



Through the Psychedelic Looking-Glass: The Importance of Phenomenal Transparency in Psychedelic Transformation

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Abstract

What makes psychedelic psychotherapy work? Is it the induction of psychedelic experience, with its distinct patterns of hallucinations and insights, or is it the neural ‘shakeup’ that moves the brain out of its regular mode of functioning and into a more disordered state? We consider the role that attention-related phenomenological changes play in psychedelic transformation and psychotherapy. We review Letheby’s account of psychedelic psychotherapy, which appeals to increases in phenomenal opacity as the central mechanism of psychotherapeutic transformation. We argue that there is an alternative vehicle of psychedelic transformation that this account overlooks, involving radically transparent experiences. We outline the common kinds of phenomenal transparency shifts typical of psychedelic experiences, and argue that in many cases, such shifts are responsible for the psychotherapeutic benefits. This argument motivates an alternative approach to possible mechanisms of psychedelic self-transformation, and opens up a new venue of empirical research into the role of attention and phenomenology in psychedelic psychotherapy.

Keywords

Psychedelics · Philosophy · Psychotherapy · Phenomenology · Attention

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What we need is a new language ... that is a new kind of poetry, that’s the poetry of the dancing bee that tells us where the honey is ... In order to create that language, you’re going to have to learn how you can go through a looking glass, into another kind of perception, where you have that sense of being united to all things, and suddenly you understand everything.

— Andre, *My Dinner with Andre*

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1 Introduction

In *Philosophy of Psychedelics*, Letheby seeks to explain the benefits of psychedelic therapy in terms that are acceptable to a strictly naturalistic worldview. In his pursuit, Letheby does a wonderful job of surveying the latest scientific evidence and marshals compelling arguments for his view.

While we agree with many of Letheby's arguments, our main contention is that the general view of psychedelics that he offers is rather incomplete. In this commentary, we will focus on one respect in which this is the case: Letheby's claim that psychedelics increase *phenomenal opacity* and that this is inextricably tied to their therapeutic and transformative effects. We'll argue that psychedelics also regularly increase *phenomenal transparency* and that this is at least—if not more—distinctive of the effects of psychedelics and integral to their therapeutic and transformative effects.

Let's begin, then, with defining phenomenal opacity and transparency.

2 Opacity and transparency

Phenomenal opacity and transparency are somewhat subtle notions, so let's start with an example to help fix our ideas.

Imagine you are enjoying a comedy sitcom, laughing along with the jokes and relating to the characters. Now suppose that your attention, for whatever reason, is suddenly drawn to the show's laugh track. This shift in your attention dramatically affects your experience of the show. Suddenly, the jokes don't seem as funny, and you recognise that the laugh track had been shaping your experience of the jokes, making them seem funnier than they are by themselves. In fact, the whole show may acquire a feeling of artifice—you may even feel that the characters have been replaced by the actors that play them.

This change in your experience of the show corresponds to an increase in phenomenal opacity. Before the change, there was a sense in which you were "seeing through" the actors to the characters, or "hearing through" the laugh track to the intended humour of the jokes. In this sense, your experience of the show was *transparent*. After the change, when your attention is drawn to the laugh track, there is a sense in which your experience "hits" the laugh track and stops there. In this sense, your experience has become *opaque*: you can't see the show beyond the laugh track and the actors. It can be difficult to shake off this phenomenological change, but most people eventually forget about the laugh track and soon return to the world of the show with its funny jokes and relatable characters. When this happens, the initial increase in opacity is reversed, and one's experience regains its transparency.

This example helps fix our ideas, but we should also have some definitions of these notions. An immediate problem, however, is that various authors have given somewhat different definitions and embedded them within different theoretical

frameworks. Thus, [Letheby \(2021\)](#) takes his inspiration from [Metzinger \(2003\)](#) and frames his definitions within the predictive processing framework. Before Metzinger, the notions appear in the work of [Apter \(1982, and 1989\)](#), and the idea (but not the terminology) appears to trace back to [Polanyi \(1966\)](#). [Vervaeke & Ferraro \(2016\)](#) have also recently explicated these notions as part of a reformulation of the concept of mindfulness and analysis of mystical experience. The concept of transparency has also been regularly deployed in the philosophy of perception, particularly in connection to the debate over naive realism ([Martin, 2002](#)), going back to at least the work of [Moore \(1903\)](#).

