

On the Social Epistemology of Psychedelic Experience

Mette Marie Pedersen & Asbjørn Steglich-Petersen

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Abstract: Both traditional and recent accounts of the beneficial and therapeutic effects of psychedelic experiences tie these effects to specifically *epistemic* changes, for example the enabling of spiritual or psychological insight, or disruption of problematic beliefs or thought patterns. While these alleged benefits have sometimes been thought to be facilitated by false or even delusional beliefs (e.g. Pollan 2015), recent philosophical discussion strikes a more optimistic tone, arguing that the epistemic risks involved with psychedelic drug use tend to be relatively benign and outweighed by epistemic benefits (Letheby 2021). In this paper, we seek to nuance this picture by drawing attention to the crucial role played by *social* factors in determining the epistemic effects of psychedelic experiences. We argue that the very openness of mind and heightened sense of clarity and certainty that is often thought to facilitate the epistemic benefits of psychedelic drug use, also make the user more vulnerable to adverse epistemic influence from the social environment, to a degree not acknowledged in the current literature. Examining the epistemic influences of the social environment is thus important for understanding the necessary precautions of informed consent and overall safe drug use.

Keywords: Psychedelics; social epistemology; open-mindedness; psychedelic experience; psychedelic therapy; epistemic innocence; set and setting; epistemic risk.

1. Introduction

In the last two decades, a resurrection of psychedelic research has occurred - a phenomenon often referred to as ‘the psychedelic renaissance’ (Sessa 2018; Kelly et al. 2019). This research revolves around the therapeutic benefits that can come with psychedelic experiences, usually after ingesting psychedelic drugs. In a Western context, research into psychedelic therapy was riding its first wave in the 50s and 60s, and now, we are in the middle of a second one. The specific group of drugs that is used in psychedelic therapy traditionally includes LSD, psilocybin, mescaline and DMT, but also sometimes MDMA, ketamine and other serotonergic drugs, depending on the definition of ‘psychedelic’ (Alcohol and Drug Foundation 2023). After decades of standstill in psychedelic research due to highly restrictive regulations and adverse

media coverage, promising new findings show that psychedelic therapy can be beneficial in treatment of a number of adverse conditions and mental illnesses, mostly in clinical settings. These include, among others, addiction (Garcia-Romeu et al. 2019), major depressive disorder (Galvão-Coelho et al. 2021), anxiety (Davis et al. 2019), obsessive compulsive disorder (Moreton et al. 2023), and posttraumatic stress disorder (Krediet et al. 2020). This has led both researchers and media outlets to declare that psychedelic drugs might be the answer to the global mental health crisis of the 21st century (Duthois et al. 2022), and as of February 2023, 450 registered clinical studies were being conducted to research the therapeutic effects of psychedelics (United Nations Office on Drugs and Crimes 2023: 129). While it is difficult to estimate exactly how many people are using psychedelic drugs worldwide, and with what purpose, studies do show an increase in the use of hallucinogens in the United States in the last two decades, particularly in adults aged 26 and older (National Institutes of Health 2022). Simultaneously, a lucrative market has opened for biotech companies to capitalize off of what, until recently, were seen as dangerous and criminal substances, but now carry the more positive reputation of healing and therapeutic medicines (Devenot et al. 2022b).

From a Western historical point of view, psychedelic drug use has suffered and thrived under many different ideologies and discourses throughout the 20th century. Though they were first theorized (by Western researchers in the 50s and 60s) as ways to better understand psychiatric patients by revealing otherwise unconscious aspects of the mind, or as gateways to religious or spiritual insight, the drugs became mostly known for playing a part in the counterculture of the late 60s. But the public discourse around psychedelics shifted in the 70s, and narratives of psychedelic drug users “losing their minds”, or psychedelics as tools for “brainwashing” became more prominent (Friesen 2022; Dupuis 2021). For example, an uncovering in the 70s of highly unethical testing of LSD (and other substances) on subjects as “a truth serum” by the CIA in the 50s and 60s, in the same years as American President Richard Nixon declared “war on drugs” and classified psychedelics as Schedule I drugs (drugs not safe for use, even under medical supervision), shaped a collective understanding of psychedelics as extremely dangerous (Jones 2023). Psychedelic drugs are (as many other types of drugs) politicized and historically entangled in webs of discourse, and researchers and therapists fight to emphasize positive results (Friesen 2022).

