

8

Epistemology

To be a poet is to have a soul so quick to discern, that no shade of quality escapes it, and so quick to feel, that discernment is but a hand playing with finely-ordered variety on the chords of emotion—a soul in which knowledge passes instantaneously into feeling, and feeling flashes back as a new organ of knowledge.

George Eliot, *Middlemarch*.

8.1 Introduction

If naturalism is true, then the use of psychedelics, even under controlled circumstances, carries epistemic risks. The upshot of the preceding chapters is that those risks are less than one might suppose. Metaphysical hallucinations of a Joyous Cosmology are neither the central mechanism, nor an inevitable concomitant, of psychedelic therapy. And even when they do occur, they need not be believed uncritically.

Nevertheless, the risks are real. Some psychedelic users claim sincerely to encounter genuinely existing disembodied entities, spirit realms, and transcendent Grounds of Being. On principled philosophical grounds, naturalists reject these claims as arising from compelling drug-induced hallucinations—misrepresentations of reality. Why not reject *all* claims to psychedelic-assisted epistemic benefit wholesale? We already know that some psychedelic-induced feelings of knowledge acquisition are erroneous; should we not assume, parsimoniously, that all are?

In this chapter, I argue that the answer is no. Some claims to psychedelic-assisted epistemic benefit are accurate. The key to understanding the epistemic profile of the psychedelic state comes from Andy Clark's dictum that prior knowledge in the predictive brain is 'always both constraining and enabling' (2016, p. 288). By weakening the influence of high-level priors, psychedelics both unconstrain and disable: certain epistemic benefits available in the sober state become unavailable, such as rational and critical thought and the ability to deploy much prior knowledge, while others unavailable in the sober state become available—principally, the opportunity to access information otherwise filtered out by overweighted priors, as well as the ability to represent certain kinds of information in novel and epistemically useful formats.

However, in our travels through the landscape of psychedelic epistemology, a second guiding principle comes from Jennifer Windt's observation that 'phenomenal certainty—the experience of persuasion or knowing—is not the same as epistemic

justification' (2011, p. 246). Having a psychedelic experience in which some proposition P seems true, accompanied by a strong phenomenal feeling of certainty, does not constitute sufficient justification for believing that P is true. The phenomenal feeling of certainty is no different, in principle, from the phenomenal feelings of familiarity and salience, which are erroneously amplified in *déjà vu* and psychosis, as well as in some psychedelic states: having a psychedelic experience in which some place feels familiar or some stimulus seems important does not entail that one has visited the place before or that the stimulus is important. The feelings of certainty, familiarity, and salience¹ are just more components of the controlled hallucination that is conscious experience: 'designed' by evolution to track important higher-order properties of stimuli; good enough at the job under normal conditions, but fallible and susceptible to disruption and error. Of course, it can be difficult for those who undergo intense noetic feelings to take this sceptical stance seriously, because this is *precisely the function* of the phenomenal feeling of certainty: to instil confidence in some item or source of information.

I begin the chapter by criticising some general arguments that purport to demonstrate the impossibility of psychedelic-facilitated epistemic benefit. To my mind, such arguments are unpersuasive: the question whether psychedelics can facilitate epistemic benefits cannot be decided in the abstract. Instead, we must consider individual proposals about specific types of epistemic benefits on their own merits (Letheby 2019).

With these caveats in mind, what sorts of epistemic benefits might typical psychedelic experiences in modern clinical contexts afford? When it comes to gaining factual or propositional knowledge, the most plausible candidate is insight into one's previously unconscious mental states: psychodynamic insight into hidden desires, motivations, and the like. In section 8.3, I consider whether psychedelics can facilitate genuine insights of this kind. I argue that they probably can, but may also facilitate erroneous but beneficial 'placebo insights' (Jopling 2001). Apparent insights under the influence should be taken seriously, but in determining their veracity there is no substitute for subsequent sober evaluation.

In section 8.4, I argue that psychedelics can facilitate the acquisition of ability knowledge, or 'knowledge how'. Empirical findings on commonalities between the psychedelic state and mindfulness meditation suggest that psychedelic subjects can learn how to pay attention and relate to their inner experience in novel and beneficial ways that result from disruptions to self-binding mechanisms. The consolidation of these attentional skills may be an important part of the therapeutic process, at least in some cases.

¹ Analogous remarks apply to the sense of reality. The phenomenal feeling that the putative realities encountered in psychedelic experience are 'more real than real', or more real than those encountered in waking life, is of limited evidential value in itself. The sense of reality is yet another component of the controlled hallucination that is conscious experience. It is known to be modulated, for instance, in pathologies such as depersonalisation disorder (Varga 2012) as well as in psychedelic states.

