoiding recruitment bias. This unfortunate state of affairs entails that our studies cannot actually speak about the overall population of drug users, but only about the population segment that we have recruited from. In my own studies, this population segment is the group of psychedelics users who frequent internet discussion fora for the purpose of discussing their psychedelics use. The Cannabis and Psychedelics User Survey, which is my only study that has a claim to representativeness, is possibly (but not necessarily) representative of this group of internet-active psychedelics users. However, the relation between this segment of psychedelics users and the overall population of psychedelics users remains unknown, and therefore, the extent to which any claim to representativeness extends into this overall population also remains unknown.

3.2 Entheogenic spirituality (Johnstad, 2018a)

The first empirical article included in the dissertation describes a qualitative exploration of spiritual entheogen use based on online interviews. Following in the footsteps of Aaslid (2007), the project for this study was to give entheogen users themselves an opportunity to describe the importance of entheogenic drug use for their lives and their spirituality. These descriptions diverged substantially from the conventional understanding of the consequences of illegal drug use, as most interviewees portrayed entheogens as a positive force in their lives. They described a spiritual life centered on personal growth, which encompassed in particular the healing of psychological issues including depression and anxiety, the discontinuation of habitual non-entheogenic drug use, and improved emotional, relational, aesthetic, and cognitive capacities. Entheogen sessions, which ranged in frequency from a few times per year to once per month, served as periodic focus points or anchors for these growth processes.

The spirituality of these respondents was centered on entheogen-induced spiritual experiences. Some respondents reported mystical-type experiences where they felt connected to a higher being or some other form of unity with transcendent forces. Such experiences were often characterized as indescribable, but the narratives did generally conform to previous research in this field (Pahnke, 1969; Shanon, 2010; Stace, 1960; Watts, 1968). In addition to such mystical-type experiences, respondents commonly reported entheogenic experiences of a less intense kind, characterized especially by positive feelings and states of insight, which they regarded as important for their self-exploration, healing, and personal growth, and therefore as spiritually relevant. These positive feelings were described as love, unity, empathy, liberation, peace, and joy, while the insight was either into oneself, into one's intimate relations, or into the world. The effect from entheogens on emotional states and users' subjective experience of insight is well known in research literature (e.g., Pedersen, 2020; Shanon, 2010). The project of self-exploration and growth fits well with the psychologization of religion commonly noted as a characteristic of the new spirituality (or New Age) movement (Sutcliffe & Gilhus, 2013), and the same could be said for the emphasis on healing, which is also congruent with the findings of the growing research literature on therapeutic applications of psychedelics (Andersen et al., 2020; Davis et al., 2021).

It should be noted that whereas previous research into spiritual entheogen use has tended to focus predominantly on mystical experience (e.g., Griffiths et al., 2006; Lyvers & Meester, 2012; Timmermann et al., 2018; Yaden et al., 2017), the respondents to the present study also acknowledged the spiritual value of other types of entheogenic experience. This point about

different types of entheogenically induced spiritual experience and possibly divergent frameworks for spirituality is developed further in Johnstad (2021b), which I discuss in more detail below.

One noteworthy finding in the study was that several interviewees started using entheogens not from any spiritual motivation, but rather just to have fun, yet ended up with experiences of a spiritual nature. This is a parallel to similar anecdotal reports in Anderstuen (2014) and Saunders et al. (2000), and congruent with the findings about atheists in the survey study by Griffiths et al. (2019). It thus appears that people who are not interested in spirituality and who use entheogens for their recreational or entertainment value sometimes undergo what might appear to be an entheogen-induced conversion experience.

While the general approach and methodology of this study was based on Aaslid (2007), it also expanded upon some of her findings. Aaslid identified three patterns of drug use among her interviewees that she labeled experimental, recreational, and problematic, where the experimental pattern referred to early explorations and the problematic pattern to some form of drug abuse. If we understand recreational use as a residual pattern that might cover any form of drug use that is not experimental or problematic, the entheogen use of my interviewees might be classified as recreational. However, I believe that term connotes concepts such as leisure, entertainment, and amusement, giving the impression that entheogen use is similar to having a few beers with one's friends, and this was not how the participants in my study described their use. In addition, the relatively low frequency of use for entheogens among these interviewees is not in line with what one would normally consider recreational drug use. Therefore, I suggested extending Aaslid's original triad with what I called a spiritual pattern of use, referring to infrequent, spiritually motivated entheogen use.

3.3 Entheogenic experience and spirituality (Johnstad, 2021b)

Building on the identification of different types of entheogen-induced spiritual experience in Johnstad (2018a), this article pursues the issue further on the basis of quantitative analyses of data obtained from the Cannabis and Psychedelics User Survey. Observing that the spirituality of the entheogenic experience has generally been equated with mystical experience in previous research – which has predominantly been performed by psychologists rather than scholars of religion – the article proceeds to challenge this assumed equivalence. In an analysis of the characteristics of entheogenic experience, the study found evidence of different two types of such experience. The first type involved mystical-type characteristics such as ego dissolution and contact or unity with transcendent forces. In multivariate regression models, this type of experience was predicted by three factors indicating the spirituality of the participants: i) a spiritual (or religious) affiliation, meaning that the participants reported feeling a connection to one or more spiritual traditions; ii) a spiritual motivation for entheogen use; and iii) a wide-ranging spiritual practice involving meditation, prayer, reading sacred texts, etc. These experiences were strongly connected to established models of mystical experience, such as that by Stace (1960), and their anomalous nature combined with the fact that they involved concepts such as transcendent forces also strongly connected them to Taves' (2009) more recent conceptualization of religious experience. Therefore, this type of experience is related to spirituality on several different levels.

The second type of entheogenic experience identified in this study involved characteristics representing insight, positive feelings, and improved connections to other people and to nature. This type of entheogenic experience was predicted by spiritual motivation, but not by spiritual affiliation

or practices. In other words, respondents who reported this type of experience also tended to report that their entheogen use was spiritually motivated, but did not tend to report that they felt connected to any spiritual (or religious) tradition or that they had a wide-ranging spiritual practice. Thus, these experiences were connected to spirituality in terms of personal motivation, but not to spirituality in terms of cultural practices and institutions. This type of experience is also largely unconnected to Stace's model of mystical experience and Taves' model of religious experience.

These findings and analyses support the conclusion in Johnstad (2018a) that entheogenic spirituality is not centered exclusively on mystical experience, although such types of experience are clearly important for it. More commonly, however, entheogen users experience states of insight, positivity, and connectedness, and they regard such states as being spiritually important. Entheogenic spirituality should not be conflated with entheogen-induced mystical experience, but the latter should rather be understood as one of at least two types of spiritually relevant experiences occasioned by entheogen use.

As far as I am aware, no other studies of entheogenic spirituality – understood in this broader sense as something that ranges beyond mystical experience – have been published. The characteristics and associations of induced non-mystical spiritual experience here identified, and the role or position of such experience within a broader developmental program identified in Johnstad (2018a), therefore cannot be directly compared to and understood in the light of previous findings. Nevertheless, it seems clear in a general sense that the entheogenic experience described in this article is congruent with the individualization and psychologization of religion emphasized in scholarly analyses of the new spirituality (or New Age) movement.

3.4 Cannabis as entheogen (Johnstad, 2020b)

The fourth article included in this dissertation investigates the use of cannabis as an entheogen. Cannabis is not a serotonergic psychedelic, but instead affects the central nervous system via a group of receptors known as the cannabinoid receptors. Distinct in its neuropharmacological dynamics, cannabis is sometimes labeled a semi-psychedelic, but it is also common to separate cannabis from the psychedelic group of drugs. In my interviews with entheogen users, some included cannabis in their entheogenic practices while others dismissed it as unimportant and tended to group it with recreational drugs like alcohol (Johnstad, 2018a).

The article notes that cannabis has a long history of spiritual use, and that its popularity in the western counterculture in the 1960s was often linked to its perceived spiritual importance. Subsequent normalization of its use seems to have eroded this connection to spirituality, however. The hypothesis underlying this study was that the spiritual use of cannabis nevertheless remains prevalent to some extent. In this study of cannabis use in a sample of psychedelics users, 25% of the respondents reported having a spiritual motivation for their cannabis use, which is a substantially lower figure than the 69% who reported having a spiritual motivation for psychedelics use. Although the discrepancy is certainly noteworthy, I believe it is also important to take note of the fact that one in four respondents reported using cannabis for spiritual purposes.

This minority of spiritual cannabis users in the sample differed from other types of users in how they characterized their cannabis experiences and how they regarded the long-term impact of their cannabis use for their lives. The differences in experiential characteristics were especially strong for insight, positive feelings, and improved connections to other people and to nature, which are the

characteristics that were found to constitute the second type of entheogenic experience identified in Johnstad (2021b). By contrast, there were only minor (and statistically non-significant) differences in mystical-type characteristics such as ego dissolution and contact or unity with transcendent forces. For such mystical-type characteristics, there were instead significant differences between both spiritual and non-spiritual cannabis use and psychedelics use. It thus appears that cannabis occasions spiritual experiences related to insight, positivity, and connectedness in a manner comparable to psychedelics, but is more tenuously associated with mystical experience. Since most research on entheogen-induced spiritual experience has focused specifically on mystical experience, it is therefore little surprise that the spirituality associated with cannabis use has gone largely unnoticed in recent research (but see Cozad, 2018; Earleywine et al., 2021; Gray, 2017; Heide et al., 2021).

3.5 How to disappear completely (Johnstad, 2021d)

This article presents data from the interview study I conducted in 2019, which also included interviews about ostensive psychedelics-induced telepathic experiences (Johnstad, 2020c), challenging psychedelic experiences (Johnstad, 2021a), and spiritual cannabis use (Johnstad, 2020b). In this part of the study, I interviewed psychedelics users about their experiences with ego dissolution or ego death. The article analyzes these narratives according to a model of ego death experience by Millière et al. (2018).

The article briefly reviews narratives of ego dissolution experiences in the *Upaniṣads* and later commentary, as well as in Christian and Muslim traditions, before presenting an attempted categorization of narratives obtained in interviews according to the model by Millière et al. It concludes that their model proved useful for most narratives of ego dissolution, although less so for experiences where the respondents' usual sense of identity was replaced by an identification with something "larger" – with some sort of transcendent force, or with what one interviewee called his soul or eternal self, or with humanity or existence as a whole (for comparison, see Pedersen et al. 2021). Perhaps Millière and his collaborators would prefer to see the establishment of such an extended form of (temporary) identity as being analytically separable from the ego dissolution experience itself, and therefore as beyond the purview of their study, but in the narratives analyzed in my study, the formation of the extended identity seemed to constitute the dissolution of the ordinary identity. The model by Millière et al. was also not directly relevant for the narratives of ego dissolution via an ostensive telepathic identity merging, obtained from my partly overlapping study of psychedelic telepathy (Johnstad, 2020c).

Not all of the ego dissolution experiences discussed in this article were deemed by the interviewees to be spiritual experiences, however. It would appear that such ascription of spirituality to the experience is in large part related to the experience of being connected to an extended identity, and that ego dissolution occurring without such connectedness is not usually deemed spiritually relevant. There were also several reports from users of *Salvia divinorum* about transforming into inanimate objects such as lamps and doormats, and this type of identity transformation was also not presented as a spiritual experience.

Experiences of ego dissolution have sometimes been understood as an important element of the putative therapeutic value of psychedelics use (Majić et al., 2015; Roseman et al., 2018). This was apparently true also for the psychedelic treatment program at Modum Bad, where Johnsen found what he termed 'cosmic experiences' therapeutically valuable for certain patient groups (Johnstad, 2020a). Ego dissolution has also often been considered a core aspect of challenging psychedelic

experiences, although this was not as evident in my own studies of such experiences (Johnstad, 2021a) as it may have been in previous research.

3.6 Entheogenic spirituality (Johnstad, 2021c)

This final article in the dissertation shares its title with the first article (Johnstad, 2018a), although it adds the subtitle “Characteristics of spiritually motivated psychedelics use”. The intention with this article was to make a quantitative assessment, based on the Cannabis and Psychedelics User Survey, of the characteristics of entheogenic spirituality as identified in the initial qualitative exploration described in its namesake. In other words, the findings of the interview study served as hypotheses for the quantitative survey.

The article itself compares the qualitative and quantitative findings and places them, as far as this is possible, in the context of existing literature. The first finding relates to usage frequency, with both studies converging on a tendency of moderate use. Where the interview study understood this specifically as a spiritual pattern of use, however, the survey study found no significant differences between spiritually and non-spiritually motivated users. This does not mean that what I labeled a spiritual pattern of use, which I took to indicate infrequent, spiritually motivated use, is necessarily mistaken, but it now appears that the only difference between this spiritual pattern and other patterns of use is in terms of motivation. In other words, the median usage pattern for entheogenic drugs appears to be distinctively moderate for all types of users, at least according to these survey data and some matching results from Australia (Karlsson & Burns, 2018).

Unlike the original interview study, the Cannabis and Psychedelics User Survey that forms the basis for this article did not narrow its recruitment to only spiritually motivated entheogen users. Nevertheless, 69% of the respondents reported a spiritual motivation. These survey data thus indicate a strong association between entheogen use and spirituality, reflecting earlier research (Griffiths et al., 2006, 2008, 2011, 2019; Pahnke, 1966; Strassman, 2001; Yaden et al., 2017).

One tantalizing finding in the interview study was that some interviewees were not interested in spirituality when they started experimenting with entheogens, yet ended up with experiences they understood as spiritual. This tendency was reflected to some extent in the survey data. The level of endorsement for present affiliation with Buddhism, Hinduism, and New Age / Alternative spirituality was significantly higher than that of having a corresponding background. The survey did not ask respondents when they picked up an interest in these forms of spirituality, but it seems reasonable to assume that at least some of them acquired this spiritual interest because of their entheogenic experiences. Supporting this interpretation, there was a significant difference between the 60% of respondents who reported starting out with a spiritual motivation for using entheogens, and the 69% who reported having a spiritual motivation for their continued use. The discrepant 9% translates to 21 respondents who seem to have picked up a spiritual motivation because of their engagement with entheogens.

On the other hand, respondents who endorsed having a spiritual motivation for their entheogen use reported more powerful entheogenic experiences and better long-term consequences from use. This indicates a clear impact from being spiritually motivated. Thus, while an interest in spirituality was sometimes picked up along the way, plausibly as a consequence of transformative entheogenic experiences, having such an interest was also a strong predictor of experiences with mystical-type characteristics.

More than two-thirds of the survey sample endorsed having at least one form of spiritual practice besides their entheogen sessions, with 49% practicing meditation. Furthermore, a full 91% of respondents reported using entheogens in solitude, with a single partner, or with a close group of friends, indicating that entheogenic spirituality is, to a very large extent, not organized into formal groups.

Participants in the interview study described entheogens as a positive force in their lives, resulting in healing of personal problems such as depression, anxiety, and various forms of addiction, as well as improvements to, among other things, their emotional and relational capacities. Survey respondents generally agreed with these assessments, reporting improvements both to their physical and psychological health, as well as to their spiritual practice, their ability to get along with people, and their personal happiness. This emphasis on positive consequences from use agrees with previous self-assessments (Carhart-Harris & Nutt, 2010; Johnstad, 2015), as well as with the rapidly growing literature on therapeutic applications of psychedelics (Andersen et al., 2020).

3.7 Works not included in the dissertation

This final section will briefly review other published works of mine that have investigated non-spiritual use of psychedelics (I reserve the term entheogen for spiritual use, although the distinction is not always clear-cut). The first article (Johnstad, 2015) was based on the same study as Johnstad (2018a). This article could be regarded as an introduction to the broader interview study of entheogenic spirituality, with a focus specifically on health-related topics. Interviewees reported generally positive consequences from psychedelics use for their mental health, identifying benefits for a range of conditions including depression and various addictions. However, two respondents also experienced long-term mental health problems that may have resulted from their psychedelics use.

The second article (Johnstad, 2018b) describes an interview study of people using one or more psychedelic drugs in very small doses – often described as microdoses – which were usually about one tenth of a full dose. According to the interviews, such doses give no intoxication, but some people found them to be helpful for purposes of therapy or enhancement. Although it seems possible that people could take microdoses of psychedelics for spiritual purposes, none of the interviewees in this study reported a spiritual motivation for use. This was one of the first academic articles to describe psychedelic microdosing, which has since become a subject of much interest (e.g., Anderson et al., 2019; Hutten et al., 2019; Kuypers et al., 2019; Polito & Stevenson, 2019).

A third article (Johnstad, 2020a) takes a historical look on psychedelic therapy, reviewing the experiences with this novel form for psychotherapy at Modum Bad during the years 1961–76. Under the leadership of Gordon Johnsen, this experimental treatment program involved 379 inpatients with a wide range of diagnoses, and the psychiatrists regarded it as an efficacious psychotherapeutic procedure. In retrospect, however, several reports of patients claiming long-term harm from the treatment have surfaced.

A fourth article (Johnstad, 2020c) returns to interviews with psychedelics users, but this time specifically of people claiming to have experienced telepathic communication while under the influence of a psychedelic drug. Such users are surprisingly common, and the study was able to recruit 16 individuals for interviewing, while also discovering reports from many more on various internet discussion fora who, for one reason or another, did not reply to invitation letters. In the analysis of the interviews, narratives of telepathic contact could be sorted into three different

groups: one claiming the telepathic exchange of ideas and communication, another claiming the exchange of feeling-states, and a third claiming to have melded with their telepathic partner to the extent that they could not differentiate their own thoughts and feelings from those of the partner. While this latter state is reminiscent of egoless mystical-type experiences, interviewees did not claim any explicit spiritual dimension to their telepathic connections.

A fifth article (Johnstad, 2021e) was based the Cannabis and Psychedelics User Survey, and performs analyses of the respondents' personality structure. Compared to norms, the psychedelics users recruited into this survey had higher scores on every Big Five trait except for extraversion, and also scored substantially higher than norms on a scale of risk taking. Personality scores were found to predict mystical-type characteristics of psychedelic experiences, with the traits openness and risk taking standing out as positive predictors, and extraversion and agreeableness negatively predicting mystical-type characteristics. The regression models in Johnstad (2020b, 2021c) that examined spiritual motivation as a predictor of spiritual cannabis experience controlled for the Big Five personality traits and the risk taking score, in order to identify the effect from motivation independently from potential confounders.

The sixth article (Johnstad, 2021a) combines interview and survey data in a study of challenging psychedelic experiences, known colloquially as 'bad trips'. It analyzes the causes and consequences of such challenging experiences, which most respondents regarded as having a positive long-term influence on their lives. Some experiences were quite devastating in the short to medium term, however, and 23% of the survey respondents regarded their worst psychedelic experience as one of the five worst experiences in their lives.

3.8 Concluding discussion

In this final section of the overview article, I will discuss how the above studies of entheogenic spirituality contribute to the broader field of the Study of Religions, and suggest some possible avenues for future work. I have already discussed how specific findings from individual studies contribute to the literature on entheogenic spirituality, such as it is, but Section 1.2 above also maintained that one of the most important reasons to study the spiritual use of entheogens is that it may help us gain new perspectives on the overall phenomenon of religion. Hanegraaff (2013), as we recall, stated that entheogenic esotericism (as he termed it) "challenges traditional assumptions about what religion is all about" (p. 409), echoing a previous statement from Smith (1964) that "drugs have light to throw on the history of religion, the phenomenology of religion, the philosophy of religion, and the practice of the religious life itself" (pp. 517–518).

Furthermore, I have previously maintained that the consideration of experience is important for Asadian analyses of religion and power. Since entheogenic spirituality is, per the above summary, closely related to experience, such an analytical approach seems relevant for understanding the position of this spiritual movement in contemporary societies. The entheogenic movement – what Fuller (2000) called "the religious underground" – is the only large-scale spiritual movement that is currently forbidden by law in most countries of the world, and it would seem pertinent to analyze the extent to which this situation might be a consequence of the tension between experiential and institutional sources of religious authority.

As a first approach to the question of how entheogenic spirituality challenges our understanding of religion, we can analyze this phenomenon in relation to the various definitions of religion presented in Section 1.1. For Tylor, we recall, religion was defined as "belief in spiritual beings", which seems to

include entheogenic spirituality only to a very limited degree. As described in Johnstad (2018a, p. 257), none of the interviewees spoke of belief as relevant for their spirituality. While some did mention spiritual beings or related concepts, this was always in a context of experience rather than belief. However, it might be objected that any talk of experience of spiritual beings relies on implicit belief, for instance in the form of a belief in the veracity of one's experience, which effectively translates into a belief in spiritual beings. An experience of spiritual beings, unless it is dismissed as an illusion or hallucination, seems likely to result in the formation of a new mental model of the world that accommodates spiritual beings, and such a mental model is what we generally speak of when we use the term "belief". In this sense, experience that is deemed trustworthy always relates to belief. If we accept this objection, we must acknowledge that entheogenic spirituality sometimes involves belief even when such belief is not mentioned explicitly.

When scholars such as Asad (1983) criticized definitions of religion that emphasize belief as being unduly influenced by Protestant Christianity, however, they did not attempt to deny the presence of mental world models in other forms of religion. As I read them, their critique relates to the emphasis of one aspect of religion – namely belief – over and above other aspects such as practice. In a context of entheogenic spirituality, it seems clear that we should emphasize experience over belief, even as we acknowledge that we probably cannot extricate experience from the mental model that shapes it, as per the constructivist perspective, and which the experience may in turn serve to modify. Compared to many forms of religion, therefore, entheogenic spirituality deemphasizes the importance of belief, which renders Taylor's emphasis on belief problematic with regard to this form of spirituality.

Furthermore, many interviewees did not speak of anything remotely resembling spiritual beings at all, whether in a context of experience or belief. In Johnstad (2021b), the analysis of survey data indicated two different types of entheogenic spirituality, one of which related to experiences with mystical-type characteristics including contact with non-ordinary beings and/or transcendent forces, while the other related to insight, positive feelings, and improved connections to other people and to nature. While the former type of spirituality might seem to have a relation to spiritual beings, the latter did not have such a relation. Instead, I understood it as being related to a process of personal growth, which is entirely removed from Taylor's definition of religion.

James (1902/1997) definition of religion as "the belief that there is an unseen order, and that our supreme good lies in adjusting ourselves thereto" (p. 59) could be taken as similarly problematic in its emphasis on belief. However, one might argue that James' term "unseen order" is sufficiently abstract that it might encompass the second (growth-focused) type of spirituality identified in Johnstad (2021b). If this form of spirituality finds its basis in improving one's capacity for understanding, for the inward relation to one's own feeling-states, and for the outward relations to people and to nature, then these growth processes may seem aligned with the processes of self-adjustment emphasized by James. We could imagine a (perhaps) hypothetical end point for these growth processes that represents the full realization of one's capacities for understanding, feeling, and relatedness, and see this realized state as the "unseen order" of James' definition. In this sense, we might understand the growth-focused type of spirituality as a Jamesian religion focused on the belief in a potentially attainable (at least by approximation) state of self-realization, with our supreme good lying in moving towards this state via a process of personal growth. The first type of mystically oriented spirituality identified in Johnstad (2021b) would expand upon this emphasis on personal growth with the inclusion of experiences with mystical-type characteristics, thereby adding another layer of an "unseen order" related to non-ordinary beings and/or transcendent forces.

James' emphasis on belief over experience would still seem problematic for this mystically oriented type of spirituality, however.

Whereas Tylor and James based their definitions of religion on the term "belief", Geertz (1973) understood religion as "a system of symbols" (p. 90). As Schilbrack (2005b) emphasized, Geertz' discussion of religious symbols was so focused on practices such as feasts and sacrifices that it might not seem entirely fair to see his divestment from belief as being only skin deep, as Asad (1983) arguably criticized him for. Nevertheless, to see feasts and sacrifice rites as symbols is to emphasize their role for cognition and their position in mental world models, which brings belief back on the table. Even if we follow Schilbrack in seeing Asad's reading of Geertz as "not as sharp as it might be" (Schilbrack, 2005b, p. 437) and in denying an emphasis on belief in Geertz' definition, Geertz' terms "system of symbols" and "formulating conceptions of a general order of existence" (p. 90) do seem to emphasize systematic processes of conceptualization. It is not at all clear to me that my respondents were engaged with any such metaphysics, nor that they would regard the formulation of conceptions (based, presumably, on their experiences) as even remotely central to their spirituality. Instead, as I emphasized especially in my original presentation of interview data (Johnstad, 2016, pp. 67–68), they consistently denied the possibility that their entheogenic experiences could be adequately described in language. It is my understanding that they would regard any attempt to formulate a metaphysics based on these ineffable experiences as ridiculous and absurd. I would be the first to admit that there is room for more research into this matter, but Geertz' definition of religion seems quite removed from what I see as the core characteristics of entheogenic spirituality.

The last definition that I discussed in Section 1.1 was that from Lincoln (2003, which I have taken as the definition of religion in this text. Unlike Tylor, James, and Geertz, Lincoln did not base his definition on a characterization of religion as "belief" or "a system of symbols". Instead, and more sensibly in my eyes, he stated that "anything we might properly designate as a 'religion' normally ought to include" discourse, practice, community, and institutions (Lincoln, 2003, pp. 5–7). I have already separated spirituality from religion on the basis of Lincoln's institutions, and thus it might be said that entheogenic spirituality, as far it might be properly designated as "spirituality", (normally) ought to include discourse, practice, and community. As I have identified entheogenic spirituality in my studies, it does in fact include all of these, although the inclusion of discourse is provisional.

In order to obtain participants for my studies, I visited internet fora devoted to discussions of psychedelics use and published invitations in appropriate discussion threads. Such discussion fora obviously constitute discourse, and anyone invited via these fora would necessarily have a relation to such discourse. Thus, my recruitment strategy guaranteed that everyone included as a participant had a relation to discourse about psychedelics use. However, this fact might be regarded as evidence of recruitment bias. As far as I know, it is entirely possible that there are spiritually motivated entheogen users somewhere out there who do not see any need for discussing or otherwise engaging in any form of discourse about their experiences, since they may regard these experiences as having the defining characteristic of being ineffable. If language is inadequate for the task of describing entheogenic experience, they may not see any purpose with engaging in discourse relating to such experience. This would be a problem for Lincoln's definition, although his "normally ought to include" opens for some deviation. Of course, the existence of such a discourse-resistant segment of entheogen users is speculative, since my respondents were in fact recruited via discussion fora.

Furthermore, Lincoln's elucidation of religious discourse emphasizes concerns transcending the "human, temporal, and contingent". This would work fine for discourse about entheogen-induced experiences with mystical-type characteristics, which do relate to such transcendent matters. With

regard to the growth-focused type of spirituality identified in Johnstad (2021b), however, Lincoln's focus on transcendent concerns is somewhat off-target. It is also far from clear that the discourse that spiritual entheogen users might involve themselves in – even when it relates to transcendent concerns – “claims for itself a similarly transcendent status”, as Lincoln claimed it ought to. On the contrary, the spiritual entheogen users I have communicated with expressed a very low confidence in their ability to say anything meaningful about the entheogenic experience, and especially about any aspect of this experience that might seem related to mystical-type characteristics. As noted in my terminological discussion in Section 1.1, I understand Lincoln's status claims in the context of his emphasis on religious institutions' concern with legitimizing their authority and power, and this point would, therefore, have to be de-emphasized in order to adapt his definition to “spirituality”.

Thus, although there is an element of discourse in the entheogenic spirituality I have investigated, Lincoln's characterization of religious discourse is not closely aligned with the discourse involved in entheogenic spirituality as I have understood it. This is not to imply that entheogen users would never claim any sort of special status or authority for the discourse with which they give shape and form to their entheogen-informed models of the world: even if I have not spoken to many such individuals, I am aware of their existence. Nevertheless, Lincoln's emphasis on such claims to status is in a state of tension with the actual discourse I have observed among entheogen users. In sum, while entheogenic spirituality as I have investigated it does involve the domain of discourse, the characteristics of this discourse do not quite conform to Lincoln's description of what it ought to be. Only my adaptation of Lincoln's “religion” to “spirituality” could possibly bring the phenomenon I have studied under his definitional wings, and then only if we allow for a partial fulfillment of his emphasis on transcendent concerns in religious discourse. Otherwise, we may have to take refuge in the implicit escape clause in Lincoln's “normally ought to include” in order to apply his definition to entheogenic spirituality.

The dimension of religious practice in Lincoln's definition is more straightforwardly applied to entheogenic spirituality, as long as we may allow ourselves to soften his “as defined by a religious discourse” to something like “informed by”. Lincoln specified that the purpose of religious practice is to “produce a proper world and/or proper human subjects”, which is directly relevant even for the growth-oriented type of entheogenic spirituality: we could thus understand entheogen use as a Lincolnian spiritual practice that facilitates transformative experiences and personal growth for the user. Similarly, Lincoln's dimension of community is directly relevant for the entheogen users recruited into my studies, who were all members of internet communities related to the discussion of such use. One difference, nevertheless, is that these communities were not explicitly or exclusively spiritual, but also encompassed non-spiritual drug use. However, it might also be possible to see the broader spiritual entheogen movement as a community, in the same sense that we might understand the new spirituality (or New Age) movement as a community. Lincoln emphasized that members of religious communities “construct their identity with reference to a religious discourse and its attendant practices”, and it seems clear that many members of these movements do construct their identity with reference to the discourses and practices related to the movement. Thus, the subset of the members of these movements who construct their identity on the basis of such discourse and practice would seem to constitute a Lincolnian community.

As a summary of the discussion so far, it appears that entheogenic spirituality could not easily be categorized as religion as defined by Tylor, James, Geertz, or Lincoln, although my adaptation of the latter allows, at least with a few qualifiers, for its categorization as spirituality. It would seem, therefore, that Hanegraaff's (2013) promise that this form of spirituality would challenge our assumptions of what religion is about has been fulfilled. Moreover, my work on entheogenic

spirituality has identified a number of tantalizing, yet obviously tentative, pieces of evidence that could be seen as challenges to the constructivist account of religious or spiritual experience (e.g., Katz, 1978, 1983). To be clear, I do not claim that these pieces of evidence might challenge the position that experiences are generally mediated via and shaped by cultural frameworks, but the evidence might seem to indicate that the impact from such frameworks has sometimes been over-emphasized.

Before I start reviewing this evidence, I want to remind the reader that these are tentative findings from relatively small-scale explorative studies, none of which settle any scholarly questions or issues. Nevertheless, they may help us see some of these issues in new ways, and one such issue relates to the connection between entheogen users' religious background and the kinds of entheogen-induced spiritual experiences they end up with. In my initial interview study (Johnstad 2016, 2018a), the participants were all westerners from either Christian or secular backgrounds. Interestingly, however, not one of them reported any Christian themes in their entheogenic experiences. Instead, they either regarded their background as irrelevant for their experiences or, in a few cases, saw these experiences as facilitating a break with the religion they were brought up with and had, until they started using entheogens, counted themselves as members of.

This identification of a lack of impact from one's religious background on one's entheogen-induced spiritual experiences might seem surprising from a constructivist perspective. There was some support for such a lack of impact in the data from the Cannabis and Psychedelics User Survey as well: as reported in Johnstad (2021c), 23% of respondents endorsed having a Christian background, but only 18% had a present affiliation to Christianity. This change was only marginally significant ($p = .06$), but was noteworthy when seen in the context of other changes in religious or spiritual affiliation, which were uniformly positive. Affiliations for Buddhism, Hinduism, and New Age / Alternative spirituality all increased substantially to about double or triple levels of the reported background, and each of these changes was highly significant ($p < .001$). Thus, it appears that many of these respondents, who were predominantly from Europe or North America, lost interest in the Christianity they were raised with and moved towards Eastern religions and/or New Age / Alternative spirituality.

One possible explanation for this apparent movement away from Christianity and towards Hinduism and Buddhism might be that some entheogens, notably the classic psychedelics, commonly induce experiences of ego dissolution (Lebedev et al., 2016; Millière et al., 2018; Nour et al., 2016). Using the model for ego dissolution experiences developed by Millière et al. (2018), I analyzed a range of such experiences in Johnstad (2021d). Furthermore, the survey data described in Johnstad (2021b) indicate that 48% of respondents experienced ego dissolution as an aspect of their (self-assessed) most meaningful entheogenic experience. Cannabis use was more marginally associated with ego dissolution, with 9% reporting this characteristic for a typical cannabis experience (Johnstad, 2020b). While there is a long tradition of mysticism in Christianity (e.g., Underhill, 1911/1999), it is probably true to say that ego dissolution is not commonly emphasized in most forms of Christianity, whereas many would perceive Eastern traditions such as *Advaita Vedānta* and some forms of Buddhism as placing more emphasis on such types of experience. Thus, on the basis of these findings, it might be possible to formulate the hypothesis that entheogen-induced ego dissolution experiences are not strongly influenced by the users' religious backgrounds, but tend to occur irrespectively of cultural frameworks. When western entheogen users have such experiences, and perhaps understand them as meaningful spiritual experiences, they may feel that the Christianity they have grown up with does not help them understand and integrate these experiences, turning instead towards cultural traditions that may seem more helpful in this regard.

I am not aware of previous research that has investigated the impact from entheogen use on one's specific religious or spiritual affiliation, although I believe the subject is quite interesting in and of itself and also very relevant to the question of how cultural frameworks affect spiritual experience. As mentioned previously, however, there have been isolated reports of committed atheists having experiences of encounters with divine or transcendent forces (Anderstuen, 2014; Saunders et al., 2000). Furthermore, a survey study by Griffiths et al. (2019) found that about 730 people who identified as atheists had experienced encounters with "God" on entheogens, and more than two-thirds of those people "no longer identified as atheist afterwards" (p. 1).

While the evidence described thus far might seem to challenge constructivist accounts of spiritual experience, there is also supporting evidence in my findings. As described in Johnstad (2021b), having a religious or spiritual affiliation and a conventional religious or spiritual practice predicted mystical-type characteristics in entheogen-induced experiences. One interpretation of this finding might be that cultural frameworks served to impact and shape such spiritual experiences.

Some interpretations of entheogenic spirituality do seem to have overemphasized the impact from such cultural frameworks, however. In an analysis of the works of Terence McKenna – "the most influential psychedelic thinker since the 1960s" – Partridge (2020, p. 31) documented McKenna's interest in UFO phenomena, seeing this interest as having influenced other psychedelic thinkers such as Jim DeKorne. On this basis, he concluded that when psychedelics users follow McKenna's advice to explore non-ordinary reality via DMT, typically "what [they] find is McKennan" (Partridge, 2020, p. 51). As I understand him, Partridge was here suggesting – perhaps rather boldly, for a study mainly of a few leading figures in the entheogenic movement – that the experiences of ordinary DMT users tend to be strongly shaped by the conceptual framework established by McKenna. The only time an interviewee in any of my studies said anything about UFOs, however, was in the context of a description of a (self-assessed) psychotic episode (Johnstad, 2021a): not a single person spoke about UFOs or extraterrestrials in the McKennan sense of an alien partner species that might help humans evolve if we only learn to communicate with them via entheogens. This is not to deny that there are entheogen users who would subscribe to such McKennan notions, but as far as my studies are concerned, ufology is very far from a typical concern in entheogenic spirituality.

More generally, studies of the writings of well-known figures in the entheogenic movement often impart a level of authority to these figures that was not reflected in my own empirical investigations of entheogen users. While interviewees did occasionally mention being inspired by publications such as Ball (2009), Strassman (2001), Shanon (2010), and, indeed, McKenna (1992), there were no indications that McKenna was understood as a prophet-like figure of great authority. When Monteith (2016) named his article "The words of McKenna" and spoke of "McKennan religion", he therefore imparted a status on this writer that greatly exceeded his position in the eyes of my interviewees, as I understood them. Of course, there may be other entheogen users who see McKenna in a more exalted light, but at least there was no evidence of "McKennan religion" in my studies. While there is certainly room for more work in this area, one conclusion from my interview study was that entheogen users do not generally regard descriptions of entheogenic experiences as especially authoritative, because such experiences are ineffable (Johnstad, 2018a). What is authoritative is the process of entheogenic *experiencing*, not subsequent interpretation or commentary. This does not mean that interviewees were uninterested in discourse about entheogenic experiences, but the fact that any such writing could not, in their eyes, amount to more than a semi-successful attempt to describe the indescribable places a very clear limit on the authoritativeness of discourse.

As I have understood entheogenic spirituality, therefore, it does not have much room even for informal positions of authority. In this movement, the entheogenic experience is the undisputed

source of true insight and understanding, but such experiences are fundamentally incommunicable. Thus, it would seem, you cannot be told the truth, but have to experience it for yourself. Furthermore, while some experiences are clearly more authoritative than others, there is no means of comparing experiences across different people, and therefore no way of assessing whose experience was the most authoritative. The experience is private at least in the sense that only the individual can determine the extent to which their experience was meaningful, transformative, or authoritative.

As far as I have understood this spiritual movement correctly, the above observation entails that in addition to its lack of formal organization that might impart institutional authority, entheogen spirituality also seems to lack any clear means of establishing experientially based authority – at least internally among entheogen users. While one user’s depiction of an experience can be interesting and inspiring, any such depiction must be understood as only a weak echo of the actual experience, and therefore cannot hold a position of authority for anyone else. In a fundamental sense, then, only one’s personal experience can be spiritually authoritative.

Of course, there are other possible bases of authority – eloquence, charisma, credibility, years of experience, various forms of personal capacity – that are as relevant for the entheogenic movement as for any other movement, and this movement has had a long range of leading figures. Even without spiritual leadership based on institutional or experiential authority, the entheogenic movement clearly has room for organizers, facilitators, guides, and so forth. But a person cannot claim leadership of this movement on the basis, for instance, that “God has spoken to me”, because 51% of spiritually motivated entheogen users claim to experience “unity with transcendent forces” regularly (Johnstad, 2021c, Table 4). Such experiences are, therefore, not especially unusual, and there is no way to assess their relative authority as a basis for leadership claims.