Although psychedelic research (especially with a neurobiological focus) still proceeds rapidly, critical voices are starting to break through the choir of optimism, and question whether clinical psychedelic treatment and research is over-hyped. Researchers are pointing to

methodological issues concerning participant and researcher bias, trouble with living up to the golden standard of double blinding (Noorani 2021; Kious et al. 2023), and issues around the medicalization and commercialization of these substances (Muthukumaraswamy 2022). At the same time, anthropologists and ethnographers are beginning to unfold the theoretical and practical implications of what has been known for decades; namely that psychedelic experiences are highly influenced by extra-pharmacological factors, known in psychedelic communities and research as *set and setting* (Hartogsohn 2016; Roseman et al. 2022). This has raised questions about whether the common understanding in newer research of psychedelic experiences as a complete “freeing of the mind” is the whole truth, because social, cultural, historical and political influences also seem to impact the experiential and thereby therapeutic effects of drug use.

Both traditional and recent accounts of the beneficial effects of psychedelic drug use tie these effects to specifically *epistemic* changes, for example the enabling of spiritual or psychological insight, or disruption of problematic beliefs or thought patterns (Letheby & Mattu 2022).¹ While these alleged benefits have sometimes been thought to be facilitated by false or even delusional beliefs (e.g. Pollan 2015), recent philosophical discussion strikes a more optimistic tone, arguing that the epistemic risks involved with psychedelic drug use tend to be benign and outweighed by epistemic benefits (Letheby 2021). In this paper, we seek to nuance this picture by drawing attention to the crucial role played by social factors in determining the epistemic effects of psychedelic drug use. We argue that the very openness of mind and heightened sense of clarity that is often thought facilitate the cognitive and epistemic benefits of psychedelic drug use, also make the drug user more vulnerable to adverse epistemic influences from the social environment to a degree not acknowledged in the current literature. If an epistemic agent is more susceptible to her social environment during a psychedelic state of consciousness, the epistemic benefits and risks involved in psychedelic experiences need to take these influences into account. The upshot is a social-epistemological rehabilitation of the importance of set and setting, and a caution against assessing the epistemic effects of psychedelic drug use independently of the social context. This is especially relevant now that more countries

¹ Of course, such changes might also be valuable independently of any therapeutic effects. For example, Earp (2018) discusses how insights into “the nature of reality and human existence” caused by psychedelic experiences might enable moral enhancement by changing our understanding of how we ought to live. Interestingly for our purposes, Earp stresses that such effects of psychedelic experiences can be achieved only with the help of an enhancement facilitator. Gordon (2022) argues that the effectiveness of such facilitation depends crucially on a trusting relationship between the subject and the facilitator.

and states are loosening their restrictions on psychedelic drug use, both personal use and in clinical settings.

We proceed as follows. In §2, we show how the alleged benefits of psychedelic drug use tend to be tied to certain cognitive and epistemic changes, and examine Letheby's (2021) recent argument that the epistemic risks involved with such drug use tend to be benign and outweighed by the benefits. In §3, we review the existing literature on how sociocultural factors affect the outcome of psychedelic drug use. In §4, we present an epistemological analysis of how psychedelic drug use heightens the epistemic significance of social factors, and argue that in adverse social circumstances, the epistemic benefits are not likely to outweigh epistemic costs. In §5, we conclude that a balanced assessment of the epistemic effects of psychedelic drug use needs to pay greater heed to sociocultural influences, and that therapists as well as patients should be aware of these influences to make safe and informed therapeutic choices.

2. Epistemic effects of psychedelic drug use and the “comforting delusion objection”

While there has been an overall consensus within newer psychedelic research that psychedelic therapy can bring about therapeutic benefits, researchers do not yet have a clear-cut answer as to *how* this treatment works. There is some consensus, however, that cognitive-epistemic changes are essential to the treatment. Some have suggested that new neurological pathways open when these compounds enter the brain (Kozłowska et al. 2022), others propose that the very phenomenology of the psychedelic experience is a main causal factors behind the treatment (Kochevar 2023), and others again argue that psychedelic experiences temporarily disrupt unhealthy thought patterns through heightened plasticity and entropy in the brain, thereby allowing a person to remodel beliefs about themselves (Carhart-Harris 2019). Such cognitive changes pose a worry, however: does psychedelic therapy work because it enables *improved* cognition and *genuine* insight, or rather because it induces *comforting delusions* into the minds of psychedelic users?