In sections 8.5 and 8.6, I propose that several important epistemic benefits of psychedelics fall under the rubrics of *knowledge by acquaintance* and *new knowledge of old facts*. By collapsing the predictive processing (PP) hierarchy and opening up novel modes of neurocognitive function, psychedelics allow users to become (more-or-less) directly acquainted with certain facts that otherwise are accessible only indirectly or inferentially: facts about the potential of the mind and the constructed, mutable nature of the sense of self (Letheby 2015). This knowledge by acquaintance is the epistemic aspect of the phenomenal opacity involved in the therapeutic process. Psychedelics also facilitate the apprehension of otherwise-knowable facts in new ‘modes of presentation’: what previously was knowable only as a mere intellectual proposition can be experienced as a vividly embodied, affective, perceptual reality.

In section 8.7, I argue that transformative psychedelic experiences can yield numerous indirect epistemic benefits, which come via their psychosocial benefits: boosting psychosocial functioning often boosts epistemic functioning as well (Bortolotti 2015). The conclusion is that, by temporarily weakening the influence of prior beliefs and reconfiguring the brain’s processing hierarchy, psychedelics make available significant epistemic benefits that are consistent with naturalism and often unavailable by any alternative means. Finally, in section 8.8, I conclude that many psychedelic states are, in Lisa Bortolotti’s parlance, *epistemically innocent* (Letheby 2016). This means that, despite having real epistemic flaws, they also have significant epistemic benefits that are not available by any alternative means. In sum, psychedelics’ overall epistemic profile is neither as dire as some sceptical naturalists might assume, nor as pristine as some entheogenic enthusiasts would like.

8.2 Psychopharmacology and epistemology

Suppose that your friend, let us call her Maria,² has volunteered and been selected to take part in a scientific trial of psilocybin. Maria is excited about this opportunity because, despite being an academic expert in the mind and brain sciences and thoroughly conversant with the literature on psychedelics, she has never taken a psychedelic herself. The day after her first psilocybin session, you visit Maria at her home. She seems peaceful, serene, but brimming with energy, and reports that the psychedelic experience was deeply transformative: not only are her mood and sense of well-being greatly elevated, but, moreover, she claims to have *learned* a lot from the experience—to have gained significant epistemic benefits by undergoing a drug-induced state of consciousness. Perhaps, like others before her, she claims to have learned more about her own mind in one afternoon than in years of psychotherapy or academic training.

² With apologies to Frank Jackson (1982) and Miri Albahari (2014), and in honour of Maria Estevez (2013) and the late María Sabina.

Perhaps she even claims to have gained deep insights into the human condition or the nature of reality.

If you are a sceptically minded analytic philosopher, you might press Maria—tactfully, one hopes—on the plausibility of her claim:

Maria, are you sure this was *real* knowledge that you gained? After all, you were on drugs. You're a highly educated, critically minded person: You have to consider the possibility that you were just hallucinating. After all, these specific drugs are *called* 'hallucinogens'!

Perhaps, in the back of your mind, you might even be formulating an argument for the falsity of Maria's claim to have derived epistemic benefit from her psychedelic experience. The argument might go something like this:

1. Psychedelics are drugs
2. It is impossible to gain epistemic benefits by taking a drug
3. Therefore, it is impossible to gain epistemic benefits by taking psychedelics³

This *Argument from Drug Use* is valid: the premises entail the conclusion. However, it is unsound: as Maria will no doubt point out, the second premise is patently false. This is made clear by the old saw that a mathematician is a device for turning coffee into theorems,⁴ as well as by neuroethical debates over the permissibility of 'pharmacological cognitive enhancement' (Sahakian and Morein-Zamir 2015) in which its *efficacy* is taken for granted. It obviously is possible to gain non-trivial epistemic benefits by the judicious ingestion of psychoactive substances. Whether psychedelics are among those substances or not is another question. But this question cannot be decided simply by noting that they *are* psychoactive substances.

At this juncture, if your scepticism persists, you might be tempted to venture another argument. You might say to Maria:

Of course, *some* drugs can help you gain knowledge—but not *these* drugs! It's totally absurd to suggest that you learned anything by taking *hallucinogens*. I mean, it's right there in the name. Everyone knows that these drugs cause you to see things that aren't there and that their basic effect is to distort your perception of reality.