Before we continue to the discussion of what the above observations about authority in the entheogenic movement imply for the relationship between religion and power, I want to take the time to point out one other implication from my work, namely that studies of spiritual phenomena should not be left solely to psychologists. As Monteith noted back in 2016, “nearly everyone writing about religion and substance use is writing from outside the discipline of religious studies” (p. 1082), and while these researchers have made many important contributions to our understanding of entheogenic spirituality, their work sometimes suffers from a lack of familiarity with the literature of the Study of Religions. One problem in this regard, which I discussed especially in Johnstad (2021b), is that psychologists have tended to limit their investigations specifically to experiences with mystical-type characteristics. However, I believe that any scholar of religion would recognize that spirituality cannot be reduced only to spiritual experience, and spiritual experience for its part cannot be reduced only to mystical-type experience. The psychologists’ focus only on the latter type of experience is, therefore, overly narrow, and does not allow for a broader understanding of entheogenic spirituality. Similarly, as I pointed out in Johnstad (2021d), Millière et al.’s (2018) model for ego dissolution experiences characterizes mystical-type experiences without reference to spirituality or religion. While their model is certainly interesting and useful, it (arguably) does not account for the rather common tendency, both among entheogen users and in other forms of mystical experience, of experiencing ego dissolution in the context of a simultaneous merging or unification with a transcendent force. Ego dissolution, then, is not only a de-identification with one’s

ordinary sense of self, but in many cases also a new identification with an expanded sense of self that encompasses a transcendent force. This facet of ego dissolution experiences would seem like an obvious basis for ascriptions of spirituality to the experience, and many people would probably also regard it as a more important facet than the initial de-identification stage that involves the disruption of what Millière et al. called narrative and multisensory aspects of self-consciousness.

The bottom line is that scholars of religion would seem to have significant contributions to make to the study of entheogenic spirituality, and often in relation to perspectives that psychologists might tend to overlook.

I argued above that spiritual experience may hold an important role for Asadian analyses of the relationship between religion and power. If spiritual experience can serve as a basis for claims to spiritual authority, which would seem obvious, it can thereby also serve as a possible challenge to the authority of institutional religion. Ironically, however, I have also argued that it is difficult to establish spiritual authority among entheogen users – at least in the contemporary era – on the basis of entheogenic experiences, because such experiences are widely regarded as ineffable, and types of experience that would be regarded as very unusual outside of the entheogenic movement seem to be fairly common within the movement. Nevertheless, I believe both points are valid. The former dynamic applies generally, and the latter applies to people who can calibrate impressively-sounding reports in light both of their own experiences and the discourse about such experience within the entheogenic movement. It is possible, however, that the latter dynamic applies mainly to the contemporary era, as the internet has probably facilitated an unprecedented degree of open communication about entheogenic experience.

Historically, at any rate, it would seem clear that persons external to a religious hierarchy might, on a basis of their personal experience, claim a level of spiritual authority surpassing that of the religious institution. By challenging the authority of the institution, such outsiders also challenge its power. In power-centric analyses, we assume rather straightforwardly that people who possess power are concerned primarily with retaining it: for such analyses, as I would understand them, power is the only true god. This is not to imply that religion is only about power, but the power-centric analysis assumes that religion is – not exclusively, but importantly – about power, and proceeds from that basis. In effect, we might see it as asking: *if* religion were only about power, in what ways would the power structure regulate discourse, practice, and community? What norms would it implant on discourse, practice, and community if it were only concerned with strategies related to the expansion and consolidation of power? Compare then the ideal strategy from a perspective in power concerns to the actual behavior of this religious institution in the world, and this would give you an idea of how much such concerns matter for behavior.

In order to maintain its hold on power, a religious institution must protect itself from outsiders with claims to spiritual authority. In Section 1.3 above, I discussed two basic approaches to institutional power consolidation: cooptation, which entails bringing the outsiders into the fold of the institution, and suppression. Cooptation would normally be the preferred approach, since it would turn a potential challenge to the institution's authority into a source of authority for this institution. However, this approach may not always be viable, for instance if the spiritual experience in question diverges too far from orthodoxy. It would also seem problematic if claims about authoritative

spiritual experiences are very common, so that the religious hierarchy repeatedly has to open its ranks to admit outsiders with experientially based claims to spiritual authority. Cooptation may increase the institution's authority in an overall sense, but the inclusion of new people into the power structure also serves to diffuse power inside the organization.

Experiences with mystical-type characteristics probably inspire some of the strongest claims to spiritual authority. If a person can claim to have experienced some sort of intimate encounter with divine figures or transcendent forces, any discrepancy between the information obtained from this experience and the orthodoxy of a religious institution would constitute a particularly problematic challenge to the authority of the institution. It is also reasonable to assume that such encounters often seem highly meaningful and important to the person having the experience, and that the experience may therefore encourage this person to make strong claims about the discrepancies between the information gained from the experience and the institutionally regulated traditions of orthodoxy and orthopraxis. In terms of both their inherent authority and their psychological effect on the person undergoing the experience, therefore, experiences with mystical-type characteristics might constitute among the most powerful challenges to the authority of an institutional religion.

The use of entheogens commonly induces experiences with mystical-type characteristics and other forms of spiritual experience. This fact is well established, including in my own research as presented in this dissertation. As mentioned above, more than half of the spiritually motivated entheogen users who participated in the Cannabis and Psychedelics User Survey claimed to experience "unity with transcendent forces" on a regular basis (in other words, in a *typical* entheogenic experience: see Johnstad, 2021c, Table 4). Of the full sample, 56% endorsed this characteristic for their most meaningful entheogenic experience, and 42% for a typical experience (Johnstad, 2021b, Table 2). Furthermore, respondents to this study, in a parallel to the landmark study by Griffiths et al. (2006), overwhelmingly emphasized the meaningfulness of the experience for their personal lives. In addition to having the sort of characteristics that might seem to form a promising basis for claims to spiritual authority, therefore, these experiences also had a substantial psychological impact of the type that might encourage people to make strong claims about matters related to spirituality and religion.

It should be emphasized at this point that we have no guarantees that the above findings are representative of the full population of entheogen users. Indeed, as I have argued in Johnstad (2021f), our understanding of this population is so limited that we currently could not even say what a representative sample of the population might look like. However, even if the figures quoted above cannot be taken as representative, they are congruent with a long range of findings indicating the capacity of entheogens to induce experiences with mystical-type characteristics in substantial numbers of users (e.g., Lyvers & Meester, 2012; Pahnke, 1966; Strassman, 2001; Yaden et al., 2017). Therefore, even as the specific figures may vary because of different research methodologies and sampling strategies, there is little doubt that entheogen use serves to provide access to such experiences for many users.

Such democratization of access to experiences with mystical-type characteristics may, in and of itself, challenge the authority of institutional religion. If the hierarchy of religious specialists presents itself as an intermediary between ordinary people and divine figures or transcendent forces, then its legitimacy may seem to rely upon the absence of any (perceived) direct connection between the two. In order to legitimize itself, such a religion would be incentivized to emphasize the distance between the human and the divine, because an intermediary, I would imagine, is only necessary when there is a gap to be crossed. As far as such an emphasis has been established as orthodoxy, independent experiences of unification with transcendent forces would seem to challenge this orthodoxy. (Cases

of non-independent unity experiences, for instance among members of the religion's monastic orders, are not as problematic since they allow for the perception that institutional religion functioned as a necessary intermediary.) What would seem most problematic of all is if the access to such independent unity experiences has been democratized to the extent that large numbers of laypersons might have such experiences regularly. As far as entheogens serve to democratize access to experiences of (perceived) contact with transcendent forces, they also serve to render the mediating function superfluous, thereby threatening the religious hierarchy's claim to authority and, finally, its hold on power.

From an analysis of religion in terms of its relation to power, therefore, it is not difficult to understand Klass' (1995) emphasis on how a "priest" in a hierarchical religion is not allowed to bypass the chain of command by seeking independent contact with divinities. Moreover, it would also be easy to extend this point to laypersons, whose independent contact with divine figures (or the perception of such) constitutes an even stronger challenge to the hierarchy. An objection to this power-centric form of analysis, however, is that such analyses are reductive and cynical: even if religion has a relation to power, its regulation of discourse, practice, and community cannot (according to this argument) be understood exclusively in terms of power consolidation. I would tend to concur that we should be skeptical of reductive approaches, and especially in the sort of universalizing context that might seem unavoidable for any kind of discourse about religion as a general phenomenon. In the present context, however, the point is not to argue that the resistance from institutional religion towards independent contact with the divine can be reduced in its entirety to considerations about power, but rather to argue that such power considerations seem sufficient to explain this resistance. Such an argument does not deny the presence or relevance of considerations based in other concerns, that may or may not have their own relations to questions of power, but sees considerations about power as being explanatorily powerful in their own regard. In other words, although other considerations may also be relevant, an analysis of authority and power seems sufficient to explain the dynamic whereby institutional religion is incentivized to suppress independent contact with divinities.

While there are many possible ways to induce such contact experiences – prayer, meditation, fasting, sensory deprivation, chanting, and dancing being but some techniques – the use of entheogens is arguably in a class of its own in terms of its success rate. I am not sufficiently familiar with the scholarly literature on other forms of induction techniques to speak with any authority about how efficacious they are perceived to be among their respective practitioners, but I would be very surprised to learn that the earlier quoted figure of 51% endorsement of the characteristic "unity with transcendent forces" in a typical entheogenic experience (Johnstad, 2021c, Table 4) is not exceptionally high. To take one example from a non-entheogenic form of practice, noting that the respective characteristics are differently described and the figures therefore not directly comparable, Osto (2016) reported that 25.5% of participants in a *vipassanā* meditation course had a "mystical/religious/spiritual experience" (p. 117, Figure 4.4). Thus, I will take it for granted that while there are many ways to induce experiences with mystical-type characteristics, entheogen use is uniquely efficacious in this regard. Some would object to this assessment by claiming that (unsupervised) entheogen-induced spiritual experiences are, in some way or another, inauthentic, and that the actual efficacy of such drug use for purposes of mysticism is therefore nil (e.g., Sullivan & Austriaco, 2016; Zaehner, 1972). However, there are no objective means of establishing the authenticity of a putative spiritual experience, and in a context of the relation between religion and power any such authenticity is beside the point: what matters from this perspective is not whether the experience *is* authentic, but whether it has a *claim* to authenticity and thereby may serve as a challenge to institutional authority and power. Since there is no doubt that entheogen users often

regard their induced experiences as being authentically spiritual, the reality of the challenge it presents to institutional religion is also not in doubt. In a Lincolnian perspective that – at least as I read him – emphasizes religion’s concern with legitimizing authority, we would understand the attempt to de-legitimize entheogenic spirituality as an instance of institutional regulation over discourse, practices, and community. Seen from this perspective, the claims about inauthenticity found in Zaehner (1972) and Sullivan and Austriaco (2016) could be understood as giving expression to norms imposed upon discourse by a religious institution as part of an attempt to suppress authority-challenging spiritual experiences. The influence from the religious power structure over discourse was especially clear for Sullivan and Austriaco, both members of the Dominican Order, whose dismissal of entheogens as “magical keys” quoted a 2010 publication by Ratzinger, at the time also known as Benedict XVI, stating that “[d]rugs are the pseudo-mysticism of a world that does not believe yet cannot rid the soul’s yearning for paradise” (Sullivan & Austriaco, 2016, pp. 167–168).

This brings us to the issue of the criminalization of entheogens in the modern world. Besides the previously discussed campaign by Christian missionaries in Asia to suppress opium use (Lazich, 2006; Lodwick, 1996; Pettus, 2016), I am not aware of any direct connection between the power structures of institutional religions and the campaign of drug criminalization that was initiated in the early 20th century. Nevertheless, this criminalization campaign might be said to follow in the footsteps of previous campaigns, such as that against peyote use in Mexico, that were organized by religious institutions. Furthermore, the 20th century discourse on the perceived drug problem was often influenced by religious perspectives. The use of exclusion terms from the Christian tradition for drugs used in non-Christian cultures extends at least as far back as the introduction of coffee to Europe in 16th century, when this drug was initially labeled the ‘Devil’s drink’ and the ‘bitter invention of Satan’ by some representatives of the Catholic Church (Chrystal, 2016; Ukers, 1935/2011). While ecclesiastical opposition to this mildly stimulating and distinctively non-entheogenic drug did not last, the negative branding continued as the Church attempted to suppress peyote rituals in Mexico as a form of demon worship. One confessional for penitent transgressors asked

Dost thou suck the blood of others? Dost thou wander about at night, calling upon demons to help thee? Hast thou drunk peyotl, or given it to others to drink ...? (LeBarre, 1938, p. 23).

Such demonization of drug use not traditional to European cultures extended well into the 20th century. When the US Federal Bureau of Narcotics presented its case for the criminalization of cannabis during the Congressional hearings for the 1937 Federal Tax Act, they argued that cannabis use was the reason behind the growth of ‘satanic’ jazz and swing music (the Bureau also warned that “marijuana causes White women to seek sexual relations with Negroes”) (Gerber, 2004, p. 9). Similarly, opium was commonly referred to as the ‘demon flower’ in the late 19th and early 20th century (e.g., Graham-Mulhall, 1926), and 1930s anti-cannabis movies labelled the plant ‘the devil’s weed’. Western missionaries who fought for the suppression of opium use in China often spoke of the drug as ‘evil’ (Lodwick, 1996), and such labeling also found its way into the rhetoric of international drug control:

The missionaries’ insistence on deploying absolutist categories such as sin, evil, and slavery to describe opium use found its way into the text of the multilateral treaties, commentaries, and diplomatic discourse that structure the international narcotics control regime today (Pettus, 2016, p. 56).

Thus, the United Nations Single Convention on Narcotic Drugs of 1961 portrayed drug use as ‘evil’, while in more recent debates drugs were framed in terms such as a ‘scourge’ or ‘monster’ threatening to annihilate humanity and requiring the response of an ‘international crusade’ (Hobson,

2014; Room, 1999). Interestingly, neither slavery, apartheid, nor torture has ever reached the same level of iniquity in the language of UN conventions (Lines, 2010).

It might be objected to this line of argumentation that the modern policy of drug criminalization, although it is perhaps aligned with institutional religion's attempt to regulate religious discourse, practices, and community, is not fundamentally concerned with such religious matters, but rather with public health. As such, the apparent alignment with religious regulation of discourse and practice is (putatively) merely a historical accident, since the real purpose of the criminalization policy is, and has been, to protect people from harm. The problem with this objection, however, is that the use of entheogens (MDMA, cannabis, and classic psychedelics such as LSD and psilocybin) has repeatedly been found to be less harmful than the use of alcohol and tobacco. Overall assessments of drug harmfulness by research teams in the UK (Nutt et al., 2010), in Europe (van Amsterdam et al., 2015), and in Australia (Bonomo et al., 2019) uniformly found alcohol and tobacco to be more harmful than the use of psychedelics, MDMA, and cannabis. In terms of acute lethal toxicity, alcohol has a worse safety ratio than any entheogen has (Gable, 2004), and in terms of violent behavior, there is clear evidence of an association of alcohol use and violence (Coomber et al., 2019; Parker & Auerhahn, 1998; White et al., 2019), whereas the use of psychedelics, MDMA, and cannabis seems to be associated with reduced violent behavior (Boles & Miotto, 2003; Hoaken & Stewart, 2003). There is also a much stronger association between alcohol use and traffic accidents than for cannabis use (Drummer et al., 2020; Hels et al., 2013; Li et al., 2017; Martin et al., 2017), and the association between tobacco and psychosis is generally stronger than the association between cannabis and psychosis in studies including assessments of both (Di Forti et al., 2019; Gage et al., 2014; Hartz et al., 2014; Wiles et al., 2006; the only partial exception I am aware of is Rössler et al., 2012). The same appears to hold for evidence of cognitive impairment, which is more strongly associated with tobacco use than with cannabis use (Mokrysz et al., 2016; Stiby et al., 2015). Finally, the use of psychedelics, MDMA, and cannabis also seem substantially less likely to result in dependence than the use of alcohol and tobacco (Anthony et al., 1994; Lopez-Quintero et al., 2011). In sum, the entheogenic drugs discussed in this dissertation appear to be less harmful than alcohol or tobacco on a number of indicators.

Admittedly, such harms comparisons may not have been clear to most people during much of the 20th century (but see Indian Hemp Drugs Commission, 1895; Irwin, 1973; La Guardia Committee Report, 1944; National Commission on Marihuana and Drug Abuse, 1972). Nevertheless, the fact that entheogens have been criminalized on account of their harmfulness without the existence of a scientific basis for the assessment that these drugs were actually more harmful than the legally available alcohol and tobacco, indicates that other, non-medical concerns may have played a role in the criminalization effort. One such concern was clearly the racism so blatantly at display in the abovementioned 1937 US Congressional hearings (for more on this subject, see Bonnie & Whitebread, 1970; Boyd, 2021; Earp et al., 2021; Hart, 2020; Hickman, 2000), but the demonization of these drugs in pro-criminalization discourse might also seem to indicate a religious influence. At a minimum, it would seem that the modern criminalization regime is aligned with the interests of institutional religion on the subject of democratized access to independent mystical-type experiences.

Lincoln (2007) once stated that the Study of Religions “is the only academic field that is effectively organized to protect its (putative) object of study against critical examination” (p. 167). I am not in a position to say whether this is true, but I would read his statement in the context of his understanding of religious institutions as having a regulatory effect on discourse. Of course, scholarly discourse on religion is not (or should not be) the same as religious discourse, but if Lincoln is correct in seeing the academic field as being organized to protect religion from critical examination, then presumably this state of affairs must be the result of some influence, direct or indirect, from institutional religion on the academic study of religion. In one way or another, then, religious power structures must have managed to regulate scholarly discourse on religion.

This analysis might help us understand why scholars of religion have tended to ignore entheogenic spirituality. If the field of the Study of Religions is organized to protect institutional religion, then it would presumably want to exclude entheogenic spirituality from its purview since, as argued above, democratized access to experiences with mystical-type characteristics is potentially very harmful to institutional religion. The exclusion of entheogenic spirituality from the Study of Religions would contribute to the continued delegitimization of this spiritual movement, which in turn would contribute to its continued suppression via criminal law, thereby protecting institutional religion. At any rate, the Study of Religions operates within a broader societal context and, as such, is presumably as influenced by the drug war discourse as everyone else. If the drug war discourse is at least partially shaped by institutional religion’s attempt to suppress means of democratized access to mystical-type experiences – which it is, according to my earlier analysis, incentivized to suppress – then it would be true to say that religious power structures have managed to regulate scholarly discourse on religion. In effect, the institutional religion’s strategic delegitimization of entheogenic spirituality as spiritually worthless – the “pseudo-mysticism” of Ratzinger (2010, p. 26) – would have served to regulate discourse on such spirituality to an extent sufficient to make scholars of religion exclude it from their purview.

To what extent has the resistance from institutional religion towards entheogenic spirituality, as exemplified by Ratzinger’s accusation of pseudo-mysticism, shaped societal discourse on illicit drug use? Since this discourse is obviously implicated in the criminalization of entheogens and, it would seem to me, in the rejection of entheogenic spirituality from the purview of the Study of Religions, an answer to the above question would help us answer two other questions: (i) to what extent has the resistance from institutional religion towards entheogenic spirituality shaped the war on drugs, and (ii) to what extent have religious power structures managed to regulate the scholarly discourse on religion? I do not have any clear answers to these questions, except that it seems likely to me that the extent is above zero, but I believe they are questions academics should investigate.

If religious institutions have a regulatory influence over the scholarly discourse on religion, we would imagine that the impact is nowhere stronger than with regard to the discourse on this specific institution itself. Therefore, to observe the influence a religious institution may have over academic discourse, we might analyze scholars of religion’s discourse on the institution itself. To what extent does this discourse conform to a framework that the institution would approve of? I would read Lincoln (2007) as saying that the extent of such conformity is probably high, but it should be possible to perform an actual discourse analysis of the matter. In order to understand religion in a context of power, we must study the impact of religion on how people talk about issues relevant to religion, and an obvious approach to such a study would be to analyze how scholars of religion talk about matters that are of relevance to societally powerful religions.

For Christianity, which is the only religion that wields considerable power in the western world, such topics might include apocryphal gospels (Burke, 2010; Jenkins, 2001), child abuse (Capps, 1992;

Faggioli, 2019; Greven, 1991; Jenkins, 1998), and entheogenic spirituality. One particularly interesting subject in this regard is the scholarly reception of evidence seeming to indicate the use of entheogens among early Christian congregations. If Christian institutions have an interest in delegitimizing entheogenic spirituality because of the threat it represents to the institutions' authority and power, they would presumably take a dim view of the proposition that such entheogenic practices have been a part of Christianity itself. Perhaps it is unsurprising, then, that the intensity of the scorn and ridicule with which scholars greeted Allegro's (1970) publication – in Jenkins' (2001) words, “possibly the single most ludicrous book on Jesus scholarship by a qualified academic” (p. 180) – might seem to indicate a revulsion extending deeper than a mere professional disagreement over methodology and interpretation.

More recent contributions on this subject, such as those by Rush (2008, 2011), have for their part been entirely, perhaps studiously, ignored by scholars of religion. Under normal circumstances, one might imagine that the identification of a mushroom motif in a range of ancient, medieval, and renaissance Christian art by a professor of Anthropology would at least be worthy of consideration, but that is obviously not the case here. (I checked Google Scholar for citations of these publications by Rush: they have zero citations by scholars of religion in peer-reviewed publications, including zero book reviews.) Even if Rush was entirely mistaken in how he presented and discussed this material – even if his analysis of the material was entirely without merit – it is hard to understand that (parts of) the material itself is not of some interest to some scholars of religion. Much the same might be said about the reception of Samorini's (1998, 2001, 2012, 2019) work. My impression is that scholars of religion shun the subject of Christian entheogen use almost as if there is a religious taboo against it – refusing even to consider what seems to my non-expert eyes like fairly convincing evidence of entheogenic survivals in various corners of Christianity – because they are afraid to get entangled in the sort of reputation-destroying disputes that ended Allegro's career. The entire subject has been rendered poisonous. It would not be impossible to conclude, tentatively of course, that the scholarly discourse on religion does seem to conform to the interests of institutional religion at least in this case.

While the spiritual or religious use of drugs is very far from being a priority, there are some indications that scholars of religion are starting to acknowledge, in Hanegraaff's phrase, what is happening right in front of their eyes. Nevertheless, the study on entheogenic spirituality as a specialization within the field of the Study of Religions is, to my assessment, in its infancy, and there is much work to be done. This final section will outline some possible directions for research in entheogenic spirituality and on the relationship between religion and power.

One recurring concern about entheogenic spirituality, voiced for instance by Smith (1964/2000), is that entheogen use may not have a lasting impact on people in the sense of affecting their behavior. Strassman (2001) similarly noted that the spiritual experiences induced in his DMT study did not lead to increased engagement with formal spiritual practices. An important methodological issue in this regard is that most of the research on entheogen users – including my own – is cross-sectional, and therefore cannot obtain objective assessments on how entheogens affect behavior over the long term. Of course, many such studies have asked participants to provide their own assessments of what long-term impact their entheogen use has had on their lives, with my own survey finding evidence of a strong positive influence on the self-assessed extent of spiritual practice (Johnstad,

2021c). There is also evidence that experience with psychedelics is associated with proenvironmental attitudes and behavior (Forstmann & Sagioglou, 2017; Pedersen et al. 2021) as well as various forms of prosocial and behavior and spiritual practice (Griffiths et al., 2018; review in Jungaberle et al., 2018). Furthermore, there exist some studies with repeated assessments over longer periods of time, including Doblins' (1991) follow-up of the participants in Pahnke's (1966) study and Griffiths et al.'s (2008) follow-up of their own 2006 study. Nevertheless, there would seem to be a dearth of longitudinal studies of entheogenic spirituality, with one obvious methodological explanation being that repeated measurements over time necessitate researchers' knowledge of participants' identities. Obtaining and maintaining such knowledge is very complicated both ethically and for recruitment purposes, since entheogen use is generally criminalized throughout the world. The contemporary wave of decriminalization policies especially for cannabis, but also for classic psychedelics for instance in Oregon, will probably make such longitudinal research more feasible, however. This is fortunate, since longitudinal research is probably in position to make important contributions to current knowledge about entheogenic spirituality.

Researchers who are not in position to make the sort of long-term commitments necessary for longitudinal studies can still contribute to the field via cross-sectional methodologies, however. As the field of studies in entheogenic spirituality is still at an early stage, all research findings extant today must probably be regarded as tentative. (The only major exception related to this field is the clinical study of MDMA and psilocybin in psychotherapy, which is approaching maturation: see Bird et al., 2021; Mitchell et al., 2021.) With regards to my own research efforts, almost every finding must be regarded as explorative, and therefore as subject to future confirmation, refinement, modification, or rejection. I have engaged with some such hypotheses-testing research myself, in the sense that the quantitative survey study (see especially Johnstad, 2021c) tested the results of the previous qualitative interview study (see especially Johnstad, 2018a), but there is a need for many more such hypotheses-testing studies related to both my own tentative findings and to the findings by other researchers.

Furthermore, many topics remain essentially unexplored. One such promising but largely unexplored subject relates to the combination of entheogen use and meditation. In my interview studies, respondents sometimes described how they combined entheogen use with meditation practice (Johnstad, 2018a) or employed meditation-like skills to direct their consciousness during challenging psychedelic experiences (Johnstad, 2021a). Furthermore, as many as 49% of the respondents to my survey study indicated that they practiced meditation (Johnstad, 2021c). There is some extant research into the connections between psychedelics use and meditation and mindfulness practice (Eleftheriou & Thomas, 2021; Millière et al., 2018; Simonsson & Goldberg, in press; Smigielski et al., 2019; review in Jungaberle et al., 2018), but not, as far as I know, from any scholar of religion. Another topic of interest relates to ritual, which is a concept psychologists tend not to engage with. According to Monteith (2016),

There is no ritual context, except in the vaguest sense of 'ritual': Psychonaut religion is so individualized, personal, and exploratory, that any rituals that may exist are individually selected rather than institutionally prescribed (p. 1102).

This perceived lack of institutionally prescribed rituals probably does not apply to entheogenic sessions organized by institutions such as the Native American Church, the União do Vegetal, or the Church of Cognizance, but I would agree with Monteith that most spiritual entheogen use seems to occur independently from such institutions. Nevertheless, even if "any rituals that may exist are individually selected", it would seem possible to describe and analyze such rituals, should they exist. And should such rituals not exist, their absence would be noteworthy for the Hanegraaffian project

of identifying how entheogenic spirituality challenges assumptions about what religion is, since rituals are generally considered a central aspect of religion. To investigate this issue, however, the prospective researcher would probably have to gain access to private entheogen sessions.

It should also be noted that the studies described in this dissertation have tended to group different entheogens together. Future studies in this area might attempt to analyze the differences in the spiritual use of drugs such as psilocybin, LSD, and DMT. Although there are number of similarities especially between classic serotonergic psychedelics, these drugs are also different in many ways, and it would be helpful to investigate these differences in further detail. Furthermore, such studies might also investigate whether or not there is a spiritual dimension to the use of drugs that have not been discussed in the present work, such as ketamine or *Amanita muscaria*.

Finally, I believe there is room for a wide range of research into the relationship between religion and power in the modern world. Asad (1983) suggested the question “how does power create religion?” (p. 252) and proceeded to a historically based study of the genealogies of religion (Asad, 1993), but to my understanding, analyses of religion and power need not limit themselves to the distant past. I would also ask: how does religion wield power in the contemporary world? Asad (1983) characterized “modern (Christian) society” as one “in which power and knowledge are no longer significantly generated by religious institutions” (p. 237), but while I would concur that such power generation happens to a much lower extent in the contemporary world than for instance in the medieval era, I think Asad overstated his point – and as I read Lincoln (2007), he would be inclined to agree. Religion may not generate power to the extent that it used to, but it still does generate power. In recent years, we have (arguably) witnessed the impact of religion in the election of right-wing populists to government for instance in the United States, India, Brazil, Poland and Hungary. I would also maintain that the resistance to abortion rights especially in the Americas is an example of how religious institutions wield power over society. As such, there is little doubt to my mind that religion continues to generate power, indicating (at least to me) that the people who have the highest proficiency in studying religions – namely scholars of religion – should analyze the relationship between religion and power also in the contemporary world.

As discussed previously, such research might include entheogens, for instance as an investigation of how institutional religion has shaped the war on (presently illicit) drugs, or shaped the discourse on drugs that underlies the war on drugs. How did representatives of institutional religions influence the United Nations Single Convention on Narcotic Drugs? What was the nature of the decision-making process by which the demonization of illicit drugs was made explicit – arguably to an unprecedented extent – in the formulations of this convention? Who pushed for the portrayal of drug use as ‘evil’? It is possible that there is documentation available, either in published form or in archives, that would shed light on the discourse among the UN representatives who formulated the text of the convention (for a place to start, see United Nations, 1964a, 1964b). It is also possible, and perhaps more feasible, to study how religious institutions have worked in recent years either to support the criminalization regime, as Pettus (2016) argued, or perhaps to oppose this regime. Furthermore, we could also analyze the discourse on spiritual entheogen use among scholars of religion in a context of religion and power. To what extent does this discourse reflect the interests and priorities of institutional religion? If Lincoln (2007) was right in seeing the Study of Religions as being organized to protect religion against critical examination, such an organizational scheme would probably reflect itself in how its scholars discuss these sensitive topics.

Similarly, there is room for analyses of how scholars of religion discuss topics such as sexual child abuse by members of the clergy or other religious specialists. What are the similarities and differences between scholars of religion and psychologists or health care professionals with regard to

their discourses on sexual child abuse in religious institutions? Scholars of religion might also study how religion, understood as an organized power structure concerned with power consolidation, has facilitated both the perpetration and subsequent cover-up of such cases (Doyle, 2017; Marotta, 2021; Rashid & Barron, 2019). (As if to underline the relevance of this issue for power-centric analyses, Marotta (2021, p. 9) quoted Legrand (2019) as saying that “the mainstream definition of priest is based on the concept of power.”)

More generally, I would ask: to which extent is the field of the Study of Religions organized so as to delegitimize or otherwise discourage power-centric analyses of religion? Nothing, I would presume, is more annoying and undesirable for a power structure than the presence of intrusive academics devoted to the analysis of how this institution generates, directs, and utilizes power. For an institution that is concerned with asserting the “eternal validity and transcendent value” of the discourse it gives shape to (Lincoln, 2003, p. 7), a power-centric analysis that understands all this fine talk simply as a means of self-legitimation, or in other words as a strategy of power consolidation, would obviously be highly unwelcome. Such a perspective on religion might be branded disrespectful, and admittedly does run the risk of hurting people’s feelings on a matter of high importance to them; nevertheless, I do not believe it is advisable to protect power from academic critique on a basis of respectfulness. Should Lincoln be right in his analysis of how the field of the Study of Religions is organized, one would expect the field to be quite unified in its opposition to an analytic approach that finds its basis in the working assumption that power drives religion.

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Chapter 2 - Who is the typical psychedelics user?
Methodological challenges for research on psychedelics
use and its consequences

Who is the typical psychedelics user? Methodological challenges for research in psychedelics use and its consequences

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journals.sagepub.com/home/nad**Petter Grahl Johnstad** 

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Abstract

Aims: This article argues that despite a resurgence in research on psychedelics over the last two decades, we still have little insight into the psychedelics user population. Furthermore, there is currently little agreement between researchers as to the long-term mental health consequences of psychedelics use. **Design:** In a methodological review of a range of studies in psychedelics use, it is demonstrated that these studies tend to focus on specific segments of the user population while excluding others. These population segments are probably connected to different patterns of use, which in turn are likely to result in different long-term consequences. **Results:** The divergent findings on the consequences of psychedelics use may be explained, at least in part, by the fact that different research strategies explore different segments of the user population. Studies focusing on user segments with problematic usage patterns tend to find that psychedelics use is negative for mental health, while studies on infrequent users tend to find that psychedelics use is positive for mental health. **Conclusion:** Because the field of psychedelics studies lacks a reliable model of the user population, it is difficult for researchers to contextualise and assess the broader validity of their findings. To remedy this situation, the article presents three theoretical models of the user population that afford us with tentative means of contextualising findings and thereby may clarify present disagreements.

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Keywords

mental health consequences, methodology, psychedelics, usage pattern, user population

Recent years have seen a substantial increase in knowledge about the consequences of psychedelic drug use. Preliminary results indicate therapeutic effects from psychedelics on conditions including depression (Carhart-Harris et al., 2018), anxiety (Griffiths et al., 2016), and substance dependence (Bogenschutz et al., 2015). We know also that classical psychedelics such as psilocybin and lysergic acid diethylamide (LSD) are not toxic to mammalian organ systems in normal dosage (Nichols, 2004), although some newer phenethylamines have higher toxicity (Nichols, 2016). Furthermore, psychedelics are not regarded as reinforcing substances (Nichols, 2016). However, researchers on illegal drug use among the general population have long maintained that psychedelics can lead to mental health problems, including drug-induced psychosis. This research is mostly several decades old (Strassman, 1984; Vardy & Kay, 1983), although there are some more recent case studies (Sami et al., 2015). There is also some newer research on the association between 3,4-methylenedioxymethamphetamine (MDMA) and psychiatric disorders including psychosis (McGuire et al., 1994; Schifano et al., 1998). Some present-day researchers regard the association between classical psychedelics use and psychosis as strong (Iversen et al., 2009; Paparelli et al., 2011), while others have found no association between psychedelics and mental health problems (Hendricks et al., 2015; Johansen & Krebs, 2015; Krebs & Johansen, 2013).

This diversity of findings is open to several interpretations. One possibility is that psychedelics have therapeutic potential when administered with care in clinical settings, in a context of what Carhart-Harris et al. (2018) called “psychedelic drug-assisted psychotherapy”, but that it is difficult to realise this potential for therapeutic effect in naturalistic use outside of

the clinic. It may also be possible, as Krebs and Johansen (2013) suggested, that the use of psychedelics among the general population has a beneficial effect on some people and a harmful effect on others. This variation may be linked to specific psychiatric conditions, so that psychedelics are perhaps helpful for people with depression, anxiety, or substance dependence disorder, but unhelpful for people on the edge of a psychotic condition. Thus, their therapeutic effect for some conditions may be counterbalanced by a harmful effect for others. A third interpretation, offered by Goodwin (in Carhart-Harris & Goodwin, 2017), is that clinical trials with psychedelics may tend to attract volunteers who are already positive to psychedelics and therefore predisposed to endorse their benefits.

With such a wide spectrum of findings and interpretations, we cannot at present say with confidence that we know what the overall consequences of psychedelic drug use are. I will contend in this article that there are two major factors serving to confound the analysis. The first is that psychedelics users have many different approaches to the use of these drugs, and differences in usage patterns very likely explain much of the difference in consequences of use. We know that some people take psychedelics infrequently in carefully planned sessions for spiritual, therapeutic and developmental reasons (Johnstad, 2018), while others perhaps use psychedelics very frequently for entertainment or escapist purposes, and we should not be surprised if these usage patterns result in very different long-term consequences. The second confounding factor is that we have, at present, little understanding of the relative frequency of different usage patterns among the population of psychedelics users. If the usage pattern has a significant impact on the consequences of use for an individual, it is clear that in order to

identify the overall consequences of psychedelics use on a societal level, we first need to understand the distribution of different usage patterns among the user population. Unfortunately, we currently have little insight into the population of psychedelics users, and cannot speak with any confidence about the distribution of usage patterns. As we do not know the extent of the user population, we also cannot obtain representative samples of this population. I will therefore argue that studies of psychedelics use are generally constrained to participant samples that very likely include only a subset, and often a quite specific subset, of the full population of users. If this analysis is correct, it would imply that findings from these studies have unknown validity outside the specific population subset from which their participants are recruited. One example of possible validity concerns resulting from non-representative participant samples is found in neuroimaging studies of ecstasy/MDMA users, where a comparison of the participants in such studies with respondents to the Global Drug Survey found that the former consumed 720% more pills over a year (Szigeti et al., 2018). This indicates that such neuroimaging studies have tended to focus on heavy ecstasy/MDMA users, and that their findings therefore have unknown validity for ordinary users.

This article is not intended as a methodological critique of any individual study or type of study, however. My purpose here is not to identify weaknesses resulting from inadequate research design, but rather to identify and analyse a range of methodological constraints pertaining to any research in this field. Studies of psychedelics use is at present a field without a foundation: because we do not have an overall picture of the population of psychedelics users, there is no contextual framework in which to place new findings. This makes it difficult to evaluate the validity of such findings, as we cannot say how the participants in these studies relate to the overall population of users. With a heavily studied drug such as alcohol, by contrast, we have a reliable model of the user

population that serves as a foundation for the interpretation of new findings. We know, therefore, that findings of very damaging consequences from heavy alcohol use do not apply directly to light users, who constitute the majority of the user population. Psychedelics have not been studied as intensively, and their use often takes place in secret and is, therefore, mostly invisible to us. This means that we know very little about what light and heavy use may look like, or which of the two is most common. Without an explicit model of the user population, there is the risk that individual findings are over-generalised on the basis of an implicit model that assumes the user population is structured similarly to the participant sample of the study, so that an observation based on one subset of the user population is taken as applicable to the whole population.

The purpose of this article is, therefore, to analyse how various types of research design will tend to exclude specific subsets of the population of psychedelics users, and to discuss the consequences of these systemic sampling “biases”. It is not my view that these biases might have been remedied through changes to the research design. Instead, I regard such biases as an unavoidable consequence of the fact that psychedelics studies lack a foundation in the form of a reliable model of the user population. In the future, it may be the case that further studies into psychedelics use have acquainted us with the user population to the extent that our understanding is comparable to our present understanding of alcohol users. This will afford us with an empirically based model that could serve as a foundation for the task of contextualising new findings, and the problem of systemic sampling bias will be history. At present, however, we do not have recourse to such an empirical model of the user population, and it remains unclear how to contextualise findings regarding one subset of psychedelic users within the framework of the overall population of users. Findings from one population subset therefore have indeterminate validity outside of this subset.

As a temporary remedy for the lack of an empirical model of the psychedelic user population, I will discuss several theoretical models that provide very different means of contextualising findings in the field of psychedelics studies. I do not believe we presently have evidence to judge which of these theoretical models is most accurate, but I think it will be clarifying to discuss findings about psychedelics use within the context of each model. This will help to turn implicit assumptions about the user population, which tend to remain unstated and are therefore difficult to discuss, into explicit statements that may be challenged, supported, improved upon, or rendered obsolete.