This question was posed by Michael Pollan in his The New Yorker article, *The Trip Treatment* (2015), in reference to the positive therapeutic effects of psilocybin in patients with life-threatening cancer who suffer from anxiety and depression. This sparked an overall interest into epistemological explorations of specifically *metaphysical* belief changes as a result of psychedelic experience. The worry focused on whether therapeutic benefits of psychedelic

therapy come at the cost of false metaphysical beliefs caused by entering an altered state of consciousness where a person can no longer decipher between hallucination and reality. What if psychedelics help alleviate anxiety and depression simply because it makes users more prone to irrationally believe in an afterlife, or in the connectedness of all living things? Chris Letheby names this objection “the comforting delusion objection”, and devotes much of his recent book on the *Philosophy of Psychedelics* to dispelling it (2021; see also 2016).

The concern of the comforting delusion objection gains weight when we consider the phenomenology of psychedelic experiences. Psychedelic experiences not only produce hallucinations, such as kaleidoscopic patterns or sensing that trees are breathing. Psychedelics can also produce a strong feeling of certainty, clarity and unmediated insight akin to being in contact with something often described as ‘more real than real’ - a paramount and direct feeling of knowledge that, at the same time, can be ineffable (Letheby 2021: 25). This phenomenological aspect of psychedelic experiences is sometimes described as a *noetic quality*, derived from William James’ definition of mystical experiences in religious or spiritual contexts (James 2008). The noetic quality of psychedelic experiences can lead to shifts in personal metaphysical beliefs about, for instance, being reincarnated after death, that God has a divine plan for you, or that consciousness is omnipresent, thereby giving comfort at the expense of what, from a naturalist scientific viewpoint, are irrational and most likely false beliefs. Furthermore, it can lead a person to believe that the psychedelic experience reveals a “true reality” that is normally hidden by deceptive sensory perception. It is not uncommon for people who have undergone psychedelic experiences to claim that the veil of the sober mind was lifted.

Although the comforting delusion objection has mainly focused on changes in metaphysical beliefs during and after psychedelic experiences, the objection extends to changes in non-metaphysical beliefs involved in a successful psychedelic therapy session. In this sense, the question of veracity is relevant for all new beliefs that might be attained during the experience. Studies suggest that changes in beliefs about the world and participants’ self-perceptions are linked to mystical experiences (Nayak et al. 2023). And though it is not yet well-researched, it appears that false insights and false memories can occur during psychedelic experiences, sometimes causing a re-orientation of a person’s self-perception and overall belief system (McGovern et al. 2023).

To see how this might work, suppose that a patient has an intense psychedelic experience in which she becomes convinced that the root of her anxiety stems from childhood neglect. She suddenly has a flashback of a vivid but false memory that her mother left her crying in her crib

as an infant. Though at first she is deeply saddened by discovering this, the therapist guides her safely through the trip in which she works through the sadness and turns the discovery of this memory into something positive. In the following integration sessions, she comes to believe (though her therapist invites her not to analyze the memory in a literal sense) that her mother did indeed neglect her in the first year of her life. Even though the memory isn't real, she is now convinced of this belief that opens a way for her to understand and deal with her anxiety. Over the next couple of months, her symptoms of anxiety dissipate, and her overall mental health improves. In this example, the feeling of certainty and clarity facilitated by the psychedelic drug tricks the patient into adopting a therapeutically beneficial, yet false and unjustified belief, thus illustrating how the comforting delusion objection can be extended to non-metaphysical beliefs. It might be objected that this is true of all therapies that aim to treat conditions through communication and interaction. And though this is of course correct, it is also apparent that the psychedelic experience aggravates some of the same problems that are present in a standard therapy session, in part because of its noetic quality.

In his book, Letheby aims to cool the worry from the comforting delusion objection by arguing that the epistemic risks of psychedelic experiences tend to be benign and outweighed by the epistemic benefits. Letheby's arguments are based on the neurocognitive model of predictive processing - a model that is used by many psychedelic researchers to explain psychedelic experiences and the therapeutic benefits of psychedelics. Put very simply, according to the predictive processing model, perception and self-perception are functions of the brain which are constantly updating and making "best guesses" at what the brain perceives. If the sense data does not match up with these best guesses or models of the brain, an error is signaled and the model will update based on this error. The brain will now work under this new, updated model (Letheby 2021: 113-118). Because the brain's best guesses are disturbed during a psychedelic experience, the user will experience a more "relaxed" form of cognition where the models of the brain are not as restricted or constrained. This leads to hallucinations because the brain can no longer predict errors and update the sensory models as it usually does in a sober state. In this sense, a person who is "tripping" becomes more prone to certain epistemic risks which were not present while sober. For example (and a bit caricatured), it becomes much harder to correctly infer whether the alien you seem to perceive in front of you is actually there or not. However, because the models of the self are also more relaxed or less constrained, a more comprehensive (and perhaps accurate) self-perception might also be facilitated, temporarily allowing one to see

oneself in a new light. A psychedelic experience can work therapeutically because it allows a person to remodel an otherwise locked understanding of the self built from prior beliefs.