This is similar to an argument given by G.T. Roche (2010, p. 36) against the claim that psychedelic experiences can have epistemic benefits. We might gloss this argument as follows:

³ I am deeply indebted to Ole Martin Moen for reminding me of the value of good old-fashioned syllogisms in thinking clearly about these (and many other) issues.

⁴ Which apparently is due to the mathematician Alfréd Rényi (Kucharski 2013).

1. Psychedelics impair the mechanisms whereby the brain generates accurate representations of reality
2. It is impossible to gain epistemic benefits by impairing the mechanisms whereby the brain generates accurate representations of reality
3. Therefore, it is impossible to gain epistemic benefits by taking psychedelics

This new *Argument from Impairment* is valid, too, on the face of it. But, if Maria is in the mood to argue, she might find fault with both premises. The first premise is ambiguous: it might mean that impairing reality-representing mechanisms is *one* effect of psychedelics, or that it is their *only* effect. Clearly, on the second interpretation, this premise would beg the question against Maria. She will no doubt concede that psychedelics' effects include the impairment of some reality-representing mechanisms. She is well aware, for instance, that psychedelics can cause people to see actually stationary objects as moving, or to perceive spatial distances and temporal durations less accurately. She is also aware that they are known to promote suggestibility (Carhart-Harris et al. 2015), at least during their acute effects. Nonetheless, she is claiming that, in addition to their undeniably impairing effects, psychedelics can *also* have distinct, epistemically beneficial effects.

In order not to be question-begging, then, the first premise must be understood merely as saying that impairment is *one* effect of psychedelics; but on this reading, the argument is invalid. Even if one effect of psychedelics is the impairment of reality-representing mechanisms, and this is no way to gain epistemic benefits, it may still be possible to gain epistemic benefits by taking psychedelics—the benefits would just have to come via some of their other effects. On this weaker interpretation, the argument becomes analogous to the following: eating vindaloo stimulates capsaicin receptors; it is impossible to nourish oneself by stimulating capsaicin receptors; therefore, it is impossible to nourish oneself by eating vindaloo.⁵

Even if Maria were to grant the first premise in its strong, question-begging form, she might still find fault with the second premise. Being a student of the mind and brain sciences, she might even quote to you Clark's dictum that prior knowledge in the predictive brain is always both constraining and enabling. On the PP model of psychedelic action outlined in the preceding chapters, the maintenance of the high-level priors that psychedelics disrupt is a central part of the mechanism whereby the brain normally generates more-or-less accurate representations of (a certain slice of) reality—namely, prediction error-driven updating of a hierarchical generative model. But this is consistent with the idea that 'impairing' (or, more neutrally, disrupting) that mechanism by decreasing the precision-weighting of those priors might have epistemic benefits—for instance, by increasing the influence and availability of bottom-up information previously filtered out by those priors (Carhart-Harris and

⁵ Of course, notwithstanding its undeniable nutritional content, a diet consisting mainly of vindaloo, like that of Dave Lister on the sci-fi sitcom *Red Dwarf*, would be no healthier than an epistemic diet consisting mainly of psychedelic experience.

Friston 2019). Recall the Hollow Mask Illusion, in which a mask presented in the concave orientation is perceived as convex. According to unpublished data, psychedelics decrease healthy subjects' susceptibility to this illusion (Passie unpublished, cited in Milli re et al. 2018, p. 9). A simple explanation is as follows: by relaxing the prior belief that *all human faces are convex*, psychedelics afford greater influence to bottom-up sensory information that would otherwise be filtered out. They thereby facilitate veridical perception of the mask's orientation. So long as our reality-representing mechanisms are imperfect and partial, there is a real possibility that some epistemic benefit might be gained by impairing them temporarily.

If your intuitive resistance to Maria's claim of psychedelic-assisted epistemic benefit is sufficiently strong, you might hazard another argument at this point. This third argument focuses not on the fact that psychedelics are drugs, nor on claims about their cognitive effects, but on the fact that their putative epistemic benefits come via an *altered state of consciousness* (ASC). It takes the form of a dilemma:

1. For any putative item of knowledge gained during an ASC, either one has ASC-independent justification or one does not.
2. If one has ASC-independent justification, then the ASC is superfluous and is not, strictly speaking, responsible for the knowledge gain.
3. If one does not have ASC-independent justification, then the putative item of knowledge cannot be trusted (it may well be merely hallucination, illusion, or confabulation), so no knowledge gain has occurred.
4. Therefore, it is impossible to gain knowledge from an ASC (cf. Roche 2010, p. 36).

