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Claremont McKenna College

Acquiring Knowledge of Ultimate Reality
Through Psychedelic Experience

submitted to
Professor Kind

by
Lia Harel

for
Senior Thesis
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| | |
|---|-----------|
| Introduction | 2 |
| Chapter 1 | 5 |
| 1.1 Defining Ultimate Reality | 5 |
| 1.2 Modeling Ultimate Reality | 7 |
| 1.3 Defining a State of Consciousness | 12 |
| 1.4 Defining ASCs | 13 |
| 1.5 Defining Knowledge | 14 |
| 1.6 Chapter Conclusion | 16 |
| Chapter 2 | 17 |
| 2.1 Knowledge by Acquaintance | 18 |
| 2.2 Fred and Mary | 19 |
| 2.3 Potential for Acquaintance with Ultimate Reality | 22 |
| 2.4 P-ASC as a Transition Point | 25 |
| 2.5 Similarities between Characteristics of Ultimate Reality and P-ASC | 29 |
| 2.6 Chapter Conclusion | 35 |
| Chapter 3 | 37 |
| 3.1 Sober Scrutiny | 38 |
| 3.2 Counter Argument: Entropy and the Potential for Erroneous Perception | 40 |
| 3.3 Counter Argument: Phenomenal Certainty Versus Epistemic Justification | 42 |
| 3.4 Limitations of the Sober Scrutiny Response | 44 |
| References | 46 |

Introduction

In this paper, I ask the question of whether we can acquire knowledge of ultimate reality through psychedelic experience. The motivation for exploring this topic came from an interest in how testimonies about the insights people achieve through their psychedelic experiences share similar qualities to metaphysical accounts of ultimate reality from various cultures and time periods.

A seminal work that illustrates these similarities is Benny Shanon's book *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience*, published in 2002. Shanon presents a cognitive psychology study of Ayahuasca, a psychoactive brew made from *Banisteriopsis caapi* and *Psychotria viridis* that is used in Indigenous cultures in South America. For millennia, the Ayahuasca brew has been a key part of indigenous peoples' lives in the regions of western Brazil, eastern areas of Ecuador, Peru, Columbia, and Venezuela as a vehicle for the attainment of knowledge (Shanon 2002). It is involved in major decisions of a tribe such as locating game and declaring war, as instruments of regional shamans to see "inner constitutions of patients" to make diagnoses, and as aids for the communication with wise guiding entities or spirits (Shanon 2002).

Of particular interest is Shanon's remark that "Those who consume the brew may feel that they are gaining access to new sources of knowledge and that the mysteries and ultimate truths of the universe are being revealed to them" (Shanon 2002). Drawing from his 130 personal Ayahuasca experiences and approximately 2,500 interviews with others, Shanon notes that despite the heterogeneity of people and settings, there are a number of

“striking cross-personal commonalities in the contents of Ayahuasca visions, in their themes, and in the ideations that are associated with them” that relate to this notion of gaining knowledge of ultimate truths of the universe (Shanon 2002).

Furthermore, these experiences are not unique to Ayahuasca. Among the psychedelic drugs that will be discussed in connection to such metaphysical revelations is mescaline, a psychedelic hallucinogen derived from the flowering heads of the peyote cactus and used by members of the Native American Church during religious ceremonies (NIH 2022). Additionally, psilocybin, the psychedelic compound in magic mushrooms, and lysergic acid diethylamide (LSD) will also be discussed, particularly in the context of clinical studies.

This paper is divided into three parts. In the first chapter, I define the relevant terms in the question—what is meant by ultimate reality, what psychedelic experience is in terms of states of consciousness, and how we define knowledge. In the second chapter, I present the Acquaintance Argument:

1. Knowledge of ultimate reality is possible if and only if we are acquainted with ultimate reality.
2. A psychedelic-induced altered state of consciousness allows for acquaintance with ultimate reality.
3. Therefore, once acquainted with ultimate reality, one has acquired knowledge of ultimate reality.

This argument is an application of Bertrand Russell’s knowledge by acquaintance argument in which perceptual experiences are a source of knowledge. I explain that the neurological and psychological impacts of psychedelics on the brain allow one to have

first-hand perceptual experiences with ultimate reality. I support this claim by demonstrating the similarities between testimonies about psychedelic experience and the qualities of ultimate reality.

Finally, in the third chapter I present potential counter arguments to the Acquaintance Argument that center on claims of erroneous perception and unsound epistemic justification. I respond to these counter arguments by suggesting that the combination of psychedelic insight and post-experience sober reflection may offer justification for the belief that one has acquired knowledge of ultimate reality.

Chapter 1

Defining the Question

The central question of this paper is: Can we acquire knowledge of ultimate reality from an experience in a psychedelic-induced altered state of consciousness (P-ASC)? Before introducing my argument for why I believe we can acquire such knowledge, this chapter will be devoted to understanding the components of this question. First, in section 1.1, I will define what I mean by “ultimate reality” and delineate some examples of different cultures’ attempts at modeling it in section 1.2. Second, I will define consciousness in section 1.3 and will examine how normal waking consciousness differs from altered states of consciousness (ASCs) in section 1.4. Last, in section 1.5, I will define knowledge with a specific emphasis on the justification requirement.

1.1 Defining Ultimate Reality

This paper will give much attention to the characteristics of different models of ultimate reality, but I will first attempt to explain what it is that is being modeled. In the simplest terms, ultimate reality is the fundamental cause and structure of all existence. Robert Cummings Neville, a contemporary philosopher and theologian, presents an argument that ultimate reality is the “ontological act of creation, the terminus of which is everything determinate, constituting and unfolding in space/time” (Neville 2013). To break this down, I will first elaborate on what he means by “everything determinate”. The quality of *determinateness* is how Neville defines something’s existence as a distinct

entity—as “something rather than something else” (Neville 2013). For example, consider *a* and *b*. For *a* to be determinate, there must be something that distinguishes it from *b*. If there was nothing that distinguished the two from one another, then they would be the same thing. Therefore, *a* is determinate if we can define it as “not *b*”. What makes something distinct from something else is what Neville calls a *conditional feature*. Additionally, a determinate thing must also have *essential features* which are the features in itself that are then compared to the essential features of the other determinate thing. As such, Neville defines a determinate thing as “a harmony of essential and conditional features” (Neville 2013).

The existence of one determinate harmony requires other determinate harmonies that are determinate with respect to each other. Neville refers to this as the *plurality of harmonies* in which each harmony retains its essential features but shares its conditional features with the other harmonies. Furthermore, he states that “the existence of a plurality of determinate harmonies supposes that they exist within an ontological context of mutual relevance” (Neville 2013). Essentially, Neville points out that there must be a situation (an ontological context) as to why these harmonies are in relation (mutual relevance) to each other in the first place. If this ontological context of mutual relevance is a determinate thing, then there must be at least one other determinate thing as well. Then what would be the context of these two determinate things? Another determinate thing. To avoid this infinite regress, Neville concludes that the ontological context of mutual relevance must be indeterminate.

At this stage of Neville’s argument, we arrive at the question of what is a context that is itself indeterminate but creates determinate things? Neville proposes that this

context is “an ontological act of creation that simply makes the determinate things together with their essential and conditioning feature...The act is a sheer making, a creating, terminating in determinate things” (Neville 2013). In other words, ultimate reality is the process of creation, and everything in existence is what was created by ultimate reality.