This is also how belief change is theorized to work during psychedelic experiences on the REBUS-model (RElaxed Beliefs Under pSychedelics), according to which “pathologically overweighted” Bayesian priors are allowed to get “unstuck” by the use of psychedelics (Carhart-Harris & Friston 2019: 339). From this point of view, the neurochemical effects of psychedelics become particularly helpful if you are stuck in an understanding of yourself as, for instance, an addict, or as someone who is depressed or has anxiety. From an epistemological perspective, however, these epistemic benefits (like suddenly realizing the root of one’s depression) are acquired in a larger pool of sets of beliefs that likely include false beliefs (like believing you have unlocked the ability to speak to rocks). In this sense, epistemic benefits can come at the expense of epistemic costs. This is also noted by McGover et al. (2023), who stress that the relaxation of priors and consequent belief changes induced by psychedelic drugs does not necessarily favor accuracy or otherwise adaptive beliefs over inaccurate or maladaptive ones.

In response to such worries, Letheby argues that the therapeutic belief states facilitated by psychedelic drugs will often be *epistemically innocent*, in the sense defined by Lisa Bortolotti (2015; 2020). It is a common observation that false or irrational beliefs can carry significant *pragmatic* benefits, despite their epistemic irrationality. For example, a belief in the afterlife might alleviate anxiety about death, or belief in one’s own academic excellence might make one more resilient when facing career challenges.² However, while it is highly plausible that false or irrational beliefs induced by psychedelic experiences might carry benefits of this kind, pointing this out would not answer the comforting delusion objection, since this objection is, precisely, that any pragmatic or psychological benefits associated with psychedelics come at the expense of epistemically irrational beliefs. What Bortolotti draws attention to is that false or irrational beliefs are not only able to cause pragmatic benefits, but also downstream epistemic benefits. This, too, is quite plausible. Suppose, for example, that an irrationally strong belief in one’s own academic excellence makes one persevere through an otherwise discouraging rejection. Such perseverance may very well lead one to new insights in the continued career, and thus epistemic benefits in addition to the obvious pragmatic ones, that could not easily have been attained in other ways. In that case, the irrationally strong belief in one’s own excellence may be considered epistemically innocent. This does not mean that the belief itself is epistemically rational, or even

² For an account of how such pragmatic benefits might constitute reasons for belief and interact with evidential reasons for belief, see Steglich-Petersen & Skipper (2019).

that the epistemic benefits necessarily outweigh the epistemic costs. But it offers a way of ameliorating or qualifying its epistemic irrationality, and opens up the possibility that the epistemically best or most feasible path to an epistemically valuable overall state of mind can involve beliefs that are epistemically irrational when considered in isolation (Vintiadis & Bortolotti 2022).

Similarly, although Letheby accepts that psychedelic drugs will often induce belief states that are irrational when considered in isolation, he argues that the force of the comforting delusion objection can be softened by noting the many epistemic benefits that such beliefs might cause.³ To return to our previous example, if the patient's irrational belief that her mother neglected her in during her childhood helps reduce her anxiety and improve her overall mental wellbeing, this improvement may plausibly enable significant epistemic benefits, given the profound interdependence of psychosocial wellbeing and epistemic functioning.

3. The epistemic significance of the social environment

While we agree with Letheby that false or irrational beliefs caused by psychedelic experiences can often give rise to epistemic benefits that could not have been easily attained in other ways, and that these beliefs might be epistemically innocent in that sense, we believe that a full assessment of the epistemic risks associated with psychedelic drugs is impossible without paying greater attention to the sociocultural context of the drug use - an aspect which is so far largely missing from the philosophical discussion of the epistemic risks of psychedelics. In this section, we review some existing literature in other fields on how sociocultural factors affect the outcome of psychedelic drug use, before presenting an epistemic analysis in the next section.