Methodological review

This section analyses the selection bias predicament of various recruitment strategies used in a range of studies on the consequences of psychedelics use. Studies were picked for inclusion in this review not for their own merits or demerits, but because they exemplify a type of research design, and the intention behind their selection was primarily to obtain a wide range of different research designs for the discussion. For each type of research design, this discussion will attempt to identify which subset(s) of the user population are actually recruited into the study, and, perhaps more importantly, which (putative) subsets are rendered invisible. Because of the dearth of studies relating specifically to classical psychedelics, I have also included studies on the semi-psychedelic MDMA in this methodological review.

Clinical studies

This section discusses four types of studies where participants take part in clinical tests on location. An overview of these studies and some (simplified) characteristics of their participant samples and findings is presented in Table 1. The first type of study investigated changes in health, cognition, and wellbeing among healthy volunteers who used psychedelics in their

private lives. Morgan (1999) recruited 25 polydrug users who had taken more than 20 tablets of ecstasy into a study of memory recall, finding significantly lower scores for ecstasy users than for non-users and polydrug-users who did not use ecstasy. Huxster et al. (2006) recruited 38 regular ecstasy users in a study of negative mood and cognitive function, with 20 participants continuing ecstasy use through the study period and 18 discontinuing use during this period. They found only modest and transient effects on mood and cognition from continued use. Hoshi et al. (2007) recruited 25 polydrug users who had used ecstasy on at least 25 occasions in a study of cognitive function. Compared with control groups, they found no significant effect of ecstasy use. Halpern et al. (2011) recruited 52 ecstasy users with limited exposure to other drugs in a study of cognitive function. Compared with a control group of non-users, they found only minor effects of ecstasy use. Exclusion criteria in the four studies varied somewhat, but all screened for drug addiction. Morgan (1999), Huxster et al. (2006), and Hoshi et al. (2007) also screened for psychopathology. Mean age was 22 years in the studies by Morgan (1999), Huxster et al. (2006), and Halpern et al. (2011), and 29 years in the study by Hoshi et al. (2007). The ecstasy groups in Hoshi et al. (2007) and Huxster et al. (2006) used ecstasy about three times per month. Morgan (1999) and Halpern et al. (2011) did not report frequency of ecstasy use, but Morgan's ecstasy group on average smoked 14 cannabis joints per week and consumed 35 units of alcohol per week. Similarly, the ecstasy group in Hoshi et al. (2007) used alcohol and cannabis on average every other day, and cocaine and amphetamines on a weekly basis. Huxster et al. (2006) reported other drug use as "grams lifetime", which is difficult to interpret, but 100% of their ecstasy user group used alcohol with MDMA, and 60% used cocaine with MDMA.

By controlling for psychopathology and addiction, these studies excluded the bottom tier of problem users. Participants were

Table 1. Clinical studies overview.

Study	Recruitment strategy	Average age (years)	Excluded user segments	Dominant user segments	Usage frequency	Usage setting	Consequences of use
Morgan (1999)	Poster ads & snowballing	22	(very) Problematic	Recreational	(High)	Party	Cognitive dysfunction
Huxster et al. (2006)	Email ads, flyers & snowballing	22	(very) Problematic	Recreational	Weekly	(Party)	Minor cognitive dysfunction
Hoshi et al. (2007)	Magazine ads & snowballing	29	(very) Problematic	Recreational	Weekly	(Party)	None
Halpern et al. (2011)	Case finders advertising at raves	22	(very) Problematic	Recreational	?	Party	None
McGuire et al. (1994)	Hospital referrals	23	Non-problematic	Problematic	Weekly	Party	Psychopathology
Schifano et al. (1998)	Drug treatment centre	23	Non-problematic	Problematic	Weekly	Party	Psychopathology
Grob et al. (2011)	Internet ads, flyers & healthcare referrals	40s	Problematic	Therapeutic	Rare	Clinic	Therapy
Carhart-Harris et al. (2016)	Healthcare referrals & snowballing	43	Problematic	Therapeutic	Rare	Clinic	Therapy
Griffiths et al. (2016)	Internet ads, flyers & healthcare referrals	56	Problematic	Therapeutic	Rare	Clinic	Therapy
Ross et al. (2016)	Cancer centre	56	Problematic	Therapeutic	(Rare)	Clinic	Therapy
Griffiths et al. (2006)	Flyers	46	Problematic / Recreational	Spiritual	Rare	Clinic	Mystical experience
Schmid & Liechti (2017)	Internet ads & snowballing	29	Problematic	Spiritual	Rare	Clinic	Mystical experience

generally young, although less so in the study by Hoshi et al. (2007), and their frequency of drug use indicates that the three studies recruited predominantly from (heavy) recreational users.

A second type of clinical study was based on patients in psychiatric hospitals or addiction clinics who used psychedelics prior to their admission and, at the time of study, were suffering from a variety of health problems. McGuire et al. (1994) recruited 13 MDMA users from a psychiatric hospital, most of whom were polydrug-using young males who had taken MDMA at “raves”. Usage frequency ranged “from one tablet per fortnight to ten tablets per day” (McGuire et al., 1994, p. 393). Schifano et al. (1998) recruited 150 MDMA users from an addiction treatment clinic, most of whom were polydrug-using young males who had taken MDMA at “disco clubs”. Their group of problematic users used MDMA on a weekly basis, and most had previous experience with opiates and cocaine. Both studies found reason to express concern over the association between MDMA use and psychopathology.

The participants in both McGuire et al. (1994) and Schifano et al. (1998) were young, frequent users of MDMA and a range of other drugs in party settings who ended up in either psychiatric hospital or an addiction clinic. To the extent that the negative health outcome was caused by psychedelic drug use, the participants were clearly problem users. We do not know to what extent their problematic usage pattern differed from a recreational pattern of MDMA and polydrug use, however.

A third type of clinical study also recruited from a population of patients, although in this case the patients suffered from disorders such as treatment-resistant depression (Carhart-Harris et al., 2016) and depression and/or anxiety due to life-threatening cancer (Griffiths et al., 2016; Grob et al., 2011; Ross et al., 2016), and psychedelics were administered at the clinic as an experimental treatment for the disorder. Sample sizes in these studies varied from 12 to 51. Exclusion criteria varied somewhat, but always

included lifetime history of psychotic illness and usually current substance use disorder. This probably means that all participants in McGuire et al. (1994) and Schifano et al. (1998) would have been excluded from participation in this third type of clinical study. All studies reported significant therapeutic effect from clinical psychedelic use.

One methodological critique of this type of study, voiced by Goodwin (in Carhart-Harris & Goodwin, 2017), is that they may tend to recruit volunteers with a pre-existing interest in psychedelic drugs who are predisposed to endorse their benefits. Even if the participants were not previous psychedelics users, the fact that they volunteered for clinical psychedelic trials means they were positive to psychedelics use. The studies also screened out any volunteers who could be classified as problem users.

Finally, a fourth type of clinical study investigated non-therapeutic effects of psychedelic in-house sessions on healthy volunteers. Griffiths et al. (2006) recruited 36 psychedelics-naïve volunteers screened for personal or family history of psychotic disorders into a study of mystical experience, finding that psilocybin use did occasion such experiences for a significant number of participants. Schmid and Liechti (2017) recruited 16 volunteers, nine of whom were psychedelics-naïve, for a similar study with LSD. They screened participants for age, recent illicit drug use, and personal or family history of psychotic disorders, and obtained similar results to those of Griffiths et al. (2006).

Although most of the participants in these studies were psychedelics-naïve, the fact that they volunteered for this type of research indicates a positive attitude to psychedelics. Participants in the study by Griffiths et al. (2006) had an average age of 46 years, while Schmid and Liechti (2018) screened out volunteers below the age of 25 years. Participants in both studies were highly educated, and problem users were excluded from participation.

The findings of these four types of clinical study are not directly comparable, as the studies that obtained evidence of positive effect were

Table 2. Quantitative surveys overview.

Study	Recruitment strategy	Average age	% Male	% University education	Consequences of psychedelics use
Carhart-Harris & Nutt (2010)	Internet ads	26	85%	?	Wellbeing and health
Lyvers & Meester (2012)	Internet ads	29	65%	68% degree 32% students	Mystical experience
Carbonaro et al. (2016)	Internet ads & snowballing	30	78%	51% degree	Bad trips difficult but beneficial
Forstmann & Sagioglou (2017)	Amazon Mechanical Turk	36	38%	79% college	Pro-environmental behaviour
Nour et al. (2017)	Internet ads	28	64%	85% university	Liberal political views, openness and nature relatedness

concerned with the use of classical psychedelics, while the studies that obtained evidence of negative effect were concerned with the use of MDMA. However, I would suggest that another factor for explaining their variation in outcome is that they studied quite different patterns of use. The first and second groups of studies found that weekly polydrug use involving ecstasy/MDMA in party settings often has negative consequences for health and cognition. While the first group of studies screened for some kinds of addiction and psychopathology, it is likely that the heavy recreational users they recruited were at risk of ending up as the kind of problem users in psychiatric hospitals and addiction clinics studied in the second type of study. By contrast, the volunteers for the third and fourth types of study were carefully screened for participation in on-site psychedelic sessions. The researchers were directly responsible for participant safety, and both ethical and pragmatic concerns therefore favoured the exclusion of not only problem users, but also heavy recreational users of the kind who use ecstasy on a weekly basis and cannabis every other day. Their volunteers were also likely to have a positive view of psychedelics. In the third type of study, the participants suffered from severe medical conditions and enrolled in the study out of a therapeutic motivation, and the psychedelics use was well planned and conducted in a supportive setting.

In the fourth type of study, the use had an explicit spiritual dimension.

In terms of participant age, it is noteworthy that all the studies that found some negative consequences from drug use (Huxster et al., 2006; McGuire et al., 1994; Morgan, 1999; Schifano et al., 1998) included participants in their early 20s, whereas the studies that found an absence of negative consequences or some positive consequences usually had more mature participants (Carhart-Harris et al., 2016; Griffiths et al., 2016; Griffiths et al., 2006; Grob et al., 2011; Hoshi et al., 2007; Ross et al., 2016; Schmid & Liechti, 2017). This is despite the fact that older drug users are likely to have used drugs for a longer time. Unsurprisingly, studies of frequent users also discovered more problems from use than studies of infrequent users. In sum, one simple way to frame this set of apparently disparate clinical findings on the consequences of psychedelics use is to say that, whereas moderate and careful use from therapeutic and spiritual motivations appears to have positive consequences, thoughtless and over-frequent use from hedonistic and escapist motivations appears to have negative consequences.

Quantitative surveys

This section discusses two types of studies of psychedelics use based on online surveys. The

first type of study recruited a sample of participants online. An overview of these studies and some characteristics of their participant samples and findings is presented in Table 2. Carhart-Harris and Nutt (2010) recruited 626 psychedelics users, 85% male and with a mean age of 26 years, into a study of user-perceived consequences of such use. Their participants reported positive effects from psychedelics on long-term wellbeing and health, and indicated that their use of psychedelics was associated with less serious negative health effects than use of alcohol. Lyvers and Meester (2012) recruited 337 drug users, 66% male and with a mean age of 29 years, into a study of mystical experience, finding that classical psychedelics, but not MDMA or non-psychedelic drugs, were associated with such experience. Carbonaro et al. (2016) recruited 1993 psilocybin users, 78% male and with a mean age of 30 years, into a study of challenging experiences (“bad trips”). Respondents reported that their worst bad trip was one of the most difficult experiences of their lives, but 84% nevertheless endorsed having benefitted from the experience. Forstmann and Sagioglou (2017) recruited 1487 participants, 38% male and with a mean age of 36 years, with 27% having experience with classical psychedelics, into a study of nature relatedness and ecological behaviour. They found that psychedelics use predicted pro-environmental behaviour. Finally, Nour et al. (2017) recruited 893 participants, 64% male and with a median age of 28 years, with 83% having experience with psychedelics, into a study of personality, finding that psychedelics use predicted liberal political views, openness and nature relatedness.

Education levels were high in all studies that reported this metric, with 51% to 68% reporting that they had a university degree. None of the studies offered information about usage frequency or setting. With the exception of Forstmann and Sagioglou (2017), all studies relied on recruitment via internet fora devoted to information exchange and discussions about the use of psychoactive drugs and especially psychedelics.

Forstmann and Sagioglou (2017) instead recruited participants via Amazon Mechanical Turk, through which participants received a modest financial compensation.

Compared with the previously discussed clinical research studies, we see that all these surveys recruited participants aged from their mid-20s upwards. This is a user segment where psychedelics use was previously found to have mostly positive consequences, and the tendency continues here. The high percentage of university education among these user samples reinforces the impression that this is a well-functioning segment of the user population. All surveys recruited participants via the internet, which probably excluded at least the bottom tier of problem users from participation. If psychedelic drug use sometimes leads to an enduring state of psychosis or schizophrenia, or even to violent criminality, those consequences of using psychedelics will be rendered largely invisible to research based on internet recruitment. Furthermore, most of the surveys recruited from internet fora populated by people who are enthusiastic about psychedelics and therefore predisposed to endorse their benefits. This point of critique probably applies to any study of psychedelics users based on voluntary participation: since classical psychedelics are not reinforcing substances (Nichols, 2016), continued use over time is probably motivated by an appreciation of their effect, and any current user of psychedelics is therefore likely to be enthusiastic about psychedelics and predisposed to endorse the positive consequences of their use. This means that user enthusiasm is a likely confounding factor affecting the findings of any study drawing upon a sample of current users.

The second type of survey study was based on larger samples representative of the general population. Johansen and Krebs (2015) analysed a sample of 135,095 respondents in the United States drawn from the 2008–2011 National Survey on Drug Use and Health (NSDUH), 14% of whom reported lifetime psychedelic use. The completion rate in the survey was 78%. Adjusting for a range of sociodemographic, psychological,

and drug use control variables, they found no relation in these data between psychedelics use and any undesirable mental health outcomes. Hendricks et al. (2015), drawing upon the 2008–2012 data from the same NSDUH database, analysed a sample of more than 190,000 respondents. Some 14% reported lifetime psychedelic use, and the completion rate in the survey was 75%. They found that classical psychedelics use was associated with a lower rate of suicidality (odds ratio 0.64 for suicide attempt last year), whereas MDMA use was not associated with suicidality.

While the completion rates of these studies seem convincing, there may be systematic tendencies in non-participation that serve to skew findings. The NSDUH is based on interviews in private households, and while there is every reason to believe that it is a professional and sophisticated endeavour, such studies are, nevertheless, subject to methodological challenges. The bottom tier of drug users with problematic usage patterns may not live in households recognisable in official records at all, and will therefore be invisible to population studies based on household recruitment. Whether such a segment of the psychedelic user population actually exists is not clear, but if it does, it will not influence findings in this type of study. These studies therefore probably either exclude, or are unable to obtain reliable data from, the least well-functioning segment of the user population.

A more subtle point of critique is that the set of actual psychedelics users today is not representative of the set of potential psychedelics users in a world where psychedelics are legal. Prohibition entails that individuals who already operate outside the law, or who for other reasons feel that they have little to lose by breaking the law, are over-represented among current users. Such individuals are at risk for a number of negative health outcomes including schizophrenia (Munkner et al., 2013). Studies of the consequences of psychedelics use based on usage under prohibition regimes are therefore

blindsided by the over-representation of low-functioning individuals in the user population.

Discussion

A general conclusion of this article is that it is difficult to generalise about the consequences of psychedelics use. Some studies have obtained evidence of positive consequences and others of negative consequences, but there have not been many attempts to understand these disparate findings in a broader context. The basic premise for this article has been that the population of psychedelics users is heterogeneous in terms of usage patterns, and that the consequences of one pattern of use may be quite different from those of another pattern. It has sought to demonstrate that different types of studies tend to recruit from different segments of the overall user population, and that this probably affects their findings.

We have evidence indicating that some people use psychedelics quite frequently with hedonistic and escapist motivations, and that such use may be damaging to one's cognitive abilities and mental health. We also have evidence indicating that some people use psychedelics in moderation for therapeutic or spiritual reasons, and that such use may be beneficial. What we do not know is the relative size of these segments of the user populations. If the segment of problem users is large compared to the segment of therapeutic and spiritual users, it would probably be true to say that psychedelics use has mainly negative consequences. On the other hand, if the segment of problem users is small compared to the segment of therapeutic and spiritual users, it would probably be true to say that psychedelics use has mainly positive consequences.

Statements about the consequences of psychedelics use often seem to have their basis in implicit assumptions about the relative size of various segments of the user population. These assumptions may be based on the relative visibility of different user segments to various professions. Therapists in addiction treatment

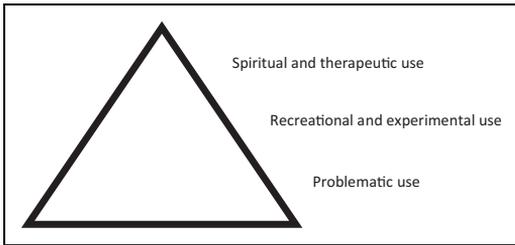


Figure 1. Pessimistic model of the psychedelics usage pattern distribution.

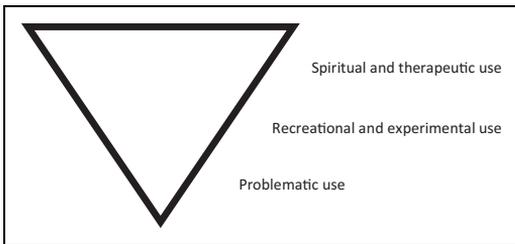


Figure 2. Optimistic model of the psychedelics usage pattern distribution.

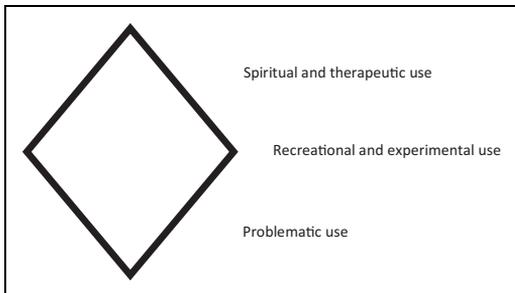


Figure 3. Recreational model of the psychedelics usage pattern distribution.

clinics, for instance, will for the most part encounter problem users, and may be inclined to believe that the problem user segment is dominant among psychedelics users. Researchers on spiritual and therapeutic psychedelics use, by contrast, may encounter many well-functioning users and will perhaps be inclined to believe that this is the dominant user segment. Figures 1 and 2 illustrate these two opposite models of the psychedelics user population, with Figure 3 representing an in-between

position that sees recreational users as the dominant segment. In these figures, the size of the area corresponding to a usage pattern represents the size of this population subset. For simplicity, these models work from the assumption that the distribution of usage patterns and subsequent consequences of use are similar for different psychedelic drugs; in reality, each drug may require its own model.

In the world according to Figure 1, most psychedelics users are problem users. They may start out with romantic ideals of psychedelics as spiritual and therapeutic tools, but these are for the most part delusions used to justify escapist intoxication. The median psychedelics user follows a pattern of heavy recreational use that is not socially or psychologically sustainable over time, and, if maintained, will almost invariably result in significant problems. At the top of the pyramid is a small group of vocal psychedelics supporters who are in no way representative of the general population of users, but who tend to participate avidly in certain types of psychedelics research. At the bottom is a large group of dysfunctional welfare clients, psychotics, and criminals.

In the world according to Figure 2, there is a large “silent majority” of psychedelics users who enjoy many benefits from use. Because psychedelics are generally illegal and users want to stay out of trouble, this dominant user segment for the most part remains invisible to society. The only exceptions are when they participate – anonymously – in psychedelics research, and, quite rarely, when they are caught by the police, in which case they let the legal process move as quietly as possible in order to protect their careers and family. There is only a small group of excessive users who develop personal problems from use, but, unfortunately, such problem users are very visible as they end up in treatment, police custody, and sometimes the news because of their uncontrolled behaviour. For the most part, these problem users had difficult childhoods and would be at risk of social and psychological dysfunction regardless of their psychedelics/polydrug use.

Finally, in the world according to Figure 3, the median psychedelics user follows a moderate pattern of recreational use that probably has neither especially positive nor negative consequences for their lives. A vocal minority claims that there are spiritual and therapeutic benefits from psychedelics use, but these benefits are probably overstated. At the other end of the scale, a small group of problem users is highly visible because of their general dysfunction.

These theoretical models all assume a user population that has an orderly structure with one dominant usage pattern, and reality may of course be more muddled. Their conceptual purity, unrealistic as it may be, nevertheless makes them useful cognitive tools for analysing the psychedelics user population. If we first consider the qualitative and clinical studies reviewed earlier, we can make the obvious but important observation that all these studies are compatible with each of the three models. The studies identify possible or probable consequences of various psychedelic usage patterns, but offer little insight into how widespread such usage patterns are. Their validity for the general user population is therefore unclear. Interpreted through the pessimistic model 1, the finding by Schifano et al. (1998) regarding the psychopathology of MDMA users recruited from an addiction clinic suggests that MDMA use will often result in psychological complications for the median user. Interpreted through model 2 or 3, on the other hand, the finding suggests only that heavy polydrug use involving MDMA in party settings may lead to such complications, and especially for users with pre-existing psychological vulnerabilities. A study of MDMA users recruited from an addiction clinic is, from this point of view, comparable to a study of alcoholics recruited from an addiction clinic: there is no doubt that some alcohol users end up as alcoholics, which has serious consequences for health and wellbeing, but it is also clear that such problem users are a minority. Similarly, the finding by Griffiths et al. (2006) that carefully planned psilocybin use may occasion mystical experience indicates,

from a model 2 viewpoint, that most people may obtain such experiences if they use psychedelics in a proper way. From a viewpoint based on model 1 or 3, however, such experiences are either restricted to a small group of “elite” users, or they should be understood as an exaggerated attempt by psychedelics enthusiasts to legitimise their use.

All the surveys of psychedelics use reviewed in this article found that such use has generally positive consequences, but these findings are also compatible with each of the three models. Interpreted through the optimistic model 2, the participants in these studies are broadly representative of the general user population, and their reports generally reflect the truth of how psychedelics have affected their lives. Seen through the lens of model 1 or 3, however, this group of participants is simply a vocal minority of well-educated and resourceful psychedelics users who are investing time and energy in the fight for their right to get high. From this perspective, the predominance of positive reports cannot be trusted, because they are essentially strategic communications in an ongoing political struggle. Model 1 adherents would add that those who suffer the most negative consequences of psychedelics use are not represented in the participant sample because they are barely able to function in their daily lives, and therefore are in no position to participate in surveys.

The theoretical models can also help us understand the debate around the use of control variables in population studies. By controlling for non-psychedelic drug use, pre-existing conditions, and a range of socioeconomic variables, Johansen and Krebs (2015) found no evidence that psychedelics use was an independent risk factor for mental health problems. This seems to imply that the pessimistic model 1 of the psychedelic user population is incorrect, since psychedelics use in and of itself apparently does not lead to problems. However, Nesvåg, et al. (2015) objected that the application (especially) of non-psychedelic drug use as a control variable is a case of over-adjustment.

They calculated unadjusted risk estimates and found that psychedelics use was, according to this analysis, associated with mental health problems. This seems to imply that models 2 and 3 are incorrect, since there is a higher prevalence of psychological problems among the psychedelic user population than among the general population.

Whether or not it is appropriate to apply control variables for non-psychedelic drug use and pre-existing conditions appears to depend in large part on the underlying model of the psychedelics user population. From a model 1 perspective, most psychedelics use will end up as problematic abuse, and it would be unsurprising if such abuse were also associated with the abuse of non-psychedelic drugs. If psychedelic drug use commonly leads to the use of other illicit drugs, it would be mistaken to control for non-psychedelic drug use in an analysis of the consequences of psychedelic drug use. From a model 2 perspective, on the other hand, psychedelics use is unlikely to lead to the use of non-psychedelic drugs like heroin or cocaine, but the opposite might take place as the users of such drugs sometimes experiment with psychedelics as part of their hedonistic or escapist pursuits. Since the use of heroin and cocaine is likely to incur addictions and other health problems, polydrug use that includes psychedelics must be treated separately from “clean” psychedelics use. Furthermore, it may also be the case that pre-existing psychological conditions and (often concomitant) non-psychedelic drug use might lead to psychedelic drug use in a context of therapy. Contrary to the model 1 perspective, which sees non-psychedelic drug use as a common consequence of psychedelic drug use, this model 2 perspective understands psychedelic drug use as a form of therapy both for habitual non-psychedelic drug use and for the underlying psychological problems that in large part are the cause of such drug use. In order to identify the independent effects of psychedelic drug use, it is therefore appropriate to apply statistical control for non-psychedelic drug use, or one risks blaming the medicine for the disease.

Conclusion

This article has sought to demonstrate that we currently have little knowledge about how psychedelics are used in naturalistic settings in Western societies. We recognise that there is a range of different patterns of use, some of which clearly have better long-term outcomes than others, but we have not obtained much insight into how widespread these patterns are. Our ignorance in this regard is based on the methodological complications that arise from the fact that psychedelics use is generally illegal in the Western world, shrouding use in secrecy and silence, as well as the possibility that some patterns of psychedelics use may be damaging to users, thereby rendering this user segment cognitively dysfunctional and generally unavailable for recruitment. Our attempts to peek behind these epistemological veils, although successful in some ways, have not afforded us with general insight into the whole range of psychedelics users: as demonstrated in my review, recruitment strategies for psychedelics users tend to favour certain user segments over others. This has resulted in a broad range of assessments of the mental health consequences of psychedelics use, as different usage patterns seem to incur different consequences and different research methodologies therefore obtain divergent perspectives on the long-term outcomes of use.

With a reliable empirical model of the psychedelics user population, it might be possible to contextualise the range of divergent findings and understand how they reveal different pieces of the larger puzzle. In the absence of such an empirical model, it will be helpful to explicate our beliefs about how new findings about psychedelics use are to be understood within the context of the broader user population. This will protect us from the fallacy of assessing the validity of new findings on the basis of an implicit model of the user population which assumes that this population is structured in the same way as our participant sample. As I have sought to demonstrate in this article, it is

unlikely that any study of psychedelics users, no matter how cleverly designed, will obtain findings that are directly applicable to the full range of the user population. What may be feasible, however, is to design studies that will map different segments of the user population, and eventually reach a point where we can estimate their numerical size. Juxtaposed with studies of other user segments, this will afford us with a first empirical model of the psychedelics user population, which in turn will enable us to state with some confidence what the overall long-term mental health consequences of psychedelics use for the median user are.

While the actual psychedelics user population is unlikely to be as neatly organised as the theoretical models imply, the models serve to explicate assumptions about the user population and thereby to clarify positions in this debate. An empirical model would sort out these disagreements in a more definitive manner, but until such a model is available, the theoretical models can help us contextualise individual findings about psychedelics use in a way that is at least explicit and clear. At present, the range of disparate findings on the consequences of psychedelics use and the debates surrounding these findings often seem to be based on implicit models of the user population, and it is not surprising that disagreement based on unstated differences in worldview tend to become muddled. Explicating one's interpretation of the user population would allow for more clarity and perhaps enable a more meaningful dialogue.

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Chapter 3 - Entheogenic spirituality: Exploring spiritually motivated entheogen use among modern westerners

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Chapter 4 - Entheogenic experience and spirituality

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Chapter 5 - Cannabis as entheogen: Survey and interview data on the spiritual use of cannabis

ORIGINAL RESEARCH

Open Access

Cannabis as entheogen: survey and interview data on the spiritual use of cannabis



Petter Grahl Johnstad

Abstract

Background: While cannabis has a long history of spiritual use, its normalization in Western societies during the last decades has led to more recreational use. This study aimed to explore the characteristics of spiritual cannabis use as compared to recreational use and to the use of psychedelics such as LSD and psilocybin.

Methods: The study employed a mixed methods research design that involved both qualitative interviews and a quantitative survey. Participants in interviews ($N = 29$) were recruited at various online fora for individual interviews via private messaging, and were queried in depth about their use of entheogens such as psilocybin, LSD, and DMT in spiritual contexts. The Cannabis and Psychedelics User Survey (CPUS) was constructed on the basis of the reports from these interviews, and recruited 319 participants (median age 33; 81% male) from seven different online communities. The online survey consisted of three main sections, with the first asking about demographics, personality, current and past affiliation to spiritual or religious traditions, and non-psychedelic drug use, and the second and third sections containing questions about motivations for, experience with, and consequences of cannabis and psychedelics use. The main statistical analyses used were multivariate linear and logistic regression analysis, which identified the effect from having a spiritual motivation for cannabis use on various aspects of the cannabis experience while controlling for a range of demographic, personality, and drug use variables.

Results: Respondents differentiated clearly between the use of psychedelics and cannabis. Their use of the psychedelic drug they chose for the survey was restricted to a median of 1–10 use occasions per year, and 69% of participants endorsed having a spiritual motivation for use. Cannabis, on the other hand, was used a median of 51–100 times per year, and 25% of participants endorsed having a spiritual motivation for use. This minority of spiritual cannabis users differed significantly from non-spiritual users in how they approached cannabis use and in the type of experiences their use gave rise to. In multivariate logistic regression models, spiritual motivation was a significant predictor ($p < .05$) of experiences of insight, connectedness, joy, love, and unity with transcendent forces.

Conclusions: The study found evidence of a group of spiritual cannabis users who tended to regard cannabis as an entheogen. These spiritual cannabis users had a different mode of engagement with cannabis than recreational users, and reported cannabis experiences that in some aspects resembled experiences with psychedelics. Recent research has not given much attention to spiritual aspects of cannabis use, but the study indicates that spiritually motivated use remains prevalent and deserves further study.

Keywords: Cannabis, Entheogens, LSD, Motivations for use, Psychedelics, Spirituality, Tolerance

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Background

Cannabis has a long history of use in spiritual contexts (Fuller 2000). Archaeological evidence points to ritual cannabis use in China 2500 years ago (Jiang et al. 2006; Ren et al. 2019) and in Judahite worship in Israel dating back to the eighth century BCE (Arie et al. 2020). In India, spiritual cannabis use probably goes back to pre-historic times and has been associated with the worship of Śiva (Shiva) (Rätsch 2005; Russo 2005, 2007). One of Śiva's epithets is 'Lord of Bhang', which refers to an edible preparation of cannabis, although devotees today more commonly smoke their 'ganja' (cannabis) in a 'chillum' (clay pipe) (Godlaski 2012). This tradition spread perhaps most notably to Jamaica, where Rastafarians smoke ganja – sometimes in a chillum, but more often as a 'spliff' (joint) – and may consider the act a sacrament (Chevannes 1994). During the 1960s, furthermore, cannabis use spread among Western countercultural movements, and often had spiritual overtones. According to Fuller (2000), the act of smoking cannabis during these years "was something like a rite of initiation into the religious underground," whereby one joined "a community that valued nonconformity, peacefulness, and quiet introspection" (p. 145). One notable spokesperson for the age – the philosopher Alan Watts (1968) – endorsed cannabis as the 'psychedelic' that in his experience was best suited for moving into a state of 'cosmic consciousness', although he found that once the gate was opened, he was gradually able to move into this state without using drugs.

As cannabis use became normalized in Western societies during the 1970s and 1980s, however, it seems to have lost much of its spiritual connotations and became, in Fuller's words, "just one more intoxicant alongside others" (Fuller 2000, p. 145). That normalization and despiritualization walked hand in hand here should probably not surprise us, at least if we follow Taves (2009) in identifying *specialness* as the central basis on which people deem certain things as belonging to the domain of religion or spirituality. If spirituality is about 'things set apart' and marked as special because of their anomalous nature, anything that is normalized can only have a tenuous connection to the spiritual.

The normalization of cannabis use is reflected in surveys of usage patterns. According to the 2019 World Drug Report (UNODC (United Nations Office on Drugs and Crime) 2019), the proportion of daily or near-daily cannabis users in the United States doubled during the years 2002–2017, while lifetime prevalence rates during the same period saw only a modest increase. The World Drug Report did not offer any estimates for cannabis usage patterns in other parts of the world; in Colorado, however, the report estimated that 27% of adult (age 21+) cannabis users had daily or near-daily use, while the

median usage pattern remained more moderate at five use occasions per month. By contrast, Kumar et al. (2019) found a median use frequency of 250 days last year in a sample of 8345 US-resident respondents (median age = 23). In Europe, the European Monitoring Centre for Drugs and Drug Addiction estimated that while 27.4% of all adults in the European Union have tried cannabis during their lives, about 1% are current daily or near-daily users (EMCDDA (European Monitoring Centre for Drugs and Drug Addiction) 2019).

Writers who emphasize the spiritual potential of cannabis often warn against overuse. "With this plant you can free yourself and you can go into other realms of reality, transcendental realms of reality," the Brazilian ayahuasquero Mariano da Silva (2017), p. 166 promised, but in order to obtain such 'special effects' you must have the discipline not to overindulge. For with overuse, it "starts to be common, almost normal. It loses quality" (p. 164). Gray (2017) similarly found that "engaging with the herb less frequently can make a big difference to the depth of a particular encounter" (p. 107). For these writers overuse implies trivialization, which must be avoided for the cannabis use to maintain its spiritual value. Gray also advised that the combination of cannabis use with some form of meditation practice tends to intensify its effects: "When you're active and the thinking brain is engaged while under the influence, you may find the effects much milder than if you can sit still, avoid head traffic, and breathe into the space that cannabis opens up" (p. 74). While many users today seem to regard cannabis as a mild drug, there is no reason to assume that this applies to all. To take one notable example, Shulgin and Shulgin (1991, 1997), who invented and self-experimented with a great number of psychedelic tryptamines and phenethylamines, reported that cannabis was too intense for them (1997, pp. 48–63).

Previous research has identified five primary motivations for cannabis use: coping, enhancement, social, conformity, and expansion (Bresin and Mekawi 2019; Simons et al. 1998). In this model, coping refers to a wish to escape from problems, enhancement to a wish for pleasant feelings and excitement, the social motive is about increasing sociability, and conformity refers to a wish to use cannabis in order to fit in with the social group. Simons et al. (1998) added the expansion motive to account for desires to know oneself better, be creative and original, expand one's awareness, and understand things differently. While none of these five motivations links directly to spirituality, both enhancement and expansion relate to factors that have previously been identified as important aspects of entheogenic spirituality (Johnstad 2018). Bresin and Mekawi (2019) performed a meta-analysis of the relations between cannabis use

motives and outcomes, and found that coping motives predicted both a higher cannabis use frequency and more problematic use, while expansion and enhancement motives were associated with a higher frequency of use, but not with problematic use.

In this article, the term 'psychedelics' means the group of drugs named after the Greek words ψυχή (psyche), meaning soul or mind, and δηλείν (delein), to reveal or manifest. The classical psychedelics include mescaline (the active constituent of the cactus peyote), psilocybin (the active constituent of 'magic mushrooms'), lysergic acid diethylamide (LSD) and N,N-dimethyltryptamine (DMT). Especially when used in spiritual contexts, psychedelics are also sometimes referred to as 'entheogens', which is derived from ἔνθεος (entheos), meaning inspired or filled with God, and γενέσθαι (genesthai), which means to come into being.

The article is based on an explorative mixed methods study involving both a quantitative survey and qualitative interviews. The study aimed to explore the characteristics of spiritual cannabis use as compared to both psychedelics use and what may be called recreational or non-spiritual cannabis use. As many cannabis users have both medical and recreational motivations for use, the study did not differentiate between medical and other forms of use; one item in the motivations battery of the survey allowed participants to indicate that they used cannabis for medical conditions. The basic hypothesis of the study was that most respondents would differentiate clearly between entheogens such as the classical psychedelics and recreational drugs such as cannabis and alcohol, but that a minority would regard cannabis as an entheogen. I expected to find significant differences between spiritual and recreational cannabis users in how they approached the drug in terms of motivation and usage pattern.

Materials and methods

In the interview study, 29 current or past users of entheogenic drugs were interviewed about their experiences in two phases of study during the years 2015–2016 and 2019. Participants were recruited from a broad range of Internet communities, including [norshroom.org](https://www.norshroom.org), [psychonaut.com](https://www.psychonaut.com), [norcan.org](https://www.norcan.org), www.dmt-nexus.me, various Reddit groups, and [actualized.org](https://www.actualized.org), either via general recruitment threads that explained the purpose of the study and invited people to participate, or via private messages to individual users who had previously posted to threads comparing cannabis and psychedelics. Criteria for selection were adulthood (18+) and current or past psychedelic use in self-identified spiritual contexts; these criteria were stated clearly in initial invitations, and no individuals expressing a wish to participate in the study were in fact excluded. Interviews were asynchronous and

Internet-mediated, and participants were encouraged to interact with the interviewer via anonymized email or messaging that protected their identity from the researcher. Most interviews lasted from two to four weeks. In communications with interviewees, the term 'spiritual' was left undefined to avoid imposing limits on its content. This approach, inspired by Ammerman (2014), allowed for subsequent analysis of participants' usage of the term, and such an analysis of entheogen users' presentation of their spirituality is available in Johnstad (2018).

The study was designed in conformity with Norwegian Social Science Data Services ethical guidelines. Ethical approval for the first phase of the interview study was obtained from the Norwegian Social Science Data Services (NSSDS, reference 40,281/3/KH). Because privacy criteria were fulfilled, NSSDS waived ethical approval for the second part of the interview study, as well as for the survey. The study emphasized the preservation of participant anonymity, and aimed to ensure that no participant would be identifiable either to the researcher or to readers of published material. A few narratives have been translated from Norwegian, and statements have been edited for brevity and relevance. Insignificant details have sometimes been altered to preserve anonymity. Participants gave their informed consent to be included in the study, and were asked to read through and verify the use of their narratives. As interviews took the form of written communication (email or private messages at the forum), transcription was unnecessary. Data were analyzed using thematic analysis (Braun and Clarke 2006) and Kvale and Brinkmann's (2015) procedure for meaning condensation, and themes were constructed in an open-ended, exploratory, and data-driven comparative analysis of participant narratives. The interview process allowed for the resolution of ambiguities through follow-up questions.

The Cannabis and Psychedelics User Survey was constructed on the basis of these interviews, with questions and the range of possible survey responses being based on themes identified in the interview analysis. In particular, the motivations for cannabis and psychedelics use and the characteristics of resulting experiences were based on information obtained from interviews. Before the survey was deployed, it went through a round of asynchronous testing on 18 volunteers recruited online, although this resulted only in minor revisions. The survey was made generally available online via SurveyXact from April to September 2019 for self-selected participation. It was fully anonymous and recorded no identifying participant information, including IP addresses. Several articles based on the Cannabis and Psychedelics User Survey are currently in preparation (Johnstad 2020a, 2020b; Johnstad PG: The psychedelic personality: personality

structure and associations in a sample of psychedelics users, forthcoming). The survey text and the dataset are available as online attachments.