There are several ways Maria might respond to this *Argument from Alterity*. She might appeal to the distinction, pioneered in the philosophy of science, between the contexts of discovery and justification (Hoynigen-Huene 1987), insisting that her psychedelic experiences conferred genuine insights that she would never otherwise have had, while conceding that the justification for *accepting* these insights only came afterwards, from sober critical reflection on their plausibility. She might say, as many psychedelically treated patients do, that the epistemic benefits of her psychedelic session were not so much about learning new, previously unknown *facts*, but rather about coming to understand or grasp already known facts in a new and deeper way. Here she might invoke the philosophical idea of 'new knowledge of old facts', drawn from debates over Frank Jackson's (1982, 1986) Knowledge Argument⁶ against physicalism. Or she might hold that theoretical considerations—perhaps drawn from PP—provide independent reason for trusting certain deliverances of the psychedelic state, such as putative psychodynamic insights. On this view, these theoretical considerations,

⁶ My presentation of the issues in this chapter is heavily influenced by the debate that has sprung up around Jackson's argument and the corresponding thought experiment *Mary's Room* (Jackson 1982, 1986), both of which will come up again in section 8.5.

despite providing independent justification, would not render the ASC superfluous, because the latter would still be required to gain the specific insights themselves. The gist of this last response is that we might have independent justification for trusting some method of belief-formation, even though the source of that justification is not a *substitute* for that method (Letheby 2019). All three of these responses can be understood as challenges to premise 2. (Premise 1 would seem to be a logical truth; determining the plausibility of premise 3 is left as an exercise for the reader.)

Regardless of Maria's specific response to this new sceptical argument, the moral by now should be clear: the question cannot be decided in the abstract. General considerations will not suffice to determine the truth or falsity of Maria's (or anyone's) claim to have gained epistemic benefits by taking psychedelics. More information is required. All that we can do is to consider specific claims about specific types of epistemic benefits allegedly derived from psychedelic use, independently and on their own merits.

8.3 Knowledge that

Having grasped the futility of seeking a general answer to the question of psychedelic epistemology, at this point you may do what, perhaps, you ought to have done all along: ask Maria about the nature of the epistemic benefit(s) in question, and suspend judgement until you have more information. If you do so, there are many possible answers that she might give. We can classify these answers in accordance with standard epistemological categories. The type of epistemic benefit most often discussed in recent epistemology is the acquisition of *propositional knowledge*, also known as 'knowledge that' or 'factual knowledge'.

Propositional knowledge amounts, minimally, to *justified true belief*. According to philosophical consensus, knowing some proposition P entails (a) believing that P, where (b) P is true, and (c) one is justified (roughly, possessed of sufficient reasons or evidence⁷) in believing that P.⁸ Paradigmatic examples include believing truly that the cat is on the mat, on the basis of normally functioning visual perception, and believing truly that Paris is the capital of France, due to reading a trustworthy encyclopaedia. Can psychedelics reliably facilitate the acquisition of knowledge of this kind?

⁷ In adopting this intuitive understanding, I am deliberately sidestepping extensive controversies over the nature of epistemic justification.

⁸ While the conditions of justification, truth, and belief are widely (although not universally) agreed to be necessary for propositional knowledge, they are also widely held to be insufficient, since the publication of Gettier's (1963) seminal article 'Is justified true belief knowledge?' Gettier presents cases in which subjects have justified true belief but intuitively lack knowledge. In light of this *Gettier Problem*, one of the most-discussed questions in recent epistemology concerns what fourth condition, if any, is required for knowledge.

Here I will ignore this complication. In my view, if we could show that psychedelics reliably facilitate the acquisition of justified true beliefs, that would be achievement enough. I also ignore this complication because it is far from clear, in any case, that propositional knowledge is the type most relevant to psychedelics' epistemic benefits.

Can controlled administration of lysergic acid diethylamide (LSD), psilocybin, or ayahuasca be the means whereby someone acquires a true belief *and* sufficient epistemic justification for it?

The most obvious candidate from a naturalistic standpoint concerns *psychodynamic insight* into one's previously unconscious or hidden mental states. Perhaps by disintegrating the self-model and loosening ego boundaries, psychedelics allow patients to make genuine discoveries about their own memories, desires, beliefs, and values. Their putative ability to do this was the justification for the *psycholytic* form of therapy practised in continental Europe in the 1960s, in which low doses of psychedelics were given as an adjunct or enhancer to repeated sessions of talk therapy. We encountered a description of this kind of insight in Chapter 7, from a patient with treatment-resistant depression who received psilocybin-assisted therapy in a recent trial:

[This patient] reported:

[I] became myself at age 7, after my [grandparent] had died. I totally was back there, so vivid, so real, I had the emotions that I would have felt at the time: fearful, why did this happen, the naivety, the shock and confusion. I was getting overly upset and my parents were saying 'boys don't cry'.