In the fields of social sciences, it has been theorized since the first wave of psychedelic research that psychedelic experiences carry with them a heightened suggestibility, which entails an increased tendency to accept and act on ideas or attitudes of others (Dupuis & Veissière 2022: 573). For this reason, psychedelics have been referred to as “active super-placebos” and “a substance that actually enhances the suggestive effects of contextual cues” (ibid.: 574). Elsewhere, the affective components of psychedelics have also been described in terms of their *chemosocial properties*; a way to describe how sociality impacts psychedelic trials by making feedback loops of specific knowledges, interests, attentions and political stakes around

³ The argument that psychedelic experiences facilitate epistemic transformations which could not have been achieved in any other way has also been put forth elsewhere (see e.g. Gładziejewski 2023).

psychedelic drugs and experiences that emerge and return in the trials, thereby shaping psychedelic research in systematic ways (Noorani et al. 2023). In this discussion, it is also highlighted that the very phenomenology of psychedelic experiences - “of awe, love, fear, mystery, deeply felt connection” (ibid.: 5895) - motivates people to reach out, share and try to understand their experiences through and with other people.

An example of how sociocultural influences can impact psychedelic experiences - not just in medical trials, but in group settings in general - appears in David Dupuis’ ethnographic research of the psychedelic drug use (more specifically, ayahuasca rituals) in the Peruvian spiritual retreat and addiction center, Takiwasi (Dupuis 2022). Based on extensive fieldwork and interviews of participants, Dupuis concludes that the narrative reconstructions and the social interactions in which the teachings of Takiwasi are conducted frame the hallucinogenic experience down to the very content of the visuals (ibid.: 634). For example, the teachings of ‘demonic entities’ as ‘infestations’ that participants of Takiwasi are encouraged to battle within their psychedelic experiences prime and frame the hallucinogenic content and interpretations of the experience; participants are simply more prone to experiencing ‘demons’ or ‘infestations’ and assign specific meanings to these contents that align with the teachings of the center. The narratives, sociality, and culture surrounding psychedelic experiences (in this context in group sessions) shape the individuals’ attention, emotions, and expectations, thereby creating a specific interpretation and understanding of what a person should extrapolate or learn from the experience. For this reason, it is not necessarily just the single individual who explores epistemic takeaways when evaluating the experience, but social groups.

Sociocultural influences on psychedelic therapy and the epistemic outcomes of such therapy is also highlighted by Devenot et al. (2022a). Their narrative analysis of a treatment manual and post-session experience reports from a pilot study of psilocybin-assisted treatment for tobacco smoking cessation shows that therapeutic frameworks focusing on identity shifts influence narratives of self-transformation in psychedelic experiences. They can even impact the phenomenology of ego dissolution (Devenot et al. 2022a: 367), for example, by priming participants with specific narrative themes such as getting to know their “real selves” as non-smokers through the transformative experience of ego dissolution (using very loaded concepts of what is understood as *a self* and *an ego dissolution* in this specific setting, that of a clinical study) (ibid.: section 6). Again, this shows that the story of who *I am* that can be remodeled during the psychedelic experience is not just told by the individual during the experience. It might be influenced by a larger narrative of a social group or even on a collective level by how

psychedelics are understood in a certain larger cultural setting (Hartogsohn 2022). These social groups can also appear virtually, e.g. on internet forums where the discussions around psychedelics often take place (in part because psychedelic drugs are illegal in most places in the world), shaping different “truth claims” according to specific understandings of psychedelics and psychedelic experiences (Holm et al. 2023).

Highlighting the impact of social factors in an epistemological evaluation of psychedelic experiences is also a prominent theme in the literature on set and setting - concepts that are prominent in anthropological studies of psychedelic drug use, but largely absent in epistemological discussions of psychedelics. In the 1960s, Timothy Leary and his colleagues coined the concepts of set and setting for the first time. Here, *set* was defined as psychological factors of personality, preparation, expectation, and intention, whereas *setting* included environmental factors, such as physical, social, and cultural surroundings of the experience (Leary et al., 1963). In psychedelic trials today, however, the concepts of set and setting are often understood simply as “[...] the prepared state of an individual mind [...]” and “[...] the immediate physical surroundings for the psychedelic experience” (Noorani 2021: 203-4). The two concepts are typically boiled down to an understanding of psychedelic experiences which sees the effects as primarily stemming from the drugs themselves (ibid., Devenot et al. 2022a: 361-2; Sadowska 2022: 35). This simplification is likely due in part to the ideology of “pharmacologicalism”, which both helped psychiatry to become part of scientific medicines, but also made sure that pharmaceutical companies must fulfill very specific regulatory requirements before their drug can be acknowledged as “a real drug”, i.e. adapt to the golden standard of placebo-control – a standard which, for obvious reasons, has proven difficult for psychedelic researchers to live up to (Langlitz 2011: 259; Sadowska 2022: 35). This way of understanding set and setting may partly explain the absence of focus on social factors in the epistemology of psychedelics, which also (as with much epistemology) suffers from a tradition of examining knowledge from the perspective of the individual (O’Connor et al. 2023).