As with any substantial idea in philosophy, there are many nuances that need to be acknowledged, but this would require a longer discussion than is presently possible. So, for now, we will make do with a characterisation of transparency and opacity that's coarse grained enough to capture their common usage.

We first need to say what kind of an entity can be transparent or opaque. In short, anything mental: perceptions, imaginings, thoughts, beliefs, desires, emotions, and the underlying processes constructing them. For lack of a better term, we'll call these items *representations*. While some of these items may not be representational, this choice fits well with how the notions are used in the literature.

Using the terminology from our sitcom example, one definition goes as follows: a representation is opaque if attention "stops" at that representation, and it is transparent if attention can "pass through" that representation to others in one's representational matrix. Although somewhat metaphorical, this definition captures the essence of the notions in a relatively neutral way. It also has intuitive appeal, as it fits well with the popular flashlight and camera-lens models of attention: attention is like light that can illuminate representations. If a representation is opaque, it prevents the light of attention from shining through it, thus keeping other representations in the dark (Figure 1).

We should note that this isn't the only way to define these notions. For example, Letheby says that a representation is transparent if it appears to one as reality and not as a representation, and opaque otherwise (p. 140). While slightly different, the definition relies on the same idea of "seeing through."¹ Thus, we see through transparent representational structures to experiences they construct. Because the underlying representations are invisible, their product appears as reality to us. [Vervaeke & Ferraro \(2016\)](#) also give a similar definition in terms of attention scaling back (opacity) and forth (transparency). We think it is reasonably clear that all authors in question have the same basic understanding in mind.

We can now give some broad characterisations of what increases in opacity and transparency involve. One hallmark feature of opacity is that it tends to involve a

¹The difference between this definition and ours is that the latter allows for a representation to become opaque *without* the subject being aware of it *as* a representation. Arguably, this is what happens with the sitcom example: for instance, the characters appear as actors, but the actors are not experienced as *mental representations*—they are simply experienced as *actors*. Modulo this minor difference, the definitions are in close alignment.

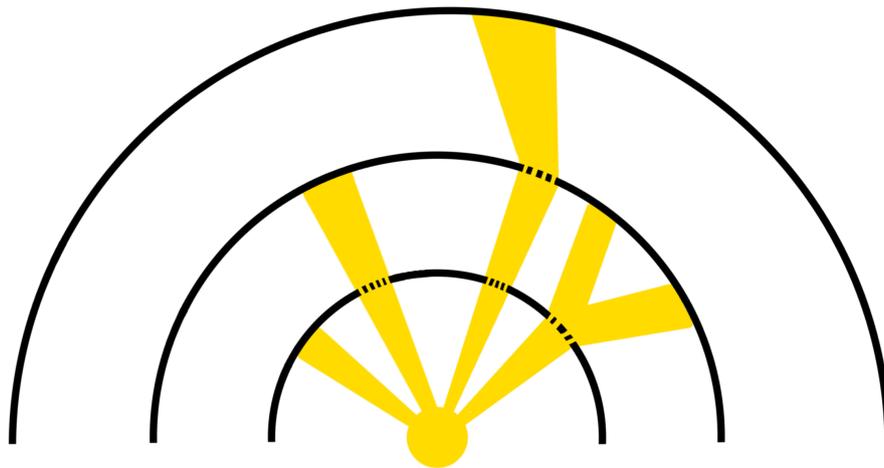


Figure 1: Attentional resources pass through transparent representations (dotted lines) and stop at opaque ones (solid lines).

sense of *unreality* and *optionality* of that which is being represented. Its character is somewhat akin to that of moral relativism: instead of seeing an evil act, one sees an act that can be evaluated as evil, but doesn't have to be. In contrast, a hallmark feature of transparency is that it tends to involve a sense of *reality* and *necessity*. Many of our moral judgements are like this: the wrongness of an act—such as kicking a baby—can be so immediate and so viscerally real and undeniable, that the judgement is essentially a perception and we are compelled to intervene without any thought.