Participants for the survey were obtained from seven communities: www.shroomery.org, www.dmt-nexus.me, www.bluelight.org, the Facebook page for Portland Psychedelic Society, the Reddit group r/Psychedelics, the Norwegian Association for Safer Drug Policy, and an informal group of psychedelics users in Bergen, Norway. Participants were recruited either via invitation threads started at each forum or via a snowballing email invitation. Women were especially invited to participate in the survey. The only inclusion criteria were adulthood (18 years or older), the ability to understand English well, and having experience with a commonly used psychedelic drug. Individuals who did not meet the inclusion criteria were linked to a shorter version of the survey, and their data were not used in the analyses. Respondents reported using between 10 and 30 min to complete the survey.

Measures

The Cannabis and Psychedelics User Survey included basic demographic questions relating to age, gender, education, work status, and relationship status. Gender was measured with three categories (female, male, and other), but when the gender variable was used as a control in statistical analyses, seven participants who indicated an “other” gender were excluded from the analysis. Education was quantified from 1 = “Have not completed high school” to 6 = “PhD”. Participants were also asked about their religious or spiritual background and their present religious or spiritual affiliations, as well as their current spiritual practice. Further questions examined their usage history and/or present use of cannabis and the psychedelic drugs of the 2C family (2C-B [2,5-dimethoxy-4-bromophenethylamine] etc.), 5-MeO-DMT (5-methoxy-*N,N*-dimethyltryptamine), Ayahuasca (or analogues), smoked DMT (*N,N*-Dimethyltryptamine), LSD (Lysergic acid diethylamide), MDMA (3,4-Methylenedioxy-methamphetamine), Mescaline/Peyote, Psilocybin/Magic mushrooms, and *Salvia divinorum*. The survey asked participants to choose one psychedelic drug from this list that they had experience with, and they were queried about their motivations for the use of this drug and asked to characterize emotional, cognitive and relational aspects of their most meaningful experience with the drug, of a typical experience, and of their worst experience. This included an assessment of the meaningfulness of the experience taken from Griffiths et al. (2006), where participants rated the experience on a six-level scale (from 1 = “Most meaningful experience of your life” to 6 = “An everyday experience”). Finally, they were asked to

characterize the consequences of their use of this drug for their physical health, psychological health, personal happiness, ability to get along with other people, and spiritual practice, each of which was measured on a five-level Likert scale (from 1 = “Serious worsening” or similar to 5 = “Serious improvement” or similar). The same range of questions were asked about cannabis for participants who had experience with this drug (95% of the sample). In addition, participants were asked to rate their current use of a range of non-psychedelic drugs quantified as 1 = “Daily”, 2 = “A few times per week”, 3 = “A few times per month”, 4 = “A few times per year”, and 5 = “Never”.

In order to measure the personality of the participants, the survey included a version of Gosling et al.’s (2003) Ten-Item Personality Inventory (TIPI), measured on a five-level Likert scale from “disagree strongly” to “agree strongly”. The TIPI is a concise measurement tool with only two items for each Big Five trait, but has been shown to have adequate construct validity, test–retest reliability, and patterns of external correlates (Gosling et al. 2003). TIPI scores were normalized for comparisons with available norms based on a seven-level scale according to the following formula: $TIPI_{normalized} = ((TIPI_{original} - 1) * 6/4) + 1$.

The survey also included a version of Nicholson et al. (2005) Risk Taking Index (RTI), measured on a five-level scale from “never” to “very often”. The original RTI contained an item for health risk that related to substance use, and to adapt the scale to a sample of cannabis and psychedelics users this item was removed. Thus, the modified RTI used for this survey included only five items: recreational risk, career risk, financial risk, safety risk, and social risk. To compensate for the removal of health risk in this population of psychedelics users, the combined overall RTI score was multiplied by 6/5. The original RTI asked participants to assess their risk taking both now and in the past, combining the two assessments into an overall score, while the modified RTI used in this survey, in order to preserve participants’ time, asked for only one assessment. Individual RTI scores for each risk domain were normalized for comparisons with available norms by multiplying the score by 2, thus in effect equalizing scores for the past and the present. As Nicholson et al. (2005) found that risk-taking decreases with age, the substitution of past scores with present scores in the modified RTI should serve to reduce risk taking scores as compared to the original RTI. As detailed in Johnstad PG: The psychedelic personality: personality structure and associations in a sample of psychedelics users, forthcoming, risk taking scores in the present study were, nevertheless, uniformly higher than the scores presented by Nicholson et al. (2005).

Statistical analysis

In order to explore differences in motivations for drug use, characteristics of drug experiences, and self-assessed consequences of drug use, multivariate regression was used to assess the impact of spiritual motivation while controlling for commonly used demographic covariates (Hendricks et al. 2015; Nour et al. 2017) as well as the Big Five personality traits, the overall risk taking score (RTI), and the usage frequency of cannabis, psychedelics, and a range of non-psychedelic drugs. Separate multivariate logistic regression analyses were used to identify the independent variables that predicted dependent variables related to motivations for drug use and characteristics of drug experiences, and multivariate linear regression analyses were used to identify the independent variables that predicted dependent variables related to consequences of drug use. For each multivariate regression, independent variables were gender (coded as female = 0, male = 1), age, education, the six personality traits, five general drug use variables (coded from 1 = "Daily" to 5 = "Never"), two variables for cannabis and psychedelics use occasions the last 12 months (coded from 1 = "Zero" to 5 = "101+"), a variable for the duration of cannabis experience (coded from 1 = "Less than a year" to 5 = "10+ years"), and a dichotomous variable for whether or not the participant endorsed having a spiritual motivation for cannabis use (yes = 1). The multivariate linear regression analyses added a dichotomous variable for whether or not the participant endorsed having an escapist motivation for cannabis use (yes = 1). In all these analyses, ordinal variables were treated as continuous. Data was analyzed with IBM SPSS Statistics 25.

Results – interview study

Participant characteristics

Participants in the interview study were not always willing to provide demographic information. In order to reduce participation stress, only a minimum of such information was requested. Of the 22 participants who provided their gender and age, 20 were male and two female. The mean age was 35.6, with a range from the early 20s to the late 50s. Four were married (two with children), four were in stable relationships (one with children), six were single, and one in the middle of a break-up. Eleven held steady jobs in retailing, education, music teaching, journalism, industrial services, IT consulting, accounting, and as a hospital worker, one was a business owner, two were students, one was unemployed, and one used to work as a kindergarten assistant but was recently disabled because of an inherited condition.

Usage pattern

In interviews with spiritually motivated cannabis users, there were two main trends for usage pattern. The first involved interviewees who were currently daily or near-daily users. For the most part, these people acknowledged that frequent use diminished their cannabis experiences, but maintained that this usage pattern was still of spiritual importance to them:

I have had many spiritual experiences with cannabis, and continue to use it for this purpose, although my overuse has dulled the experiences a bit. (ID11)

The other trend involved interviewees who were consciously limiting their usage frequency in order to maintain the spiritual value of their cannabis practice. Their usage pattern varied from about once per week to a few times per year:

My personal experience with cannabis has been very helpful. When I don't use it for a week or two I'm getting very good trips. It feels like during my trip a part of my brain gets unlocked. (ID09)

Because it is very intense for me, I only do cannabis a few times every year. Also it's my experience that if I do it too often it gets less intense, and therefore less meaningful for me. I want it to be a special, transformative, revelatory experience, and in order to give it the space it needs I must portion it out. (ID19)

Motivations for use

Participants in interviews were asked about their motivations for starting to use entheogens, and sorted themselves into three different groups. The first group entered into the world of entheogens as part of an explicitly spiritual quest, choosing to engage with these drugs in order to obtain spiritual experiences. The second group expressed a general curiosity about the psychological effects that was not explicitly spiritual, but involved a wish to explore the realm of inner experience, and the third group was just socializing, partying, and having fun. Regardless of their initial motivation, all these interviewees eventually developed a spiritual motivation for continued entheogen use.

I experimented with cannabis because I was curious about it. The first five times or so – this was over a period of maybe six or seven years – it didn't do anything for me. Then suddenly my world exploded with spiritual revelation. (ID19)

Table 1 Participant characteristics for 265 Internet survey respondents (grouped according to motivation for cannabis use)^a

	Spiritually motivated users (<i>N</i> = 67)	Non-spiritually motivated users (<i>N</i> = 198)	Diff.
Age	12% 18–19 years	7% 18–19 years	<i>p</i> = .06
	36% 20–29 years	29% 20–29 years	
	28% 30–39 years	33% 30–39 years	
	16% 40–49 years	15% 40–49 years	
	3% 50–59 years	11% 50–59 years	
	5% 60+ years	5% 60+ years	
	(Median = 30, <i>M</i> = 32.6, <i>SD</i> = 11.5)	(Median = 34, <i>M</i> = 35.6, <i>SD</i> = 12.1)	
Gender	12% female, 85% male, 3% other	20% female, 78% male, 2% other	<i>p</i> = .16 ^c
Relationship status	52% single	40% single	<i>p</i> = .08
	25% partner	32% partner	<i>p</i> = .32
	22% married	28% married	<i>p</i> = .39
	0% widow (er)	1% widow (er)	<i>p</i> = .56
Number of children	75% none	66% none	<i>p</i> = .15
	10% one child	12% one child	
	13% two children	14% two children	
	2% three or more children	8% three or more children	
	(<i>M</i> = .42, <i>SD</i> = .78)	(<i>M</i> = .63, <i>SD</i> = .99)	
Education	8% PhD	5% PhD	<i>p</i> = .96
	15% Master's degree	15% Master's degree	
	21% Bachelor's degree	22% Bachelor's degree	
	33% some university	38% some university	
	19% high school	16% high school	
	5% not completed high school	5% not completed high school	
	(<i>M</i> = 5.16 years, <i>SD</i> = 2.56 years)	(<i>M</i> = 5.03 years, <i>SD</i> = 2.32 years)	
Religious background ^b	15% Buddhist	9% Buddhist	<i>p</i> = .18
	21% Christian	24% Christian	<i>p</i> = .63
	8% Hindu	2% Hindu	<i>p</i> = .03
	6% Jewish	2% Jewish	<i>p</i> = .05
	3% Muslim	2% Muslim	<i>p</i> = .45
	22% New Age/Alternative	14% New Age/Alternative	<i>p</i> = .09
	34% Secular/Humanist	36% Secular/Humanist	<i>p</i> = .82
Religious affiliation at present ^b	48% other	41% other	<i>p</i> = .33
	51% Buddhist	23% Buddhist	<i>p</i> < .01
	28% Christian	14% Christian	<i>p</i> = .01
	30% Hindu	7% Hindu	<i>p</i> < .01
	9% Jewish	3% Jewish	<i>p</i> = .04
	8% Muslim	2% Muslim	<i>p</i> = .01
	45% New Age/Alternative	22% New Age/Alternative	<i>p</i> < .01
34% Secular/Humanist	37% Secular/Humanist	<i>p</i> = .68	
Occupation ^b	42% other	47% other	<i>p</i> = .46
	51% full time job	59% full time job	<i>p</i> = .26
	16% part time job	17% part time job	<i>p</i> = .89
	27% student	17% student	<i>p</i> = .07

Table 1 Participant characteristics for 265 Internet survey respondents (grouped according to motivation for cannabis use)^a
(Continued)

	Spiritually motivated users (N = 67)	Non-spiritually motivated users (N = 198)	Diff.
	3% pensioner	4% pensioner	$p = .83$
	5% unemployed	5% unemployed	$p = .85$
	13% other	16% other	$p = .66$
Geographical location at present	60% North America	55% North America	$p = .46$
	24% Western Europe	30% Western Europe	$p = .35$
	6% Eastern Europe	4% Eastern Europe	$p = .39$
	5% Oceania	8% Oceania	$p = .32$
	3% Middle East	1% Middle East	$p = .10$
	2% South America	2% South America	$p = .78$
	2% Africa	1% Africa	$p = .42$
	0% Asia	1% Asia	$p = .41$
Personality traits	3.96 Extraversion	3.82 Extraversion	$p = .54$
	4.69 Conscientiousness	4.98 Conscientiousness	$p = .19$
	6.07 Openness	5.80 Openness	$p = .08$
	4.96 Agreeableness	4.73 Agreeableness	$p = .20$
	4.87 Emotional stability	4.79 Emotional stability	$p = .71$
	37.33 Risk taking	34.19 Risk taking	$p < .01$
Years of cannabis experience	3.0% Less than a year	8.6% Less than a year	$p = .06$
	11.9% 1–3 years	18.2% 1–3 years	
	11.9% 3–5 years	11.1% 3–5 years	
	22.4% 5–10 years	21.2% 5–10 years	
	50.7% 10+ years	40.9% 10+ years	
	(Median = 10+ years)	(Median = 7 years)	
Cannabis use last 12 months	Median = 91 use occasions	Median = 67 use occasions	$p = .31$
Psychedelics use last 12 months ^d	Median = 3 use occasions	Median = 3 use occasions	$p = .43$
Alcohol use	14.9% Daily	3.5% Daily	$p = .18$
	17.9% A few times per week	18.7% A few times per week	
	25.4% A few times per month	29.8% A few times per month	
	23.9% A few times per year	31.8% A few times per year	
	17.9% Never	16.2% Never	
Amphetamine use	1.5% Daily	5.6% Daily	$p = .65$
	1.5% A few times per week	2.5% A few times per week	
	7.5% A few times per month	5.1% A few times per month	
	16.4% A few times per year	15.7% A few times per year	
	73.1% Never	71.2% Never	
Cigarette/tobacco use	32.8% Daily	31.8% Daily	$p = .57$
	6.0% A few times per week	5.1% A few times per week	
	9.0% A few times per month	6.1% A few times per month	
	10.4% A few times per year	10.1% A few times per year	
	41.8% Never	47.0% Never	
Cocaine use	0% Daily	0% Daily	$p = .70$
	1.5% A few times per week	0.5% A few times per week	
	4.5% A few times per month	1.5% A few times per month	

Table 1 Participant characteristics for 265 Internet survey respondents (grouped according to motivation for cannabis use)^a (Continued)

	Spiritually motivated users (N = 67)	Non-spiritually motivated users (N = 198)	Diff.
Opiate use	14.9% A few times per year	22.2% A few times per year	
	79.1% Never	75.8% Never	
	3.0% Daily	4.5% Daily	p = .20
	1.5% A few times per week	1.5% A few times per week	
	1.5% A few times per month	2.0% A few times per month	
	22.4% A few times per year	11.6% A few times per year	
	71.6% Never	80.3% Never	

Note: The ‘Diff.’ column indicates significant difference between the two groups on the Mann-Whitney U test, with significant values indicated in bold (p < .05). ^aSums may differ from 100% because of rounding. ^bSums to more than 100% because respondents could choose several alternatives. ^cOther gender (N = 7) excluded. ^dThis refers to the use of the psychedelic drug that participants chose to describe their interaction with in the survey. M = mean. SD = standard deviation

I have searched for a religious/mystical experience since I was a boy. I came across information about LSD, the Gospel of Thomas, and the Tibetan Book of the Dead on the Internet when the rest of my class in high school was on a trip abroad. (ID30)

Characteristics of drug-induced experiences

Interviewees described entheogenic experiences as being characterized by insight into self, relations, and world, inner visions, feelings of peace, joy, and love, and occasional peak experiences involving ego dissolution and what was interpreted as contact with transcendent forces. The majority did not count cannabis as an entheogen, however, and described the cannabis state as one of peaceful relaxation. Those who did regard cannabis as an entheogen usually – but not always – saw it as

less intense than the classical psychedelics. Interviewees who valued the spiritual dimension of cannabis often had a meditative or introspective approach to it.

I found that moderate cannabis use very useful in maintaining a relaxed and meditative state of mind. I found that being in such a state most of the time meant that my conscious mind had a more efficient connection to my sub-conscious mind, which I believe to be the incarnate link between the consciousness of the animal and the Spirit that dwells ‘within’. (ID25)

Cannabis changed my life. It brought me into contact with something larger than life – a spiritual dimension to my existence. It made me realize what I now

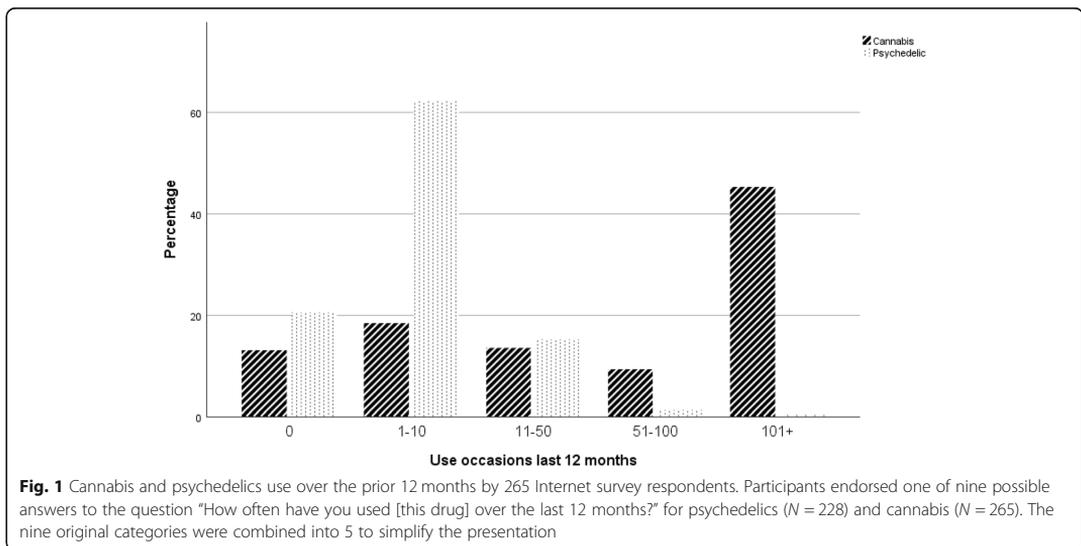


Table 2 Motivations for continued cannabis and psychedelics use among 265 Internet survey respondents

	Psychedelics (N = 228)		Cannabis (N = 265)		Spiritually motivated cannabis use (N = 67)
Adventure	54%	***	31%	***	69%
Curiosity	44%	***	22%	***	40%
Ego death experience	43%	***	5%	**	15%
Fun/party/recreation	41%	***	67%		72%
Insight and understanding for personal growth	84%	***	37%	***	76%
Psychological self-exploration	84%	***	37%	***	79%
Socializing	23%	***	56%	**	70%
Spiritual experience	69%	***	25%	(n/a)	(100%)
To cure or heal medical conditions	21%	*	30%		33%
To cure or heal personal problems	44%	***	26%	***	46%
To forget or escape from personal problems	8%	***	32%		37%

Note: The left column of stars indicates significant difference on the paired t-test between psychedelics and cannabis use (N = 219); the right column indicates significant difference on the independent t-test between spiritually motivated cannabis users (N = 67) and other cannabis users (N = 198): * p < .05, ** p < .01, *** p < .001

regard as fact: that there is much more to our human existence than we are usually aware of. This earthly life is only a small part of our true life, and to die from this world is only to return home. (ID19)

Cannabis is definitely psychedelic for me and expands my consciousness, but most times when I smoke my mind also gets quite foggy. Clear and discerning thinking is not as possible like on other psychedelics, therefore the others are far superior for me. (ID12)

Consequences of drug-induced experiences

When asked to describe the long-term consequences of their entheogen use, participants in interviews pointed especially to psychological healing and personal growth. They claimed that entheogens had helped them deal with existential issues, personal problems such as social anxiety, and medical conditions such as depression, post-traumatic stress disorder, and addiction to alcohol, nicotine, and gambling. Different interviewees usually emphasized different entheogens as being especially helpful to them, but there were no discernable trends that differentiated cannabis from other entheogens.

Entheogens have helped me to see the wonder in life, and as a by-product, I have felt renewed energy in my studies at my university and my overall attitude. I feel very grateful for my family and all of those close to me. Life is good! (ID31)

Entheogens helped me realize the importance of letting go rather than clinging on to anger or grief. Another thing is that 'I am my own responsibility'

and therefore have to take ownership of my own emotions, plans for the future, economy, relations, etc. (ID23)

Marijuana seems to open up a part of my mind which seems to be able to think higher, better, and more lovingly than without it. Some of my biggest and most successful changes made in my small business have been thought up while under the influence of marijuana. I have also healed a ton of my anxiety, depression, and social anxiety with marijuana. (ID11)

Asked about negative consequences, interviewees emphasized the dangers of overuse. Because cannabis and 3,4-Methylenedioxyamphetamine (MDMA) were seen as giving rise to less intense experiences than other entheogens, they were regarded as easier to overuse. Participants also pointed to a tolerance effect where over-frequent use reduced the intensity of the experience.

If you overdo it, you will have less and less interesting experiences. (ID30)

I cannot abuse mushrooms in the same way as cannabis. In a way I get filled up by a mushroom trip. Cannabis is not as intense an experience. (ID26)

Results – quantitative survey

Participant characteristics

A total of 527 forms were submitted, but 202 of these were empty or near-empty and were excluded from analysis. Six responses with substantial discrepancies on

Table 3 Motivations for cannabis use among 214 Internet survey respondents in multivariate logistic regression models

	Adventure			Curiosity			Insight and understanding for personal growth			Psychological self-exploration			To cure or heal personal problems		
	B	SE	p	B	SE	p	B	SE	p	B	SE	p	B	SE	p
Intercept	-5.69	2.99		-1.17	2.89		-13.96	3.31	***	-3.49	2.80		-63	3.00	
Age	-.23	.19		.03	.18		-.24	.18		-.25	.17		-.34	.20	
Gender (M)	-.11	.52		.00	.51		-.34	.47		-.22	.48		-.62	.49	
Education	-.03	.16		.05	.16		.48	.18	**	.06	.16		-.14	.16	
Extraversion	-.15	.13		.00	.14		.04	.13		-.11	.12		.04	.13	
Conscientiousness	.09	.16		.08	.16		.22	.15		.06	.15		.07	.15	
Openness	.26	.22		.11	.22		.49	.22	*	.29	.20		.24	.22	
Agreeableness	.35	.15	*	.01	.15		.17	.15		.26	.14		.02	.16	
Emotional stability	.41	.16	**	.27	.15		.14	.14		-.02	.14		-.36	.15	*
Risk taking	.01	.03		.03	.03		.03	.03		.02	.02		.04	.03	
Alcohol use	.20	.17		.02	.17		.25	.17		.00	.16		-.07	.17	
Amphetamine use	-.08	.19		-.47	.18	*	-.23	.20		-.14	.18		-.07	.20	
Cigarette/tobacco use	-.10	.12		.17	.12		.15	.12		-.01	.11		.00	.11	
Cocaine use	.17	.41		-.16	.41		.65	.42		-.17	.41		.01	.40	
Opiate use	-.19	.20		-.19	.22		.09	.20		.24	.21		-.23	.20	
Psychedelics use 12 months	-.12	.10		-.09	.10		-.06	.10		-.04	.10		.06	.10	
Years of cannabis experience	.01	.18		-.35	.18	*	.23	.18		.02	.16		.05	.19	
Cannabis use 12 months	.00	.07		.06	.07		.17	.07	*	.02	.07		.14	.08	
Spiritual motivation	2.49	.43	***	1.32	.41	***	2.37	.44	***	2.56	.42	***	1.30	.41	***

Note: N = 214. Results from multivariate logistic regression models. Each model contains 18 independent variables: age, gender (coded as male = 1), education (quantified from 1 = "Have not completed high school" to 6 = "PhD"), the Big Five personality traits, the overall Risk Taking score (RTI), five variables for current drug use (quantified from 1 = "Daily" to 5 = "Never"), two variables for the number of use occasions for psychedelics and cannabis over the last 12 months, a variable for the number of years of cannabis experience (quantified from 1 = "Less than a year" to 5 = "10+ years") and a dichotomous variable for spiritual motivation. Results from five models are shown, one for each of five dependent variables: adventure (model Nagelkerke R-square = .41), curiosity (model Nagelkerke R-square = .21), personal growth (model Nagelkerke R-square = .44), self-exploration (model Nagelkerke R-square = .38), and healing personal problems (model Nagelkerke R-square = .27). Values in bold represent statistically significant associations. B = unstandardized regression coefficient; SE = standard error, * p < .05, ** p < .01, *** p < .001

repeated drug use assessments were also excluded. Of the 319 included participants, 213 completed the full survey, while 106 opted out from parts of it. There were a number of differences between the two groups: among other things, participants who completed the study had higher education ($t = 2.68$, $df = 317$, $p = .008$), were more likely to be a pensioner ($t = 3.06$, $df = 212$, $p = .003$), and had higher scores on the personality traits openness ($t = 2.68$, $df = 109$, $p = .009$) and conscientiousness ($t = 2.00$, $df = 287$, $p = .047$). See Additional file 1: Table A in the online appendix for a more comprehensive overview. It should be noted that these are uncorrected figures in a study with more than 300 variables, where 15 false positives might be expected with a 95% significance level. The two groups were not different in terms of having a spiritual motivation for cannabis use ($t = 0.73$, $df = 263$, $p = .466$), which was the main explanatory variable used in this study. Respondents were free to choose which psychedelic drug they would describe their interaction with in the survey, but usually chose a drug they had much experience with relative to other psychedelic drugs. In paired t -tests, the mean number of use occasions for their chosen drug significantly exceeded that of all other psychedelic drugs at $p < .001$.

An overview of participant characteristics for the survey, grouped according to whether or not they endorsed having a spiritual motivation for cannabis use, is provided in Table 1. The median participant was a male aged 32 with some university education, unmarried and childless but with a partner, situated in North America and working a full time job. Most participants reported having a religious background and a present religious or spiritual affiliation. However, there were substantial demographic differences between the spiritual and non-spiritual groups.

Usage pattern

Participants reported substantial differences in their usage patterns for cannabis and psychedelics (Fig. 1). They reported a median of 1–10 use occasions for their chosen psychedelic and 51–100 use occasions of cannabis over the last 12 months, with a large minority (45%) reporting 101+ cannabis use occasions. Participants who endorsed having a spiritual motivation for cannabis use did not differ significantly in usage frequency from other participants ($t = 1.43$, $df = 123$, $p = .155$).

Motivations for use

Participants reported significant differences in their motivations for cannabis and psychedelics use (Table 2). For cannabis, fun/party/recreation and socializing were the most commonly endorsed motivations, whereas the most endorsed items for psychedelics use related to self-exploration and

personal growth. The subset of spiritually motivated cannabis users diverged substantially from the overall cannabis trend, however. These participants endorsed having motivations for cannabis use that often resembled those given for psychedelics use, with substantial majorities endorsing self-exploration, personal growth, and adventure as a motivation for cannabis use.

Further statistical analysis focused on the differences between spiritual and non-spiritual cannabis use. Multivariate logistic regression analyses supported most of the differences identified in Table 2 between spiritual and non-spiritual cannabis use, as a spiritual motivation for cannabis use significantly predicted having adventure, curiosity, insight and understanding for personal growth, psychological self-exploration, and to cure or heal personal problems as additional motivations in regression models that controlled for age, gender, education level, personality traits, and drug use (Table 3). The dichotomous spiritual motivation variable that differentiated between the two types of cannabis use in Table 2 thus maintained its effect in multivariate regression models, which indicates that its effect is independent from a broad range of potential confounders related to demographics, personality, and drug use. In these models, the personality traits Agreeableness and Emotional stability, when controlled for the other variables in the model, positively predicted a search for adventure, while Openness positively predicted a wish for insight and understanding for personal growth. Emotional stability negatively predicted wanting to cure or heal personal problems.

Characteristics of drug-induced experiences

Participants were asked to characterize emotional, cognitive and relational aspects of a typical experience with cannabis and a psychedelic drug. For most characteristics, they reported significant differences between psychedelic and cannabis experiences (Table 4). The discrepancy was particularly large for characteristics indicating a mystical-type experience, such as ego death, ineffability, and contact or unity with transcendent forces, but was also substantial for more mundane characteristics involving insight and emotions such as joy, love, sadness, surprise, and fear. In sum, these differences in levels of endorsement seem to indicate that participants regarded experiences with psychedelics as more noteworthy and 'special' than experiences with cannabis. Spiritually motivated cannabis users endorsed characteristics relating to insight and positive emotions at higher levels than other cannabis users, however. For these users, the cannabis experience, at least in certain respects, tended to resemble a psychedelic experience.

The spiritual motivation variable retained its impact in multivariate logistic regression models that controlled for a range of demographic, personality, and drug use variables. In these models, having a spiritual motivation for cannabis use significantly predicted most of the characteristics in Table 4 that distinguished spiritual and recreational experiences (Table 5). This indicates that the effect from spiritual motivation was independent from demographic, personality, and drug use differences between the participants. In addition to the strongly significant spiritual motivation variable in these models, the personality trait *Conscientiousness* positively predicted experiences of connectedness to nature and to other people, as well as experiences of feeling love. A higher frequency of cannabis during the last 12 months also predicted experiences of connectedness and love, which may reflect that respondents who obtained such effects from cannabis use were encouraged to repeat the experience more often. Finally, higher scores on risk taking predicted experiences of connectedness with nature,

perhaps indicating that high risk takers were more likely to use cannabis outdoors.

Consequences of drug-induced experiences

Participants rated the consequences of their drug use as neutral or positive on all indicators, with significantly higher scores for psychedelics than for cannabis (Table 6). Spiritually motivated cannabis users rated the consequences of such use for their psychological health and spiritual practice significantly higher than the rest of the sample.

In order to control the figures for cannabis use for the effects from possibly confounding variables, multiple linear regression analyses were performed using the five-level Likert scales as dependent variables (Tables 7). The analyses show that having a spiritual motivation predicted positive consequences for self-reported psychological health and spiritual practice when controlled for age, gender, education level, personality traits, and drug use. Having an escapist motivation, conversely, predicted

Table 4 Comparisons of drug experience characteristics among 250 Internet survey respondents

	Typical psychedelic experience (N = 220)		Typical cannabis experience (N = 250)		Spiritually motivated cannabis experience (N = 66)
Anger or hate	2%		1%		2%
Confusion	24%		21%		21%
Contact with non-ordinary beings	25%	***	3%		3%
Contact with transcendent forces	34%	***	5%		11%
Disgust	5%	*	2%		5%
Ego death or dissolution	33%	***	4%		9%
Fear	24%	**	14%		17%
Feeling of homecoming or return to your essence	60%	***	27%	***	49%
Feeling of isolation from other people	12%		17%		15%
Improved connection with nature	75%	***	48%	***	73%
Improved connection with other people	67%	***	44%	***	64%
Inner visions	57%	***	14%	**	27%
Insight into the world	78%	***	38%	***	56%
Insight into your relations	74%	***	42%	***	65%
Insight into yourself	86%	***	51%	**	65%
Joy	84%	***	56%	**	71%
Love	76%	***	37%	***	58%
Peace	82%		72%		77%
Regrettable behavior towards others	6%		4%		3%
Sadness	19%	***	6%		11%
Surprise	42%	***	8%		14%
Unity with transcendent forces	41%	***	4%	*	12%
Words cannot describe the experience	49%	***	7%		12%

Note: The left column of stars indicates significant difference on the paired t-test between a typical psychedelic and cannabis experience (N = 212); the right column indicates significant difference on the independent t-test between spiritually motivated cannabis users (N = 66) and other cannabis users (N = 184) for a typical cannabis experience: * p < .05, ** p < .01, *** p < .001

Table 5 Spiritual motivation as predictor of cannabis experience among 214 internet survey respondents in multivariate logistic regression

	Feeling of homecoming or return to your essence		Improved connection with nature		Improved connection with people		Improved connection with other world		Insight into the relations		Love	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Intercept	-1.65	2.69	-5.27	2.64	*	2.46	1.27	2.50	-2.50	2.43	-2.98	2.62
Age	.02	.17	.10	.16	.17	.15	.22	.15	-.06	.15	.02	.16
Gender (M)	-.49	.45	-.17	.44	-.63	.44	-.80	.45	-.61	.42	-.46	.45
Education	-.16	.15	-.01	.15	-.08	.14	-.14	.14	-.12	.14	-.34	.15
Extraversion	.06	.12	.11	.11	.21	.11	.11	.12	.01	.11	-.02	.12
Conscientiousness	-.06	.14	.34	.14	*	.38	.11	.13	.07	.13	.37	.14
Openness	.23	.19	.28	.18	.18	.17	-.01	.17	.09	.17	-.08	.18
Agreeableness	-.03	.14	.04	.13	-.12	.13	-.19	.13	.04	.13	.15	.14
Emotional stability	.05	.13	-.01	.13	.21	.12	.21	.13	.11	.12	-.06	.13
Risk taking	-.01	.02	.04	.02	*	.04	.01	.02	.02	.02	.02	.02
Alcohol use	-.06	.15	-.14	.15	.13	.14	.15	.15	.28	.14	.11	.15
Amphetamine use	-.13	.18	-.20	.18	-.08	.18	-.12	.18	-.09	.17	.24	.20
Cigarette/tobacco use	-.13	.10	.05	.10	.11	.10	.05	.10	.09	.09	.10	.10
Cocaine use	.23	.37	.15	.37	.09	.35	-1.04	.38	**	-.27	.35	-.07
Opiate use	-.02	.19	-.17	.19	-.11	.18	-.11	.18	.22	.18	-.20	.19
Psychedelics use 12 months	-.07	.09	-.04	.09	-.03	.09	-.07	.09	-.09	.08	-.08	.09
Years of cannabis experience	.10	.17	-.14	.15	.02	.15	.19	.15	.28	.14	*	.09
Cannabis use 12 months	.10	.07	.24	.07	***	.15	.06	.06	.03	.06	.17	.07
Spiritual motivation	1.19	.37	***	1.59	.41	***	1.18	.38	**	1.27	.38	***
											1.24	.37
											***	.38
											***	.38

Note: N = 214. Results from multivariate logistic regression models. Each model contains 18 independent variables: age, gender (coded as male = 1), education (quantified from 1 = "Have not completed high school" to 6 = "PhD"), the Big Five personality traits, the overall Risk Taking score (RTI), five variables for current drug use (quantified from 1 = "Daily" to 5 = "Never"), two variables for the number of use occasions for psychedelics and cannabis over the last 12 months, a variable for the number of years of cannabis experience (quantified from 1 = "Less than a year" to 5 = "10+ years"), and a dichotomous variable for spiritual motivation. Results from six models are shown, one for each of six dependent variables: homecoming (model Nagelkerke R-square = .16), connection with nature (model Nagelkerke R-square = .32), connection with other people (model Nagelkerke R-square = .23), insight into the world (model Nagelkerke R-square = .27), insight into your relations (model Nagelkerke R-square = .19), and love (model Nagelkerke R-square = .27). Values in bold represent statistically significant associations. B = unstandardized regression coefficient, SE = standard error, * p < .05, ** p < .01, *** p < .001

Table 6 Consequences of cannabis and psychedelics use among 225 Internet survey respondents

	Psychedelics (N = 213)		Cannabis (N = 225)		Spiritually motivated cannabis use (N = 60)
Physical health	3.66	***	3.23		3.37
Psychological health	4.26	***	3.32	*	3.55
Spiritual practice	3.89	***	3.42	***	3.82
Ability to get along with people	4.03	***	3.40		3.50
Personal happiness	4.27	***	3.54		3.67

Note: Numbers indicate average scores on a five-level Likert scale (range: 1–5). The left column of stars indicates significant difference on the paired *t*-test between psychedelics and cannabis use (N = 205); the right column indicates significant difference on the independent *t*-test between spiritually motivated cannabis users (N = 60) and other cannabis users (N = 165): * $p < .05$, ** $p < .01$, *** $p < .001$.

negative consequences on every outcome except physical health and spiritual practice. The personality trait Conscientiousness predicted positive cannabis consequences across the board, as did having a higher frequency of cannabis use during the last 12 months. The latter finding is open to several interpretations, one of which might be that cannabis users who experience their use as beneficial will tend to increase the frequency of use. Lower opiate use predicted worse self-reported consequences of cannabis use, which may reflect opiate users comparing the consequences of cannabis use with the presumably more problematic consequences of opiate use, and as a result reporting favorably on the behalf of cannabis.

Discussion

In this study, it was clear that cannabis means different things to different people. Many of the participants in the study drew a clear line between cannabis and psychedelics in terms of both their motivations for use and the characteristics of experiences. While often attributing spiritual and self-developmental characteristics to their psychedelics use, which was limited to a median of 1–10 use occasions per year for their chosen psychedelic drug, they regarded cannabis as a drug that could be used quite frequently for the more mundane purposes of recreation and relaxation. In the terms of Simons et al.'s (1998) model for cannabis use motivations, this form of recreational use relates mostly to the enhancement and social motives. A substantial minority broke with this trivializing view, however, and regarded cannabis as a proper entheogen, although perhaps not of the same stature as the classical psychedelics. Such spiritual use connects primarily to what Simons et al. (1998) called the expansion motive, although there are clearly aspects of both enhancement and social motives in this form of use as well, since these spiritually motivated cannabis users reported experiences with significantly higher levels of love and an improved connection with other people than non-spiritually motivated users. This result is congruent with previous findings on entheogenic spirituality (Johnstad 2018). Among both types of cannabis users, furthermore, one third of the respondents

reported a coping motive for use, as they endorsed using cannabis because they wanted to forget or escape from personal problems.

In interviews, spiritually motivated cannabis users often reported having meditative or introspective cannabis sessions, while recreationally motivated users did not report such an introspective focus. This finding is congruent with the advice from Gray (2017) that cannabis experiences will be more powerful when the user engages with the experience in inner silence. In the survey data, furthermore, there were clear correlations between having a spiritual motivation for cannabis use and ending up with spiritual-type cannabis experiences. Convergent findings thus support the hypothesis that users' approach to cannabis in terms of motivation and usage pattern has considerable impact upon their experiences.