As emphasized elsewhere by Dupuis and Veissère, the “freeing up” or “unconstraining” of cognition in psychedelic states of consciousness should lead scholars to examine “the interpersonal, ideological, and suggestion factors that facilitate the crystallization of new meanings, explanatory models, beliefs, worldviews, values, and behaviors prior to, during, and after psychedelic experiences” (Dupuis & Veissière 2022: 575). If social factors and suggestibility thus impact belief formation, processes of explanations, and meaning making, these factors should be examined to assess the epistemic risks of psychedelic experiences. This has also been

pointed out by McGovern et al. (2023) who stress that the relaxation of priors makes it all the more important to guard against misleading contextual information and other environmental influences that could mean that the relaxed priors will cause belief change in an adverse direction, and urge a more systematic examination of such factors.

4. The epistemic dangers of open-mindedness and sense of clarity

Our discussion of the epistemic risks associated with psychedelic drug use will focus on two effects of such use which are usually heralded as active facilitators of insight and true belief, but which, as we will show, in an adverse social environment can instead cause the formation and entrenchment of false belief.

One key epistemic and therapeutic benefit which is commonly emphasized in psychedelic research alongside creativity and neuroplasticity (or increased entropy) is that of *open-mindedness* (Kuypers 2018). Increased open-mindedness is emphasized by Letheby as part of why psychedelics work therapeutically and carry epistemic benefits. More specifically for Letheby, open-mindedness towards changes in self-representation (i.e. an openness to revise how one sees oneself) has epistemic and therapeutic benefits (Letheby 2021: 192-3). Elsewhere, Letheby argues along the same lines that the openness or “greater flexibility” of the brain during a psychedelic state facilitates “an increased ability to imagine possibilities” (Letheby 2015: 188).

We already saw, the predictive processing model of psychedelic experiences also emphasizes that psychedelics allow a less constrained pattern of cognition. As has been shown in several studies that are also laid out in Letheby’s book, this form of cognition can lead to increased open-mindedness. In psychological trait theory, *openness to experience* measures, among other things, a person’s level of creativity, curiosity and imagination (Erritzoe, et al. 2019; MacLean et al. 2011). As Paweł Gładziejewski argues, psychedelic states allow for “a wider repertoire of cognition than what is usually available for a neurotypical human” (Gładziejewski 2023). It has therefore been theorized that a person during and after a psychedelic experience could be more openminded to new and potentially fruitful ideas or insights, because she is more likely to use her imagination and curiously investigate ‘unexplored cognitive territory’.

If psychedelics can indeed constitute an experience that produces such an exploratory form of cognition, then it seems rather straightforward to conclude that psychedelic experiences must (in some instances, at least) also induce epistemic benefits. Traditionally, we tend to think of open-mindedness as an epistemic or intellectual virtue, which is able to bring with it epistemic benefits (Turri et al. 2021). When a person is openminded, this person tends to reason on the

basis of a bigger pool of evidence compared to someone who is more dogmatic. In the case of psychedelic experiences, someone with a pathological thinking pattern would then benefit (epistemologically as well as therapeutically) from opening their mind to more evidence, potentially allowing them to correctly infer, for instance, that their thinking pattern is unhealthy.

Although open-mindedness is usually considered an epistemic or intellectual virtue, recent discussion has revealed that if it is indeed a virtue, it is of a highly conditional kind. For some trait to be considered an epistemic virtue, it must stand in a clear relation - paradigmatically the relation of *conduciveness* - to something of fundamental epistemic value, such as knowledge or true belief. Unlike other intellectual virtues, like intellectual honesty, the conduciveness of open-mindedness to true belief is highly dependent on the prior beliefs of the epistemic agent and the hospitality of the epistemic environment. For an example, Carter & Gordon (2014) asks us to consider an epistemic agent who harbors a body of largely true beliefs within some domain, such as physics. Other things being equal, it would not be conducive to true belief for that agent to be open minded about the veracity of those beliefs, since the room for improvement is slim, and any potential revision of those beliefs caused by the agent's open-mindedness therefore is bound to result in false beliefs.