1.2 Modeling Ultimate Reality

With this understanding of ultimate reality, I will now turn to the issue of how various schools of thought have attempted to create models to better conceptualize it. I will begin by defining what a model is and the advantages and disadvantages of using it to represent ultimate reality. I will then present four models—the Abrahamic God, Brahman, the One, and *taiji*—and discuss how they represent the notion of an ontological act of creation (OAC).

Jeanine Diller, a philosophy and religious studies professor, states that the term *model* “connotes that its target is somehow out of reach—not able to be directly examined” (Diller 2021). She adds that a “model is not a copy of the target but rather chooses revealing aspects of the target to relay by leaving out or distorting other aspects” (Diller, 2021). For example, a model of the solar system made out of painted Styrofoam balls may not be proportionally accurate in terms of the size and spacing of the planets. However, it is a tool to help someone better understand the concept of a solar system in terms of the movement and relative positions of the planets.

A model will not be able to capture the nature of ultimate reality in its entirety, but it provides a framework to understand some aspects of it. The easiest models to

understand are the ones that use concepts we are already familiar with. For ultimate reality, this typically has involved presenting the OAC as an anthropomorphic being. An advantage of this type of model is that it allows people to relate to it more easily, perhaps even establish a personal relationship with it. However, the disadvantage is that the more human-like this model becomes, the less representative it is of its target. Nonetheless, it is unlikely that any successful model will be fully representative of ultimate reality since the more closely aligned the model is with ultimate reality, the more difficult it can be to understand as it becomes increasingly abstract and unfamiliar. Given this tradeoff, I will present the following four models on a spectrum, starting with the most familiar (i.e., most human-like) and least accurate and ending with the least familiar and most accurate depictions of ultimate reality.

To begin, theistic traditions often have gods, goddesses, spirits, avatars, and incarnations which represent ultimate reality as a creator who is separate from their creation. Neville's argument seeks to eliminate this distinction by explaining that *a creator is a model of a process*. For Abrahamic religions, the OAC is represented as a masculine being with a name such as God, Yahweh, or Allah who created the world in six days. In religious scriptures, he speaks with prophets, establishes rules for communities and civilizations, and displays human traits such as love, anger, and justice. Furthermore, there are several accounts of incarnations of him, one of the more well-known being the story of Moses herding sheep when he hears God's voice coming from "a flame of fire from within the thorn bush, and behold, the thorn bush was burning with fire, but the thorn bush was not being consumed" (Exodus, 3:2). God made himself present in this

cave with the burning bush to communicate to Moses his divinity in a format—a being-to-being conversation—that Moses was familiar with.

Baruch Spinoza (1632-1677 CE), a Jewish philosopher who was later excommunicated for his unorthodox view of God, argues in *Ethics* that there is only one substance in existence, and that substance is God. Consequently, God is the universe as opposed to a separate omnipotent being who created it. Since God is less anthropomorphic in this model than in the previous model, it starts to become a more accurate representation of ultimate reality. Yet, the drawback is that Spinoza's model is more abstract and, consequently, harder to wrap one's head around.

Setting up his argument, Spinoza states, "By God I understand a being absolutely infinite, that is, a substance consisting of an infinity of attributes, of which each one expresses an eternal and infinite essence" (Spinoza 1667/1910). To flesh out his argument, a *substance*, as he defines it, is something that is self-causing, meaning there is nothing that came before it that caused the substance to come into existence. By describing God as a substance, Spinoza asserts that nothing else created God.

An *attribute* is the thing that makes up the essence of a substance. A substance can have more than one attribute, but it must have at least one or else it cannot exist as itself. An analogy to this definition would be that a ball has the attribute of sphericalness. If it did not have sphericalness, it could not exist as a ball. Additionally, Spinoza establishes a condition that two substances cannot have the same attribute. Since God has all the attributes (an infinity of them), no other substance could exist as itself because there would be no attributes for it to have. Consequently, God is the only substance.

Something is *infinite* if it cannot be limited by something of the same nature. Spinoza elaborates on this definition, stating, “for example, a body is called finite because we always conceive another that is greater. Thus, a thought is limited by another thought. But a body is not limited by a thought nor a thought by a body” (Spinoza 1667/1910). The nature of God is a substance with all the attributes, so the only thing of the same nature that could limit God would be another substance with all of the attributes. As Spinoza previously established, no two substances can share the same attribute. Therefore, there is no other substance of the same nature that limits God, supporting the point in the previous paragraph that God is the only substance. Thus, God is everything.

Spinoza’s pantheistic God in many ways resembles the concept of Brahman in Hinduism. The Upanishads, Hindu scriptures that form the basis of Hindu philosophy, present an array of interpretations of Brahman related to topics including creation, existence, universal governance, knowledge, the self, salvation, and reality. The Advaita school of Hindu philosophy takes Brahman to be all these things together. In the Shvetashvatara Upanishad, one can find verses describing Brahman’s expanse:

The highest and the greatest (Brahman),
concealed in all beings, in the body of each of them,
the one who holds encompassed in himself the whole universe,
(Svetasvatara Upanishad 3.7, Translated by Paul Deussen 1905)

and Brahman’s power:

The god who repeatedly stretches out the net
one after another and again withdraws it,
continuing to create, through his assistants

the high-minded one manifests, as the ruler, his sovereign power.

(Svetasvatara Upanishad 5.3, Translated by Paul Deussen 1905)

The main themes in these two verses are that Brahman is in everything and therefore is everything, Brahman is an eternal creator, and Brahman governs all. An important thing to note is that although Brahman is discussed as a being in some Hindu texts, other works treat Brahman as something more along the lines of a principle or entity without masculine pronouns.

Neoplatonism presents a concept like Spinoza's God and Brahman, though it does not have any resemblance to a being. In the *Enneads*, the philosopher Plotinus (c. 204/5-270 CE) discusses the nature of the One, describing it as “the productive power of all things” (III.8.10). Plotinus presents a river analogy to better illustrate the concept of the One: “think of a spring which has no other source, but gives all of itself to rivers while not exhausting itself in the rivers but quietly remaining itself” (III.8.10). The One is not the spring nor is it the water. Rather, the One is the interminable process of water moving from spring to river—the process of creation.

One can find a corresponding principle to the One in Chinese philosophy: the principle of *taiji*. In the “Explanation of the Supreme Polarity Diagram” (*Taijitu shuo*), the Neo-Confucian cosmologist Zhou Dunyi (1017-1073 CE) states “Non-polar (*wuji*) and yet Supreme Polarity (*taiji*)!” (Adler 2009). To understand this somewhat cryptic exclamation, we can refer to Zhu Xi's (1130-1200 CE) commentary. Zhu Xi interprets “non-polar” as indifferentiation, meaning the *taiji* has no characteristics and exists in a non-spatial form prior to all things. This is similar to the idea of the OAC being indeterminate (without conditional or essential features). “Supreme Polarity” is “just the

single actualized principle that runs through [all things] and unifies them”, similar to the way in which Spinoza’s God is the unity of infinite attributes, Brahman is within everything and therefore is everything, and the One is the productive power of everything (Adler 2009). Putting these two terms together—“non-polar” and “Supreme Polarity”—Dunyi’s statement most closely reflects the essence of the OAC as an indeterminate and continuous process of creation.

1.3 Defining a State of Consciousness

In David Chalmers’ *The Conscious Mind: In Search of a Fundamental Theory*, he distinguishes between two forms of consciousness: phenomenal and psychological. *Phenomenal* consciousness refers to the qualitative aspect of experiences. Characteristics of phenomenal consciousness include sensory experiences (visual, auditory, tactile, olfactory, gustatory), mental imagery, conscious thoughts, emotions, and the sense of self (Chalmers 1996). *Psychological* consciousness refers to mental behaviors including awakeness, introspection, reportability, self-consciousness, attention, voluntary control, and knowledge (Chalmers 1996).