A second, and closely related, feature of transparency is that it tends to involve a kind of *unity*, *absorption*, or *connection* with one's representations. Correspondingly, opacity tends to involve *duality*, *separateness*, or *disconnection*. Another example will help highlight this. Recall the time when you first learned to ride a bike. When you begin learning, your attention is often focused on your immediate points of contact with the bike and their dynamics: the handle bars, the pedals, the bike seat, etc.² In this early stage, you experience yourself and the bike as being quite separate (perhaps even combative!) things. However, as you learn to ride, your sensations of the bike parts dissolve, and you enter into a kind of unity or oneness with the bike. You can even begin to experience other things *through* the bike: bumps on the ground, the surface's traction and inclination, etc. You become so connected with the bike, that riding becomes a kind of flow state, which is another common feature of highly transparent experiences (Vervaeke & Ferraro, 2016).

As always, much more could be said, but we have enough detail to proceed with our discussion.

²For convenience, we have switched to a realist way of speaking, but nothing hangs on this. The example can be translated into purely representational terms.

3 The benefits of psychedelic-induced opacity

The gist of Letheby's argument is as follows. First, our default mental state is largely stuck in what we may call *transparency mode*: most of our mental representations are transparent. Second, although a representation may be transparent, it nevertheless colours our experience—in much the same way that looking through orange-tinted glasses makes the world appear a particular way. Third, some of our transparent representations colour our experience in ways that are unnecessarily unpleasant and unhealthy. Fourth, by increasing the opacity of these representations, psychedelics allow us to see them as just representations, which involves seeing them as *optional*, which then facilitates changing them. Using our glasses analogy, it's as though the world appears "off" to us, but we don't know why, and then we realise that this is due to the glasses, and so we remove them (and perhaps put different ones on).

We agree that psychedelics have this sort of effect and that it explains many of their therapeutic benefits. Psychedelic experiences frequently involve features that draw one's attentional resources up out of one's experiential rabbit holes and to the surface of one's representational structures. One obvious example is the tendency for psychedelics to induce hallucinations and other forms of mental imagery. Since these alterations to perceptual experience are often recognised as not being veridical, they immediately highlight the representational nature of experience (Metzinger, 2003). More generally, by increasing the repertoire of conscious experience, psychedelics call attention to the fact that many of our thoughts, emotions, and perspectives, are optional and therefore can be altered. Similarly, by relaxing the grip that certain beliefs have on us (Carhart-Harris & Friston, 2019), psychedelics allow us to see that those beliefs are unwarranted and unhealthy, and that they can be revised. As Letheby points out, when these beliefs are self-oriented, seeing that they are optional can pave the way for an especially therapeutic transformation of the individual and their sense of self.

Although we agree with all of these points, we don't think they do full justice to phenomenology of psychedelic trips, or to the causal processes involving their transformation of the individual. Psychedelics do cause increases in phenomenal opacity, but this is only a fraction of a deeper and more general effect that is doing the real work—which is that psychedelics disrupt one's attentional system. This disruption often triggers increases in opacity, but it also regularly has the opposite effect of inducing increases in transparency. In our view, the attentional system is somewhat like a coin balanced on its edge: if you tip it over, it may land heads (increased opacity), but it may equally land tails (increased transparency). Indeed, if there is any bias at all, it may lean towards increased transparency. Whereas certain meditative practices seem to be distinctly (but not exclusively) oriented toward increases in opacity (Albahari, 2006), psychedelic trips appear to be more distinctly oriented towards increases in transparency.

4 Psychedelic transparency

Here we will present five classes of examples that demonstrate that psychedelics regularly cause substantial increases in transparency and that these are integral to the transformative and therapeutic process.

The first involves a radical increase in transparency of one's representation of *nature*. Consider the following reports:

It was like being inside of nature, and I could've just stayed there forever—it was wonderful. All kinds of other things were coming, too, like feelings of being connected to everything, I mean, everything in nature. Everything—even like pebbles, drops of water in the sea ... it was like magic. It was wonderful, and it wasn't like talking about it, which makes it an idea, it was, like, experiential. It was like being inside a drop of water, being inside of ... a butterfly's wing. And being inside of a cheetah's eyes. (Belser et al., 2017, p. 371).