This helped him realize how his unhealthy emotional habits as an adult developed.

I saw that it's not [a] weakness to be emotional, that's an unhealthy attitude.
(Watts et al. 2017, p. 539)

Quantitative evidence is scarce, but clinicians and patients reported that psychedelics did reliably increase access to unconscious material, and that clinical benefits resulted from this increased access (Eisner and Cohen 1958, Grof 1975). This coheres with recent findings that psychological insight predicts clinical benefits, given that such insights often concern psychological factors believed to underlie symptomatology (e.g., Malone et al. 2018, p. 5). One terminal patient who received LSD-assisted psychotherapy commented:

I had the strong impression that things can be seen, which usually rest under the surface ... a lot of emotions were hidden for a long time that are usually not noticed at all became very, very present in that state when you have a break-through somehow.
(Gasser et al. 2015, p. 61).

Assuming that such experiences do contribute causally to symptom reduction, a simple explanation is that the putative insights are genuine (Metzinger 2003, p. 249). Users of psychedelics in non-clinical contexts also report psychological insights, sometimes claiming to learn more about their own mind in a few hours than in years

of therapy or academic training (Shanon 2002, 2010, Leary 1990, quoted in Pollan 2018, p. 187).

However, there is another explanation: the apparent insights induced by psychedelics might be psychologically beneficial *confabulations* (cf. Bortolotti 2018). Psychedelics sometimes induce false or implausible beliefs about the external world, accompanied by subjective feelings of certainty; why should they not do the same regarding the internal world? When we consider putative insights of the kind described above, there are at least two elements that might be mistaken: first, the re-lived memory might be inaccurate in some respect; second, even if the memory is accurate, the patient's belief about how the remembered episode affected their psychological functioning might be inaccurate. The key point is this: even if putative psychodynamic insights could be *proven* to underlie clinical improvements, this would not conclusively demonstrate their accuracy (cf. Carhart-Harris and Friston 2019). They might be cases of what Jopling (2001) calls 'placebo insight': apparent insight that causes psychological benefits despite being spurious. As Jopling says:

the mere acquisition of [apparent] insight is not a guarantee that the insight is true ... the client's level of conviction about the validity and authenticity of a newly won insight is not a guarantee that the insight is true ... the therapist's conviction about the authenticity of the client's explorations, and the truth-value of the client's insight, is not a guarantee of the truth of the insight ... [and] the occurrence of therapeutic change following the acquisition of insight is not a guarantee of the insight's truth.

(2001, pp. 23–24).

Of course, adequate epistemic justification does not require a *guarantee*—just sufficient evidence. The question then becomes: do we have any strong, positive grounds for thinking that psychedelic-facilitated apparent psychodynamic insights are genuine, besides (a) their apparent therapeutic benefits, and (b) patients' and therapists' confidence in their accuracy? Discussing whether or not psychedelic-induced insights are trustworthy, Carhart-Harris and Friston suggest that:

the philosophical rabbit hole dissolves further in the face of the free-energy principle. This follows because the free-energy principle maintains that there is no absolute truth that is knowable absolutely—there is only evidence for a set of plausible hypotheses. In other words, the best beliefs or models are simply those with the greatest evidence—or minimum free energy.

(2019, p. 335).

However, from a philosophical standpoint, this does not follow. Even if our knowledge of the world is fallible and our perception of it indirect, we can still rationally debate the truth of propositions, and often reach justified (if tentative) conclusions. If A emerges from psychedelic experience with a newfound conviction that the pursuit of material

success alone does not beget happiness (Swift et al. 2017, p. 506), and B with a new-found conviction that he can communicate with aliens by building a floating pyramid on the Amazon (Mann 2011), we can reasonably conclude that A's belief is probably true and B's probably false—even if B's belief is 'best' or has 'the greatest evidence' in the sense that it minimises overall free energy or prediction error for B, given his total psychological situation. Of course, many real cases are harder to decide. However, the example simply illustrates a general point: the question of the veridicality of putative insights does not dissolve in the face of epistemological fallibilism (Cohen 1988) and an 'indirect' or, at any rate, inferentialist view of perception (Hohwy 2013).