Chalmers is careful to make these distinctions in his work and discusses them separately at various points in his book. However, Charles Tart, a prominent psychologist and parapsychologist, expresses that a *state* of consciousness must take into account a synthesis of these facets of consciousness. He writes that a state is “defined not in terms of any particular content of consciousness, or specific behavior or physiological change, but in terms of the overall patterning of psychological functioning” (Tart 1972). To illustrate this idea, I can say that my current state of consciousness is the amalgamation of

phenomenal and psychological facets into an overall pattern of how I am functioning at the moment: sitting on a comfortable chair, feeling tired, drinking hot tea, focusing my attention on writing this paper, and expecting to go to bed soon.

1.4 Defining ASCs

Tart defines ASCs as “qualitative alterations in the overall pattern of mental functioning, such that the experiencer feels his consciousness is radically different from the way it functions ordinarily” (Tart 1972). There are two points to clarify within this definition. First, “functions ordinarily” refers to the normal waking state of consciousness that has not been exposed to any significant changes in internal or external stimuli. For example, I would say I am functioning normally when I am eating lunch and talking with the people I am sitting with. My mood is relatively neutral, the dining hall setting and conversation topics are familiar to me, and nothing about my body feels different enough for me to notice it.

For my state of consciousness to be “radically different”, the psychologist G. William Farthing argues that there must be temporary changes in the pattern of my subject experiences in more than one of the following 14 categories (Farthing 1992): attention, perception, imagery and fantasy, inner speech, memory, higher-level thought processes, meaning or significance of experience, time experience, emotional feeling or expression, arousal, self-control, suggestibility, body image, and sense of personal identity.

Of these categories, I will be focusing on three in particular. First, time experience refers to the feeling of an increase or decrease in the pace of linear time. Alternatively,

one may have an experience of atemporality (being outside of time) or eternity. Second, in the context of psychedelic experience, a radical change in one's sense of personal identity relates to the notion of ego dissolution in which one feels that everything is unified. In other words, there is a radical change in the distinction between the self and the external world. Third, changes in the meaning and significance of one's experience means certain thoughts become profoundly important. One may even have a sense of the ineffable—an experience so profound that it cannot be put into words.

Based on different groupings of these 14 changes in subject experiences, Farthing establishes seven major ASCs: sleep, hypnagogic state (drowsy pre-sleep), hypnosis, various types of meditation, mystical or transcendental experiences, sensory-deprivation experiences, and states produced by psychoactive substances (Farthing 1992). The remainder of this paper will pertain to psychedelic-induced ASC (P-ASC).

1.5 Defining Knowledge

In this paper, I will be using the *justified true belief* (JTB) definition of knowledge which holds that:

S knows that *p* iff:

1. *p* is true;
2. *S* believes that *p*;
3. *S* is justified in believing that *p*.

To elaborate on this definition, I will look at each of the three components in more depth. First, a *belief* is an attitude that one holds in which they take something to be the case as true (Schwitzgebel 2021). For example, I may hold the belief that it is raining

outside. Neil Sinhabahu, a philosophy professor, further characterizes belief, stating that “beliefs create and eliminate other beliefs as the logical relationship between their contents suggests” (Sinhababu 2016). If I believe it is raining outside, I do not believe it is *not* raining, for it cannot be raining and not raining at the same time.

The condition of *truth* in JTB is that one cannot know something that is false. However, “truth is a *metaphysical*, as opposed to *epistemological*, notion: truth is a matter of how things *are*, not how they can be *shown* to be” (Ichikawa and Steup 2018). Essentially, something can be true without one having proved it is true. It can be true that it is raining outside without me having confirmed this. In this paper, I assume it is true that ultimate reality exists. Doing so will allow me to focus on the question of whether we can acquire knowledge of it if it exists.

The heart of the discussion will concern *justification* which is the condition that one must have a reason for why they hold their belief to be true. One of the main ways we form these reasons is by relying on our perceptual experience. Sinhababu states that “perceptual states dispose us to believe that things are as we perceive them” (Sinhababu 2016). I justify my belief that it is raining because I see with my eyes that it is raining.

In the following chapter, I will argue that the perceptual experiences in a P-ASC allows for acquaintance with ultimate reality. My argument will be an application of Bertrand Russell’s knowledge by acquaintance argument in which one can acquire knowledge of something through “direct cognitive relation” (i.e., experiencing it with one’s senses) (Russell 1910/1911). My argument, which I will refer to as the Acquaintance Argument, is as follows:

1. Knowledge of ultimate reality is possible if and only if we are acquainted with ultimate reality.
2. P-ASC allows for acquaintance with ultimate reality.
3. Therefore, we can acquire knowledge of ultimate reality.

A major challenge of considering a P-ASC as a tool for advancing metaphysical discussions is society's notion of psychedelics as substances that grossly distort perception and cognitive processes beyond sensible means for such philosophical considerations. In chapter three, I draw from reliabilist epistemology to demonstrate that perceptual experience in a P-ASC holds up as justification when combined with post-experience, sober reflection.

1.6 Chapter Conclusion

To conclude, in this chapter I define the components of this paper's central question of whether we can acquire knowledge of ultimate reality from a P-ASC. I first define ultimate reality according to Neville's argument of the OAC, meaning ultimate reality is the fundamental cause and structure of everything in existence. I then present four models of ultimate reality—God, Brahman, the One, and *taiji*—and discuss the advantages and disadvantages of the way they represent ultimate reality. Next, I define a state of consciousness as the sum of one's phenomenal and psychological consciousness and an altered state of consciousness as a change in the pattern of one's subjective experience in a normal waking state of consciousness. Finally, I define knowledge as justified true belief and provide an overview of how perception in a P-ASC is justified.

Chapter 2

The Acquaintance Argument

This chapter will expand on the Acquaintance Argument introduced at the end of chapter one. As mentioned, I am applying Russell's knowledge by acquaintance argument to the concept of ultimate reality to demonstrate that we can have knowledge of ultimate reality via acquaintance.

I will begin with an explanation in section 2.1 of how we can gain knowledge of something by becoming acquainted with it and, notably, how this differs from gaining knowledge of something by description. In section 2.2, I will discuss how knowledge of certain concepts can come *only* from acquaintance as opposed to description. For this, I will be referencing Frank Jackson's famous thought experiment about how one knows what it is like to see the color red only through a firsthand perceptual experience that acquaints one with the color. In line with Jackson's conclusion, I argue that knowledge of what ultimate reality is like is something that can come only from acquaintance.

In section 2.3, I examine the role of a P-ASC in becoming acquainted with ultimate reality. Michael Antony puts forth a theory that there is a maximum degree of knowledge that a typical human can attain, and knowledge of ultimate reality surpasses this limit. He proposes that the brain must go through a significant transition that would sufficiently increase this maximum threshold to enable one to (potentially) gain knowledge of ultimate reality. I argue in section 2.4 that a P-ASC allows for this transition to take place, effectively allowing one to gain knowledge of ultimate reality. In section 2.5, I support this claim with numerous testimonies of people's experiences

during a P-ASC that bear strong resemblance to ultimate reality as explained in the models in chapter one. The similarities between the testimonies and models suggest that during a P-ASC, one becomes acquainted with ultimate reality through firsthand perceptual experience.