More importantly for our purposes, suppose that the agent finds herself surrounded by people that are themselves either unreliable or intent on deceiving the epistemic agent. Again, in such circumstances, open-mindedness is more likely to be conducive to false beliefs, than to true ones.⁴ To this we might add that the epistemic risks of open-mindedness shouldn't be restricted to the adoption of false belief. There is also the risk of losing true beliefs, not in the sense of moving from believing to disbelieving a true proposition, but in the sense of coming to suspend judgment about a true proposition that one previously believed. Traditionally, suspended judgment has been viewed as an epistemically "safe" option, in the sense that one is ensured to avoid false belief if one suspends judgment. But recently, epistemologists have argued that suspended judgment has just as stringent epistemic rationality conditions as belief and disbelief. Hence, if you become openminded about a matter that you oughtn't be openminded about, you commit just as serious an epistemic mistake as when you believe something that you shouldn't believe (see e.g. Friedman 2017; Steglich-Petersen 2021; Ichikawa 2024). Advocates of psychedelic therapy thus presuppose both an epistemically hospitable social environment,

⁴ For a general account of the limitations of open-mindedness as an epistemic virtue, see Fantl (2018).

and that largely false prior beliefs will be affected, when claiming that the open-mindedness caused by psychedelic experiences is epistemically beneficial.

Securing an epistemically hospitable environment is not just a matter of the relevant parties, such as the therapists administering the psychedelic treatment, being well-intentioned. As highlighted by Nguyen (2023), although epistemic environments are often inhospitable due to certain actors or systems that more or less deliberately use epistemic manipulation to seduce others, an inhospitable epistemic environment can also occur by accident or with no bad intent, for example due to ignorance or carelessness. The risk of this seems high in therapeutic contexts, where the therapist will often be aiming to facilitate insights, the veracity of which she has no independent means of ascertaining. Consider again the example of a patient who in a psychedelic session experiences a flashback of her mother leaving her to cry in her crib as an infant. Although this may be a genuine memory, the therapist has no independent way of knowing this, and hence no way of knowing if encouraging latching on to this memory will create a hospitable or inhospitable environment. Even a well-intentioned therapist thus risks creating a social environment conducive to false rather than true beliefs, which will be amplified by the drug-induced openness.

The second effect of psychedelic drug use which is often pointed to as a facilitator of insight and true belief is the enhanced sense of *clarity* and *certainty* of certain experiences. And although an experience of clarity and certainty is indeed often held to be relevant to the epistemic justification of belief, it can also have the opposite effect in an adverse social environment. The feeling of clarity and certainty is likely integral to the change in belief caused by psychedelic drugs. While open-mindedness may pave the way for belief change by allowing the user to take new possibilities seriously, a sense of clarity and certainty is often reported from users in empirical studies and as part of the explanation of how they came to accept some new insight or alternative view, for instance, in reference to beliefs attributing consciousness to non-living entities (Nayak & Griffiths 2022). To return to our previous example of a patient coming to believe that she was neglected by her mother as an infant, it can be the experienced clarity and certainty of the apparent memory that solidifies her belief in this explanation of her depression and anxiety.

As argued by Nguyen (2021), under normal circumstances, “the pleasure of clarity” or “the a-ha moment” function as a heuristic to tell that we should stop our inquiry because we now have reached sufficient understanding or knowledge of the matter at hand. When this phenomenon occurs, we have usually gathered enough information to make a final, well-

founded epistemic decision. However, as Nguyen argues, this heuristic can also be false or manipulated with, depending on the context. Clarity can become “epistemic junk food”, providing a sense of fullness without real nourishment. Relatedly, Myers (forthcoming) argues that *vividness* of mental imagery, which we take to be a form of clarity, is higher-order evidence about the amount of stored information that the mental imagery draws upon, which in turn supports trusting the epistemic import of the image. On the other hand, when the vividness is low, it can be a reason to distrust the image, since it indicates a low degree of underlying information. However, like other sources of higher-order evidence, this can be misleading, especially in cases where the vividness has been manipulated or caused in ways that are unconnected to genuine sources of information. And indeed, if the vividness of a memory is caused by a drug rather than by its connection to genuine sources of evidence, this would constitute a paradigmatic example of misleading higher-order evidence. For example, if I were to learn that the vividness of some episodic memory was caused by a drug, this would defeat any evidential weight which the vividness might otherwise lend to the memory, and indeed provide a reason to distrust the memory itself (e.g. Christensen 2010).⁵

When we couple the epistemic effects of the feelings of clarity and certainty, with the finding that the social environment of psychedelic drug use can influence the hallucinogenic experience right down to the content of these visuals, a risky epistemic cocktail is beginning to mix. Consider again the use of psychedelic drugs in the Peruvian Takiwasi center (Dupuis 2022). Here, participants were taught about the “infestations” of “demonic entities”, and encouraged to battle them within their psychedelic experiences, and were subsequently found more prone to experiencing “demons” and “infestations”, and to extrapolate specific learnings from this in accordance with the teachings of the center. This is a clear example of how a well-intentioned but nevertheless epistemically adverse social environment can cause the epistemic effects of clarity and certainty of hallucinogenic experiences to foster specific and ultimately false beliefs.