Before I enjoyed nature, now I feel part of it. Before I was looking at it as a thing, like TV or a painting. You're part of it, there's no separation or distinction, you are it. (Watts et al., 2017, p. 534).

[It] just opens you up and it connects you ... it's not just people, it's animals, it's trees—everything is interwoven, and that's a big relief ... I think it does help you accept death because you don't feel alone [...] That's the number one thing—you're just not alone. (Swift et al., 2017, p. 499).

Such reports are extremely common, quite distinctive of psychedelic trips, and recognisable as increases in transparency. They are also often intimately bound up in the therapeutic transformation.

The second class of examples is those that involve a radical increase in transparency of one's representation of *music*. This is a particularly important class of examples, because music is often integral to the therapeutic process. For example, in summarising their results, Belser et al. (2017) write:

All 13 participants described how the music that was played during their psilocybin session took on a central role in their phenomenal experience. Participants described the music as a conduit, vehicle, or carrier of their experience. (Belser et al., 2017, p. 373).

When we look at the reported experiences, it is clear they involve increases in transparency. For example:

I felt that I was part of the music and I was in the music, it was me. It was it just me listening to music. I was the music. I was the drum, or the flute, or the violin, and I was really part of that. (Belser et al., 2017, p. 374).

The music was fantastic, actually—the music that they had. I remember at one point, I thought, ‘It’s not the drug doing this—it’s the music.’ The music felt like it was what was making things happen. (Belser et al., 2017, p. 374).

music was really how everything was conveyed to me, it all came through the music ... like everything that I experienced did not really happen in the English language, it kind of happened through the music, like the music was the conduit for this experience to happen. (Belser et al., 2017, p. 373).

To summarise, psychedelics appear to plunge the individual deeply into the world of the music, absorbing them to such an extent that they *become* the music. Simultaneously, the music becomes a process that functions as a vehicle for transformation and therapeutic change. At one point, Letheby briefly recognises the tension between this observation and his view (p. 44), but he dismisses it by pointing out that while such experiences do occur, they may bookend the kind of “introvertive” opaque experience that he believes does the real therapeutic work. We agree that this *may* happen (sometimes), but this characterisation doesn’t do justice to the powerfully transformative process carried out by the music, and which often culminates in a highly transparent, “extrovertive” mystical experience.³

The third class of examples is those that involve increased transparency of mental imagery. While we agree that hallucinations can draw attention to the representational nature of experience (as per the previous section), it is clear that they often involve substantial increases in transparency. Indeed, much like music, the visual aspect of the experience is often the vehicle for transformation. For example, in summarising their results, Belser et al. (2017) write:

These complex visualizations are not merely interesting scenes painted on the proscenium curtain of the theater of the mind. Rather, among study participants, these visions served as principle organizing motifs of subjective experience with multifold vectors (e.g., audiovisual, relational, autobiographical, spiritual, epistemological, ontological). Such visions were often deeply coded with layers of meaning by participants. (Belser et al., 2017, p. 379).

Indeed, people become so absorbed in their visual experience that it takes a reality of its own, and becomes a world that is rich in meaning and provides a medium for personal and spiritual exploration.

The fourth class of examples involves increases in transparency that give rise to an amplified sense of reality. People often report psychedelic trips as involving

³Letheby doesn’t explain how he uses the term ‘introvertive,’ but we assume this is taken from Stace’s distinction between introvertive and extrovertive mystical experience (Stace, 1960). In contrast to Letheby, Stace argued that drug-induced mystical experiences are mostly extrovertive in nature. In our opinion, they can easily be either—depending on the context and individual.

experiences that are “realer than real” or encountering an ultimate reality (Griffiths et al., 2019; Yaden et al., 2017). For example:

Normally, human beings have a certain feel of the real. This feature is so fundamental to our perception of the world and our being in it that in general we are totally oblivious of it. There are situations, however, when our sense of reality is reduced—for instance, extreme fatigue and being in the dark. This also happens with Ayahuasca. The Ayahuasca inebriation, however, also presents cases in which the feel of reality is enhanced. Many drinkers report that what they see during the course of the intoxication seems to be ‘more real than real.’ [...] The feeling is so strong and compelling that it may be coupled by the assessment, very common with Ayahuasca, that what is seen and thought during the course of the intoxication defines the real, whereas the world that is normally perceived is actually an illusion. [...] Indeed, the feeling is that the knowledge one gains is ultimate and veridical. It is achieved not by means of analysis and reflection, but rather by means of a direct contact, or even identification, with the objects to be known. (Shanon, 2002, p. 205).