Participants in interviews often emphasized their intention of maintaining a moderate usage frequency of cannabis in order to preserve its spiritual value, or, in some cases, acknowledged that over-frequent use had somewhat diminished their cannabis experiences. Interviewees generally found that because of a build-up of tolerance, overuse of entheogens would entail a loss of effect, and it seems likely that habitual cannabis users experience cannabis as relatively mild because of such tolerance. This finding is congruent with research that has obtained evidence of tolerance to the subjective intoxication effects of cannabis (Colizzi and Bhattacharyya 2018; Gorelick et al. 2013). The median number of use occasions over the last 12 months in the survey data was not significantly different for spiritually motivated users and recreational users, however, and more frequent cannabis users reported more positive cannabis experiences and indicated that their use had better long-term consequences. These findings agree with Bresin and Mekawi's (2019) meta-analysis of the relations between cannabis use motives and outcomes, where expansion and enhancement motives were associated with a higher frequency of use. The present study thus identified an inconsistency between the interview and survey data, as the emphasis on moderation among some interviewees was not reflected in a lower frequency of use

Table 7 Consequences of cannabis use among 200 Internet survey respondents in linear multivariate regression models

	Physical health			Psychological health			Spiritual practice			Ability to get along with people			Personal happiness		
	B	SE	p	B	SE	p	B	SE	p	B	SE	p	B	SE	p
Intercept	2.70	.88	**	2.72	.94	**	3.11	.89	***	1.69	1.03		1.55	.96	
Age	-.02	.05		.04	.06		-.11	.05	*	-.09	.06		-.07	.06	
Gender (M)	-.32	.15	*	-.35	.16	*	.00	.15		-.04	.17		.03	.16	
Education	-.01	.05		.07	.05		.01	.05		.02	.06		.04	.05	
Extraversion	.04	.04		.02	.04		.01	.04		.03	.04		.07	.04	
Conscientiousness	.15	.05	***	.12	.05	**	.14	.05	**	.13	.05	*	.13	.05	**
Openness	.01	.06		.12	.06		.05	.06		.02	.07		.14	.06	*
Agreeableness	.02	.04		.02	.05		-.07	.04		.03	.05		-.02	.05	
Emotional stability	.05	.04		.06	.05		-.00	.05		-.02	.05		.04	.05	
Risk taking	.01	.01		.01	.01		.01	.01		.01	.01		.01	.01	
Alcohol use	-.06	.05		-.04	.05		-.03	.05		-.04	.06		-.08	.05	
Amphetamine use	-.05	.06		-.04	.06		-.01	.06		-.02	.07		-.09	.07	
Cigarette/tobacco use	.02	.03		.01	.04		.01	.03		.04	.04		.07	.04	
Cocaine use	-.02	.12		-.05	.13		.04	.13		.22	.15		.06	.14	
Opiate use	-.08	.06		-.23	.07	***	-.14	.07	*	-.18	.06	*	-.19	.07	**
Psychedelics use 12 months	-.02	.03		-.03	.03		-.03	.03		.01	.04		-.01	.03	
Years of cannabis experience	.01	.05		-.03	.05		.00	.05		.04	.06		.02	.05	
Cannabis use 12 months	.06	.02	**	.11	.02	***	.05	.02	*	.08	.02	**	.11	.02	***
Escapist motivation	-.10	.13		-.37	.14	**	-.14	.13		-.37	.15	*	-.34	.14	*
Spiritual motivation	.19	.13		.30	.13	*	.51	.13	***	.07	.15		.07	.14	

Note: N = 200. Results from linear multivariate regression models. Each model contains 19 independent variables: age, gender (coded as male = 1), education (quantified from 1 = "Have not completed high school" to 6 = "PhD"), the Big Five personality traits, the overall Risk Taking score (RTI), five variables for current drug use (quantified from 1 = "Daily" to 5 = "Never"), two variables for the number of use occasions for psychedelics and cannabis over the last 12 months, a variable for the number of years of cannabis experience (quantified from 1 = "Less than a year" to 5 = "10+ years"), a dichotomous variable for escapist motivation, and a dichotomous variable for spiritual motivation. Results from five models are shown, one for each of five dependent variables: physical health (model adjusted R-square = .12), psychological health (model adjusted R-square = .26), spiritual practice (model adjusted R-square = .14), sociability (model adjusted R-square = .11), and personal happiness (model adjusted R-square = .24). Values in bold represent statistically significant associations. B = unstandardized regression coefficient, SE = standard error, * p <= .05, ** p <= .01, *** p <= .001

among spiritually motivated cannabis users in the survey. One interpretation of this finding is that while a build-up of tolerance to the subjective effects of cannabis reduces the intensity of the spiritual experience, users often choose to go for frequent low-intensity experiences instead of infrequent high-intensity experiences. This interpretation is congruent with a dynamic identified in interviews, where overuse led to experiences that were less powerful, but still regarded as spiritually relevant.

Both interview and survey respondents reported that cannabis and psychedelics use had an overall positive impact on physical and psychological health, personal happiness, sociability, and spiritual practice. Spiritually motivated users reported significantly better consequences for psychological health and spiritual practice, while users with an escapist motivation reported significantly worse consequences for psychological health, sociability, and personal happiness. These findings generally agree with Bresin and Mekawi's (2019) meta-analysis, although their analysis only tested for negative outcomes. They found that coping motives predicted both a higher cannabis frequency and more problematic use, while expansion and enhancement motives predicted a higher frequency of use but not problematic use.

The main limitations of this explorative study were that participants were recruited via online psychedelic communities, and had to self-select for participation. It has previously been found that participants recruited on the Internet have more education and higher incomes (Hamilton and Bowers 2006), which might potentially bias findings. While the Internet is probably more accessible to those with lower education and income levels today than it was in 2006, the Internet recruitment in this study may have served to exclude some cannabis and psychedelics users. Survey participants who completed the survey had higher education and higher scores on the personality traits Openness and Conscientiousness than participants who dropped out along the way, which indicates that the survey may have been received more positively by respondents with more education and specific personality structures. Furthermore, the study recruited mainly among current users of cannabis and psychedelics, who as a group are probably favorably inclined towards such drug use. The study should therefore be considered biased towards positive results.

The study suggests several directions for future research. In the survey sample of psychedelics users, 25% endorsed having a spiritual motivation for cannabis use and reported cannabis experiences that, at least in some respects, resembled experiences with psychedelics. It would be interesting to know the extent of spiritual cannabis use among other samples of cannabis users: is this

a widespread or a marginal social phenomenon? It is possible that the psychedelics users recruited for this study are more spiritually inclined than nonusers are and that selection bias has affected present findings, but it is also possible that a substantial proportion of the general cannabis-using population would endorse having a spiritual motivation for use, if only someone asked them about this. Furthermore, if some form for entheogenic spirituality based on cannabis use is widespread in Western societies, we should know more about its characteristics. The question of how usage frequency impacts on the intensity and meaningfulness of spiritual cannabis experience via a tolerance effect also deserves further investigation, for instance via a retrospective study that asks participants to rate and compare past and present experiences.

Conclusions

The majority of cannabis users in this study regarded cannabis as a recreational drug devoid of entheogenic features. A minority of the sample endorsed having a spiritual motivation for cannabis use and regarded it as an important entheogen, although not necessarily as efficacious in this regard as the classical psychedelics. Such spiritual users differed from recreational users both in their mode of engagement with cannabis and in the type of experiences obtained. Recent research has not given much attention to spiritual aspects of cannabis use, but the study indicates that spiritually motivated use remains prevalent and deserves further study.

Supplementary information

Supplementary information accompanies this paper at <https://doi.org/10.1186/s42238-020-00032-2>.

Additional file 1. Supplemental online material: Survey questionnaire as PDF, SPSS dataset, and online appendix.

Abbreviations

2C-B: 2,5-dimethoxy-4-bromophenethylamine; 5-MeO-DMT: 5-methoxy-*N,N*-dimethyltryptamine; DMT: *N,N*-Dimethyltryptamine; EMCDDA: European Monitoring Centre for Drugs and Drug Addiction; LSD: Lysergic acid diethylamide; MDMA: 3,4-Methylene-dioxymethamphetamine; NSSD S: Norwegian Social Science Data Services; UNODC: United Nations Office on Drugs and Crime

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Author's contributions

PGJ conceived of the study, collected and analyzed the data, and prepared the manuscript. The author read and approved the final manuscript.

Author information

PGJ (Master's degree) performed this research at the University of Bergen. He has previously published articles on psychedelic microdosing practices and entheogenic spirituality, as well as earlier work on nonviolent resistance movements.

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Availability of data and materials

The dataset generated or analyzed during this study is included in this published article [and its supplementary information files].

Ethics approval and consent to participate

All participants in this study consented to participation. As the survey was anonymous, the Norwegian Social Science Data Services waived ethical approval.

Consent for publication

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Competing interests

The authors declare that they have no competing interests.

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Chapter 6 - How to disappear completely: Entheogen-induced experiences of self-dissolution

How to disappear completely: Entheogen-induced experiences of self-dissolution

Abstract

This article presents an interview study of self-dissolution experiences induced by entheogenic or psychedelic drugs, with the aim of broadening our understanding of the nature and characteristics of such experiences. Respondents (N = 37) were recruited at various online fora for individual interviews via private messaging. They reported a wide variety of experiences that involved some form of self-dissolution, ranging from the disruption of self-related illusions to experiences of bodilessness and total immersion in another reality. Several interviewees also reported a temporary transformation of their identity, where they went from seeing themselves as a separate individual to an experience of oneness with all of humanity or with a transcendent force. There were also reports of telepathic contact between friends or partners who used entheogens together, and in their most intense form, these experiences involved what was described as a mind blending where one's usual sense of selfhood dissolved into the telepathic unity.

Keywords: ego dissolution, entheogen, interview, meditation, qualitative, psychedelic, self-dissolution, spirituality

Introduction

Entheogens or psychedelics are a group of psychoactive drugs with powerful effects on feelings, thought, and perception (Nichols 2004, 2016). The classic psychedelics are mescaline (the active constituent of the cactus peyote), psilocybin (the active constituent of "magic mushrooms"), lysergic acid diethylamide (LSD), and N,N-dimethyltryptamine (DMT), but a range of other psychedelic phenethylamines and tryptamines have also been identified (Shulgin and Shulgin 1991, 1997). In addition, some plants such as *Salvia divinorum* that have a very different neuropharmacological effect than serotonergic psychedelics are also sometimes counted as psychedelic, while cannabis may be designated a semi-psychedelic. In this article, I will refer to psychedelics as entheogens, which is derived from ἔνθεος (entheos), meaning inspired or filled with God, and γενέσθαι (genesthai), to come into being.

Prominent among their effects, especially at high dosage, is the capacity to dissolve the user's sense of a separate ego or self (Grof 1976; Lebedev et al. 2016; Millière, Carhart-Harris, Roseman, Trautwein, and Berkovich-Ohana 2018; Nour, Evans, Nutt, and Carhart-Harris 2016). The spiritual importance of such self-dissolution is emphasized in many contemplative traditions. The *Māṇḍūkya Upaniṣad* describes a state of consciousness known simply as 'the fourth' (*Turiya*) that lies beyond the three familiar states of waking consciousness, dreaming, and dreamless sleep, being an experience of pure consciousness that is free from all duality. In Gauḍapādācārya's comment on this text, known as the *Māṇḍūkyakārikā* or *Gauḍapādakārikā*, he stated that: "There is neither dissolution nor creation, none in bondage and none practicing disciplines. There is none seeking Liberation and none liberated. This is the absolute truth" (chapter 2, verse 32; translation by Swami

Nikhilananda). This has been taken to mean that our experience of separate identity is an illusion, and that the truth is found only in the non-dual state.

Christian mystics have also pointed to the dissolution of the self in experiences of spiritual union. Récéjac (in Underhill [1911] 1999, 82) described mystic experience as one where “consciousness finds itself possessed by the sense of a Being at one and the same time greater than the Self and identical with it: great enough to be God, intimate enough to be me.” The experience ends, Récéjac found, with the words “I live, yet not I, but God in me.” Suso similarly described mystic experience as a ‘forgetfulness of self’:

When the soul, forgetting itself, dwells in that radiant darkness, it loses all its faculties and all its qualities. [...] This forgetfulness of self is, in a measure, a transformation in God; who then becomes, in a certain manner, all things for the soul, as Scripture saith. In this rapture the soul disappears, but not yet entirely (Suso, in Underhill [1911] 1999, 371–372).

In the Islamic tradition, comparable sentiments are found especially among the Sufi poets. The Persian Khwāja Shams-ud-Dīn Muḥammad Ḥāfeẓ-e Shīrāzī, usually called Hafez, is particularly relevant for this study of entheogen-induced ego dissolution because he described the union with the divine as an intoxication, using wine as a symbol for love. Thus, in his poem *From the Large Jug, Drink* he declared that “With your mouth full of wine, you are selfless” (translation by Thomas Rain Crowe). Underhill ([1911] 1999, 462) found that Hafez’ poems struck a note of decadence, expressing a western suspicion of spiritual intoxication that was later echoed by critics of the psychedelic movement (e.g., Sullivan and Austriaco 2016; Zaehner 1972). However, although he would perhaps not have expressed it with the same sobriety, we can imagine Hafez agreeing with Underhill’s ([1911] 1999, 93) statement that “Only with the annihilation of selfhood comes the fulfilment of love.”

It is no surprise, therefore, that ego dissolution is a central, if sometimes implicit, aspect of many modern conceptualizations of mystical experience. In the classic model by Stace (1960), for instance, the first two domains of mystical experience were defined as internal unity or merging with ultimate reality and external unity with all beings, and it seems clear that such experience of unity builds on an alteration of one’s ordinary sense of a separate self. For entheogen users, states of ego death or ego dissolution are sometimes experienced as frightening, indicating that mystical experience is not straightforwardly pleasant. The process of ego dissolution has sometimes been described as leading to intense fear, with users feeling that they are losing their sanity or are about to die. In a clinical experiment by Griffiths, Richards, McCann, and Jesse (2006), where volunteers were administered psilocybin and reported high scores on a scale used to assess primary mystical experiences, one third of the participants nonetheless experienced periods of “significant fear” during the psilocybin session. The rating scale named Dread of Ego Dissolution (DED), which covers experiences of cognitive impairment, loss of self-control, feelings of disintegration or separation from oneself and the world, and anxiety or panic, has been designed as a measure for challenging ego death experiences (Studerus, Gamma, Kometer, and Vollenweider 2012).

Experiences with mystical-type characteristics have also been associated with paranormal experiences such as telepathy, clairvoyance, or contact with the dead. Hood et al. (2018) reviewed a range of surveys on this subject, concluding that “[p]ersons who report paranormal experiences often report mystical experiences as well, and vice versa. Seldom is only one type of experience reported” (p. 370). These surveys also seemed to indicate that paranormal experiences were at least

as common as mystical experiences. Nevertheless, the relationship between mysticism and paranormal phenomena remains a highly controversial research area (Hood 2000).

Entheogen-induced ego death experiences have come under increasing study in recent years. Nour et al. (2016) developed the Ego-Dissolution Inventory (EDI) to measure such experiences, which they found were positively correlated with the use of psychedelic drugs (but not with cocaine or alcohol) and with dosage. Lebedev et al. (2016) identified the neural correlates of states of ego dissolution in fifteen healthy volunteers who were administered psilocybin. They found a decrease in the integrity of the salience network, which they suggested is related to the construct of a “minimal” or “embodied self”. Finally, Millière et al. (2018) compared the ego-dissolution effect from psychedelics and meditation, and constructed a model of ego death experiences that differentiated between the disruption of narrative aspects of self-consciousness and the disruption of multisensory aspects of self-consciousness. In this model, the disruption of narrative aspects of self-consciousness involves the reduction or suppression of self-referential thought and the loss of access to autobiographical memories and self-related beliefs, while the disruption of multisensory aspects of self-consciousness involves alterations in body ownership, bodily sensations, and spatial self-location. Millière et al. also discussed the concept of non-dual awareness, which is characterized by the absence of an experiencer who “owns” or experiences the experience, so that the distinction between experience and experiencer melts away.

This study employed Millière et al.’s (2018) model as a theoretical framework for understanding and categorizing narratives of entheogen-induced ego death experiences that emerged in interviews with participants. For the most part, the model held up well, providing both the researcher and the interviewees with a useful reference point for identifying types of experiences. In some cases, however, the reported experiences were difficult to fit into the model.

Method

A total of 37 current or past psychedelics users were interviewed about their experiences in two phases of study. In the first phase, 26 users of psychedelic drugs in spiritual contexts were interviewed either individually or in groups about a broad range of aspects relating to their psychedelics use. These interviews dealt with psychedelic experiences in general, and only some of the participants had any ego death experiences to report. In order to gain more insight, a second phase of study recruited eleven users specifically on the basis of their reports of relevant entheogenic experiences posted on Internet discussion fora. These 37 participants gave their informed consent to be included in the study. In addition, the study was informed by a number of reports posted on discussion fora by users who were either currently unreachable or who did not reply to recruitment attempts. These reports were often of considerable value to the study, but in order to preserve the privacy of their authors, they have not been quoted from in the article.

Interviews were asynchronous and Internet-mediated, and participants were encouraged to interact with the interviewer via anonymized email or messaging that protected their identity from the researcher. The study was designed in conformity with Norwegian Social Science Data Services ethical guidelines. It emphasized the preservation of participant anonymity, and aimed to ensure that no participant would be identifiable either to the researcher or to readers of published material. A

few narratives have been translated from Norwegian, and statements have been edited for brevity and relevance. Insignificant details have sometimes been altered to preserve anonymity. Participants were asked to read through and verify the use of their narratives. As interviews took the form of written communication, transcription was unnecessary. Data were analyzed using thematic analysis and Kvale and Brinkmann's (2015) procedure for meaning condensation, and themes were constructed in an open-ended, exploratory, and data-driven comparative analysis of participant narratives. The interview process allowed for the resolution of ambiguities through follow-up questions.

Because entheogen use is generally illegal, not all respondents were willing to provide demographic information. In order to reduce participation stress, only a minimum of such information was requested. Of the 28 participants who provided their gender and age, 26 were male and two female. The median participant was in the mid-30s, with a range from the early 20s to the late 50s. Six were married (three with children), six were in stable relationships (one with children), nine were single, one divorced, and one in the middle of a break-up. Eighteen held steady jobs in retailing, education, music teaching, journalism, industrial services, IT consulting, accounting, investment client support, and as a hospital worker, one was an artist, one was a business owner, three were students, one was unemployed, and one used to work as a kindergarten assistant but was recently disabled because of an inherited condition.

Results

Transitions

Entheogen-induced ego death involves two periods of transition. After the entheogen is administered, the user first experiences the transition from an ordinary or baseline state of consciousness into an altered state involving some form of ego loss. Then, as the psychopharmacological effect of the entheogen abates, the user returns from the altered state to the baseline state. The participants in this study for the most part agreed that they were aware of passing through a definite transition phase in their ego death experiences, although the nature of this transition depended on which entheogen was used. With smoked DMT and *Salvia divinorum*, the transition took place shortly after the dose was inhaled, and was in some cases so swift as to seem instantaneous.

Most DMT experiences for me begin with an awareness of a very colorful and highly detailed cloud-like form filling my field of vision. This form moves toward me, and as it does more details are revealed. This form is very beautiful. It also seems alive, intelligent, and conscious. At this point, I often get a sense of the 'character' of the form. Is it aggressive? Loving? Filled with compassion? Emotionless? Somehow I'm able to discern this. It continues to move toward me, and then finally, it passes through me. During the passage there is often some sort of 'communion' with the form, and when the passage is complete, my ego is gone. 'I' am now fully immersed in another reality. This is a breakthrough, and the whole process typically occurs in the first minute or so after taking a vaporized dose. (ID01)

The effects of entheogens such as psilocybin and LSD, which are usually ingested, take longer to manifest, and interviewees described the transition process as more gradual. In most cases, it took

about 30 minutes before the user started feeling any effect at all, and then the intensity of the experience built gradually until a peak phase involving ego loss was achieved. Getting to the peak phase thus often depended, or at least seemed to depend, on the user being able to navigate through the earlier stages of the entheogenic experience. One participant, referring to himself in the third person (“Joe”), described a personal experience of frightening visions leading eventually to ego death:

At a point a very strange world emerges. It is hard to describe, but there are brilliant colors in incredible high definition, with geometric shapes and patterns changing around in a way so perfect and coordinated, he is totally baffled. Like a mathematical engine room of the universe. Together with this, a kind of ambient, very alien and quite scary music plays in the background. At one point strange and alien looking creatures start to appear. Some are humanoid, and some insect-like. Their attitude is quite unwelcoming, like they are the guardians of this realm, and would rather prefer he was not there. Joe finds it all extremely weird and disturbing, and when one of the insectoids moves towards him in a threatening manner, he tries to open his eyes and get up, to try to change the scenery. He stumbles to the bathroom and splashes water in his face, then goes back to bed. But the mushrooms are still coming up, and his attempts to take control are useless. And in a moment of fear, he surrenders. Suddenly he is gone. Every fragment of himself is gone. No visuals. Just an eternal sensation. A sensation of the soul, his true self. The self he has always been, and always will be. He is in total control and without control, he is nothing and everything, simultaneously. He is outside time and space. He just exists, like an eternal light, drifting in eternity. How long this moment lasted in real-time is impossible to know. When he gets back to himself, he just lies there, upside down in bed, tears running down his face, with an extreme feeling of bliss. (ID18)

In this narrative, “Joe” was clearly pushed to the limit of what he felt he could deal with, but was still willing to return to his bed and try to work his way through the experience. The critical point for progressing to a deeper level seems to be his moment of surrender, where he stopped resisting the mounting fear and accepted the loss of control. If he had instead continued to fight, he may have succeeded in keeping the ego death experience at bay, and his narrative might have resembled that of a bad trip, with Joe engaging in an hours-long fight against (apparent) looming insanity and death.

Other interviewees described transition phases that were so smooth as to be almost unnoticeable. One took a medium dose of 2,5-dimethoxy-4-bromophenethylamine (2C-B) in the coming-down phase of a medium dose of 3,4-Methylenedioxyamphetamine (MDMA), and described flowing gently into a state where he was focused on his senses and could not say whether there was a self present or not. Another described a smooth transition on a high dose of LSD:

I’ve only had one LSD higher-dose experience which resulted in ego loss, and the transition was so gradual that I wasn’t even aware it happened. It was only when effects diminished and my ego ‘returned’ that I realized I had been in an egoless state. (ID01)

The transition back from the ego-less state was usually less challenging than the transition into the state. One DMT user who experienced entering a selfless state outside time and space found that towards the end of the experience, the material universe gradually started coming back into existence, and at the culmination of this process he simply re-individuated as the person he used to be. Another had felt trapped in an eternally recurring time loop, during which he could not recall any personal or conceptual memories, after accidentally combining LSD, cannabis, and a strong 200x extract of *Salvia divinorum*:

Eventually, bits and pieces started returning. The place I'm in, it is called a 'bedroom'. I am a 'human' and I live on 'Earth'. Each piece that returned was joyous to me. (ID04)

In one case, however, the return to baseline was postponed for several days. This person described a lasting ego dissolution effect after using cannabis, where he for several days understood his true identity as being some kind of spiritual force that was only playing at being what he used to regard as himself. He now found that he had to make a conscious effort to keep up this charade or game, and worried that if he did not manage to keep playing the game, he would disappoint his mother and father and perhaps be labeled a psychotic or schizophrenic.

Disruption of narrative aspects of self-consciousness

Interviewees commonly described their entheogen-induced state of self-dissolution in terms relating to what Millière et al. (2018) called the disruption of narrative aspects of self-consciousness. The most obvious parallel was the loss of access to autobiographical memories, which was reported especially by DMT and Salvia divinorum users. One user combined a large dose of LSD with a large dose of smoked DMT, and found himself catapulted into a state of complete memory loss with no recollection of his friends, family, or name. Such memory loss was not confined strictly to episodic memories, however, but also applied to other characteristics of one's recollection that are arguably even more fundamental to personal identity. One participant described entheogen-induced ego loss as an extreme form of amnesia that could disrupt even the knowledge that one is a human being of a certain gender and age. Another interviewee similarly found that Salvia "tends to get rid of all that reminds you of your humanity" (ID04). Others described losing their recollection of language and color. These forms of memory loss may seem to go beyond what can be described as narrative aspects of self-consciousness, although they clearly involve disruptions of identity-forming memories and self-related beliefs.

A less dramatic form for disruption of self-related beliefs relate to what one participant called the loss of one's constructed identity. This is a form of identity often described as a kind of wishful thinking, consisting of various ideas one have about oneself that may not be entirely aligned with reality. Interviewees often pointed to how entheogens have helped them understand the unreality of their constructed identity, stripping away self-serving illusions and habits of mind:

Psilocybin provides new perspectives, opening up a whole new world of insight and possibility. You also become more conscious of your dark sides. (ID25)

Psychedelic mushrooms have made me get more real with myself. (ID26)

LSD strips away your constructed self-identity and forces you to look at yourself. (ID06)

Finally, the reduction of self-referential thought was also a commonly reported effect. The 2C-B user mentioned above entered a state where he was focused on his senses rather than his thinking, and this realignment of his attention towards immediate sensory input lessened his ordinary sense of having a separate self or ego. Similarly, cannabis users frequently emphasized how this drug helps them stay present in the here and now, thus reducing mental time travel. More dramatic ego loss

experiences with psilocybin, DMT or Salvia, such as Joe's 'eternal sensation', also clearly involve a disruption of self-referential thought and mental time travel. Because of this effect, several interviewees said that they used entheogens for their meditation practice.

Disruption of multisensory aspects of self-consciousness

In this study, participants who had experience with DMT or Salvia divinorum commonly reported disruptions of what Millière et al. (2018) called multisensory aspects of self-consciousness. These disruptions involved the loss of bodily sensations and an alteration of spatial self-location. There were no reports of a loss of body ownership, understood as an awareness of a body combined with an experienced lack of ownership over this body, but several interviewees described entering a state where they felt completely dissociated from their physical body. One user smoked a medium dose of DMT on top of a large dose of psilocybin mushrooms, and felt himself alone in a void, surrounded only by the sound of a wolf howl. When he tried to escape from the experience by opening his eyes, he discovered that his eyes were gone. Others described similar states of bodilessness:

During a deep breakthrough, there is no body. And there is awareness of no body. I'm generally aware of being spatially located in an environment, although the environment doesn't necessarily have 'space' the way we think of it. Maybe more than three spatial dimensions? No up or down? It can get very strange. (ID01)

I have been completely dissolved, my body made invisible, the 'I' turned into something so alien it was unrecognizable, leaving me in a new chaotic space with insane properties and entities, as if to start out a new life. (ID03)

An interesting addendum to these reports of losing contact with one's physical body came from Salvia users, who often described that they also entered or gained a new body. Thus, they maintained a sense of body ownership, but from the perspective of a different body. One participant described an experience with a 20x Salvia extract:

I took a huge hit in a bong and at that moment my brother knocked on the door and came in. I tried to turn my head to welcome him, but I was no longer my larger self, I was like one of my own cells, one of many. I could issue the command to turn the head for my own self, but I was having trouble rallying all the other cells to do it because I was no longer in the command seat. It was very odd. I did eventually do it, but only through what seemed like a herculean effort. (ID06)

Other Salvia users found themselves embodied as inanimate objects. They were unanimous in describing such experiences as bizarre. In one case, the new body even provided a new set of bodily sensations.

I have become plants, letters on the pages of a book, etc. It is quite jarring and difficult, if not impossible, to be ready for. (ID04)

In my early experiences with Salvia, I would often transform into inanimate objects (not uncommon with Salvia). Some of the things I became: A circus tent, a door mat, a broom, a lamp post, a roller coaster car. This is very strange. For example, when I became the roller coaster car, my 'body' became the car. The roller coaster came to a stop, and I could feel (and hear) children

stepping on my 'floor plate' as they exited 'me'. I was conscious of being a roller coaster car, and felt I had always been one. There was nothing at all unusual about the experience at the time. (ID01)

Non-dual awareness

Besides their model for the disruption of narrative and multisensory aspects of self-consciousness, Millière et al. (2018) also discussed the possibility of non-dual awareness. Basing their conceptualization of non-dual awareness in Eastern contemplative traditions such as Dzogchen and Advaita Vedanta, they saw it as a disruption of the duality or dichotomous nature of ordinary experiences that are structured around a subject-pole distinct and separate from the object-pole. Attempts to bring this subject into my discussion with interviewees usually did not get very far, however, since most of them regarded the issue as overly abstruse and unapproachable. One who was willing to engage with the subject offered the following:

On many occasions there is a sense that the experiencer is distinct from the experience, but on a few rare occasions the line between experiencer and experience fades. There is just experience, but doesn't an experience need an experiencer? Very hard to put into words. (ID01)

This participant later clarified that he believed he had never experienced a true non-dual state, and that the concept seemed to him to be a logical contradiction. One aspect of non-duality that did find some traction with interviewees, however, related to the disruption of self-centeredness and self-importance. Participants found that in the entheogenic state, there was sometimes a reduction in the usual tendency to prioritize themselves before others, or in other words a decrease in selfishness. One described that it was as if he lost his mask or persona, so that his perspective was no longer centered on his individual self. Instead, he found himself engaged in more holistic considerations to the benefit of everybody, and this new way of seeing things also, to some extent, carried over from the entheogen-induced state to his baseline state:

I sat there watching my friends, then as the trip peaked I didn't see them as my friends anymore, but they were me and I was them. Even as I acknowledged that we looked different, were separate and had different roles and so on, we were 'one'. The fact that we were separated only made 'the being' more intelligent and was an advantage. What would an ant accomplish on his own? I now regard humanity as a confused being that sabotages itself, and the day when balance and understanding are in place the world will be completely different. (ID26)

Another interviewee emphasized how cannabis helped him change his perspective away from a self-centered focus towards what he described as 'heart centered':

The insights that hit me when I use cannabis are always very heart centered, so much so that it's noticeable that I don't think 'from the heart' while sober. (ID11)

Millière et al. (2018) did not discuss the disruption of egocentric orientation as an aspect of non-dual awareness, but it is of course much emphasized in both Eastern and Western contemplative traditions.

Telepathic mind mergers

Reports of telepathic contact are surprisingly common among entheogen users, and especially among users of LSD. All reports of telepathic contact involved friends or partners who were using entheogens together at the same time. While this is not the place to analyze such experiences in depth, some of them were described as a literal merging of minds, with interviewees finding their usual sense of selfhood dissolved into the telepathic unity.

Our consciousness, our thoughts, our feelings merged into one. This might be hard to visualize if you haven't experienced it, but it gives the effect that you literally ARE the other person. That they may be a projection of your own mind. It was the complete washing away of any mental barriers between us two, but of course he was still a separate being in physical space (ultimately an illusion). It's like talking with yourself, but if the other 'person' you created to bounce ideas off of had a physical form. I had melded into this person, and he was effectively a projection of my own mind. (ID13)

More examples of this type of ego dissolution experience have been presented in (reference removed). It should be noted that most reports of telepathic contact did not involve this kind of selfhood-dissolving mind blending, but were rather experiences that enabled users to share thoughts and feelings directly with their friends without any difficulty of differentiating between self and other. Experiences of telepathic self-dissolution did not seem to disrupt body ownership or spatial self-location, although bodily sensations were destabilized to some extent, as entheogen users sometimes felt they could pick up sensations from their partner. Access to autobiographical memories were also partly disrupted, as one could not necessarily identify whose memories they were. Telepathic self-dissolution therefore relates to Millière et al.'s (2018) model in some ways, although the model does not seem to account for the core aspect of such experiences.

Discussion

This study has attempted to analyze and categorize narratives of entheogen-induced self-dissolution on the basis of Millière et al.'s (2018) model. It found support for four of the five aspects of this model, while also identifying characteristics of self-dissolution experiences that did not fit into the model. The most basic form for entheogenic self-dissolution that could be identified in these interviews involved a focusing or anchoring of users' consciousness in their senses and the present moment. This effect reduced thinking in general, thereby also reducing self-referential thought and mental time travel. The cessation of thought is an important goal in meditation practice, and some participants employed the entheogenic focusing effect to strengthen their practice. Another basic form for entheogenic self-dissolution was related to the disruption of self-related beliefs. Participants commonly maintained that entheogens dissolved their usual illusions about themselves, forcing them to see the truth more clearly. This sometimes led to uncomfortable insights. More dramatically, DMT and Salvia users in particular found that entheogens disrupted their access to memories, including both autobiographical memories and conceptual memories. With regard to multisensory aspects of self-consciousness, several DMT users described states of total immersion in other realities that involved bodilessness, the loss of bodily sensations, and a destabilization of spatial self-location. Salvia users for their part often found themselves embodied as inanimate objects, and

these new bodies sometimes provided them with bodily sensations. There were no reports of disruptions of body ownership, unless we count experiences of bodilessness as such.

The characteristics of entheogen-induced ego death experiences that did not fit into Millière et al.'s (2018) model all seem related to a tendency to identify with something larger than one's usual narrow sense of an individual self. One interviewee found himself melded with something he identified as his soul or eternal self, and he described this as an important experience because it showed him who he really is. While this experience certainly involved a disruption of self-related beliefs, bodily sensations, and spatial self-location, its core aspect was the transformation of personal identity, with his perspective changing from his ordinary human self to that of, as he described it, his eternal soul. Similarly, the disruption of egocentric orientation described by other interviewees involved a transformation of identity from separate individuality to a feeling of oneness with all humanity. The telepathic experiences of mind merging might be understood as a subtype of such unity experiences, where the state of oneness was extended only to a friend or partner, but was also more intensive and, furthermore, was (reportedly) shared experientially by the friend in real-time. The identification of such telepathic ego dissolution experiences supports the conclusion in Hood et al.'s (2018) review that mystical and paranormal experiences tend to occur together. Finally, the very common and more mundane experience of losing one's constructed identity could also be understood as a transformation of personal identity. In this case, the user's perspective changed from the identification with a constructed self-image based on self-serving illusions to a more realistic and truthful version of one's personal identity.

Interviewees described widely divergent transitions from their baseline state into states of ego dissolution. For users of DMT and Salvia, the transition was sudden and often quite dramatic, while other participants described transition phases that were more prolonged, and which ranged from the very smooth to confrontations involving considerable fear. Fearful transitions into states of self-dissolution are known from previous research (Griffiths et al. 2006; Studerus et al. 2012). In this study, it seemed that the shift into an ego-dissolved state varied not only with the choice of entheogen, but also with the type of ego dissolution and, most probably, with the individual user. We should not be surprised if entering a state of increased focus on the present moment and less thinking is an easier process than entering a state of total amnesia and bodilessness, although users who are unfamiliar with entheogens might respond with fear even to relatively minor disruptions of self-consciousness.

The main limitation of this study is that participants were recruited via online communities dedicated to entheogenic drug use. Such forum users are probably favorably inclined towards entheogen use, meaning that the study should be considered biased towards positive results. Furthermore, it has previously been found that participants recruited on the Internet have more education and higher incomes (Hamilton and Bowers 2006), which might potentially bias findings. While the Internet is probably more accessible to those with lower education and income levels today than it was in 2006, the Internet recruitment in this study may have served to exclude some entheogen users. Finally, it should be noted that nearly all participants with a known gender were male. For these reasons, the participants in the study were likely not representative of the general population of entheogen users.

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Chapter 7 - Entheogenic spirituality: Characteristics of spiritually motivated psychedelics use

Entheogenic spirituality: Characteristics of spiritually motivated psychedelics use

Abstract

Users of psychedelic or entheogenic drugs in spiritual contexts have not been well characterized in academic literature. This study recruited 319 individuals into an online survey of entheogen use. Respondents were predominantly from Western countries, but reported feeling connected to an eclectic range of religious and spiritual traditions, with Buddhism as the largest religion represented in the sample. A majority reported having a current spiritual practice, with 49% practicing meditation, and the most commonly endorsed motivations for entheogen use related to personal growth and spirituality. Entheogenic experiences were most commonly characterized by feelings of joy, peace, and love, by insight into oneself and one's relations, and by improved connections with nature and with other people. Spiritually affiliated participants were significantly more likely to report mystical-type experiences, and reported more positive long-term consequences from entheogen use. The study affirms the existence of a movement of spiritually motivated entheogen users that requires further investigation.

Keywords: entheogen, entheogenic experience, meditation, psychedelic, spirituality

Introduction

Psychedelics are a group of drugs named after the Greek words ψυχή (*psyche*), meaning soul or mind, and δηλεῖν (*delein*), to reveal or manifest. The classic psychedelics include mescaline (the active constituent of the cactus peyote), psilocybin (the active constituent of "magic mushrooms"), lysergic acid diethylamide (LSD), and N,N-dimethyltryptamine (DMT). The use of such drugs has sometimes been found to induce or occasion spiritual-type experiences, and they have therefore also been referred to as entheogens, which is derived from ἔνθεος (*entheos*), meaning inspired or filled with God, and γενέσθαι (*genesthai*), which means to come into being. As this article discusses spiritual psychedelics use, I will refer to psychedelics as entheogens throughout.

There is abundant historical and archaeological evidence attesting to the long history of psychoactive drugs use in religious contexts. The paradigmatic case is the Indian *Rgveda* with its many hymns to *Sóma*, which is both a drug and a divinity, and a direct parallel is found in the dedications to *Haoma* in the Zoroastrian *Avesta* (Ferrara, 2020). References to psychoactive drugs including cannabis have also been identified in the Jewish *Tanakh* (Nemu, 2019), and this interpretation is congruent with recent archaeological evidence indicating the use of cannabis in Judahite worship in Israel dating back to the eighth century BCE (Arie et al. 2020). There is also archaeological evidence that points to ritual cannabis use in China 2500 years ago (Jiang et al. 2006; Ren et al. 2019). In New Kingdom Egypt, the 16th century BCE *Ebers* papyrus indicated the use of opium and cannabis for magico-medical purposes (Aboelsoud, 2010), and references to mandrake (*Mandragora officinarum*) in the love poems of this period suggest that the plant was used for similar reasons (Meskell, 2002). Traces of cannabis have been found in the tomb of Amenophis IV and on the mummy of Ramses II (Manniche, 1989). More controversially, tetrahydrocannabinol (THC), which is the main active compound in cannabis, was found along with nicotine and cocaine in the

hair, muscle tissue, and bone tissue of mummies spanning the period from the Third Intermediate Period to the Roman Period (Balabanova et al., 1992; Parsche & Nerlich, 1995; for a critique see Buckland & Panagiotakopulu, 2001). In Greece, a religious context for intoxicant use is found for instance in the *Odyssey* and the *Argonautica* of Apollonius (Luck, 2006), and it has been suggested that ergot-infested grain played a central role in the Eleusinian mysteries (Muraresku, 2020; Wasson et al., 2008).