2.1 Knowledge by Acquaintance

Bertrand Russell (1872 - 1970), a philosopher and mathematician, published a paper in the early 1910's titled "Knowledge by Acquaintance and Knowledge by Description". In this paper, he lays out the distinction between these two sources of knowledge. Regarding the former, he states, "I say that I am *acquainted* with an object when I have a direct cognitive relation to that object, *i.e.* when I am directly aware of the object itself" (Russell 1910/1911). What Russell means by object is the content of our perceptual experience. For example, Russell writes, "when I see a colour or hear a noise, I have direct acquaintance with the colour or noise" (Russell 1910/1911). It is important to note that acquaintance does not involve judgment. My acquaintance with a noise proceeds without a judgment of what that noise is or what caused it.

Russell notes that the relationship between a subject and object that he calls acquaintance is "the converse of the relation of object and subject which constitutes presentation" (Russell 1910/1911). This is like saying that "I am acquainted with a color" is the converse of "the color is presented to me". Though both statements refer to the same relationship, the terms *acquaintance* and *presentation* have different connotations that influence the focus of the claim. Russell chooses to use the word *acquaintance*

because it puts a greater emphasis on the subject, and given that his paper discusses how a *subject* gains knowledge, we are more concerned with the subject than the object.

Knowledge by description, in contrast, is “knowledge concerning objects in cases where we know that there is an object answering to a definite description, though we are not *acquainted* with any such object” (Russell 1910/1911). For example, I know Kareem Abdul-Jabbar from description because I’ve read about him on Wikipedia. However, I cannot say that I know him by acquaintance because I have never had a first-hand experience with him, i.e. I have never met him in person. So, if someone asked me if I know Kareem Abdul-Jabbar, I can only say that I know *of* him.

2.2 *Fred and Mary*

In the mid 1980’s, Frank Jackson developed a series of famous thought experiments that he uses to argue that not all knowledge is accessible through the physical world and that some knowledge can only be acquired through subjective experiences.¹ In his article “Epiphenomenal Qualia”, Jackson’s first thought experiment involves a person named Fred who is able to see more colors than the average person. When shown a batch of ripe tomatoes that appear to us to all be the same color and have no distinguishing features, he splits them into two groups by color. Even when the tomatoes are shuffled and he is asked to split them again, he sorts them into the exact same groups (we will assume that the people carrying out the test have a way of

¹ This is an intermediate conclusion of Jackson’s Knowledge Argument. His overall argument seeks to disprove physicalism, the metaphysical claim that everything in the universe is physical, by demonstrating that some sources of knowledge cannot be physical. For our purposes here, we need not take up the part of the argument concerning physicalism.

determining which tomato is which). Fred consistently sorts them into the same two groups each subsequent time the tomatoes are shuffled.

When asked how he does it, Fred explains that the ripe tomatoes are different colors even though they all look to be the same color to us. Jackson describes that Fred has “in consequence developed for his own use two words ‘red₁’ and ‘red₂’ to mark the difference” (Jackson 1982). By virtue of seeing the difference, Fred has knowledge by acquaintance of red₁ and red₂. But, despite Fred’s attempt at explaining the distinction, no one else knows what it is like to see these two colors because they cannot perceive them themselves. As a result, everyone else can only know *of* the distinction between red₁ and red₂ through Fred’s description.

Jackson’s second thought experiment in this paper considers a situation in which a person named Mary *lacks* color perception (Jackson 1982). Mary is a scientist who is forced to investigate the world from the confines of a black and white room with a black and white television monitor. In this space, she does not have access to color, nor has she ever had access to color in her lifetime. Through her neurophysiology studies, she is able to understand the exact physical makeup of the world outside her room. For example, she knows exactly what wavelengths make the sky blue and what goes on in the brain when we see a ripe, red tomato.

Yet, Mary does not know what it is like to see red just as we do not know what it is like to see the distinction between red₁ and red₂. Accordingly, because Mary only knows *of* red, she only has knowledge by description. When she finally leaves the room, she will know what it is like to see red and will thus gain knowledge by acquaintance. The point of this example is to show that Mary’s knowledge of what red looks like comes

from a first-person perceptual experience, knowledge that no amount of neurophysiological research could provide. Based on this line of reasoning, there must be some forms of knowledge that necessitate acquaintance.

L.A. Paul, a professor of philosophy and cognitive science, comments on the Mary thought experiment in her book *Transformative Experience*. She writes, “Mary, before she leaves her room, is in a special kind of epistemic poverty, keyed to her inability to grasp crucial information about the nature of her future experiences [of seeing the color red]” (Paul 2014). When Mary leaves the room, she has what Paul dubs a *transformative experience*:

When a person has a new and different kind of experience, a kind of experience that teaches her something she could not have learned without having that kind of experience, she has an epistemic transformation. Her knowledge of what something is like, and thus her subjective point of view, changes. With this new experience, she gains new abilities to cognitively entertain certain contents, she learns to understand things in a new way, and she may even gain new information. (Paul 2014)

While it may be an overstatement to say that every situation in which one gains knowledge by acquaintance is a transformative experience, what we can say is that every transformative experience must be an experience of acquaintance. In the following sections I will explore in more depth the role of transformative experiences in gaining knowledge by acquaintance with ultimate reality.

2.3 Potential for Acquaintance with Ultimate Reality

Having laid the epistemic groundwork for the Acquaintance Argument that we can acquire knowledge of ultimate reality through a P-ASC, I will now discuss each premise of the argument in greater detail. Premise 1 states that *knowledge of ultimate reality is possible if and only if we are acquainted with ultimate reality*. We can consider knowledge of ultimate reality as the same kind of knowledge as what it is like to see red. As mentioned, no amount of research Mary conducts in the room can genuinely convey what it is like to see red. Similarly, no model can genuinely convey what ultimate reality is like because there will always be something that is omitted or misrepresented for the sake of comprehensibility. In both of these cases, it is necessary to have first-hand perceptual experience to know either in their full capacity. Therefore, knowledge of ultimate reality must come from acquaintance.

Michael Antony, a philosopher who specializes in epistemology, questions the extent to which we can have knowledge by acquaintance of ultimate reality in his paper, aptly titled, “Can We Acquire Knowledge of Ultimate Reality” (Antony 2013). Several concepts play a key role in his discussion. First, a *psychological route* is a “path from a mind in an initial state of knowledge regarding some topic to a mind with increased or improved knowledge about that topic (the target state)” (Antony 2013). For example, Mary’s initial state in the room is the state of having no knowledge of what it is like to see red. The target state is the one in which she knows what it is like to see red.

Second, the “psychological route from the initial state to the target state comprises a series of *psychological transitions*” which he lists as a number of changes “involving the acquisition and refinement of concepts, mental skills and capacities (intellectual,

experiential, emotional, etc.), kinds of information, and so on” (Antony 2013). Antony illustrates this concept with the example of learning math: progressing from knowing addition to long division to calculus and beyond requires the mind to undergo intellectual development. Each time someone levels up in math, they pass a psychological transition point along the psychological route.

Third, *psychological distance* refers to the number of psychological transitions needed to go from one state to the next. The psychological distance between a state of knowing addition to knowing long division is shorter than the distance between long division and calculus. This is because there are many more mathematical concepts one needs to understand to go from long division to calculus than from addition to long division.