It is important to emphasise that this philosophical point need not have any direct implications for clinical practice. Doubtless in many cases the best practical policy is to maintain 'clinical equipoise' and remain agnostic on the veridicality of putative insights (Carhart-Harris et al. 2018b, p. 404). However, here we are pursuing an *epistemological* evaluation of putative psychodynamic insights gained in the psychedelic state. Thus, we return to the question: are there any strong, positive grounds for trusting such putative insights?

An obvious place to look, per section 8.2 above, is to theoretical arguments. Perhaps there is something about how psychedelics act on the brain that makes them likely to facilitate genuine, rather than spurious, psychodynamic insights (cf. Letheby 2019). Indeed, when we consider the account of psychedelic therapy developed in this book, it seems to support this idea.

Recall Clark's Dictum: *prior knowledge is always both constraining and enabling*. Suppose that Maria, prior to her psilocybin session, had a fairly accurate, heavily weighted prior belief that she was a generous and selfless person. This model would enable her to apprehend many genuine higher-order patterns in her thoughts, feelings, and behaviour, but may constrain her self-knowledge in other ways—for instance, by filtering out evidence that she sometimes acts from irrational jealousy or selfish motives. I suggested in section 8.2 that temporary psychedelic inoculation against the Hollow Mask Illusion provides a proof of concept: it shows how relaxation of priors might facilitate more accurate perception by removing the constraint imposed by those priors. Similarly, relaxation of self-related priors might facilitate more accurate or comprehensive self-perception. With the filter that is her self-model weakened, Maria can apprehend accurately the irrational jealousy and selfishness that drive certain of her behaviours.

I have no doubt that this sort of thing happens. If the REBUS model ('RElaxed Beliefs Under pSychedelics'; Carhart-Harris and Friston 2019) and the predictive self-binding theory are on the right track, then it is plausible that psychedelics often facilitate veridical psychodynamic insights by weakening the filtering and constraining influence of high-level self-related priors. The argument for this conclusion would run as follows:

1. Decreasing the weighting of self-related priors can increase the probability of accurately apprehending certain facts about oneself (from general PP theory).

2. Psychedelic administration temporarily decreases the weighting of self-related priors (from the REBUS model and the predictive self-binding theory).
3. Therefore, psychedelic administration can increase the probability of accurately apprehending certain facts about oneself.

This case can be bolstered further by appealing to the connections between psychedelics and mindfulness meditation. We have seen that psychedelics both acutely and sub-acutely promote capacities for taking an open, accepting, non-reactive stance toward inner experience. On the face of it, this seems likely to promote accurate apprehension of one's own mental states by fostering a less egoically biased, reactive, and defensive mode of introspection. This contention receives further support from evidence concerning (i) commonalities between psychedelic states and meditative practices, and (ii) potential introspective benefits of the latter.

On the first count, sub-acute increases in decentring and lasting increases in self-transcendence, induced by ayahuasca, both correlate with modulation of the posterior cingulate cortex (PCC) (Sampedro et al. 2017, Bouso et al. 2015)—a region strongly implicated in the decentred stance characteristic of 'open awareness' meditation and related practices (Brewer et al. 2013, Millière et al. 2018, Winter et al. 2020). Altered PCC function has also been observed during open awareness practice after a psilocybin-assisted Zen retreat (Smigielski et al. 2019b).

On the second count, meditation experience has been found to predict greater introspective accuracy (Fox et al. 2012). Drawing on a range of evidence, Davis and Thompson (2015) offer a possible explanation for this effect in terms of increases in alertness and attentional capacity, and reductions in cognitive and affective biases. In terms congenial to the account developed here, Albahari (2019b) suggests that such biases are fundamentally bound up with self-modelling processes. She argues, on this basis, that safe and controlled downregulation of self-representation is likely to improve the accuracy of introspection.

Of course, there is no suggestion that typical psychedelic experiences and typical results of mindfulness training are precisely identical. Charting their exact similarities and differences is an important ongoing research project (Millière et al. 2018, Heuschkel and Kuypers 2020). However, the evidence just reviewed sits well with the following claim: by unbinding mental contents from the self-model, promoting decentred and less defensive introspection, psychedelics often facilitate the acquisition of genuine psychodynamic insights unavailable in the ordinary waking state. We can thus formulate another argument, this time from analogy:

1. Meditation promotes introspective accuracy (Fox et al. 2012).
2. Meditation and psychedelic administration are similar in many respects relevant to the promotion of introspective accuracy (e.g., weakening self-related priors and related cognitive and affective biases; increasing the breadth of attention and decreasing its coupling to representations of self-related goals and concerns; and promoting mindfulness-related capacities such as decentring and acceptance).