Only in the Americas, however, have the drugs involved in such practices been clearly identified as entheogens. The archaeological evidence for entheogen use on this continent goes back several millennia, although it often lacks contextual specificity. Seeds of the San Pedro cactus (*Trichocereus pachanoi*) and peyote buttons (*Lophophora williamsii*) have been discovered in association with human shelters dating to the fourth millennium BCE (Guerra-Doce, 2015), while the earliest of the mushroom stones of Central America, which indicate a special cultural importance of mushrooms, date to the first millennium BCE (Devereux, 2008). Anthropological studies have documented the contemporary use of entheogens for the purposes of healing and obtaining visions, for instance in the Amazon basin (Labate & Cavnar, 2014) and the Native American Church (Maroukis, 2012).

Among modern Westerners, it is well established that users of entheogens in clinical settings often describe their induced experiences in spiritual terms, and find such experiences to be existentially meaningful. Such studies go back to Pahnke's (1966) classic Good Friday experiment, and after a period of dormancy they have re-emerged in more recent times especially with Strassman's (2001) series of DMT experiments and Griffiths et al.'s (2006, 2008, 2011) psilocybin research. The 2006 study by Griffiths et al. is particularly interesting as it also asked participants how personally meaningful the induced experience had been, finding that more than two-thirds regarded it as being among the top five most personally meaningful experiences of their lifetime. Surveys of entheogenic drug users outside of an experimental context have also found that such use is associated with spiritual experience and beliefs (Bouso et al., 2018; Carhart-Harris & Nutt, 2010; Griffiths et al., 2019; Lyvers & Meester, 2012; Yaden et al., 2017).

The emergence of spiritually motivated entheogen users in Western societies is largely contemporaneous with the appearance of the New Age movement. "New Age" is a term entangled in complications, one of which is that the people it is supposed to refer to tend not to use it about themselves (Sutcliffe, 2003), but it is commonly used as an umbrella term for various 20th or 21st century nontraditional spiritualities. Finding its foundations in Western esotericism, Hanegraaff (1996, 1999) saw the New Age as centered on the idea of the Self being engaged in a process of spiritual evolution, and Heelas (1996) called it a movement of Self-spirituality. This orientation towards the individual implies a break with traditional dogmas and hierarchies, although the extent of this break is sometimes regarded as overstated (Taves & Kinsella, 2013). Other commonly noted characteristics of New Age spirituality include its focus on healing and its tendency to psychologize religion (Sutcliffe & Gilhus, 2013).

Both the New Age movement and Western entheogen use grew into large-scale social phenomena during the 1960s, and one way to understand the latter movement would be to see it as one of several modern spiritual trends belonging under the New Age umbrella. This aspect of the New Age movement has received little attention from scholars of religion, however. Hanegraaff (2014) explained the dearth of investigative effort by pointing to a lack

of acceptance and visibility especially from the 1970s and onwards: entheogen-assisted spirituality was regarded as suspect and not worthy of inclusion in studies of religion, and the practitioners themselves preferred to de-emphasize their entheogen use when researchers were watching because they wanted to stay out of jail. Nevertheless, said Hanegraaff, a clandestine entheogenic movement was continuing and sometimes thriving beneath the gaze of scholarly attention, and he believed it is time we start investigating it:

Specialists in the field of contemporary religion should become aware of their inherited blind spots regarding the role that entheogens have been playing in these contexts for half a century. That role is not marginal, but central, and requires serious study. Scholars may have agendas and preoccupations of their own, but these cannot be an excuse for refusing to take notice of what is happening right in front of our eyes (Hanegraaff, 2014, 409).

Recent years have seen more work in this area, however, both of an empirical nature (Cozad, 2018; Ellens, 2014; Heide et al., 2021) and on more conceptual levels or with regard to the entheogenic movement's leading figures (Davis, 2020; Monteith, 2016; Partridge, 2020; Richards, 2014, 2015; St John, 2017, 2018). There is also a long-standing research tradition related to entheogen use among indigenous peoples (Dobkin de Rios, 1972, 1990; Hultkrantz, 1997; Labate & Cavnar, 2014; Maroukis, 2012; Naranjo, 1979). Most of the recent empirical studies into entheogen use have been performed by psychologists, however, where there is now a rapidly growing literature on the therapeutic effect of entheogens on medical conditions such as depression (Carhart-Harris et al., 2016, 2018; Davis et al., 2021; Griffiths et al., 2016; Roseman et al., 2018; Ross et al., 2016), anxiety (Gasser et al., 2013; Goldberg et al., 2020; Griffiths et al., 2016; Grob et al., 2011; Ross et al., 2016), and substance dependence (Bogenschutz et al., 2015; Garcia-Romeu et al., 2019; Johnson et al., 2014). This research builds on earlier findings from the 1950s and 60s that indicated therapeutic potential on a variety of psychiatric conditions (Johnstad, 2020a; Rucker et al., 2018). While these clinical applications of entheogens are motivated by therapeutic rather than spiritual concerns, some have observed that the therapeutic effect seems to depend on the quality of the induced experience, with peak or mystical-type experiences being predictive of positive clinical outcomes (Majić et al., 2015; Roseman et al., 2018). Secondly, psychologists have sometimes investigated explicitly religious aspects of entheogen use. Groundbreaking work of this type by Pahnke (1966), Strassman (2001) and Griffiths et al. (2006, 2008, 2011) was briefly discussed above, and in recent years several new contributions have been made. Yaden et al. (2017) compared entheogenically induced religious, spiritual, or mystical experiences with experiences that occurred through other means in a sample of 739 participants, finding that their participants rated the entheogenically induced experiences as being significantly more mystical and having a stronger positive impact on the individual's spirituality. Timmermann et al. (2018) compared experiences induced by N,N-Dimethyltryptamine (DMT) to naturally occurring near death experiences in a matched sample of 26 participants, and found a significant overlap in their phenomenological features. Finally, Griffiths et al. (2019) compared naturally occurring and entheogenically induced "God encounter experiences" in 4285 survey participants. They found "striking similarities" in the details and consequences of the two types of encounter experiences, which both led to increases in life satisfaction, social relationships, and spiritual practice.

These investigations offer valuable insights into the characteristics of entheogenic experiences and their relation to other types of spiritual experience, but they are also

limited in certain ways. The fact that their focus is predominantly on spiritual experience means that they provide little insight into entheogenic spirituality in the broader sense of living a spiritual life that is somehow centered on, or at least informed by, entheogen-induced experiences. Spirituality, after all, is not exclusively a matter of having special experiences, but is also a question of how one integrates such experiences into one's daily life. There is a long-standing suspicion that entheogenic experience is more difficult to integrate than other forms of spiritual experience, and therefore does not have the same long-term value. As Smith (1964/2000) observed, "[d]rugs appear to be able to induce religious experiences; it is less evident that they can produce religious lives" (p. 30). We have some evidence pointing to the long-term spiritual value of entheogenic experiences, however. Tworkov (1996), in an editorial for the Western Buddhist magazine *Tricycle*, observed that "[f]or the new Buddhists of the 1960s and 1970s it was a rare bird indeed who came through the dharma gates totally independent of 'mind-expanding drugs'" (para. 1), indicating that drug-induced spiritual experiences can lead to long-term spiritual practice at least for some individuals. In an interview study of entheogen use in spiritual contexts, (Johnstad, 2018) found that entheogen-induced spiritual experiences would serve as anchors for long-term growth processes, so that one could understand entheogenic spirituality as a program for personal growth and spiritual development. This is congruent with entheogens' therapeutic value and impact on personality traits found in psychologically oriented research (Bouso et al., 2018; Carhart-Harris et al., 2016, 2018; Erritzoe et al., 2018; Griffiths et al., 2006, 2008, 2011, 2016; MacLean et al., 2011).

Besides being predominantly focused on entheogen-induced spiritual experience, existing investigations into the spiritual aspects of entheogen use are also limited in the sense that they for the most part concern themselves with one specific type of spiritual experience, namely mystical experiences. These experiences may involve the feeling that one's ordinary sense of selfhood dissolves and that one is united with something transcendental, and they are obviously an important type of spiritual experience, but researchers working outside the field of entheogenic studies also recognize many other forms of spiritual experience. A Christian seeing a vision of Mother Mary, for instance, would probably be inclined to regard this as a spiritual or religious experience, even though it may lack any mystical-type characteristics. Recent research identified two different types of entheogen-induced spiritual experience: one that could be labeled mystical and another that was centered on insight, positive feeling, and increased relatedness (Johnstad, 2021b). Mystical-type experiences were more intense and powerful, but they were also less common than the second type of spiritual experience. By virtue of the frequency of their occurrence, the latter type of experience could be understood as having as much influence on the broader program of entheogenic spirituality as the rarer, but more powerful mystical-type experiences.

While mystical experience is obviously an important to entheogenic spirituality, I believe it is important to recognize that the latter is not reducible to the former. In the same way that spirituality is a broader concept than spiritual experience, and spiritual experience is in turn broader than mystical experience, we should understand and study entheogenic spirituality within a comprehensive framework that does not limit itself to experiences of ego dissolution and other mystical-type characteristics. For this purpose, it will be necessary to develop and validate scales and instruments available to measure the characteristics of general psychedelic experiences. Previous research into the experiential characteristics of

psychedelics use has often relied on instruments such as the Mystical Experiences Questionnaire (MacLean et al., 2012; Barrett et al., 2015) or the Ego-Dissolution Inventory (Nour et al., 2016), but more comprehensive investigations of entheogenic spirituality will necessitate the development of generalized scales and instruments that cover all major conceptual facets.

By broadening the scope of inquiry into spiritual entheogen use, one could also investigate how entheogenic experience relates to the religious or spiritual backgrounds of the users, as well as to their present religious or spiritual affiliations. One could study the relationship between entheogenic practices and other forms of spiritual practice such as meditation or prayer, and inquire into what forms of ritual may surround the consumption of these drugs. This would open for a clearer understanding of the spiritual context within which entheogenic experiences take place, and allow us to better characterize the social dimension of the entheogenic movement.

The hypotheses tested in the present study are based on the findings of a previous interview study of 26 spiritually motivated entheogen users (Johnstad, 2018). This study found that entheogenic spirituality was centered upon the entheogenic experience, but in such a way that both the preparation for the experience and its subsequent integration into one's life were regarded as essential aspects of the process. The frequency of entheogen use was therefore quite moderate, in order to allow time for these preparatory and integrative processes. Entheogenic experiences furthermore impelled many users to take up more conventional spiritual practices such as meditation and yoga, and with time, these practices became entwined with the entheogen use. Many interviewees would practice yoga in preparation of entheogen use, and practice meditation during the entheogenically induced altered state of consciousness. For the most part, they used entheogens in solitude or in the company of a partner or close friends, but some also sought out more organized practices under the guidance of what they called a "shaman". Many started out using entheogens because of explicitly spiritual concerns, but others were interested in psychological self-exploration and personal growth in a more general sense, or simply wanted to have a good time. Regardless of their initial motivation, all eventually ended up with experiences they recognized as spiritual. These experiences were characterized by feelings of peace, joy, and love, insight into themselves and their worlds, and sometimes visions, the dissolution of their feeling of self, and a state of unity with a transcendent force. However, even when the experience was of a more challenging kind, characterized by fear and sadness rather than peace and love, they still regarded it as a valuable learning experience. Interviewees did not regard their entheogenic experiences as being shaped by their religious background, but instead emphasized the discontinuity between their, for the most part, secular or Christian backgrounds and the spiritual experiences they gained access to via entheogens. Part of their motivation for using entheogens was a desire for the healing of various psychological problems and issues, and they regarded both their health and their relations as being improved by their entheogenic practices. Most saw themselves as well-functioning in their work and their relations.

The purpose of the present study was to test these tentative interview findings with statistical analyses of data from the Cannabis and Psychedelics User Survey. It tested the hypotheses that spiritually motivated entheogen users tend toward moderate frequency of use (H1), tend to engage with ordinary forms of spiritual practice such as meditation or prayer (H2), and tend to prefer intimate social settings for entheogen use (H3). Furthermore,

the survey study tested the hypothesis that entheogen users sometimes start out without any interest in spirituality, yet end up with experiences they characterize as spiritual (H4), and, as a consequence, tend to become more interested in Eastern religions such as Buddhism and Hinduism (H5). Whereas the initial interview study was confined to spiritually motivated respondents, and therefore could not compare spiritual and nonspiritual use, it clearly identified spiritual entheogen use as being substantially different from what is normally termed recreational drug use. In the present survey study, it was hypothesized that having a spiritual motivation for entheogen use results in more powerful entheogenic experiences (H6) and better respondent-assessed consequences from use (H7).

Materials and Methods

The survey was made available online via SurveyXact from April to September 2019 for self-selected participation. It was fully anonymous and recorded no identifying participant information, including IP addresses. Since the survey was anonymous and SurveyXact has an agreement with the University of Bergen guaranteeing General Data Protection Regulation (GDPR) compliance and participant privacy, the Norwegian Social Science Data Services waived ethical approval. As several articles based on the Cannabis and Psychedelics User Survey have been published, the discussion of general methodology is here kept to a minimum; the reader may consult previously published works for more information (Johnstad, 2020b, 2021a, 2021b, 2021c).

Participants were obtained from seven communities: www.shroomery.org, www.dmt-nexus.me, www.bluelight.org, the Facebook page for Portland Psychedelic Society, the Reddit group [r/Psychedelics](https://www.reddit.com/r/Psychedelics), the Norwegian Association for Safer Drug Policy, and an informal group of entheogen users in Bergen, Norway, reached via a snowballing email invitation. Women were especially invited to participate in the survey. The only inclusion criteria were adulthood (18 years or older), the ability to understand English well, and having experience with a commonly used entheogenic drug. Individuals who did not meet the inclusion criteria were linked to a shorter version of the survey, and their data were not used in the analyses.

A total of 527 forms were submitted, but 202 of these lacked answers to initial demographic questions and were excluded. Further inspection of the dataset revealed six responses with substantial internal discrepancies, which were also excluded from the analyses. Of the 319 included participants, 213 completed the full survey, while 106 opted out from parts of it. Respondents reported using between 10 and 30 minutes to complete the survey.

Measures

The survey included basic demographic questions relating to age, gender, education, work status, and relationship status. Gender was measured with three categories (female, male, and other), but when the gender variable has been used as in statistical analyses, participants who indicated a third gender were excluded. Education was quantified from 1 = "Have not completed high school" to 6 = "PhD". Participants were also asked about their religious or spiritual background and their present religious or spiritual affiliations, as well as their current spiritual practice. With regard to entheogenic drugs, the survey measured use

of the 2C family (2C-B etc.), 5-MeO-DMT, Ayahuasca (or analogues), DMT (smoked), LSD, MDMA, Mescaline/Peyote, Psilocybin/Magic mushrooms, and Salvia divinorum. Participants chose one entheogen from this list that they had experience with, and they were queried about their motivations for the use of this drug and asked to characterize emotional, cognitive and relational aspects of a typical experience with this drug on a dichotomous basis. Finally, they were asked to characterize the consequences of their use of this drug for their physical health, psychological health, personal happiness, ability to get along with other people, and spiritual practice on a five-level Likert scale.

In order to measure the personality of the participants, the survey included a version of Gosling et al.'s (2003) Ten-Item Personality Inventory (TIPI), as well as a version of Nicholson et al.'s (2005) Risk Taking Index (RTI). The TIPI is a concise measurement tool with only two items for each Big Five trait but has been shown to have adequate construct validity, test-retest reliability, and patterns of external correlates (Gosling et al., 2003). See (Johnstad, 2021c) for a more detailed discussion of how personality measurement tools were modified for the Cannabis and Psychedelics User Survey.

Statistical Analyses

In order to analyze differences in motivations for drug use, characteristics of drug experiences, and self-assessed consequences of drug use between spiritually motivated entheogen users and other users, multivariate regression was used to assess the impact of spiritual motivation while controlling for commonly used demographic covariates (Hendricks et al. 2015; Nour et al., 2017) as well as the Big Five personality traits, and the overall risk taking score (RTI). Separate multivariate logistic regression analyses were used to identify the independent variables that predicted dependent variables related to motivations for drug use and characteristics of drug experiences, and multivariate linear regression analyses were used to identify the independent variables that predicted dependent variables related to consequences of drug use. For each multivariate regression, independent variables were gender (coded as female = 0, male = 1), age, education, the six personality traits, and dichotomous variables for whether or not the participant endorsed having a spiritual or an escapist motivation for entheogen use (yes = 1). In all these analyses, ordinal variables were treated as continuous. Data was analyzed with IBM SPSS Statistics 25.

Results

Participant Characteristics and Entheogen Use

An overview of participant characteristics, grouped according to whether they endorsed having a spiritual motivation for their entheogen use, is provided in Table 1. There were no significant differences in age or gender between the two groups, but the group of non-spiritually motivated respondents trended towards being more educated. The respondents whose entheogen use was spiritually motivated were more likely to report a connection to Buddhism and New Age / Alternative spirituality, both in terms of their background and having a present affiliation. There was a tendency for respondents from Western Europe to be less spiritually motivated than the rest of the sample. Spiritually motivated respondents

Table 1. Participant characteristics for 228 Internet survey respondents (grouped according to motivation for entheogen use).^a

	Spiritually motivated users (<i>N</i> = 158)	Non-spiritually motivated users (<i>N</i> = 70)	Diff.
Age	M = 34.6, SD = 12.6	M = 35.3, SD = 11.9	<i>p</i> = .53
Gender	16% female, 82% male, 3% other	23% female, 76% male, 1% other	<i>p</i> = .22 ^c
Education	5% PhD 14% Master's degree 24% Bachelor's degree 33% some university 18% high school 6% not completed high school	6% PhD 21% Master's degree 21% Bachelor's degree 41% some university 9% high school 1% not completed high school	<i>p</i> = .07
Religious background ^b	15% Buddhist 20% Christian 4% Hindu 4% Jewish 3% Muslim 20% New Age/Alternative	3% Buddhist 26% Christian 1% Hindu 0% Jewish 1% Muslim 9% New Age/Alternative	<i>p</i> < .01 <i>p</i> = .36 <i>p</i> = .26 <i>p</i> = .10 <i>p</i> = .40 <i>p</i> = .03
Religious affiliation at present ^b	40% Buddhist 16% Christian 15% Hindu 6% Jewish 3% Muslim 33% New Age/Alternative	14% Buddhist 14% Christian 10% Hindu 3% Jewish 3% Muslim 17% New Age/Alternative	<i>p</i> < .01 <i>p</i> = .68 <i>p</i> = .29 <i>p</i> = .36 <i>p</i> = .90 <i>p</i> = .02
Geographical location at present	57% North America 23% Western Europe 5% Eastern Europe 9% Oceania 2% Middle East 2% South America 1% Africa 1% Asia	47% North America 44% Western Europe 1% Eastern Europe 6% Oceania 0% Middle East 0% South America 1% Africa 0% Asia	<i>p</i> = .17 <i>p</i> < .01 <i>p</i> = .20 <i>p</i> = .42 <i>p</i> = .25 <i>p</i> = .25 <i>p</i> = .55 <i>p</i> = .35
Personality traits	3.65 Extraversion 4.91 Conscientiousness 5.99 Openness 4.95 Agreeableness 4.78 Emotional stability 35.65 Risk taking	4.16 Extraversion 4.99 Conscientiousness 5.65 Openness 4.45 Agreeableness 5.00 Emotional stability 32.71 Risk taking	<i>p</i> = .01 <i>p</i> = .71 <i>p</i> = .01 <i>p</i> < .01 <i>p</i> = .25 <i>p</i> = .02

Note: The 'Diff.' column indicates significant difference between the two groups on the Mann-Whitney *U* test, with significant values indicated in bold (*p* < .05). ^aSums may differ from 100% because of rounding. ^bSums to more than 100% because respondents could choose several alternatives. ^cOther gender (*N* = 7) excluded. ^dThis refers to the use of the psychedelic drug that participants chose to describe their interaction with in the survey. M = mean. SD = standard deviance.

were low on the personality trait Extraversion, but high on Openness, Agreeableness, and Risk Taking.

Participants reported having used their chosen entheogen a median of 2-3 times over the past 12 months, with a minority of less than 2% reporting 51-100 or more use occasions. Some 21% reported no use of this entheogen over the past 12 months. The most commonly chosen entheogen was psilocybin (49%), followed by LSD (22%), DMT (12%), and MDMA (7%). Entheogens were most commonly taken in solitude (43%), with a single partner (21%), or with a close group of friends (27%). Some 6% reported using entheogens with a larger group of friends and acquaintances, and 3% reported use at a party, nightclub, concert, festival or other public event. Respondents most commonly planned their entheogen use a few days or a few weeks in advance. The only significant difference between spiritually and non-spiritually motivated respondents with regard to these usage characteristics was that the former were more likely to choose DMT for the survey (16% vs. 4%, $p = .003$), while the latter were more likely to choose MDMA (2% vs. 19%, $p = .001$).

Religion and Spirituality: Background and Present Affiliation

Most participants reported having a religious background and a present religious or spiritual affiliation. As we can see from Table 2, however, there has been considerable movement between the background and the present affiliation of participants. A number of individuals who had no background in Buddhism, Hinduism, or New Age / Alternative spirituality nevertheless reported a present affiliation with these forms of religiosity. Conversely, the sole negative change between background and present affiliation was for Christianity, although this change was only marginally significant at $p = .06$. Supporting the overall tendency toward increasing spirituality, 21 respondents endorsed having a spiritual motivation for their later entheogen use but not for their initial explorations of entheogens (Table A1 in the online appendix), indicating that these people picked up an interest in spirituality after initiating entheogen use. Participants were generally quite eclectic in their religious and spiritual preferences, and among those who considered themselves Christians or Buddhists, about half also considered themselves connected to New Age/Alternative spirituality. Among those who reported feeling a connection to Hinduism, 89% also felt connected to Buddhism.

Table 2. Spiritual or religious background and present affiliation.

	Background	Present affiliation	Change	
Buddhism	10%	29%	+ 19%	***
Christianity	23%	18%	- 5%	
Hinduism	3%	12%	+ 9%	***
Islam	2%	3%	+ 1%	
Judaism	2%	5%	+ 3%	
New Age / Alternative	16%	27%	+ 11%	***

Note: $N = 289$. Stars indicate significant difference on the paired t -test between background and present affiliation: * $p < .05$, ** $p < .01$, *** $p < .001$.

A majority of 69% of the sample endorsed having at least one spiritual practice besides their entheogen use. Meditation was by far the most common practice, with 49% of participants reporting a current meditation practice. Other commonly reported forms of practice included visualization/inner journeys (29%), reading spiritual or religious texts (19%), hatha yoga (18%), dream work (17%), prayer (14%), and energy work (13%).

Motivations for Entheogen Use

The most commonly endorsed motivations for entheogen use were insight and understanding for personal growth and psychological self-exploration, and especially so for the 69% of respondents who indicated that their entheogen use was spiritually motivated (Table 3). A majority of these spiritually motivated respondents also endorsed being motivated by a wish to cure or heal personal problems, to obtain the experience of ego death, and by curiosity and a search for adventure, while non-spiritually motivated respondents endorsed these items at significantly lower levels. There was no significant difference between the two groups with regard to recreational motivations, which may indicate that participants did not necessarily see spiritual and recreational motives for entheogen use as incompatible. The impact from the variable for spiritual motivation generally maintained significance when controlled for a range of demographic and personality trait variables in logistic multivariate regression analyses (Tables A2-A3 in the online appendix).

Characteristics of Entheogenic Experiences

The most commonly endorsed characteristics for a typical entheogenic experience related to insight, positive emotions, and improved connections with nature and other people (Table 4). This was true both for spiritually and non-spiritually motivated respondents, although the former endorsed these characteristics at higher levels. Mystical-type characteristics such as contact or unity with non-ordinary beings and transcendent forces, ego death, and

Table 3. Motivation for psychedelics use grouped according to spiritual motivation.

	Non-spiritually motivated users (N = 70)		Spiritually motivated users (N = 158)
Adventure	39%	**	60%
Curiosity	27%	***	52%
Ego death experience	21%	***	52%
Fun/party/recreation	49%		38%
Insight and understanding for personal growth	60%	***	94%
Psychological self-exploration	71%	**	90%
Socializing	27%		21%
To cure or heal medical conditions	10%	**	25%
To cure or heal personal problems	24%	***	53%
To forget or escape from personal problems	7%		8%

Note: Stars indicate significant difference on the independent t-test between spiritually and non-spiritually motivated respondents:

* p <= .05, ** p <= .01, *** p <= .001.

Table 4. Characteristics of a typical psychedelic experiences grouped according to spiritual motivation.

	Non-spiritually motivated users (N = 70)		Spiritually motivated users (N = 158)
Anger or hate	2%		3%
Confusion	17%		26%
Contact with non-ordinary beings	11%	***	31%
Contact with transcendent forces	11%	***	43%
Disgust	2%		6%
Ego death or dissolution	19%	**	38%
Fear	13%	**	28%
Feeling of homecoming or return to your essence	42%	***	67%
Feeling of isolation from other people	11%		13%
Improved connection with nature	55%	***	83%
Improved connection with other people	58%		71%
Inner visions	41%	**	63%
Insight into the world	56%	***	87%
Insight into your relations	69%		76%
Insight into yourself	80%		88%
Joy	77%		87%
Love	63%	**	82%
Peace	70%	**	87%
Regrettable behavior towards others	11%		4%
Sadness	14%		21%
Surprise	25%	***	49%
Unity with transcendent forces	17%	***	51%
Words cannot describe the experience	33%	**	55%

Note: Stars indicate significant difference on the independent *t*-test between spiritually and non-spiritually motivated respondents:

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

ineffability were less common, and were endorsed at significantly higher levels by spiritually motivated entheogen users. Relatively few respondents endorsed negative characteristics such as anger or hate, confusion, disgust, fear, regrettable behavior, and sadness, and although the effect was mostly not significant, spiritually motivated respondents trended toward higher levels of endorsement.

In order to test whether these differences between spiritual and nonspiritual motivations would remain significant under statistical control from demographic variables and personality structure, logistic multivariate regression analyses were performed for each experiential characteristic. Three models for mystical-type experiences are presented in Table 5, while the remaining models are available in Tables A4-A6 in the online appendix. The impact from the variable for spiritual motivation on experiential characteristics generally maintained statistical significance in these models, indicating that spiritual motivation has an independent impact on entheogenic experiences that is not reducible to demographics or personality structure. It is also interesting to note that the Openness trait positively predicted mystical-type contact experiences, while the Extraversion trait served as a negative predictor of such experiences. Ego death experiences were positively predicted by the respondents' propensity for risk taking, perhaps indicating that respondents regard such experiences as challenging.

Table 5. Spiritual motivation as predictor of entheogenic experience in multivariate logistic models.

	Contact with non-ordinary beings			Contact with transcendent forces			Ego death or dissolution		
	B	SE	<i>p</i>	B	SE	<i>p</i>	B	SE	<i>p</i>
<i>Intercept</i>	-3.704	1.925		-4.146	1.712	*	-4.840	1.690	**
Age	.143	.150		.004	.137		.110	.132	
Gender (M)	-.022	.499		-.420	.440		.460	.455	
Education	-.275	.155		.044	.137		.121	.135	
Extraversion	-.322	.132	*	-.306	.120	*	-.030	.114	
Conscientiousness	.177	.148		.070	.132		.155	.129	
Openness	.688	.224	**	.447	.196	*	-.141	.174	
Agreeableness	-.376	.145	**	-.107	.131		.027	.128	
Emotional stability	.125	.141		.042	.126		-.125	.119	
Risk taking	-.016	.023		.036	.021		.072	.022	***
Spiritual motivation	1.235	.486	*	1.551	.461	***	.899	.409	*
Escapist motivation	.327	.668		-.532	.654		-1.531	.824	

Note: *N* = 216. Results from multivariate logistic regression models. Each model contains 11 independent variables: age, gender (coded as male = 1), education (quantified from 1 = "Have not completed high school" to 6 = "PhD"), the Big Five personality traits, the overall Risk Taking score (RT), a dichotomous variable for spiritual motivation (1 = yes), and a dichotomous variable for escapist motivation (1 = yes). Results from three models are shown, one for each of three dependent variables: contact with non-ordinary beings (model Nagelkerke R-square = .23), contact with transcendent forces (model Nagelkerke R-square = .24), and ego death (model Nagelkerke R-square = .18). Values in bold represent statistically significant associations. B = unstandardized regression coefficient, SE = standard error, * *p* <= .05, ** *p* <= .01, *** *p* <= .001.

Table 6. Consequences of psychedelics use grouped according to spiritual motivation.

	Non-spiritually motivated users (<i>N</i> = 70)		Spiritually motivated users (<i>N</i> = 158)
Physical health	3.34	***	3.79
Psychological health	3.97	***	4.38
Spiritual practice	3.40	***	4.09
Ability to get along with people	3.82	*	4.12
Personal happiness	3.95	***	4.40

Note: Numbers indicate average scores on a five-level Likert scale (from 1 = "Serious worsening" or similar to 5 = "Serious improvement" or similar). Stars indicate significant difference on the independent t-test between spiritually and non-spiritually motivated respondents: * *p* <= .05, ** *p* <= .01, *** *p* <= .001.

Consequences of Entheogen Use

Respondent-assessed consequences of entheogen use were measured on a five-level Likert scale, with scores above the middle value of three indicating positive consequences. With few exceptions, respondents reported that their entheogen use had either neutral or positive consequences for their physical and psychological health, their spiritual practice, their ability to get along with people, and their personal happiness (Table 6). Spiritually motivated respondents reported significantly better consequences across the board.

Linear multivariate regression analyses were performed to test the impact from spiritual motivation under statistical control from variables related to demographics and personality structure. The models for spiritual practice, psychological health, and personal happiness are presented in Table 7, while the two remaining models are available in Table A7 in the online appendix. The impact from the variable for spiritual motivation generally maintained significance in these models. Propensity for risk taking also predicted better outcomes in

Table 7. Spiritual motivation as predictor of consequences of entheogen use in linear multivariate regression models.

	Spiritual practice			Psychological health			Personal happiness		
	B	SE	<i>p</i>	B	SE	<i>p</i>	B	SE	<i>p</i>
<i>Intercept</i>	2.922	.621	***	3.565	.546	***	3.225	.497	***
Age	-.073	.053		-.084	.046		-.066	.042	
Gender (M)	-.073	.161		-.048	.142		-.016	.129	
Education	.024	.053		-.014	.047		.020	.043	
Extraversion	-.072	.043		-.087	.037		-.073	.034	*
Conscientiousness	.092	.050		.039	.044		-.002	.040	
Openness	.104	.065		.203	.058	***	.100	.052	
Agreeableness	-.038	.049		-.020	.043		.037	.039	
Emotional stability	-.077	.046		.013	.040		.009	.037	
Risk taking	.017	.008	*	-.003	.007		.014	.006	*
Spiritual motivation	.576	.143	***	.297	.126	*	.288	.114	*
Escapist motivation	-.023	.228		-.616	.200	**	-.144	.182	

Note: *N* = 209. Results from multivariate logistic regression models. Each model contains 11 independent variables: age, gender (coded as male = 1), education (quantified from 1 = "Have not completed high school" to 6 = "PhD"), the Big Five personality traits, the overall Risk Taking score (RTI), a dichotomous variable for spiritual motivation (1 = yes), and a dichotomous variable for escapist motivation (1 = yes). Results from three models are shown, one for each of three dependent variables: spiritual practice (model adjusted R-square = .15), psychological health (model adjusted R-square = .14), and personal happiness (model adjusted R-square = .10). Values in bold represent statistically significant associations. B = unstandardized regression coefficient, SE = standard error, * *p* <= .05, ** *p* <= .01, *** *p* <= .001.

terms of personal happiness and spiritual practice, while the trait Openness predicted better psychological health. Having an escapist motivation trended toward worse outcomes in all five models, but the variable reached significance only for psychological health and one's ability to relate to other people.

Discussion

The findings of this survey study largely confirm the understanding of entheogenic spirituality in my original interview study (Johnstad, 2018). In both studies, participants reported a moderate usage pattern of entheogenic drugs ranging from a few use occasions per year to about one use occasion per month. There is not much research into usage patterns for entheogens with which to compare these findings, but one recent study in Australia found that the median pattern of use for "hallucinogens" was two times during the past six months (Karlsson & Burns, 2018). In the interview study, this moderate pattern of use was originally understood as a characteristic specifically of spiritual entheogen use, but the present study found no significant difference in usage frequency between spiritually and non-spiritually motivated respondents, and the moderate pattern thus appears to be a typical for most forms of entheogen use. Thus, there is support in these survey data for the hypothesis (H1) that spiritually motivated entheogen users tend toward a moderate frequency of use, although this tendency seems to extend also to non-spiritual use.

A full 69% of the sample endorsed having a spiritual motivation for their entheogen use. This number was significantly above the 60% who endorsed being spiritually motivated for their initial exploration of entheogens, and there were also significant increases in respondent affiliations to Buddhism, Hinduism, and New Age / Alternative spiritualities as compared to their backgrounds. This is congruent with the finding from the interview study that entheogen users sometimes gained an interest in spirituality because of their entheogenic

experiences, and supports hypotheses H4 and H5. More than two thirds of the sample reported having at least one form for spiritual practice, supporting hypothesis H2 that was based on the finding from the interview study that entheogen users tend to engage with practices such as meditation and yoga. The same can be said for the hypothesized preference for intimate social settings (H3), as 91% of survey respondents used entheogens in solitude, with a single partner, or with a close group of friends. This finding is also compatible with the notion that respondents sometimes combined conventional spiritual practices such as meditation with entheogen use.

Large majorities of respondents also reported that their entheogen use was motivated by a desire for personal growth and psychological self-exploration, and this applied to both spiritually and non-spiritually motivated users, although to the former in particular. This finding harmonizes well with an understanding of entheogenic spirituality as belonging under the New Age umbrella, as New Age spirituality has been characterized as emphasizing in particular the process of spiritual growth or evolution (Hanegraaff, 1996, 1999) as well as for its tendency to psychologize spirituality (Sutcliffe & Gilhus, 2013). The same might be said for the prospect of healing personal problems, which was a highly endorsed motivation especially for spiritually motivated respondents, and which is reflected in the emphasis on healing practices that characterizes the New Age movement.

Regarding the entheogenic experience itself, the survey findings directly support the characteristics identified in earlier interviews. As hypothesized (H6), having a spiritual motivation for entheogen use had a powerful impact on the resulting experience, and especially so for mystical-type characteristics such as the experience of contact with non-ordinary-beings or transcendent forces. Entheogenic experiences were most commonly characterized by insight and feelings of peace, joy, love, and somewhat more unusually by inner visions, the dissolution of one's feeling of self, and a state of contact or unity with a transcendent force. Thus, there was evidence in these data of experiences with mystical-type characteristics, which have often been the focus of previous research on entheogen-induced spiritual experience (e.g., Griffiths et al., 2006; Lyvers & Meester, 2012; Timmermann et al., 2018; Yaden et al., 2017), but also of a more common and less powerful type of entheogenic experience (Johnstad, 2021b). The emphasis on connectedness to nature identified in these survey data exceeded expectations based on previous interviews, but is congruent with other research findings (Forstmann & Sagioglou, 2017; Lyons & Carhart-Harris, 2018).

There was broad agreement among respondents in seeing mainly positive long-term consequences from their entheogen use, and this assessment extended even to what they regarded as their worst psychedelic experience. The former finding agrees with previous self-assessments of consequences of entheogen use (Carhart-Harris & Nutt, 2010), and the latter with research that found that a large majority of respondents endorsed having benefitted from their most difficult psilocybin experience (Carbonaro et al., 2016). As hypothesized (H7), spiritually motivated entheogen users reported significantly better consequences from use, and this impact retained significance in multivariate regression models that controlled for demographic factors and variables related to personality structure.

In conclusion, the Cannabis and Psychedelics User Survey, which was developed on the basis of insights gained from previous interview studies, resulted in data that served to confirm

the findings of these previous interviews. Hopefully, the findings of the present study, which should still be regarded as explorative, will lead to further investigations into the apparently thriving psychedelics movement, which in many ways remain understudied. This applies especially to its spiritual aspects, which has been studied mainly in terms of the centrally important, but overly narrow, framework of mystical-type experiences. In order to study entheogenic spirituality in a more comprehensive manner, it will be necessary to develop and validate scales and instruments to measure, among other things, the characteristics of general psychedelic experiences, a possible starting point for which can be the range of emotional, cognitive, and relational experiential characteristics used in the present study.

The main limitations of this study are that participants were recruited via online psychedelic communities, and had to self-select for participation. It has previously been found that participants recruited on the Internet have more education and higher incomes (Hamilton & Bowers, 2006), which might potentially bias findings. While the Internet is probably more accessible to those with lower education and income levels today than it was in 2006, the Internet recruitment in this study may have served to exclude some psychedelics users. Another limitation of the study was that it recruited mainly among current psychedelics users, who as a group are probably favorably inclined towards psychedelics. The study should therefore be considered biased towards positive results.