Applying these terms to our discussion of ultimate reality, Antony presents four points along the psychological route going from a human’s current state of knowledge to the target state of comprehensive knowledge of ultimate reality (Antony 2013):

- I. humans’ current state of knowledge (K^{CurHum})
- II. the maximal degree of knowledge that is psychologically possible for humans (K^{MaxHum}) given the current structure of our brains
- III. the maximal degree of knowledge that is psychologically possible for (trans)humans (K^{MaxHum^*})
- IV. comprehensive knowledge of ultimate reality (K^{UltReal})

Points I and IV are relatively clear, but I would like to provide some additional context for points II and III. The phrase “given the current structure of our brains” just refers to the biological makeup of the brain in its natural form. In point III, Antony alludes to the

transhumanist movement in which some people believe humans in the future will have technologies that enhance the brain “to make us vastly smarter, and more capable psychologically in other ways, than we are now” (Antony 2013).

To ask the question of whether we can acquire knowledge of ultimate reality is, in Antony’s terms, to ask whether the psychological distance between K^{CurHum} and K^{UltReal} is small enough that we could traverse it. He concludes that there are “indefinitely many scenarios” that represent this psychological distance which means it is *possible* that there is a scenario in which the distance is short enough for us to acquire K^{UltReal} . He adds that at the present moment, we cannot know that such a scenario exists. This is effectively saying “it is possible that it is possible” to acquire K^{UltReal} which is an empty claim and does not add any support to the Acquaintance Argument.

Though Antony’s discussion does not provide a definitive stance, his paper does put forth an idea that has interesting implications for the Acquaintance Argument:

...there will be a point along the route to K^{UltReal} at which, in order to undergo further psychological transitions, a human brain would have to be altered or enhanced in a way that enables it to acquire new concepts, perform new computations, realize new states of consciousness, etc. (Antony 2013)

This list of abilities that come from an enhanced brain closely resembles the effects of a transformative experience. As Paul mentioned, a transformative experience gives one access to “new abilities to cognitively entertain certain contents”, “understand things in a new way”, and “even gain new information” (Paul 2014). As will be discussed in section 2.4, a P-ASC allows for a transformative experience. So, while Antony suggests that brain enhancements would likely come from the transhumanists’ technologies, I propose

that a P-ASC can provide this enhancement and therefore act as this psychological transition point on the route to K^{UltReal} .

2.4 P-ASC as a Transition Point

In this section, I will elaborate on the idea of a P-ASC being a psychological transition point on the psychological route to K^{UltReal} by discussing what changes occur in this state and how these changes allow for possible experiences of acquaintance with ultimate reality. As such, I seek to demonstrate the second premise of the Acquaintance Argument that a *P-ASC allows for acquaintance with ultimate reality*.

It is worth mentioning briefly that a P-ASC is not the *only* way to approach this transition point. As Timothy Leary, a former psychedelic researcher at Harvard University in the early 1960s, put it, “the drug does not produce the transcendent experience. It merely acts as a chemical key—it opens the mind, frees the nervous system of its ordinary patterns and structures” (Leary 1995). He adds, “Other methods include disciplined meditation, sensory deprivation, religious or aesthetic ecstasies” (Leary 1995). However, this paper will continue its focus exclusively on the P-ASC.

To understand the impact of psychedelics on the brain, it is first necessary to understand the basic idea of how the brain operates in a normal waking state of consciousness. Our brain has various networks connecting certain parts of the brain, each specializing in its own function. When the brain is mapped using functional magnetic resonance imaging (fMRI), researchers can look for correlations in blood flow between different regions and theorize that “these brain regions are communicating and are engaged in the same cognitive processes—they are said to be functionally connected”

(Drew 2022). As of now, the current research suggests that there are seven or eight discrete networks including those related to attention, vision, and sensorimotor processing.

In an interview with Michael Pollan for his book *How to Change your Mind: What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*, Robin Carhart-Harris, a leading figure in the psychology and neuroscience of psychedelics, characterizes these networks as being a “hierarchical system”. He explains, “‘The highest-level parts’—those developed late in our evolution, typically located in the cortex—‘exert an inhibitory influence on the lower-level [and older] parts, like emotion and memory’” (Pollan 2018).

The highest level is known as the *default mode network* (DMN). It functions as the connector hub for information integration and routing between the other networks. (Carhart-Harris et al. 2014). Furthermore, the DMN works to promote efficiency of brain activity among the various networks, suppressing functions that are not vital to survival-oriented reasoning and “exerting a limiting or narrowing influence on consciousness” (Carhart-Harris et al. 2014). As an analogy, Carhart-Harris refers to it as a “central *orchestrator* or *conductor* for global brain function” just as a conductor directs which instruments to play and when for the symphony to manifest (Carhart-Harris et al. 2014). Additionally, the DMN is also known among neuroscience researchers as the “me network” or the “ego” for its role in metacognitive operations such as self-reflection, attributing mental states such as belief and emotion to others (known as theory-of-mind), and retrieving autobiographical memory (Pollan 2018; Carhart-Harris et al. 2014).

When ingested, the psychedelic substance interacts with the serotonin 2A receptor (5-HT_{2A}R) which is found in unusually high concentrations in the regions of the brain that house the DMN (Carhart-Harris et al. 2014). The result is a temporary disintegration of the DMN, “subverting the brain’s ability to entrain and constrain emotion and perception to a central narrative” (Carhart-Harris and Friston 2019). Without this central conductor, the various networks that the DMN kept in order become unbounded, resulting in a randomness and disorganization of the brain’s functioning that Carhart-Harris termed *entropy*. To provide more background on Carhart-Harris’s decision to use this term, Pollan writes,

In both physics and information theory, entropy is often associated with expansion—as in the expansion of a gas when it is heated or freed from the constraints of a container. As the gas’s molecules diffuse in space, it becomes harder to predict the location of any given one; the uncertainty of the system thus increases. (Pollan 2018)

In this context, entropy is associated with Leary’s idea of “consciousness-expansion” (Leary 1995).

The central idea of Carhart-Harris’s “entropic brain hypothesis” is that psychedelics “increase the entropy of spontaneous brain activity, and that such effects are mirrored at the subjective level by an increase in the richness of conscious experience” (Carhart-Harris and Friston 2019). In effect, more regions of the brain become integrated, creating new connections and increasing the brain’s neuroplasticity. Additionally, as a result of a more relaxed confidence in one’s prior assumptions and established patterns, entropy allows for a more open, inquiring state of mind (Carhart-Harris and Friston

2019). Similarly, Pollan argues that though entropy may result in mental states that seem “bizarre and senseless”, entropy is valuable for its revelatory and transformative potential which “might explain why material that is unavailable to us during normal waking consciousness now floats to the surface of our awareness” in a P-ASC (Pollan 2018).

Interestingly, despite the DMN and entropy brain hypothesis being concepts of the 21st century, Aldous Huxley made similar hypotheses about the mechanics of his P-ASC with mescaline in the 1950’s. In *The Doors of Perception*, he discusses a process that is comparable to the disintegration of the DMN:

These effects of mescaline are the sort of effects you could expect to follow the administration of a drug having the power to impair the efficiency of the cerebral reducing valve. When the brain runs out of sugar, the undernourished ego grows weak, can’t be bothered to undertake the necessary chores, and loses all interest in those spatial and temporal relationships which mean so much to an organism bent on getting on in the world...all kinds of biologically useless things start to happen. (Huxley 1954)

The cerebral reducing valve is like the DMN, the ego growing weak is the breakdown of the DMN’s executive control over the other networks, and the biologically useless things are all the new instances of crosstalk between the networks during entropy that are not vital to survival. With respect to the experience itself, he writes:

In some cases there may be extra-sensory perceptions. Other persons discover a world of visionary beauty. To others again is revealed the glory, the infinite value and meaningfulness of naked existence, of the given, unconceptualized event. In the final stage of egolessness there is an ‘obscure knowledge’ that All is in

all—that All is actually each. This is as near, I take it, as a finite mind can ever come to ‘perceiving everything that is happening everywhere in the universe’.
(Huxley 1954)

Huxley’s statement about the phenomenology of the P-ASC experience illustrates the central point of this paper about the possibility for acquaintance with ultimate reality. In the following section I will present more examples that demonstrate what such acquaintance looks like.