We can now return to consider the epistemic innocence of false or irrational beliefs caused by psychedelic drugs. Letheby claimed, recall, that the significant epistemic benefits sometimes caused by such beliefs will, in many cases, make the false beliefs epistemically innocent, to a degree that is sufficient to dispel the worries expressed by the comforting delusion

⁵ As an anonymous reviewer pointed out, the sense of clarity may function in different ways for different kinds of experiences. For example, spiritual clarity or clarity in value-laden experiences, may not serve as a heuristic for having achieved knowledge or understanding of a veridical kind, but instead for having reached a different kind of personal or spiritual achievement. This does not change, however, that a manipulated sense of clarity can be misleading with respect to what has been achieved.

objection. We do not dispute that this will sometimes or perhaps even often be the case. The upshot of the above, rather, is that there is no way of assessing the epistemic risks of a particular instance of a psychedelic experience, and hence no way of assessing the epistemic innocence of it, without careful examination of the social context of the drug use, i.e. the degree to which this context can be considered epistemically hostile (whether this hostility is intended or not).

In practice this may prove to be a more serious obstacle to the responsible use of psychedelic drugs in therapy than it appears at first. This is because it requires that the therapist herself can be sufficiently certain of the truth or epistemic innocence of the beliefs caused by the psychedelic drug. When it comes to deeply personal beliefs (for example about episodes in the patient's childhood), this is obviously extremely difficult, even for a well-intentioned therapist. But even when it comes to "world-directed" beliefs, the therapist may unwittingly facilitate false beliefs that are all but innocent, as in the case of beliefs about "demons" or "infestations" encouraged by the Takiwasi center. Again, it might be objected that this is true of all therapies that aim to treat conditions through changing the patient's beliefs, since in all such cases, the therapist must make sure that those changes result in largely true or at least epistemically innocent beliefs. But the increased epistemic vulnerability of the person having a psychedelic experience means this responsibility will be much more difficult for the therapist to live up to, to a degree that may be difficult to meet in practice.

A possible response to the problem of psychedelic-induced false beliefs, suggested by Timmermann et al. (2022) and endorsed by McGovern et al. (2023), which may be applied to the specifically social version of this problem that we are considering here as well, is for the therapist to adopt a "gentle touch", where the therapeutic intervention serves mainly to "lightly scaffold" the patient's own epistemic process towards new insights. However, while this may mitigate the risk of false belief to some degree, and certainly mitigate against egregious cases of active belief-induction such as that in the Takiwasi center, it also undercuts the prospects of psychedelic therapy, which is premised on the possibility of inducing positive belief-change. If the proposal is to largely leave the patient alone and let the drug do its magic, we are skeptical of its safety and effectiveness. Furthermore, while the proposal would to some degree safeguard against the sort of conscious and voluntary influence that a therapist might have over the epistemic processes in the patient undergoing psychedelic treatment, it does not take into account that these processes are also sensitive to the wider social and cultural context, of which the therapist may have neither awareness nor control.

5. Conclusion

The potential epistemic benefits of psychedelic experiences co-exist with significant epistemic risks. In this paper, we have highlighted and explored specifically social sources of such epistemic risk, and showed how the effects of psychedelic drugs that are usually understood to be conducive to epistemic benefits, namely increased openness and a feeling of clarity and certainty, can instead become epistemic liabilities when occurring in the wrong social circumstances. While Letheby is no doubt right that false beliefs caused by psychedelic drugs are often epistemically innocent, this optimistic response to the comforting delusion objection thus presupposes favorable social circumstances. Finally, we stressed an increased responsibility of the therapist to prevent an epistemically adverse social environment for the drug use, and expressed some skepticism as to whether this responsibility can be easily met in practice. At the very least, an open and realistic assessment of the social-epistemic risks are necessary for informed consent to therapeutic drug use.⁶

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