Clearly, this direct contact and identification with something “realer than real” is a form of increased transparency. As we noted in section 2, a hallmark feature of transparency is this feeling of being in direct contact with a reality, an immersion in or connection with that reality, and a strong sense of necessity or undeniability to what is being experienced. This relates to the *noetic quality* of mystical experience that William James famously identified (James, 1902, p. 293).

The fifth and final class of examples builds on the previous one by flipping the light of attention around and shining it inward. That is, the sense of reality that people often encounter isn’t always oriented towards the world. It can also be directed inwards, to reveal a truer, more authentic self.⁴ For example, in summarising their results, Noorani et al. (2018) write:

Session experiences were described as revealing a deeper, better, or more essential self that either led to a decreased desire to smoke, or to smoking not making sense anymore. (Noorani et al., 2018, p. 759).

The individual reports often demonstrate an enhanced transparency of one’s self-representation, marked by a sense of self that is revealed and feeling more real than the usual one:

[It was] me revealing myself, like actually showing myself to the world. This is who I am, this is who I really am. (Noorani et al., 2018, p. 759).

⁴Actually, we think that the light of attention can be diffused in both directions simultaneously—inwards and outwards—but we lack the space to develop this point here.

I feel more in touch with who I really am—my real self, myself that’s connected to everyone and everything. (Belser et al., 2017, p. 37).

I just feel that definitely it [ayahuasca] got me more in touch with my spirit ... It brought it out more because it was there. But now it is there even more. (Argento et al., 2019, p. 784).

On this point, it is worth noting that another idea that is central to Letheby’s view is that psychedelics cause an *unbinding* of one’s self-model. Indeed, for Letheby, increased opacity and unbinding of the self-model go hand-in-hand (p. 183). However, experiences like those described above do not fit his interpretation. Instead, psychedelics appear to cause a substantial increase in transparency of one’s self-representation, so that they (seemingly) bring the individual into direct contact with some ultimate reality or truth concerning one’s self. This isn’t to say that opacity shifts related to self-unbinding are not important for self-transformation. The point, rather, is that there is another powerful mechanism for self-transformation: transparency shifts corresponding to manifestations of the self.

We’ve presented five examples of how psychedelics radically increase transparency: connection with nature, unity with music, absorption in mental imagery, encountering an ultimate reality, and the revelation of a true, authentic self. These examples are highly representative of psychedelic trips, demonstrating the ubiquity of increased transparency. They also help demonstrate how increased transparency is intimately bound up with, and integral to, the therapeutic process. Indeed, it is becoming increasingly recognised that *disconnection*, in its varying forms, is often at the core of much mental suffering (e.g., Hari, 2018), and that psychedelics are effective in part because of their tendency to promote experiences of connectedness and unity (Carhart-Harris et al., 2018).

To put our central point another way, the nomenclature of a ‘psychedelic trip’ captures something fundamental to the experience: one is taken on a *journey* that is itself transformative and therapeutic. Along the way, one has all sorts of novel encounters that are revelatory and which transfigure the individual—much like Alice’s adventures in Wonderland. While we agree that increases in opacity do occur, they alone cannot explain the effects of psychedelics, nor are they especially distinctive of them. Therefore, increases in transparency need to be included as an integral part of the the explanation of how psychedelics achieve their effects.

5 Objections and replies

Let’s now consider some objections against our claim that increased transparency is integral to psychedelic transformation.

Objection 1: One may grant our point about transparency, but object that opacity increases are nevertheless more integral to the therapeutic process. In particular, one may argue that transparency shifts causally depend on opacity shifts.