2.5 Similarities between Characteristics of Ultimate Reality and P-ASC

In this section I will compare testimonial experiences of P-ASCs with characteristics of ultimate reality to demonstrate that their similarities may be considered instances of acquaintance with ultimate reality. For these comparisons, I will focus on three of the characteristics of ASC laid out by Farthing in the previous chapter: time experiences, sense of self, and changes in meaning or significance. These testimonies come from Western literature on first-hand accounts of P-ASCs, comprehensive surveys of P-ASCs from a cognitive psychology perspective, and studies in a controlled setting using fMRI and positron emission tomography (PET) scans.

First, one of the metacognitive operations of the DMN include mental time travel which refers to one’s ability to “mentally project themselves backwards and forwards in time, to recollect aspects of past autobiographical episodes or imagine future experiences” (Speth et al. 2016). With the temporary disintegration of the DMN, participants engaged in less mental time travel, resulting in less distinct separations of time into past, present, and future.

In a 2010 study published in PLoS One, researchers pooled data from 43 experimental studies totaling 591 participants that conducted a psychometric evaluation of P-ASC experience using an ASC questionnaire. Among the responses the participants gave relating to time experiences included sentiments such as “I experienced the past, present and future as oneness” and “I experienced a touch of eternity” (Studerus 2010). In Chris Letheby’s *Philosophy of Psychedelics*, he cites additional studies in which participants experienced time slowing or stopping completely, time as eternity, or atemporality (Letheby 2021).

In Shanon’s surveys of Ayahuasca experiences, he writes that “Ayahuasca brings people to a realm that is beyond past, present, and future. From the perspective of the eternal, everything that has ever happened, as well as everything that will ever happen, has an equal temporal status” (Shanon 2002). Shanon relates this idea to Spinoza’s *sub specie aeternitate*, the idea that since God is eternal, his attributes are always in existence, and therefore everything that these attributes make up (which is everything) exist without any relation to time (Nadler 2022). Considering the other models of ultimate reality discussed—Brahman, the One, and *taiji*—all represent eternal creation that has no beginning or end. As such, the first-hand experience of eternity in a P-ASC suggests acquaintance with the eternal quality of ultimate reality.

Second, the alteration of one’s sense of identity can be compared to the phenomenon of *ego dissolution* (Carhart-Harris and Friston 2019). Since the DMN is the “me network” and is thought to be the seat of the ego, the dissolution of the DMN/ego leads to a loss of a distinct self in relation to one’s environment (Fox et al. 2018). Volunteers from Carhart-Harris’s experiments reported “I existed only as an idea or

concept,” and “I didn’t know where I ended and my surroundings began” (Pollan 2018). In other studies, participants reported “Everything seemed to unify into an oneness,” and “It seemed that my environment and I were one” (Studerus 2010). In Western writers’ first-hand accounts, the British writer John Blofeld remarked,

There was awareness of undifferentiated unity, embracing the perfect identity of subject and object, of singleness and plurality, of the One and the Many. Thus I found myself (if indeed the words ‘I’ and ‘myself’ have any meaning in such a context) at once the audience, the actors and the play! Logically, the One can give birth to the Many and the Many can merge into the One or be fundamentally but not apparently identical with it; they cannot be in all respects one and many simultaneously. But now logic was transcended. (Letheby 2021)

It is easy to see the connection between Blofeld’s ideas about the One relating to Plotinus’s the One—they even use the same term. This relationship Blofeld describes between the One and the Many mirrors the relationship between the OAC and everything that it creates.

Furthermore, Shanon writes that “many informants have reported to me that the [Ayahuasca] brew made them appreciate that ‘everything is interconnected’, ‘all is one’, ‘everything is spirit’, and ‘all is consciousness’” (Shanon 2002). The idea of “all is one” is an apt characterization of the *taiji*. In Zhu Xi’s commentary, he remarks that the *taiji* is the oneness of the duality of yin and yang, the two opposite forces that govern the nature of existence (Adler 2009). Additionally, this unity is an appropriate characterization of Spinoza’s God, a single substance that is everything.

Sharon also notes that “description of the visual effect was invariably the same and many persons used the identical phrase—‘a web’—to describe it” (Shanon 2002). While not exactly depicting a web, the *Bhagavad Gita*, a holy Hindu scripture, illustrates Brahman’s connectivity to everything as “pearls on a thread” which connotes a physical unity that a web has as well (BG 7.7). In all, these various experiences of transcendent unity suggest an acquaintance with the all-encompassing quality of ultimate reality.

The third and final characteristic of a P-ASC is changes in the meaning and significance of certain internal and external entities of one’s life. This is potentially the result of the new channels of communication in an entropic brain, though more research needs to be done to understand how psychedelics impact one’s notion of significance (Pollan 2018). Common experiences of meaning and significance often have to do with gaining some form of knowledge or understanding—as one participant put it, “I gained clarity into connections that puzzled me before” (Studerus 2010). In Blofeld’s experiences, he writes, “In any case, this truth, even if at an ordinary level of consciousness it cannot be understood, can, in a higher state of consciousness, be directly experienced as self-evident” (Letheby 2021). In a psychedelic-assisted therapy session of a cancer patient, they remarked that “The basic theme that I perceived ... was that life continues to go on and we are basically some form of essence from a Supreme Being and we are part of that Supreme Being,” and noted that “The results of the use of the hallucinogenic drug on my life have been very profound. I seem to have a much deeper understanding of life and death” (Richards 1978).

In a testimony from Letheby’s book, a participant stated that the P-ASC allowed for “the realization of the God within us” and that this type of knowledge “goes beyond

the body, the mind, the reason, and the intellect, to an area of pure knowing” (Letheby 2021). This participant’s recount of their experience of knowledge is very similar to Spinoza’s theory on acquiring knowledge of God. Spinoza’s explanation relies on his distinction between three kinds of knowledge. Knowledge of the first kind is when “we remember certain things through having read or heard certain words and form certain ideas of them similar to those through which we imagine things” (Spinoza 1677/1910). He refers to this type of knowledge as opinions (*opinio*) or imagination (*imaginatio*). Knowledge of the second kind is when “we have common notions and adequate ideas of the properties of things”, and Spinoza calls this reason (*ratio*). Knowledge of the third kind is the type that concerns ultimate reality. Referring to it as intuition (*scientia intuitiva*), he states, “this kind of knowing proceeds from an adequate idea of the formal essence of certain attributes of God to the adequate knowledge of the essence of things” (Spinoza 1677/1910). By having intuition, “the human mind has an adequate knowledge of the eternal and infinite essence of God” (Spinoza 1677/1910). That is, since a person can understand God’s attributes, they can understand God.

Furthermore, Shanon writes of his own experience that “the impression is that a secret world, hidden within the normal overt one, gradually reveals itself” and that the perceptual effects in a P-ASC are like “skins of an onion that are peeled so as to present senses and meanings that in ordinary states of consciousness are not perceived” (Shanon 2002). The Neoplatonist model of ultimate reality presents somewhat of a similar metaphysical framework to the “skins of an onion”. However, unlike some survey participants’ conclusions about being able to “gain a complete comprehension of everything”, this model presents knowledge of ultimate reality as unattainable (Shanon

2002). In the *Enneads*, Plotinus describes two hypostases, or derivatives, of the One. With the One representing the core of the onion, the first derivative, what we might think of as the skin closest to the core, is Intellect which is everything in its idealized form. The second derivative, an outer layer of onion skin, is the Soul which is the physical forms of all the things idealized in the Intellect.