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Appendix A: Residual graphs for regression analyses

Figure A1: Multivariate regression model for mystical experience: Residual distribution

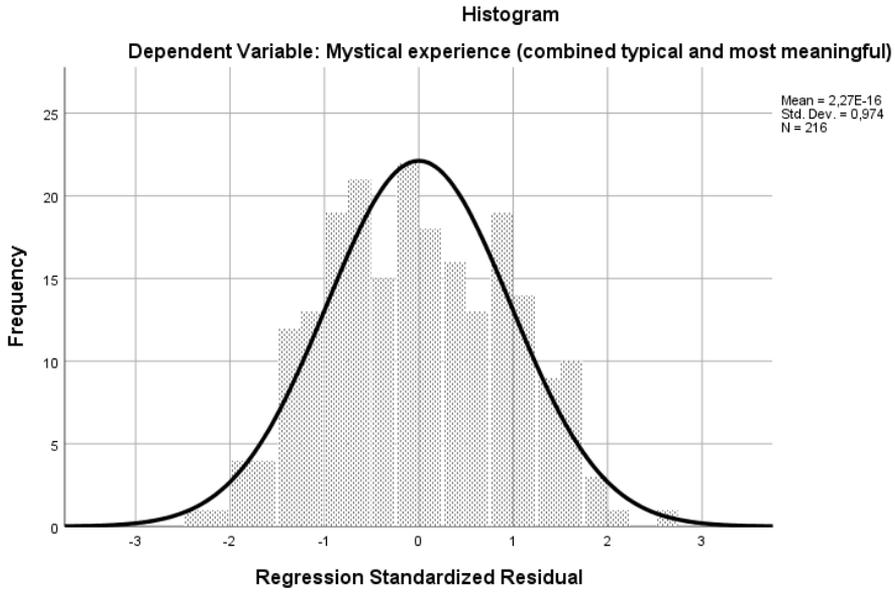


Figure A2: Multivariate regression model for mystical experience: Predicted probability plot

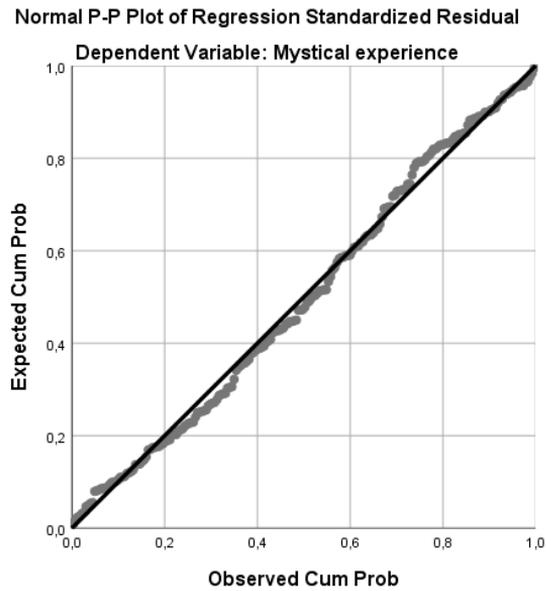


Figure A3: Multivariate regression model for mystical experience: Residual scatter plot

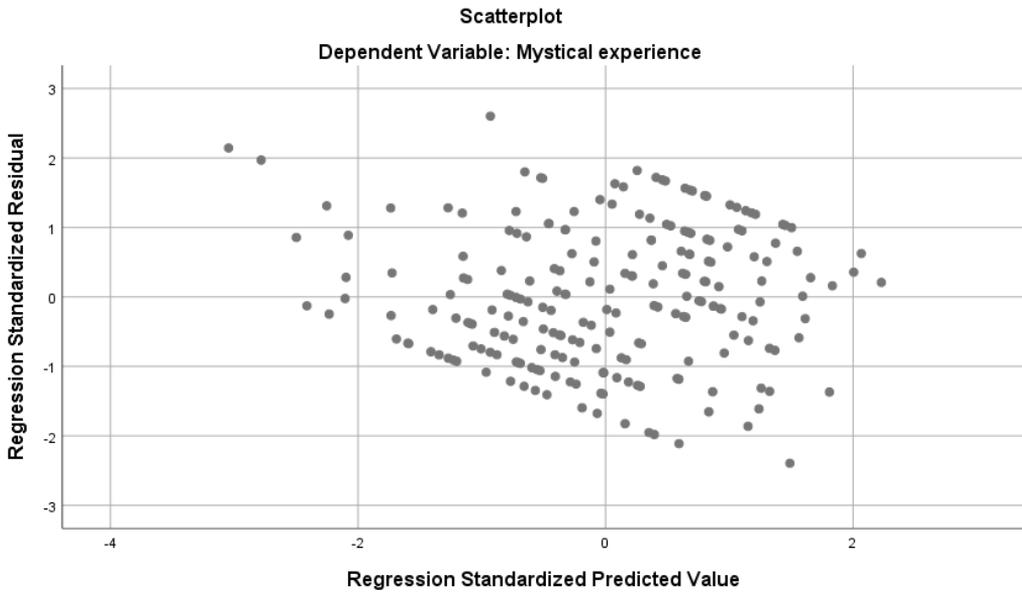


Figure A4: Multivariate regression model for spiritual experience: Residual distribution

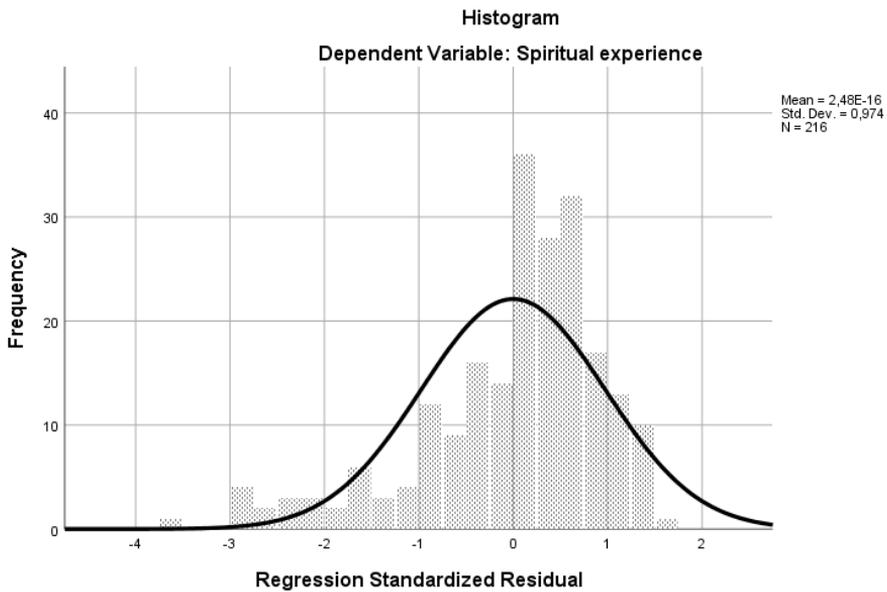


Figure A5: Multivariate regression model for spiritual experience: Predicted probability plot

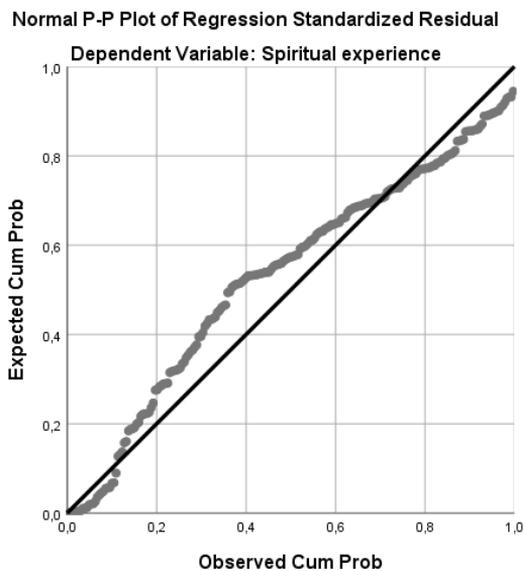


Figure A6: Multivariate regression model for spiritual experience: Residual scatter plot

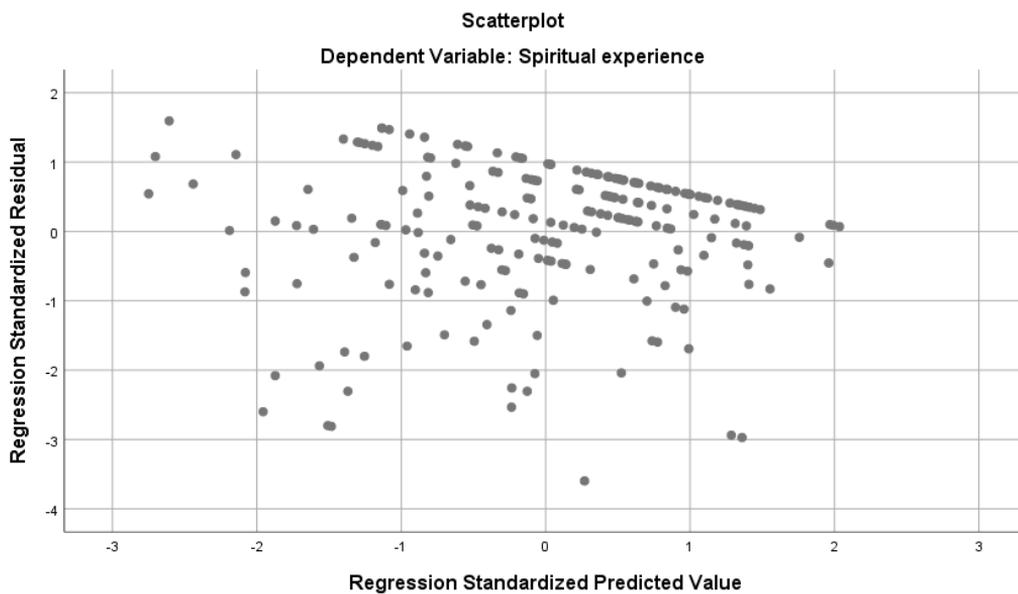


Figure A7: Multivariate regression model for consequences of cannabis use for physical health: Residual distribution

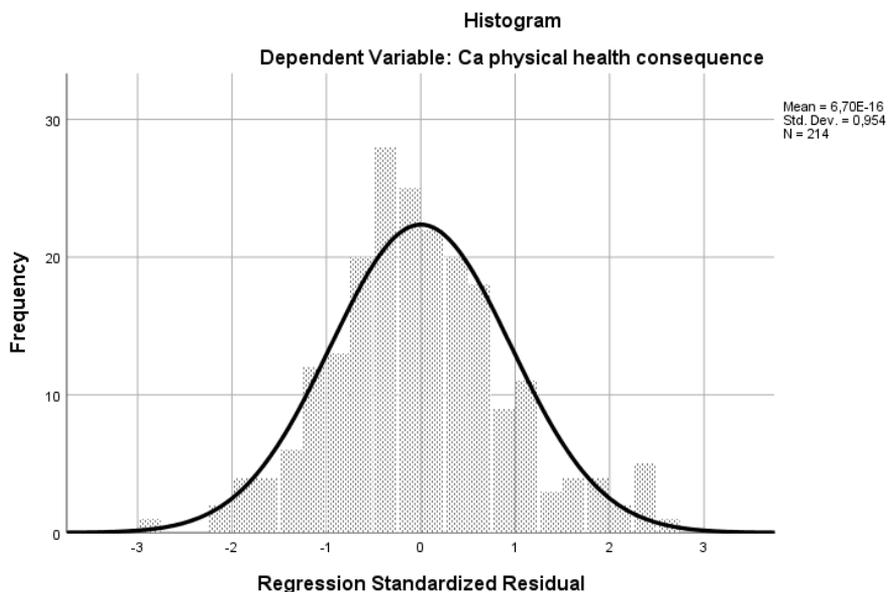


Figure A8: Multivariate regression model for consequences of cannabis use for physical health: Predicted probability plot

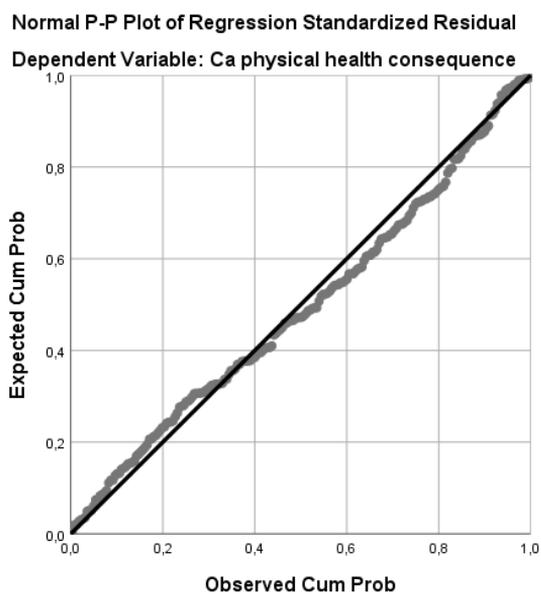


Figure A9: Multivariate regression model for consequences of cannabis use for physical health: Residual scatter plot

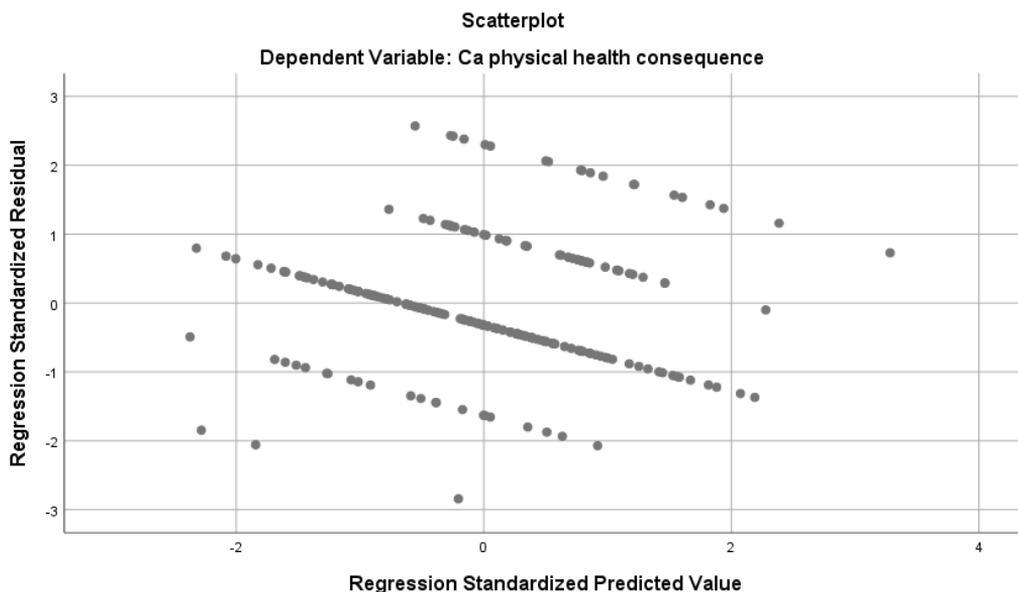


Figure A10: Multivariate regression model for consequences of cannabis use for psychological health: Residual distribution

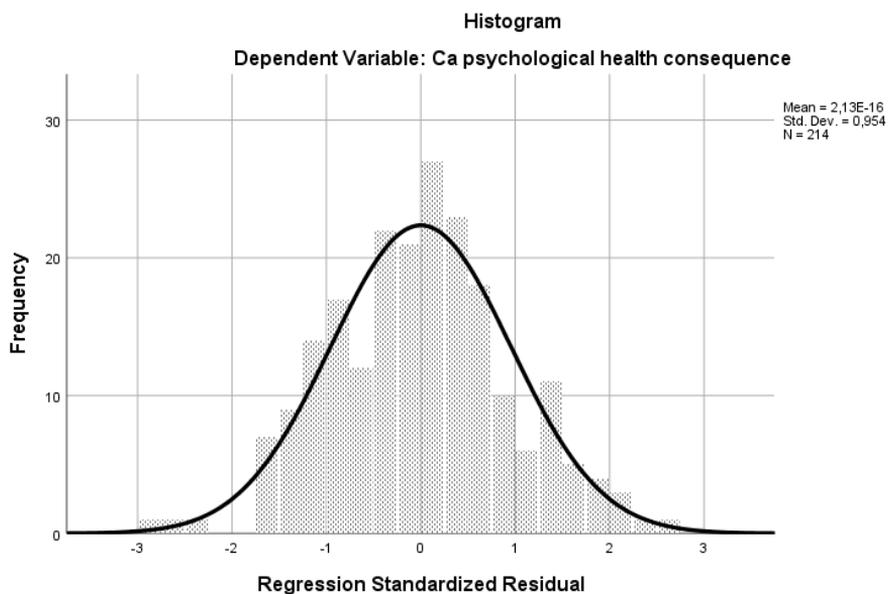


Figure A11: Multivariate regression model for consequences of cannabis use for psychological health: Predicted probability plot

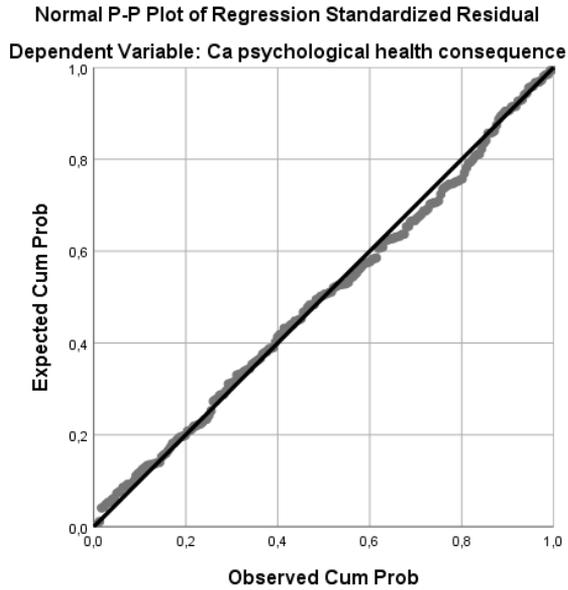


Figure A12: Multivariate regression model for consequences of cannabis use for psychological health: Residual scatter plot

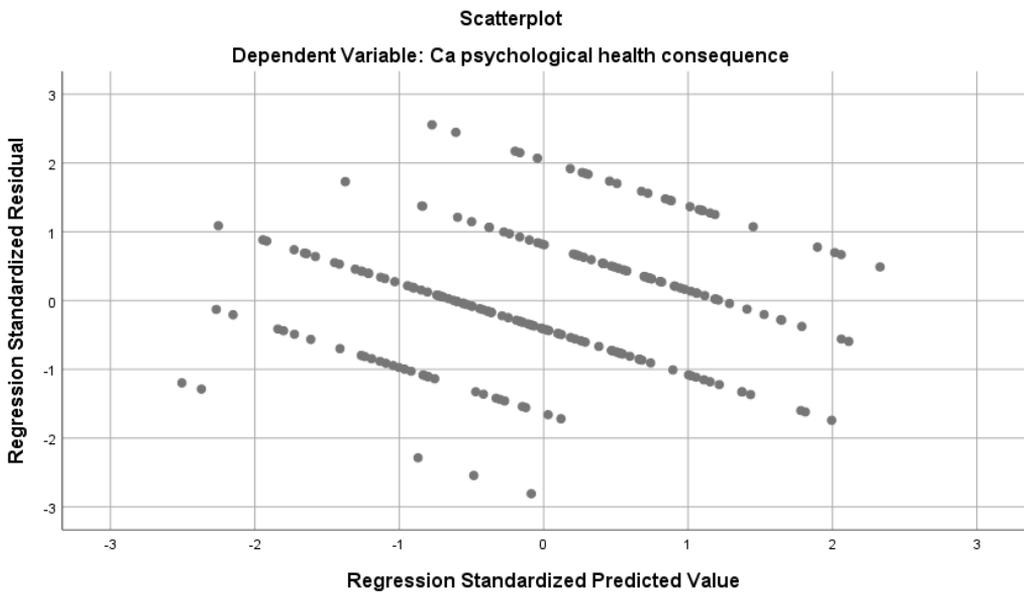


Figure A13: Multivariate regression model for consequences of cannabis use for personal happiness: Residual distribution

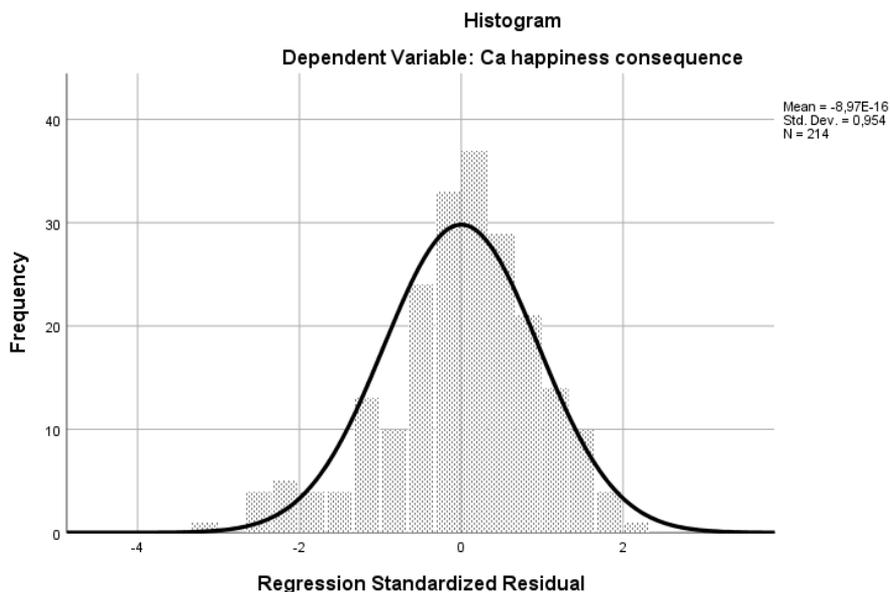


Figure A14: Multivariate regression model for consequences of cannabis use for personal happiness: Predicted probability plot

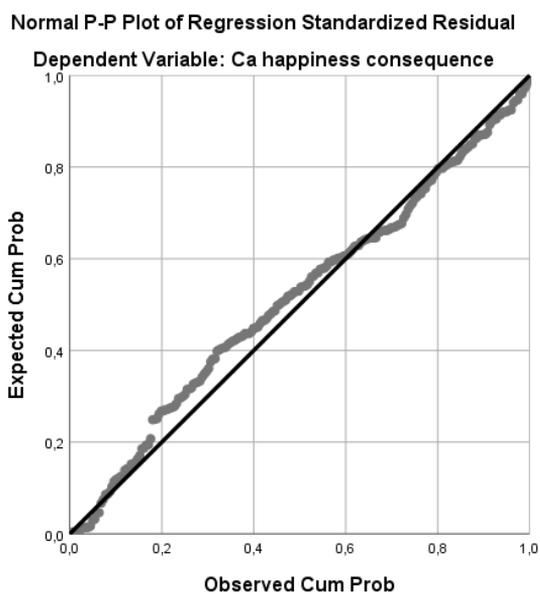


Figure A15: Multivariate regression model for consequences of cannabis use for personal happiness:
Residual scatter plot

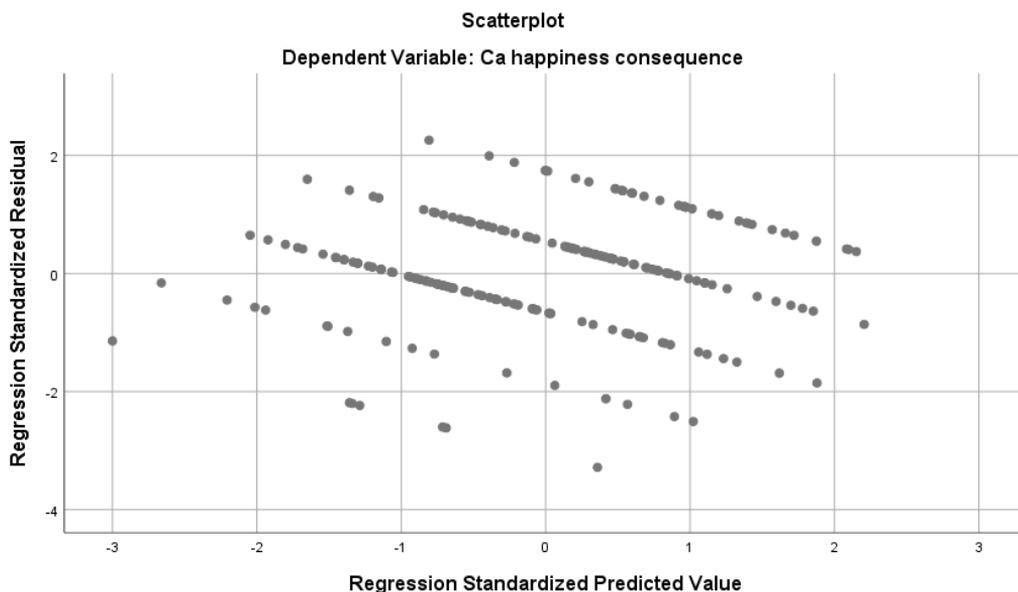


Figure A16: Multivariate regression model for consequences of cannabis use for social relations:
Residual distribution

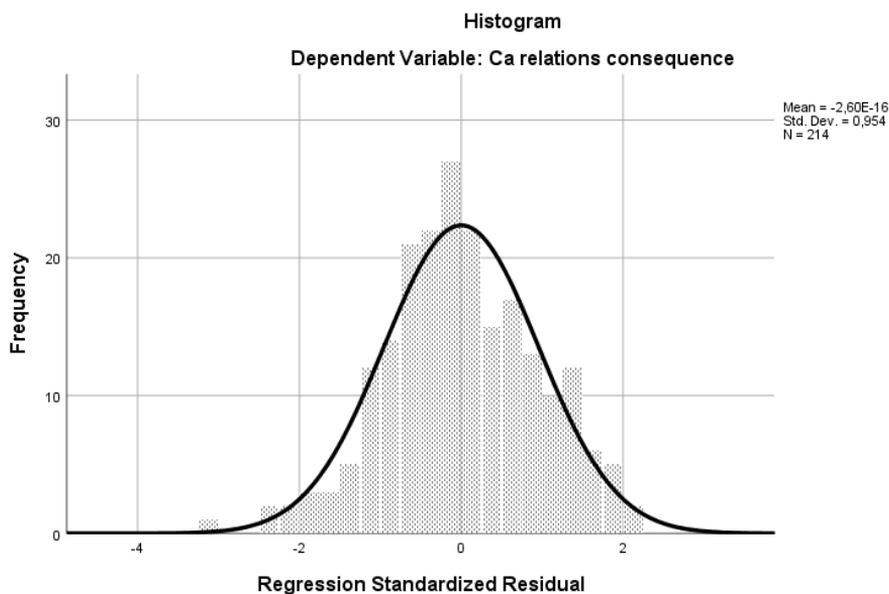


Figure A17: Multivariate regression model for consequences of cannabis use for social relations: Predicted probability plot

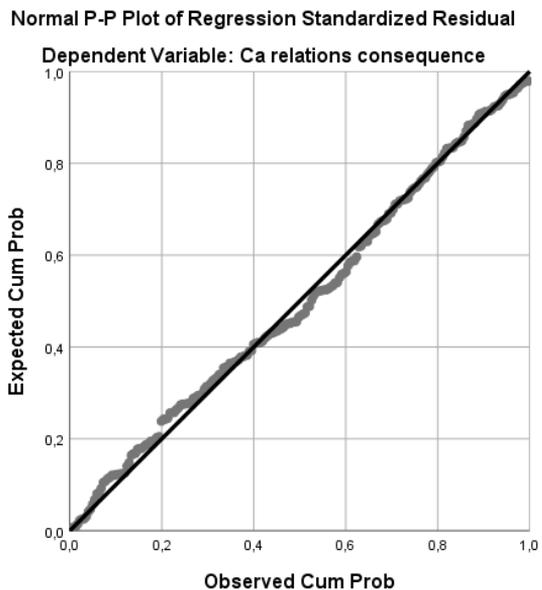


Figure A18: Multivariate regression model for consequences of cannabis use for social relations: Residual scatter plot

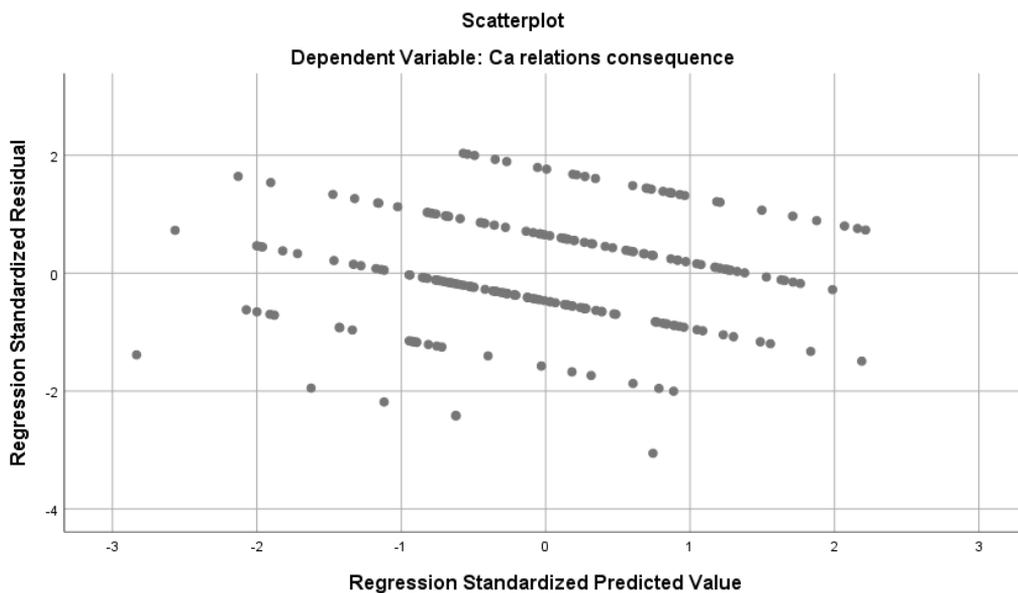


Figure A19: Multivariate regression model for consequences of cannabis use for spiritual practice: Residual distribution

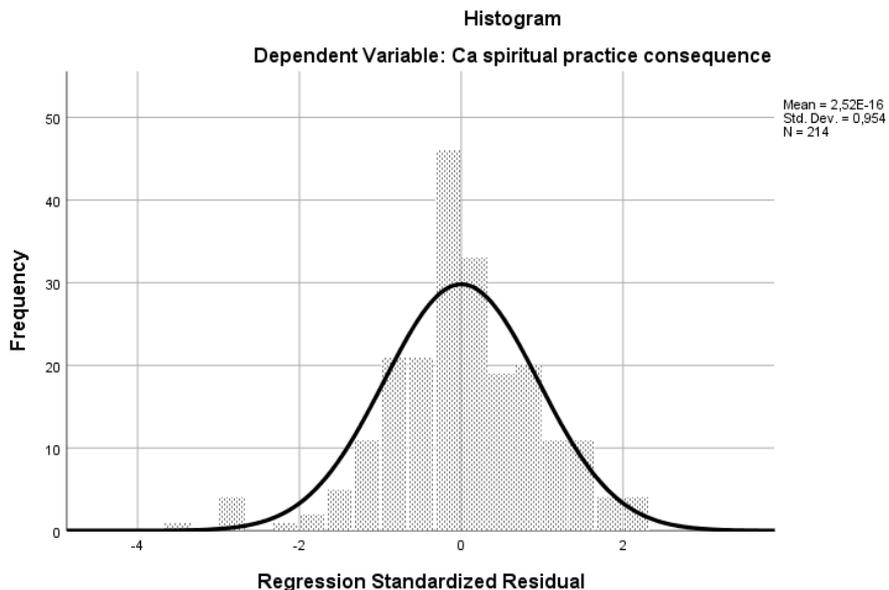


Figure A20: Multivariate regression model for consequences of cannabis use for spiritual practice: Predicted probability plot

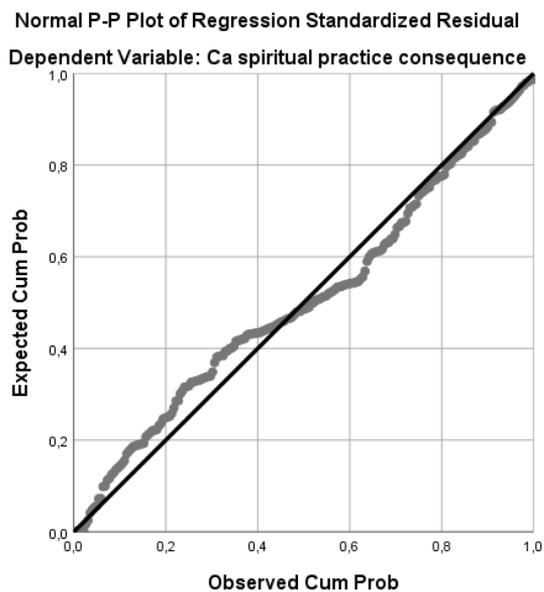


Figure A21: Multivariate regression model for consequences of cannabis use for spiritual practice: Residual scatter plot

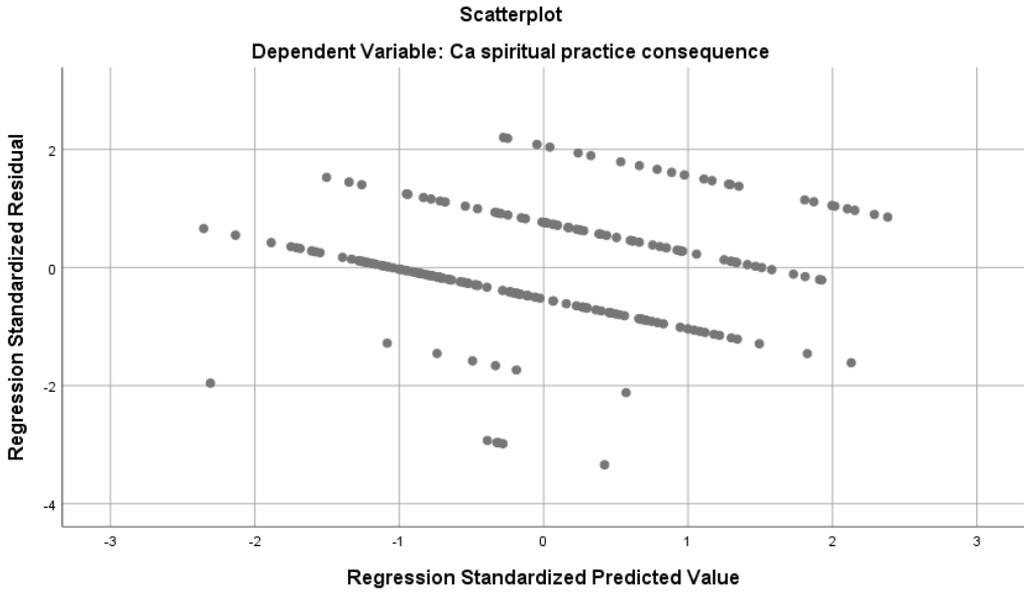


Figure A22: Logistic regression model for the experience of contact with non-ordinary beings: Residual scatter plot

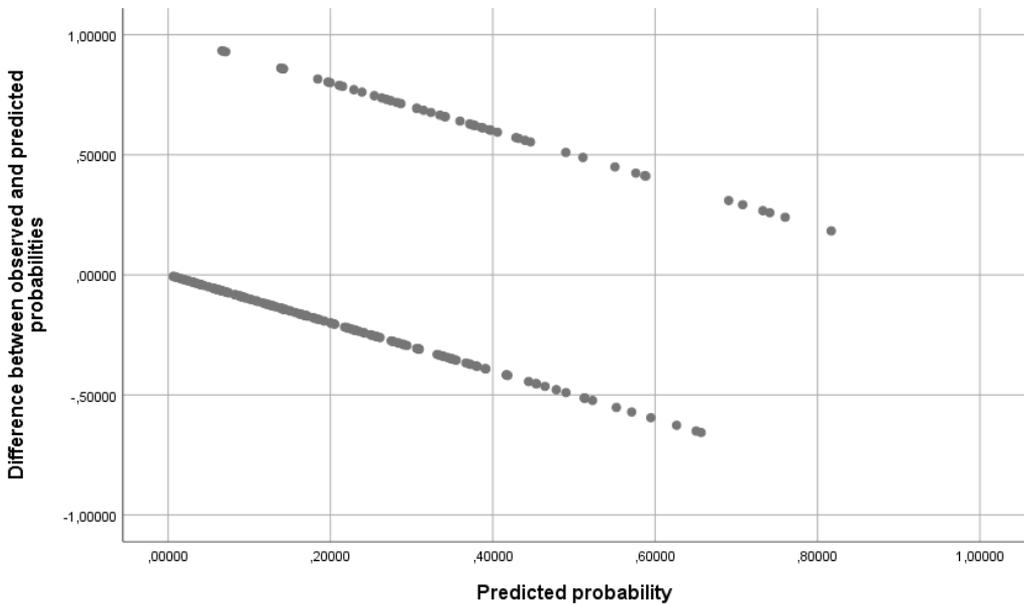


Figure A23: Logistic regression model for the experience of contact with transcendent forces: Residual scatter plot

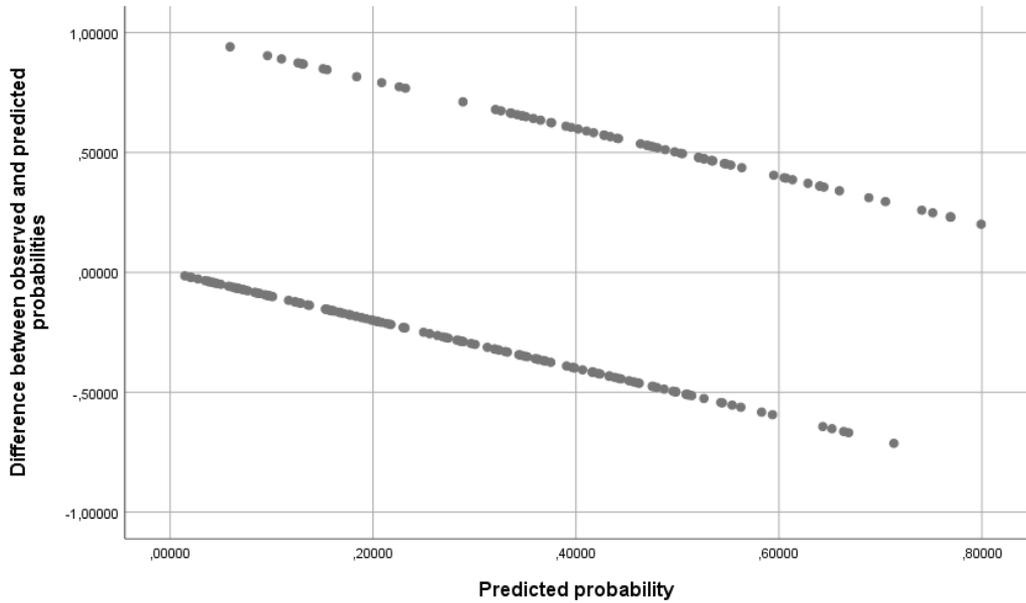


Figure A24: Logistic regression model for the experience of ego death or dissolution: Residual scatter plot