3. Therefore, psychedelic administration probably promotes introspective accuracy too.

Both arguments are suggestive but, in my view, it would be premature to regard them as conclusive. Moreover, it is important to note that their conclusions are compatible with the idea that psychedelics sometimes induce placebo insights. Very few people would claim that *all* putative insights facilitated by psychedelics (or meditation) are veridical: psychedelic-assisted introspection is at least fallible. The evidence marshalled here provides tentative, but as yet inadequate, support for the conclusion that such putative insights are *usually* accurate. Any such putative insight still falls victim to the dilemma outlined in section 8.2: absent at least *some* ASC-independent reason(s) for trusting its veracity, there is insufficient evidence to conclude that it is a real insight rather than a placebo insight.

To make things more concrete, let us return to the example quoted on p. 167, of the patient who recalled being a young child grieving the death of his grandparent, and being told by his parents that ‘boys don’t cry’. What seems to have happened here is this: under the influence of psilocybin, the patient has relived genuine memories of formative early-life experiences and thereby arrived at a pivotal causal-explanatory insight: that his unhealthy emotional habits as an adult resulted, at least in part, from his internalisation of attitudes conveyed by his parents—attitudes such as *it is a weakness to be emotional*. But is it true that the childhood internalisation of such attitudes was causally responsible for this patient’s development of unhealthy emotional habits? And is it true that these habits contributed causally to his depressive symptoms, such that psychedelic-facilitated awareness of the habits and their origins provided the opportunity to change them and decrease the probability of future depressive symptoms?

This may well be true. It seems eminently plausible. But, of course, it may well be false in some respect or other. And neither its accompaniment by a phenomenal feeling of knowing, nor its leading to clinical improvements, constitutes conclusive evidence of its truth. Psychedelic-facilitated psychodynamic insight almost certainly happens, but so too does psychedelic-facilitated psychodynamic *placebo* insight. There is no alternative but for the patient and the therapist to sort the wheat from the chaff together during the post-session integration period. Notwithstanding their overwhelming feeling of rightness, putative insights gained during the psychedelic state must be scrutinised for plausibility in just the same way as putative insights gained by any other means, such as the various talk therapies.

The somewhat unsatisfying conclusion, then, is that, when it comes to propositional knowledge about one’s own mind, psychedelics facilitate both genuine insights and placebo insights, and there is no general formula for telling the two apart. Each putative insight must be scrutinised for plausibility after the session. There is tentative evidence that many such putative insights are genuine, but this evidence is inconclusive. More research is required on the commonalities between psychedelics and meditation, and how they affect the reliability of introspection.

For now, I conclude that psychedelics are undeniably useful for enhancing the *context of discovery* (i.e., the generation of promising new ideas). They do this not just in a random fashion, by injecting noise or entropy into the system, but in a principled manner: by decreasing the constraining influence of prior knowledge, they enable subjects to ‘think outside the box’ and access usually inaccessible possibilities. Psychedelic experience even contributes to the *context of justification*, in which ideas and hypotheses are scrutinised for plausibility, due to the evidence that it often facilitates accurate insights. However, the context of justification must also encompass critical, sober reflection during the post-session period. The combination of psychedelic experience and sober scrutiny will always provide greater justification for accepting any putative insight than the experience alone. As Bertrand Russell put it: ‘insight, untested and unsupported, is an insufficient guarantee of truth, in spite of the fact that much of the most important truth is first suggested by its means’ (Russell 1917).

From a philosophical standpoint, if Maria claims to have gained new *propositional* knowledge from her psychedelic experience, then her claim, once again, cannot be evaluated in the abstract. It can neither be accepted nor rejected uncritically. Its plausibility depends on the details of the proposition in question and the psychedelic-independent justification that is available. However, assuming that Maria—as is her wont—has given careful, sober thought to the accuracy or otherwise of the insight in question, and has ultimately come down in its favour, then it is reasonable to conclude that she has indeed gained new propositional knowledge by undergoing *and subsequently reflecting on* a psychedelic experience.

8.4 Knowledge how

Perhaps, however, propositional knowledge is not the (only) type of knowledge that Maria claims to have gained. Another type of knowledge that may be at issue is *ability knowledge*, or ‘knowledge how’ (Ryle 1945). Paradigmatic examples include knowing how to ride a bicycle, how to change a tyre, or how to program a computer. Is it possible that psychedelic experiences reliably facilitate the acquisition of new skills or abilities?