Plotinus explains that attempts to know the One are futile:

...this Intellect, which is multiple, whenever it wants to think that which is transcendent, thinks it as one, but, wanting to attain it in its simplicity, ends up always grasping something pluralized in itself. (V.3.11)

What Plotinus means is that to know something, one must have a concept for how to understand the One. Yet, that concept of the One is actually Intellect because a concept is an idealized form rather than the things itself. So, the very act of trying to understand the One is a demonstration of its ineffability. Despite Plotinus's pessimistic view, "many subjects say the state is unlike anything in their prior experience and words cannot do it justice" (Letheby 2021). This suggests that trying to understand the One in words cannot capture the essence of the One but that *experiencing* the ineffability of the One does allow them to understand it.

In Hinduism, experiencing Brahman occurs in the state of enlightenment, the destination on one's journey of gaining self-knowledge. In the *Bhagavad Gita*, achieving enlightenment requires "one perfecting the science of uniting the individual consciousness with the Ultimate Consciousness, spiritually realizing the Ultimate Truth attains the liberation of the Ultimate Truth" wherein the Ultimate Consciousness and Ultimate Truth refer to Brahman (BG 5.24).

In a comprehensive survey of 985 people conducted in 2020, researchers collected responses from participants about psychological insight they gained as a result of their P-ASC. Many of these responses reflect the notion of gaining self-knowledge. Below are some of the items from their Psychological Insight Questionnaire and the percent of participants who endorsed the statement at any intensity level above “no, not at all” (Davis et al. 2020):

Gained a deeper understanding of events/memories from my past; 93.4%

Gained resolution or clarity about past traumas or hurtful events; 83.6%

Gained a deeper understanding of previously held beliefs and/or values; 97.1%

Realized the importance of my life; 92.8%

Awareness of my life purpose, goals, and/or priorities; 94.7%

Awareness of dysfunctional patterns in my actions, thoughts, and/or feelings;
94.2%

Discovered new feelings or perspectives about significant relationships in my life;
93.0%

While these statements do not suggest complete enlightenment, they do demonstrate changes in the meaning and significance of certain elements of their lives. As outlined in Hindu practices, these changes are a necessary part of the journey to enlightenment and for achieving acquaintance with ultimate reality.

2.6 Chapter Conclusion

To conclude this chapter, I would like to reiterate the two premises of the Acquaintance Argument. The first premise is that *knowledge of ultimate reality is*

possible if and only if we are acquainted with ultimate reality. I support this claim by demonstrating how there are certain types of knowledge that one can only acquire through first-hand subjective experience—that is, through acquaintance. Among these types of knowledge is “what it’s likeness” as illustrated in Jackson’s thought experiment about knowing what it is like to see red. I argue that knowledge of ultimate reality follows the same principle of “what it’s likeness” and can only be attained through personal experience. I then present Antony’s theory that knowledge of ultimate reality requires some form of cognitive enhancement that he claims we have not yet been able to mimic. I respond to this claim by introducing the second premise of the Acquaintance Argument that the *P-ASC allows for acquaintance with ultimate reality.* I analyze how the P-ASC can act as a form of enhancement that allows one to experience acquaintance with various aspects of ultimate reality as outlined by the models of God, Brahman, the One, and the *taiji*. In all, I have demonstrated that once acquainted with ultimate reality in the P-ASC, we can say that we have acquired knowledge of ultimate reality.

Chapter 3

Responding to Counter Arguments

The Acquaintance Argument presented in the previous chapter explains how acquaintance—first-hand perceptual experience—allows one to acquire knowledge of ultimate reality. However, there are several objections to relying on perception in a P-ASC to justify belief. Two objections that pose a significant challenge include the claim that a P-ASC has the potential to produce erroneous perception and that one may mistake epistemic justification for mere phenomenal certainty. Both of these objections center on the idea that such perception is an unreliable process and therefore cannot provide justification. To strengthen the justificatory power of perception in a P-ASC, I suggest that we combine insight from a P-ASC with *sober scrutiny* to better filter out epistemically unsound beliefs.

In section 3.1, I expand on the notion of sober scrutiny, describing how it is a process we use in our everyday lives and then consider how we apply it to P-ASC. In section 3.2, I present the first objection about erroneous perception and discuss how sober scrutiny may refute this objection. In 3.3, I present the second objection about the issue of phenomenal certainty versus epistemic justification and discuss how sober scrutiny may refute this objection as well. Finally, in section 3.4, I recognize some of the limitations of the sober scrutiny response and state how we may address these limitations moving forward.

3.1 Sober Scrutiny

Alvin Goldman, a professor of philosophy and cognitive science, presents in the paper “What is Justified Belief” a reliabilist account of justification, arguing that a belief is justified if it is formed by reliable processes (Goldman 1979). Examples of reliable processes include perceptual experiences in normal waking consciousness as well as careful introspection while unreliable processes would be things like wishful thinking, guesswork, and superstitions (Goldman and Beddor 2021).

Since perception in a P-ASC is different from perception in a normal waking state of consciousness, Goldman’s argument suggests that psychedelic experience may not be a reliable process on its own. To increase its reliability, we may consider combining the experience with *sober scrutiny*, a notion first introduced in Letheby’s book. He states that “the context of justification must also encompass critical, sober reflection during the post-session period,” and that the “combination of psychedelic experience and sober scrutiny will always provide greater justification for accepting any putative insight than the experience alone” (Letheby 2021).

In the context of a P-ASC, the word “sober” in sober scrutiny has two meanings. In a literal sense, it means to be sober from the influence of psychedelics once the drug is fully out of one’s system. However, sober also refers to rational and deliberate thinking. For instance, if I discover my bike was just stolen, freaking out is unlikely to help me find my bike. Instead, having a sober-headed response to the situation is more effective for determining what steps I should take to find it.

Setting aside P-ASCs for a moment, we can understand sober scrutiny as something we do in our everyday lives. It is essentially a process of cross-referencing one

form of justification—perception—with another—rational reflection. For example, if I am at a diner, and my Denver omelet is unbearably flavorless, I might want to add some salt to it. On the table are several clear, unlabeled containers, and since sugar and salt look very similar, I may accidentally mistake one for the other and end up adding sugar when I meant to add salt. In this case, only relying on what salt looks like may not be enough to ensure I pick up the saltshaker.

Instead, what I do is look for the container with white granules that is situated next to the container that looks like pepper since people usually place salt and pepper next to each other. Here, I have combined my perception and my past experiences with salt and pepper placement to justify my belief that the container I pick up is in fact salt. In this example, though I still apply some degree of sober scrutiny to prevent a possible error in my perception, sober scrutiny does not play a major role since I feel that my vision is a very reliable source of justification in this situation.

Another situation one might use sober scrutiny is when looking at optical illusions. What makes an optical illusion work is if one relies on *only* their perception to justify a belief. This might lead them to believe that there are spinning circles when nothing is moving or that a series of lines are different lengths when they are actually all the same length. Unlike the previous example, it takes more time and effort to contemplate the validity of one's perception because of the extent to which optical illusions can distort perception. Consequently, one must engage in a higher degree of sober scrutiny to justify their belief that the circles are not moving, and the lines are the same length.