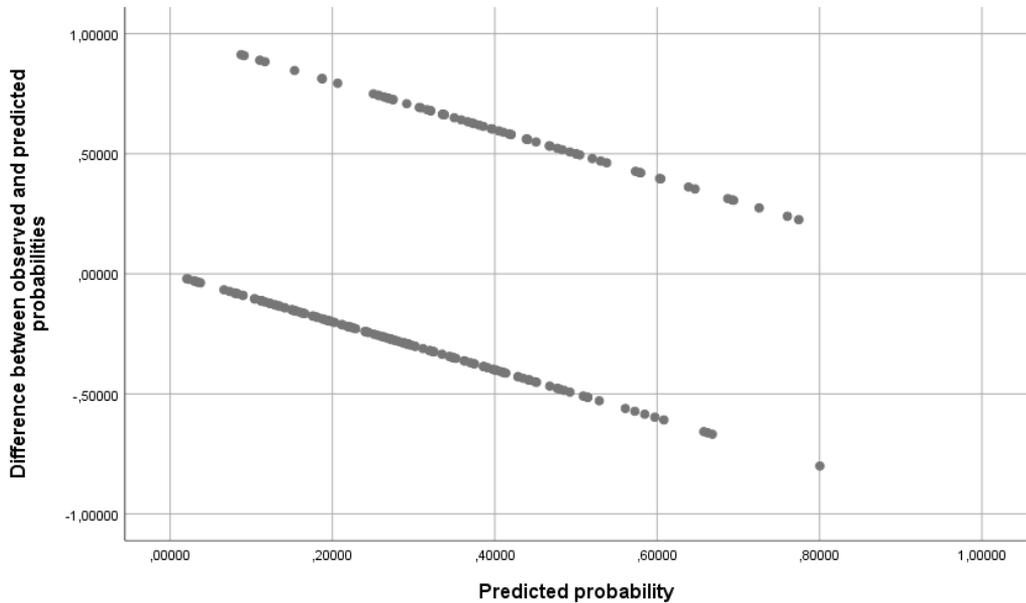


Figure A25: Multivariate regression model for consequences of psychedelics use for spiritual practice: Residual distribution

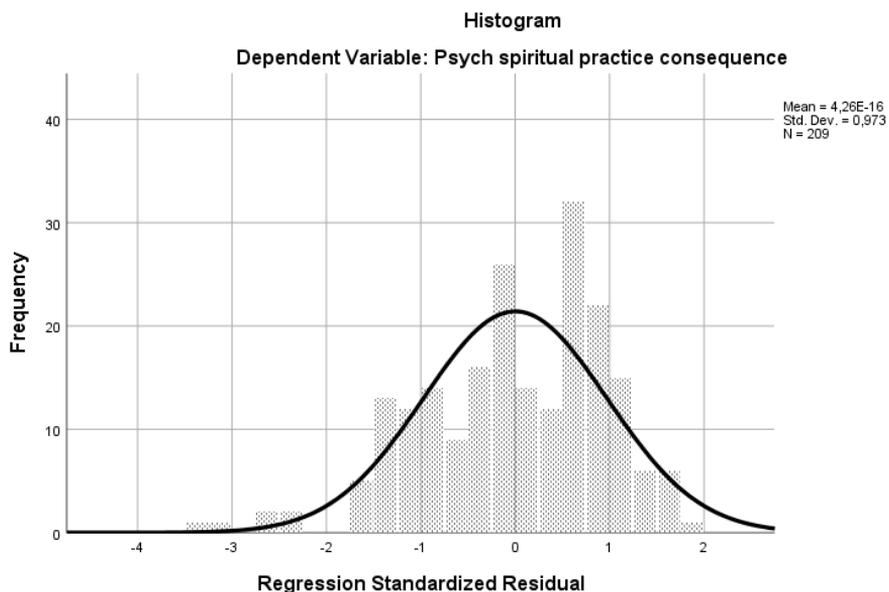


Figure A26: Multivariate regression model for consequences of psychedelics use for spiritual practice: Predicted probability plot

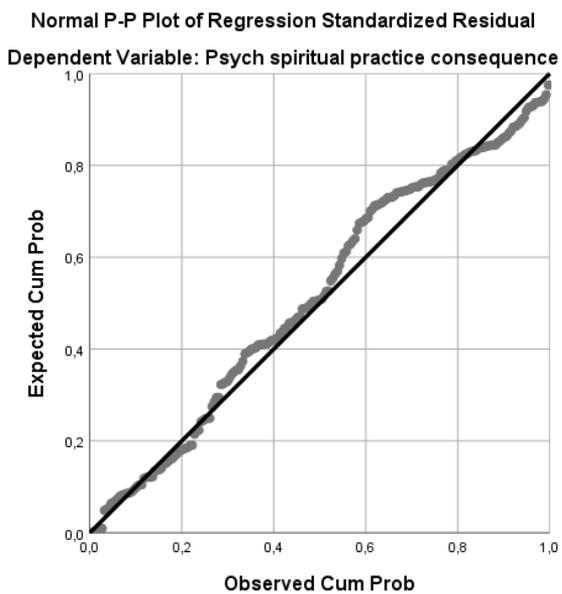


Figure A27: Multivariate regression model for consequences of psychedelics use for spiritual practice: Residual scatter plot

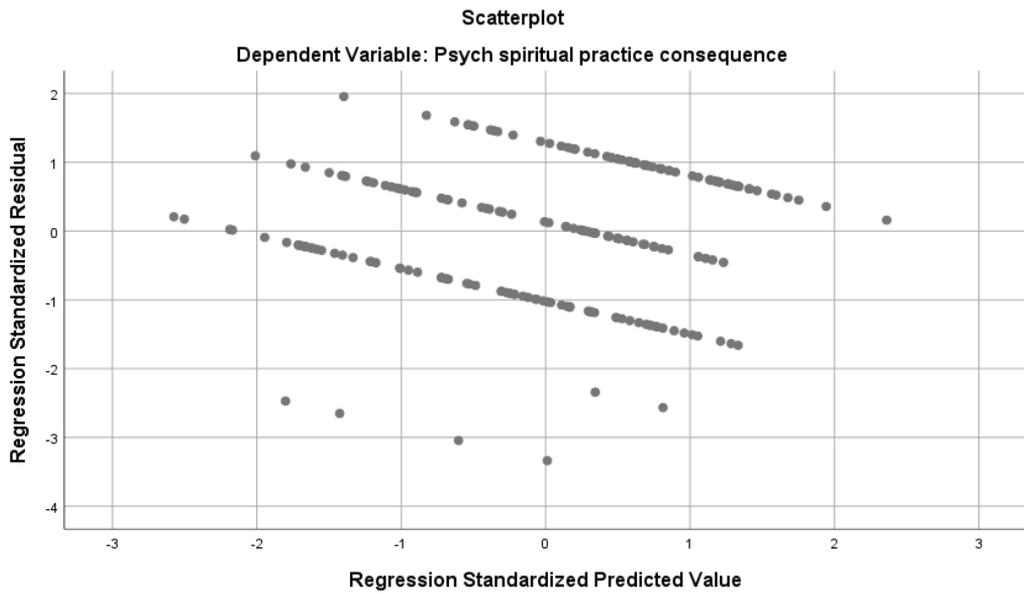


Figure A28: Multivariate regression model for consequences of psychedelics use for psychological health: Residual distribution

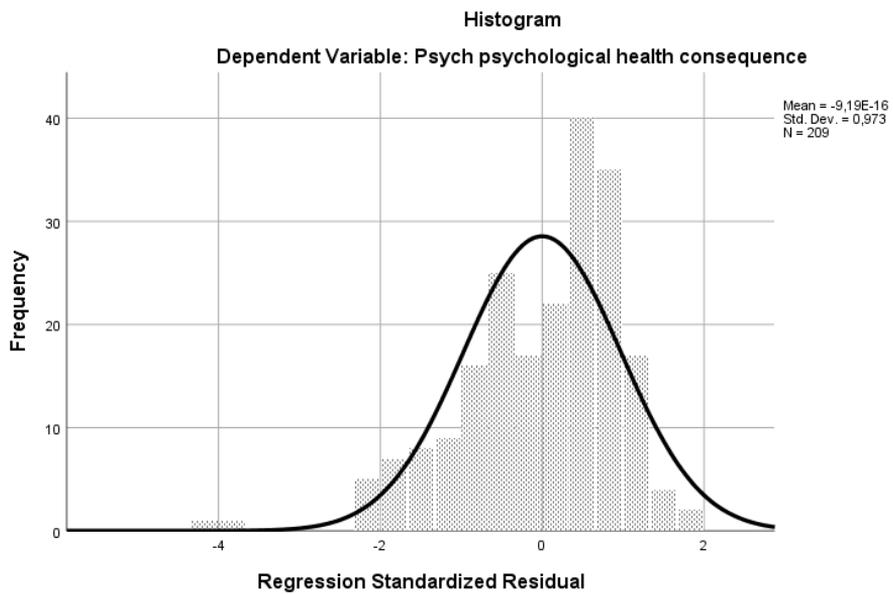


Figure A29: Multivariate regression model for consequences of psychedelics use for psychological health: Predicted probability plot

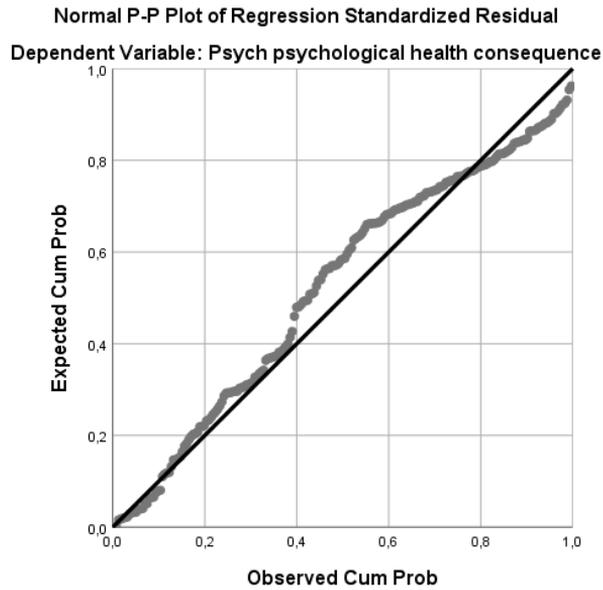


Figure A30: Multivariate regression model for consequences of psychedelics use for psychological health: Residual scatter plot

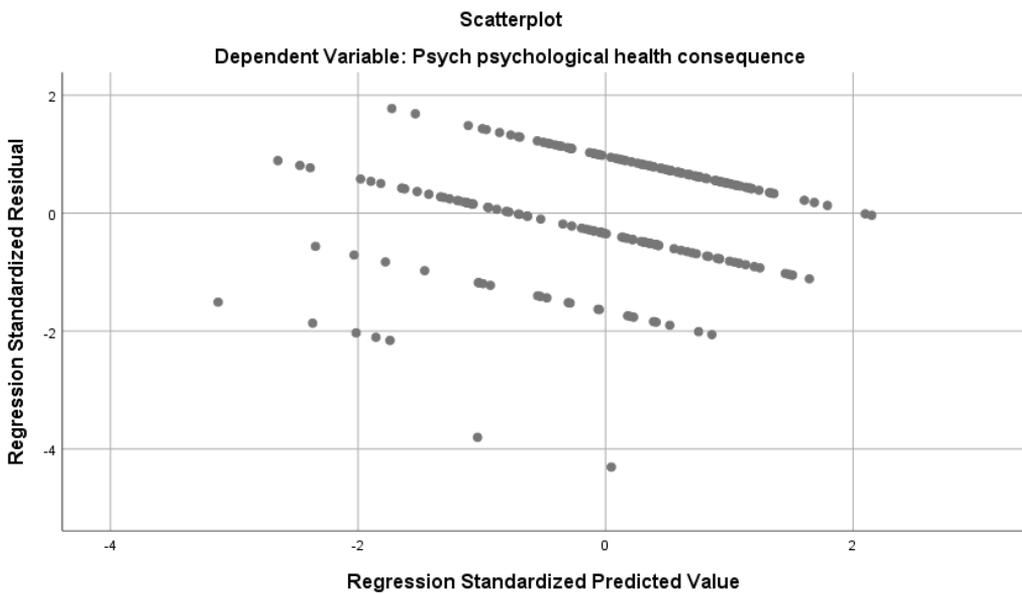


Figure A31: Multivariate regression model for consequences of psychedelics use for personal happiness: Residual distribution

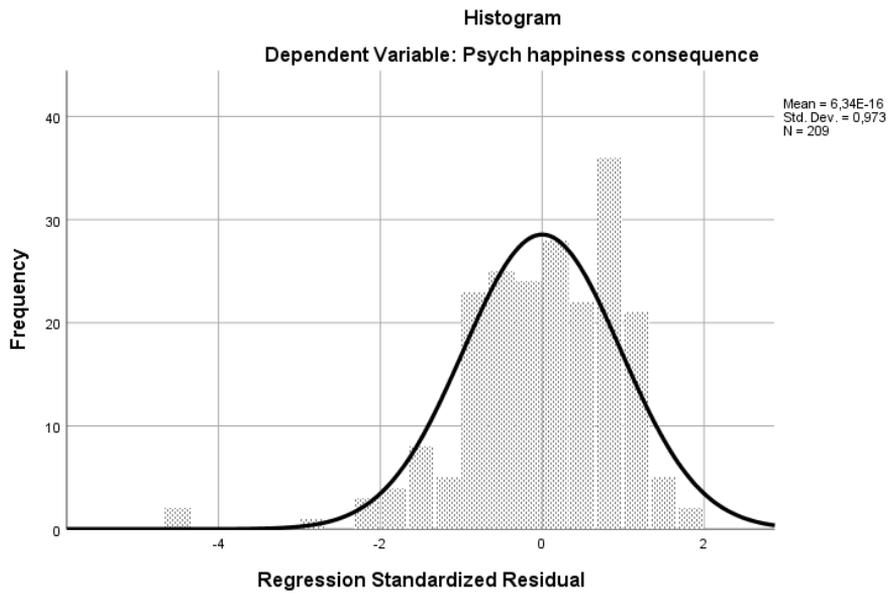


Figure A32: Multivariate regression model for consequences of psychedelics use for personal happiness: Predicted probability plot

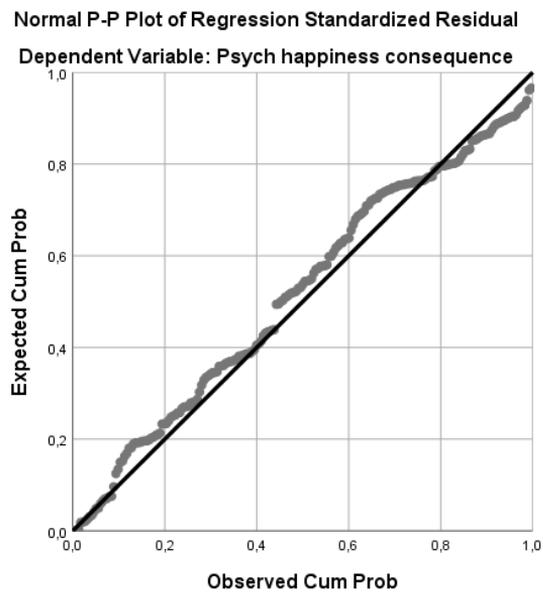
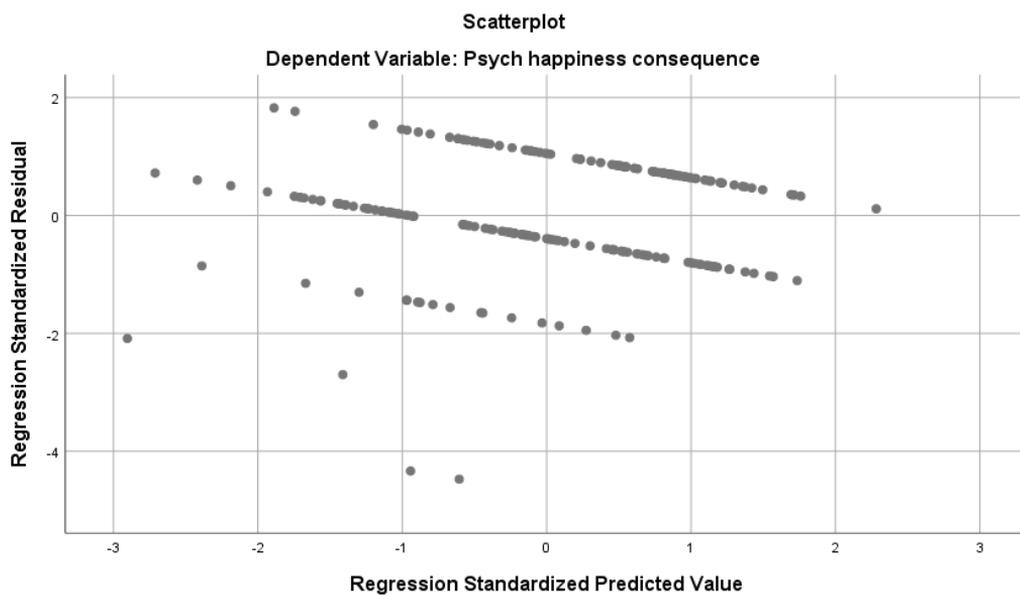


Figure A33: Multivariate regression model for consequences of psychedelics use for personal happiness: Residual scatter plot



Appendix B: Participation consent form

Request for participation in research project - *Entheogens in Spiritual Practice*

Background and purpose

The study examines the use of entheogens in spiritual contexts, with the purpose of discovering long-term implications for spirituality, health, and life through in-depth interviews.

This is a master project conducted by the Institute of Religious Studies at the University of Bergen. Respondents are recruited through web forums and other internet arenas, with the only criteria for selection being adulthood and a self-identified spiritual context for the use of entheogenic drugs.

Consequences of participation

Participants in the study are requested to engage in an email conversation or interview with the author stretching over several weeks. **In order to preserve privacy, participants are encouraged to create an anonymized web email account for the purpose of communication with the author.** In the interview you will be asked questions concerning your personal background and life circumstances, use and usage history of entheogenic drugs, psychological and psychiatric situation and history, and encounters with law enforcement agencies. **Please respond in general terms that cannot be used to identify you as a specific individual.**

What happens to the information you provide?

All personal information is treated confidentially. Only the author of the project and immediate collaborators will have access to the data, although anonymized selections will be included in research papers for publication. The author guarantees that no participant will be identifiable from any published material.

The project is scheduled for completion by summer 2016. Email correspondence will be preserved indefinitely **in anonymized forms** for research purposes.

Voluntary participation

Participation in the study is voluntary, and you can withdraw your participation at any point without offering any reason. If you withdraw from the project, all information from and about you will be deleted.

If you wish to participate in the study, please contact petter@entheogenstudy.org. The university board of research ethics (*Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS*) has approved the project.

Participation agreement

I have received information about the study, and am willing to participate

(Please sign with email address and date.)

Appendix C: Interview guide

This guide describes some common questions used to guide the interview. Note that this guide was used only as a starting point. The most important questions for an interview were often not the questions from this guide, but rather individualized follow-up questions to an earlier interviewee response.

1. Background and life situation

1.1. Nationality, age, gender

1.1.1 What is your nationality?

1.1.2 What is your age?

1.1.3 Which gender are you?

1.2. Education, vocation, family

1.2.1 What education do you have?

1.2.2 In which field do you work?

1.2.3 How is your home situation?

Do you have a partner?

Do you have any children?

1.3. Psychiatric history

1.3.1 Have you ever had psychological problems?

Did you get professional help for these problems?

Did you use any medication?

How long did the problems persist?

1.3.2 Is there a history of psychological problems in your family?

1.4. Religious background

1.4.1 What is your background in terms of religion and spirituality?

Were your parents religious?

Was religion a part of your upbringing?

1.4.2 Did you ever convert into a new religion?

1.5. Spiritual beliefs and practices

1.5.1 Can you sum up a few main points about your worldview?

1.5.2 Do you do any kind of spiritual practice?

1.5.3 Do you take part in any organized religious activities?

1.5.4 Do you recall any spiritual experiences from the time before you started using entheogens?

2. Entheogenic experience

2.1. Use of drugs

2.1.1 Why do you use entheogenic drugs?

What was it that first attracted you to entheogens?

2.1.2 What kinds of entheogens have you used?

For how long?

How often have you used them?

Do you still use these entheogens? How often?

2.1.3 Can you describe the social situation of your entheogen use?

With whom do you use these drugs?

Where does it take place?

On which days of the week? At what time of day?

2.1.4 How do you prepare your use of entheogens?

2.2. Descriptions of experiences

2.2.1 Can you describe some drug-induced experiences that were important to you?

Was this a typical or an exceptional experience?

What, if anything, was different with this drug session in comparison to others?

2.3. Consequences for life, health, spirituality

2.3.1. How do you feel your use of hallucinogens has influenced your life for better or worse?

Have you noticed any negative consequences?

2.3.2. How does your use of hallucinogens fit in with your daily life?

Are there any consequences for work or school?

Did your drug use ever lead to conflicts with your family?

Have you had any trouble with the police?

2.3.3. How has the use of hallucinogens affected your personality?

Are you aware of any psychological consequences?

Are you aware of what you would call spiritual consequences?

Have you started doing any spiritual practices as a result of using hallucinogens?

2.3.4. Is it possible to develop an addiction to (the positive effects of) these drugs?

How do you feel about the addictive capacity of the drugs you have been using?

What exactly is it about these drugs that makes or does not make them addictive?

Did you ever try to quit anything without succeeding?

2.3.5. Have you ever felt that you were overdoing or abusing drugs?

What are the consequences of such abuse?

Could it lead to «bad trips»?

Some people report that frequent use has a negative effect on their energy level, ability to concentrate and focus, and short-term memory. Did you experience any such effects?

2.3.6. Have you ever had any bad trips?

How did you recover?

What exactly was the problem?

How did you deal with the situation?

Were there long term consequences?

How do you prepare sessions to minimize the risk of bad trips?

2.3.7. Have you ever experienced healing of physical or psychological issues as a result of using hallucinogenic drugs?

Is it possible to explain how this healing happened?

Over what period of time did it happen?

Do you feel that the healing is an ongoing process, or does it belong to the past?

Have previous problems ever returned?

Appendix D: Survey questionnaire

Cannabis and Psychedelics User Survey

This survey is part of a project at the Institute of Sociology at the University of Bergen. To participate, you must be 18 years or older, have a good understanding of English, and have at least some experience with psychedelics. Participation is fully anonymous: neither your IP address nor other identifying data is recorded. Please only answer the survey once.

I am 18 years or older

- Yes
- No

I understand English well

- Yes
- No

Demographics

Age

- 18-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60+

Gender

- Female
- Male
- Other

Education

- Have not completed high school
- High school
- Some university
- Bachelor's degree
- Master's degree
- PhD

Occupation. Check all that apply.

- Full-time job
- Student
- Part-time job
- Unemployed
- Pensioner
- Other

Relationship status

- Single
- Partner
- Married
- Widow/widower

Number of children

- 0
- 1
- 2
- 3+

Geographical location at the present time

- Africa
- America (North)
- America (South)
- Asia
- Europe (East)
- Europe (West)
- Middle East
- Oceania

Spiritual or religious background. Check all that apply.

- Hindu
- Christian
- Jewish
- Secular/Humanist
- Muslim
- Buddhist
- New Age/Alternative
- Other

Personality

I see myself as...

	Disagree strongly	Disagree moderately	Neither agree nor disagree	Agree moderately	Agree strongly
Critical, quarrelsome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anxious, easily upset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extraverted, enthusiastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reserved, quiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disorganized, careless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Open to new experiences, complex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sympathetic, warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dependable, self-disciplined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calm, emotionally stable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conventional, uncreative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How often have you taken risks of the following kinds

	Never	Rarely	Sometimes	Often	Very often
Financial risks (e.g. gambling, risky investments)	<input type="checkbox"/>				
Social risks (e.g. taking an unpopular stance on a controversial issue, publicly challenging a rule or decision)	<input type="checkbox"/>				
Recreational risks (e.g., rock-climbing, scuba diving)	<input type="checkbox"/>				
Safety risks (e.g. fast driving, cycling without a helmet)	<input type="checkbox"/>				
Career risks (e.g. quitting a job without another to go to)	<input type="checkbox"/>				

Spirituality and religion

Which spiritual or religious traditions do you currently feel connected to? Check all that apply.

- Hinduism
- Buddhism
- Secular/Humanist
- New Age/Alternative
- Judaism
- Islam
- Christianity
- Other

Do you do any regular spiritual or self-developmental practice? Check all that apply.

- Chanting/Singing
- Dream work
- Energy work
- Hypnosis/Regression
- Mantra
- Meditation
- Prayer
- Reading spiritual or religious texts

- Visualization/Inner journeys
- Yoga (hatha yoga)
- Other
- None

Non-psychedelic drug use

Which of the following drugs do you currently use?

	Daily	A few times per week	A few times per month	A few times per year	Never
Ketamine	<input type="checkbox"/>				
Alcohol	<input type="checkbox"/>				
Cocaine	<input type="checkbox"/>				
Other plant-based relaxants or stimulants (Betel, Kava, Kratom etc.)	<input type="checkbox"/>				
Nootropics	<input type="checkbox"/>				
Amphetamines	<input type="checkbox"/>				
Cigarettes or tobacco	<input type="checkbox"/>				
Opiates and opiate-like products	<input type="checkbox"/>				
GHB	<input type="checkbox"/>				
Coffe or tea	<input type="checkbox"/>				

Cannabis

Do you have experience with the use of cannabis?

- Yes
- No

Cannabis usage pattern

For how many years have you used (or did you use) cannabis?

- Less than a year
- 1-3 years
- 3-5 years
- 5-10 years
- More than 10 years

How many times have you used cannabis?

- Once
- 2-3 times
- 4-6 times
- 7-10 times
- 11-20 times

- 21-50 times
- 51-100 times
- 100+ times

How often have you used cannabis over the last 12 months?

- Not at all
- Once
- 2-3 times
- 4-6 times
- 7-10 times
- 11-20 times
- 21-50 times
- 51-100 times
- 100+ times

What is (or was) your most common social environment for using cannabis?

- Alone
- With a single partner
- With a small group of close friends
- With a group of friends and acquaintances
- At a party, night club, concert, festival or other public event

How far in advance do (or did) you usually plan the use of cannabis?
Choose nearest option.

- One day or less in advance
- A few days in advance
- A few weeks in advance
- A few months in advance
- A year in advance

Motivation for cannabis use

What were your original motivations for starting to use cannabis? Check all that apply.

- Adventure
- Ego death experience
- Curiosity
- Spiritual experience
- To forget or escape from personal problems
- Socializing
- Insight and understanding for personal growth
- Psychological self-exploration
- Fun/party/recreation

- To cure or heal personal problems
- To cure or heal medical conditions
- Other

What were your motivations for continuing to use cannabis after the first period of experimentation? Check all that apply.

- Ego death experience
- To forget or escape from personal problems
- Psychological self-exploration
- Fun/party/recreation
- Curiosity
- Insight and understanding for personal growth
- Spiritual experience
- To cure or heal medical conditions
- Adventure
- Socializing
- To cure or heal personal problems
- Other

Cannabis: most meaningful experience

Consider your most meaningful cannabis experience. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Peace
- Sadness
- Love
- Joy
- Disgust
- Fear
- Surprise
- Anger or hate
- Other

Consider your most meaningful cannabis experience. Which of the following cognitive characteristics apply to this experience? Check all that apply.

- Inner visions
- Insight into the world
- Words cannot describe the experience
- Insight into yourself
- Confusion
- Ego death or dissolution
- Insight into other people and your relations with them

Other

Consider your most meaningful cannabis experience. Which of the following relational characteristics apply to this experience? Check all that apply.

- Contact with transcendent forces
- Violent behavior
- Unity with transcendent forces
- Feeling of homecoming or return to your true essence
- Improved connection with other people
- Contact with non-ordinary beings
- Regrettable behavior towards others
- Feeling of isolation from other people
- Improved connection with nature
- Other

Consider your most meaningful cannabis experience. How meaningful was this experience to you?

- Most meaningful experience of your life
- Among the five most meaningful experiences of your life
- Among the ten most meaningful experiences of your life
- The most meaningful experience of a year
- The most meaningful experience of a month
- An everyday experience

Cannabis: typical experience

Consider a typical cannabis experience. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Disgust
- Fear
- Joy
- Sadness
- Anger or hate
- Peace
- Love
- Surprise
- Other

Consider a typical cannabis experience. Which of the following cognitive characteristics apply to this experience? Check all that apply.

- Inner visions
- Confusion
- Insight into other people and your relations with them

- Words cannot describe the experience
- Insight into yourself
- Ego death or dissolution
- Insight into the world
- Other

Consider a typical cannabis experience. Which of the following relational characteristics apply to this experience? Check all that apply.

- Violent behavior
- Contact with non-ordinary beings
- Feeling of homecoming or return to your true essence
- Contact with transcendent forces
- Improved connection with other people
- Improved connection with nature
- Regrettable behavior towards others
- Feeling of isolation from other people
- Unity with transcendent forces
- Other

Cannabis: worst experience

If you only have good experiences with cannabis, then your worst experience is simply your least good experience. In other words, your worst experience is not necessarily a bad experience.

Consider your worst cannabis experience. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Peace
- Disgust
- Anger or hate
- Fear
- Joy
- Love
- Surprise
- Sadness
- Other

Consider your worst cannabis experience. Which of the following cognitive characteristics apply to this experience? Check all that apply.

- Insight into yourself
- Insight into other people and your relations with them
- Inner visions
- Ego death or dissolution
- Insight into the world
- Confusion

- Words cannot describe the experience
- Other

Consider your worst cannabis experience. Which of the following relational characteristics apply to this experience? Check all that apply.

- Contact with transcendent forces
- Regrettable behavior towards others
- Contact with non-ordinary beings
- Feeling of isolation from other people
- Unity with transcendent forces
- Improved connection with other people
- Violent behavior
- Improved connection with nature
- Feeling of homecoming or return to your true essence
- Other

Consider your worst cannabis experience. How difficult was this experience to you?

- Most difficult experience of your life
- Among the five most difficult experiences of your life
- Among the ten most difficult experiences of your life
- The most difficult experience of a year
- The most difficult experience of a month
- An everyday experience / not difficult

Consider your worst cannabis experience. How would you judge the long-term consequences of this particular experience?

- Long-term negative impact on life and health
- Mostly negative long-term consequences for life and health
- No significant or mixed long-term consequences for life and health
- Mostly positive long-term consequences for life and health
- Long-term positive impact on life and health

Cannabis: consequences of use

What are the long-term consequences of using cannabis on your physical health?

- Serious worsening of overall health
- Moderate worsening of overall health
- No significant consequences for health
- Moderate improvement of overall health
- Serious improvement of overall health

What are the long-term consequences of using cannabis on your

Psilocybin/Magic mushrooms	<input type="checkbox"/>								
Ayahuasca (or analogues)	<input type="checkbox"/>								
DMT (smoked)	<input type="checkbox"/>								
5-MeO-DMT	<input type="checkbox"/>								
Mescaline/Peyote	<input type="checkbox"/>								
Salvia divinorum	<input type="checkbox"/>								
2C family (2C-B etc.)	<input type="checkbox"/>								

You will now be asked about your experiences with psychedelics. Please choose one of the psychedelics from the list below. All the remaining questions in this survey will be about your experience with this one psychedelic.

Please choose one psychedelic that you have experience with and wish to speak about in this survey:

- Salvia divinorum
- Psilocybin/Magic mushrooms
- 5-MeO-DMT
- LSD
- MDMA
- Ayahuasca (or analogues)
- 2C family (2C-B etc.)
- Mescaline/Peyote
- DMT (smoked)

Usage pattern

Note: all questions pertain to the psychedelic you chose previously.

For how many years have you used (or did you use) this psychedelic?

- Less than a year
- 1-3 years
- 3-5 years
- 5-10 years
- More than 10 years

How many times have you used this psychedelic?

- Once
- 2-3 times
- 4-6 times
- 7-10 times
- 11-20 times
- 21-50 times

- 51-100 times
- 100+ times

How often have you used this psychedelic over the last 12 months?

- Not at all
- Once
- 2-3 times
- 4-6 times
- 7-10 times
- 11-20 times
- 21-50 times
- 51-100 times
- 100+ times

What is (or was) your most common social environment for using this psychedelic?

- Alone
- With a single partner
- With a small group of close friends
- With a group of friends and acquaintances
- At a party, night club, concert, festival or other public event

How far in advance do (or did) you usually plan the use of this psychedelic?
Choose nearest option.

- One day or less in advance
- A few days in advance
- A few weeks in advance
- A few months in advance
- A year in advance

Motivation for psychedelic use

Note: all questions pertain to the psychedelic you chose previously.

What were your original motivations for starting to use this psychedelic?
Check all that apply.

- To forget or escape from personal problems
- Insight and understanding for personal growth
- Psychological self-exploration
- Curiosity
- To cure or heal medical conditions
- Spiritual experience
- Socializing
- To cure or heal personal problems

- Ego death experience
- Adventure
- Fun/party/recreation
- Other

What were your motivations for continuing to use this psychedelic after the first period of experimentation? Check all that apply.

- To cure or heal personal problems
- Socializing
- Insight and understanding for personal growth
- To cure or heal medical conditions
- Fun/party/recreation
- Spiritual experience
- Ego death experience
- Curiosity
- To forget or escape from personal problems
- Adventure
- Psychological self-exploration
- Other

Most meaningful experience

Note: all questions pertain to the psychedelic you chose previously.

Consider your most meaningful experience with this psychedelic. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Sadness
- Surprise
- Fear
- Disgust
- Anger or hate
- Joy
- Peace
- Love
- Other

Consider your most meaningful experience with this psychedelic. Which of the following cognitive characteristics apply to this experience? Check all that apply.

- Insight into yourself
- Insight into the world
- Words cannot describe the experience
- Inner visions
- Confusion

- Insight into other people and your relations with them
- Ego death or dissolution
- Other

Consider your most meaningful experience with this psychedelic. Which of the following relational characteristics apply to this experience? Check all that apply.

- Regrettable behavior towards others
- Contact with non-ordinary beings
- Violent behavior
- Improved connection with other people
- Improved connection with nature
- Unity with transcendent forces
- Feeling of homecoming or return to your true essence
- Contact with transcendent forces
- Feeling of isolation from other people
- Other

Consider your most meaningful experience with this psychedelic. How meaningful was this experience to you?

- Most meaningful experience of your life
- Among the five most meaningful experiences of your life
- Among the ten most meaningful experiences of your life
- The most meaningful experience of a year
- The most meaningful experience of a month
- An everyday experience

Typical experience

Note: all questions pertain to the psychedelic you chose previously.

Consider a typical experience with this psychedelic. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Surprise
- Joy
- Anger or hate
- Fear
- Peace
- Sadness
- Love
- Disgust
- Other

Consider a typical experience with this psychedelic. Which of the following cognitive characteristics apply to this experience? Check all that apply.

- Insight into the world
- Ego death or dissolution
- Insight into other people and your relations with them
- Insight into yourself
- Inner visions
- Confusion
- Words cannot describe the experience
- Other

Consider a typical experience with this psychedelic. Which of the following relational characteristics apply to this experience? Check all that apply.

- Feeling of homecoming or return to your true essence
- Regrettable behavior towards others
- Improved connection with nature
- Contact with non-ordinary beings
- Improved connection with other people
- Unity with transcendent forces
- Violent behavior
- Contact with transcendent forces
- Feeling of isolation from other people
- Other

Worst experience

Note: all questions pertain to the psychedelic you chose previously.

If you only have good experiences with this psychedelic, then your worst experience is simply your least good experience. In other words, your worst experience is not necessarily a bad experience.

Consider your worst experience with this psychedelic. Which of the following emotional characteristics apply to this experience? Check all that apply.

- Sadness
- Love
- Peace
- Fear
- Joy
- Anger or hate
- Surprise
- Disgust
- Other

Consider your worst experience with this psychedelic. Which of the following cognitive characteristics apply to this experience? Check all that

apply.

- Confusion
- Insight into yourself
- Insight into other people and your relations with them
- Words cannot describe the experience
- Ego death or dissolution
- Inner visions
- Insight into the world
- Other

Consider your worst experience with this psychedelic. Which of the following relational characteristics apply to this experience? Check all that apply.

- Improved connection with nature
- Feeling of isolation from other people
- Feeling of homecoming or return to your true essence
- Regrettable behavior towards others
- Contact with non-ordinary beings
- Unity with transcendent forces
- Violent behavior
- Improved connection with other people
- Contact with transcendent forces
- Other

Consider your worst experience with this psychedelic. How difficult was this experience to you?

- Most difficult experience of your life
- Among the five most difficult experiences of your life
- Among the ten most difficult experiences of your life
- The most difficult experience of a year
- The most difficult experience of a month
- An everyday experience / not difficult

Consider your worst experience with this psychedelic. How would you judge the long-term consequences of this particular experience?

- Long-term negative impact on life and health
- Mostly negative long-term consequences for life and health
- No significant or mixed long-term consequences for life and health
- Mostly positive long-term consequences for life and health
- Long-term positive impact on life and health

Consequences of use

Note: all questions pertain to the psychedelic you chose previously.

What are the long-term consequences of using this psychedelic on your physical health?

- Serious worsening of overall health
- Moderate worsening of overall health
- No significant consequences for health
- Moderate improvement of overall health
- Serious improvement of overall health

What are the long-term consequences of using this psychedelic on your psychological health?

- Serious worsening of overall health
- Moderate worsening of overall health
- No significant consequences for health
- Moderate improvement of overall health
- Serious improvement of overall health

What are the long-term consequences of using this psychedelic for your personal happiness?

- Much less happy
- Less happy
- Same as before
- More happy
- Much more happy

What are the long-term consequences of using this psychedelic for your ability to get along with other people?

- Much reduced relationship ability
- Reduced relationship ability
- Same as before
- Improved relationship ability
- Much improved relationship ability

What are the long-term consequences of using this psychedelic for your spiritual practice?

- Much reduced intensity of practice
- Reduced intensity of practice
- Same as before
- Improved intensity of practice
- Much improved intensity of practice

Have you had flashback experiences because of your use of this psychedelic?

- No
- Yes, and they were mainly positive experiences
- Yes, and they were mainly negative experiences

Thank you!

Your responses have been recorded anonymously, and will contribute to a deeper understanding of psychedelics use and its consequences.

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