We think the current qualitative data lacks the resolution that would allow us to discern such a causal dependence, but one might nevertheless try to make the argument based on evidence concerning neural processes. For example, Letheby is committed to the self-unbinding mechanism and its correlation with experiences of increased opacity (p. 183). One might argue that this mechanism kickstarts the subsequent therapeutic transformation (which may involve transparency shifts).

For the sake of brevity, let's grant this point. Nevertheless, it wouldn't undermine the importance of transparency increases. Consider the following analogy. In order to fly to another country for a relaxing vacation, one must first book a plane ticket. Therefore, the relaxation that results from one's vacation causally depends on having first booked a ticket. However, in explaining why people tend to feel more relaxed after such vacations, it would be odd to focus on the fact that they all booked plane tickets. Clearly, the transformation lies in the experiences one has during the vacation. And so it goes, we argue, with psychedelic therapy—the transformation often lies in the journey afforded by the increased transparency.

Objection 2: Another way to object that opacity increases are more integral to the therapeutic process is to flip the previous objection around and argue that experiences involving transparency increases provide the material for subsequent increases in opacity, which ultimately do the therapeutic work. For Letheby, these increases in opacity take the form of a new awareness of the mutable nature of one's mind or the constructed nature of one's self.

Again, we agree that this often happens, but it isn't the only way in which psychedelics transform the individual, and nor is it particularly distinctive of the psychedelic process. Whereas increased opacity was like the purchasing of a plane ticket in the previous objection, here, it is more like writing a travel diary after the vacation is over. Indeed, any transformative change—whether it be a vacation, psychedelic therapy, or even traditional therapy—is likely to cause a moment in which one takes a more opaque stance towards their mindset, behaviour, or beliefs. Such an outcome is practically inevitable, and is itself therapeutically important, for it may help maintain the transformation. However, the crux of the change is the experience itself.

What, then, explains the emphasis on opacity in Letheby's account? After all, Letheby clearly recognises the importance of increased connectedness and acceptance, which are paradigmatic increases in transparency. This choice may stem from viewing transparency as our psychological default. Hence the solution—stepping away from experience and disidentifying from it. This approach, however, neglects another aspect of our experience: the fact that it is often too opaque. For this reason, increasing transparency can also be beneficial and may be an important therapeutic alternative to opacity shifts.

Objection 3: There is another possible reason for this emphasis. Increases in transparency often don't fit well with a strictly naturalist position—e.g., when they involve revelations of spirits or unions with cosmic consciousness, etc. One may object, then, that any explanation of psychedelic therapy mustn't involve these

experiences as explanans. They must, therefore, be viewed as epiphenomenal, or somehow explained away. We suspect this may be part of Letheby's focus on opacity increases—they seem better suited to the naturalist program.

We agree that increases in opacity may be more naturalistically acceptable—at least, at first glance. However, this doesn't entail that transparency increases should be disregarded or downplayed. More work needs to be done before we can assess their scientific status—see, for example, Taves (2020), Sanders & Zijlmans (2021), and Breeksema & Elk (2021)—and we are optimistic that many such experiences will turn out to be scientifically acceptable. With that said, one reason to be excited about psychedelic experiences is that they have the potential to *expand* the domain of scientific inquiry. To paraphrase Stanislav Grof, just as the telescope and microscope expanded astronomy and biology, the psychedelic looking-glass has the potential to expand psychology in ways that we don't yet fathom.

6 Conclusion

Letheby is right to emphasise that our cognitive models tend to become ossified in unhealthy forms of transparency and that psychedelics can help us see them opaquely—as optional. However, people can equally get stuck in opaque modes of representation: hiding behind screens, removed from nature, superficially sampling choices (much like the sampling encouraged by some dating apps), and shying away from an authentic engagement with life.⁵ Increases in transparency involve deep dives into commitment, meaning, and connection. They *can* go wrong and are therefore risky, but human life is severely diminished without them. Much of the transformative power of psychedelics lies in their ability to help us step through their looking glass into a deeper and more meaningful engagement with the world, others, and ourselves.

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⁵Vervaeke et al. (2017) have called this state of affairs *the meaning crisis*.

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