Benny Shanon makes some proposals along these lines in his discussion of epistemic benefits of the ayahuasca experience. Some of his candidates concern apparent enhancements to artistic performance and creativity during the psychedelic state:

Under the intoxication, it is very common for people to feel that they are endowed with more stamina, are more in touch with their bodies, better tuned, and in a state of higher overall existential harmony. These inner sensations, in turn, may lead to a superior flowing of overt behavior, both bodily and social ... The heightened bodily energy afforded by ayahuasca is publicly observable in rituals of the Church of Santo Daime ... participants engage in vigorous, strictly structured communal dancing that [lasts] as much as 11 or 12 h. The dance demands perseverance,

Together with the direct epistemic benefits canvassed earlier in this chapter, this adds up to a considerable range of epistemic benefits, consistent with naturalism, that may often result from the successful therapeutic or transformative use of psychedelics.

8.8 Epistemic innocence

In her discussion of motivated delusions, Bortolotti argues not only that such ‘imperfect cognitions’ can sometimes have significant epistemic benefits but also that these benefits are often not available to the subject at that time, by any other (less epistemically costly) means. The target of her broader research programme here is imperfect cognitions (i.e., those with clear epistemic costs) that nonetheless satisfy these two conditions: (i) they confer a significant epistemic benefit to the agent, and (ii) at the time, there is no alternative cognition available that would deliver the same epistemic benefit without the corresponding epistemic costs. She has coined the term ‘epistemic innocence’ to capture the complex epistemic status of imperfect cognitions that satisfy these two criteria (Bortolotti 2015).

The epistemic innocence project can be contrasted with the arguments of Flanagan and Graham (2017) concerning metaphysical hallucinations, positive illusions, and spiritual delusions. Like Bortolotti, these philosophers want to contest the reflexive pathologisation and dismissal of such cognitions on grounds of epistemic imperfection. However, they take a different approach. Flanagan and Graham’s strategy is to question the idea that there is anything especially bad—or, at least, anything necessarily pathological—about inaccurate, implausible, or epistemically deficient mental states:

The project of living a good and meaningful life is an extraordinarily high-stakes project and may well require states or conditions of mind and ways of being a person that are transgressive, even, a bit, as they used to say, mad or crazy. We describe [and defend] certain states of mind or, better, ways of normal worldmaking, which are sometimes pathologized but which are, from other perspectives, experientially enjoyable, beautiful, and truth seeking. They are at the epistemic edge, sometimes beyond that edge, but existentially inspiring and morally uplifting.

(Flanagan and Graham 2017, p. 294).

I am inclined to agree with Flanagan and Graham’s contention that there is no ‘clear, precise, and firm link’ (2017, p. 293) between epistemic accuracy and mental health. Having significant epistemic flaws, or carrying significant epistemic risks, is neither necessary nor sufficient for being pathological. However, pathologisation is not directly at issue in the Comforting Delusion Objection to psychedelic therapy. This objection does not allege that psychedelic therapy should be eschewed because it involves delusions in a literal, clinical sense, but simply because (i) its overall epistemic

profile is (allegedly) quite bad, and (ii) there is some general disvalue, independent of pathological status, in epistemically poor mental states.

For reasons I outlined in Chapter 2, I am sympathetic to the claim that there is something problematic about deliberately purchasing well-being with substantial epistemic costs. Thus, my approach to defusing the naturalistic suspicion of psychedelic therapy is closer to Bortolotti's project than to Flanagan and Graham's. Rather than contesting the evaluative claim that epistemically bad cognitions are bad simpliciter, I have been contesting the descriptive claim that psychedelic states are, on the whole, epistemically bad cognitions. From a naturalistic standpoint, there is no denying that they carry epistemic risks; but, as I argued in earlier chapters, these risks are not absolute. In this chapter, I have tried to show that these risks are also offset by significant epistemic *benefits*, both direct and indirect.

Moreover, psychedelics facilitate uniquely rapid and reliable access to the specific, highly unusual states of consciousness that beget these benefits. Thus, in most if not all cases, there will be no alternative, less epistemically risky cognition that offers an equally reliable route to the same epistemic benefits at the same time. Per Clark's Dictum, the epistemic benefits that come from unconstraining the predictive brain cannot be accessed without partially disabling it. As such, most (if not all) psychedelic experiences induced under modern clinical conditions are epistemically innocent imperfect cognitions (Letheby 2016).