These two examples demonstrate a positively correlated relationship between the potential for erroneous perceptions and our need for sober scrutiny—the more likely it is that our perception is distorted, the more we must depend on sober scrutiny to make sense of the situation. As a reminder, though these two examples discuss visual perception, this paper is specifically focused on perception of time, the self, and meaning and significance. Accordingly, in a P-ASC, as each of these forms of perception bear less resemblance to how we experience them in a normal waking state of consciousness, the more they will be subject to sober scrutiny.

3.2 Counter Argument: Entropy and the Potential for Erroneous Perception

A common sentiment among skeptics of the beneficial transformational potential of P-ASCs is that they are “closely associated with delusion and irrationality” and therefore could not serve as epistemic grounds for knowledge (Roche 2022). In fact, schizophrenia and early stages of psychosis are related to a suppressed DMN. Brain scans of individuals with these psychotic disorders share similar qualities to brain scans depicting entropy in a P-ASC (Carhart-Harris and Friston 2019). Carhart-Harris and Friston state that a “fragmented sense of self and a basal anxious uncertainty that, if sufficiently persistent and intolerable, may be brought under control through the formation of an overarching delusional belief system” (Carhart-Harris and Friston 2019). In a P-ASC, a delusion may form because the participant is experiencing a sensory overload, and in trying to make sense of it all, they may “reach for bizarre beliefs or poorly understood platitudes” to explain their uncertainties (Carhart-Harris and Friston 2019).

To respond to the delusion objection, we can refer to Carhart-Harris and Friston’s theory that in contrast to psychotic disorders, a full system of delusional belief does not take hold in someone who has gone through a P-ASC for several reasons. For one, the individual who experiences a P-ASC starts and ends at a “baseline state of high-level priors (e.g., a stable ego)” after the effects of the psychedelic wear off whereas someone with a psychotic disorder does not return to this baseline (Carhart-Harris and Friston 2019). Additionally, the duration of the P-ASC—approximately a few hours—does not provide enough time for a delusional belief system to close itself off to uncertainty and doubt (Carhart-Harris and Friston 2019). Moreover, “increased prediction error (and accompanying increased uncertainty) in the psychedelic state is typically seen as an acceptable, expected, and even valued part of the drug experience,” meaning that being open to different ideas and reflecting on their value afterwards differs from the rigidity of schizophrenic belief systems (Carhart-Harris and Friston 2019).

In this regard, a significant part of the psychedelic experience in its entirety is the process of sober scrutiny upon returning to a normal waking state of consciousness. In clinical trials of psychedelic-assisted therapy, much of the work comes after the patient’s experience. In follow-up sessions, the patient and therapist discuss the patient’s insights and consider what elements would be beneficial to the patient’s mental well-being moving forward (Davis et al. 2020). In essence, these conversations facilitate sober scrutiny, weeding out relevant from irrelevant insight.

Yet, the issue with the validity of perception faces further objections. In her discussion on why ASCs present a problem for theories of perception, Jennifer Windt presents a reconstructed version of Tim Crane’s argument from hallucination as presented

in an earlier version of the *Stanford Encyclopedia of Philosophy*'s entry on the "Problem of Perception" (Crane 2005; Windt 2011). Essentially, this argument lays out that since one may take a false perception (a hallucination) to be a genuine perception, then perception itself is not a reliable justification for a belief.

Since hallucinations are the result of a psychotic disorder or some other biological or psychological condition, we can use the same logic from the previous example to respond to Windt's objection. If someone has a hallucination but is not in a P-ASC, they will not return to the baseline state where they would apply sober scrutiny to consider the validity of their perception. However, as explained, the process of coming out of a P-ASC and returning to their normal waking state of consciousness involves sober scrutiny. Therefore, perception—when combined with sober scrutiny—is a reliable justification for belief.

3.3 Counter Argument: Phenomenal Certainty Versus Epistemic Justification

Even if one is adamant about believing they are acquainted with ultimate reality, Windt observes that "phenomenal certainty—the experience of persuasion or knowing—is not the same as epistemic justification" (Windt 2011). Furthermore, Windt states that "If [a belief] can only be justified through first-person experience and cannot be disproved through rational argument... such insights would lie outside the scope of epistemology, which focuses on rationally justifiable knowledge claims" (Windt 2011). This suggests that since the Acquaintance Argument depends on the first-person experience of ultimate reality, it does not have justification.

Windt's statement regarding "rational argument" as epistemic justification echoes G.T Roche's argument about ASC-independent justification (Roche 2010). As outlined in Letheby's book, Roche's argument goes as follows:

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.

The first premise of Roche's argument assumes that only one form of justification at a time can apply to a belief. Yet even some of the simplest beliefs—like ones about saltshakers—are almost always a combination of perception and reflection. So, in response to premise one, one can have ASC-independent justification (sober scrutiny) *and* ASC-dependent justification (psychedelic experience).

The second premise implies that if there is more than one form of justification, then the justification that comes from perception in a P-ASC is unnecessary. However, one cannot apply sober scrutiny to perception if there is no perception to scrutinize in the first place. As such, perception from a P-ASC is necessary for sober scrutiny and is partially responsible for the knowledge gain.

The third premise is essentially the objection from the previous section. Yet, as I have demonstrated, justification does not come solely from the P-ASC. Rather, it is the

combination of psychedelic experience and sober scrutiny that produces reliable justification. Therefore, contrary to Roche's conclusion, it *is* possible to gain knowledge from an ASC.

3.4 Limitations of the Sober Scrutiny Response

The sober scrutiny response suggests that we use our rational thought processes to help us interpret P-ASC insights. From this period of reflection, we can better gauge which insights are valuable and which are “fool's gold” (Pollan 2018). Yet, given that ultimate reality is an entity that we cannot truly comprehend *outside* of experience, it may be difficult to determine how to apply rational thought to such insights.

Carhart-Harris and Friston's suggestion is to “combine secular wisdom teaching” such as in nonreligious Buddhism and depth psychology,” but this is currently not a well-developed proposal of how one would go about incorporating these philosophies into their sober scrutiny sessions (Carhart-Harris and Friston 2019). They conceded that more research needs to be done to more carefully engineer the P-ASC experience so that “tenuous magical explanations can then be challenged appropriately...in the skeptical, self-correcting fashion that is intrinsic in the scientific method” (Carhart-Harris and Friston 2019). Shannon also recognizes the limitations of psychedelic insight, acknowledging “Ayahuasca can reveal truths, but it can also lie” (Shanon 2002). His proposal is a more individual approach: discerning between truth and lie “is an important skill that one has to develop in the course of one's long-term travelling with the brew” (Shanon 2002).

Moving forward, it is evident that one of the major concerns with the Acquaintance Argument is that it requires further development of its justification component. Most likely, advancements in neuroscience and psychology research of P-ASCs will provide additional insight as to how we can strengthen the justification. Yet, in addition to information from such clinical trials, philosophers also have a vital role to play in this discussion. This is one of the major sentiments Letheby conveys in his book:

I propose that what is needed in this age of interdisciplinarity is a *natural philosophy* of psychedelics: a trans-disciplinary synthesis that integrates empirical findings with theoretical and conceptual considerations, to address some of the fascinating and distinctively philosophical questions raised by these controversial substances. (Letheby 2021)

In addition to the question of acquiring knowledge of ultimate reality, this natural philosophy of psychedelics may advance discussions in epistemology, ontology, metaphysics, philosophy of mind, philosophy of self, and in many other fields within the discipline. In the grand scheme, this paper is an attempt to demonstrate the burgeoning significance of psychedelics in our timeless pursuits to make sense of our existence in all of its beautiful intricacy.

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