A Whiteheadian Perspective on Psychedelic Experience and Research

An Update

Introduction

This paper begins with a neurobiological account of perception in psychedelic experience. It proceeds to consider depth psychology in that respect. Exploring those accounts opens up epistemological and metaphysical issues. Finally, this paper uses Alfred North Whitehead’s philosophy to provide a comprehensive perspective respecting these accounts and central issues of psychedelic experience. This paper is an update of my early effort (Gibson, 1977) to develop a Whiteheadian perspective on the LSD experience, now informed and significantly reconceived from forty-five years of subsequent research.

The neurobiological account considers concomitance of brain function and perceptual phenomena respecting the experience. Depth psychology provides approaches for dealing with psychic material that can develop during the course of the experience.

Epistemology furnishes means for reckoning the significance of psychedelic perceptual phenomena in comparison to the situation of normal, everyday perception. Metaphysical consideration offers ways to interpret the most extraordinary aspects of psychedelic experience in order to gain insight into some fundamental aspects of the nature of things.

This paper looks first at work by Robin Carhart-Harris concerning clinical psychedelic experience in respect to brain function, as well as some of his related thoughts about
psychotherapy. The work of Stanislav Grof provides an extensive picture of depth psychological architecture regarding psychedelic experience and systematic relevance to psychotherapeutic issues.

The inadvertent discovery of the psychological effects of LSD-25 in 1943 by the Swiss chemist Albert Hofmann was a major factor that brought psychedelic experience to prominence in Western culture. Interest in other psychedelics, such as peyote cactus, psilocybin mushrooms, and morning glory seed, as well as synthetic compounds such as tryptamines, MDMA (Ecstasy), Ketamine, and nitrous oxide received subsequent and parallel interest in the 1950’s. Following a brief period of sensational cultural circulation in the 1960’s most of these psychedelics were criminalized and research was effectively shut down.

Significant research revived toward the end of the 20th century, some thirty-five years after criminalization. It has grown substantially as the 21st century advances. Ben Sessa, M.D., (Sessa, 2012) provides a thorough review of contemporary studies and recounts the preceding history of psychedelic use from ancient to modern times. The research he reviews is aimed mainly at issues of psychological dysfunction, which include post-traumatic stress disorder, intractable addictions, profound depression, anxiety in people with enduring perceived risk of cancer recurrence, and extreme anxiety in terminal cancer patients. Ironically, much of this research duplicates work done earlier, but forgotten over the course of time, despite the earlier proven effectiveness of therapies using psychedelics. Thomas Roberts, Ph.D., (Roberts, 2013) reviews contemporary work, looks extensively at questions about the psychological validity of psychedelic experience, and then considers some ways applications of the experience might be developed.

This paper will finally look beyond psychotherapeutics to the significance of psychedelics for creativity in philosophical understanding and consequent implications for creativity generally. Consideration of psychological issues is, however, a necessary propaedeutic to philosophical exploration of psychedelic experience.

**Psychology**
Neurobiology

The work of Carhart-Harris and Friston (Carhart-Harris & Friston, 2010) with brain imaging provides a usefully suggestive background for comparing neurobiology, psychedelic experience, and concepts from depth psychology.

In a video presentation Carhart-Harris describes psilocybin as deactivating “hub structures” in the brain. If these hub structures are thought of as shepherds keeping flocks of perceptions coherent or conductors insuring coordination between musicians, psilocybin in effect causes the shepherd or conductor to disappear. Consequently the sheep separate and stray, and the music slips toward chaos. On this analogy, the brain loses the capacity to bring things together into familiar patterns. Predictability falls by the wayside.

In the normal visual system, the results of photons falling on the retina are processed up into the visual nuclei of the thalamus, a hub in the center of the brain, then on to the primary visual cortex at the back of the brain, then on up to higher level representations. At each stage the associated brain function makes predictions about the way material from the preceding stage might be organized, with the function eliminating less likely predictions, somewhat like the refinement of Bayesian logic. What might start out as a grouping of photons of certain frequencies becomes intimations of features at a successive level. At higher levels those intimations of features get organized into predictions of faces, and the process culminates in the recognition of a friend or suspicion of a stranger.

The eliminative aspect of brain function recalls C. D. Broad’s characterization of the brain as a cerebral reducing valve, which Huxley quotes.2

1 http://youtu.be/zrYl9krZksk links to the video on the Internet. Any such link may of course be evanescent.
2 “…we should do well to consider much more seriously than we have hitherto been inclined to do the type of theory which Bergson put forward in connection with memory and sense perception. The suggestion is that the function of the brain and nervous system and sense organs is in the main eliminative and not productive. Each person is at each moment capable of remembering all that has ever happened to him and of perceiving everything that is happening everywhere in the universe. The function of the brain and nervous system is to protect us from being overwhelmed and confused by this mass of largely useless and irrelevant knowledge, by shutting out most of what we should
As hierarchical mental organization breaks down under the influence of psychedelics, the
deliverances of individual layers of organization manifest without coordination, like sheep each
wandering in its own direction without the oversight of the shepherd. Thus, the psychedelic
experience may visually present simultaneous displays of flowing colors, sudden appearances of
abstract shapes, bits of furniture flying about, fantastic animals crawling by, faces appearing and
disappearing, or a variety of mishmashes.

The extent to which apparently perceived reality is a construction of the brain becomes obvious
when one understands that the predictions produced at various stages can appear as disparate
overlaps rather being getting integrated into a coherent whole. Psychedelic experience often
provides a vivid demonstration of this phenomenon.

As in the visual sphere, so with aspects of normal mental process beyond the brain:
Organization at each hierarchical level strengthens associations and also eliminates material that
would be distracting. The organization, however, can fracture or disappear under psychedelic
influence.

Carhart-Harris suggests that considering the eliminative function of the brain helps understand
Freud’s notion of repression. Disintegration of the brains’ associative functions effectively
yields symptoms that from a Freudian point of view give evidence of ego disintegration, such as
recollections of past experiences so vivid they overwhelm reality-testing. On this count,
psychedelic experience may result in regression to childhood. Another investigator, Sessa, in an
extensive review of early work with psychedelic substances, finds numerous therapists declaring
that psychedelics gave patients extraordinary access to repressed emotional material. (Sessa,
2012)

The consequences of “regressed” experience can be diverse. On the one hand, extreme
regression can seem psychotic. On the other hand, it can be understood in terms of Kris’s

otherwise perceive or remember at any moment, and leaving only that very small and special selection which is
likely to be practically useful." (Huxley, 1963, pp. 22-3)
concept of “regression in service of the ego.” (Kris, 1952) If such regression in service of the ego is supported and followed up therapeutically, it can lead to catharsis. Loosening, opening can foster suppleness and receptiveness to normally suppressed unusual experience, and can significantly promote creativity. As the organization of normal life experience breaks down and thinking tends to become less analytic, more magical, and fantasy-based, the creativity of both personal insight and artistic production is enhanced.

The psychedelic experience itself poses few dangers for an adequately supported, normal, healthy individual. Difficulties arise mainly if the experience does not take place in a safe and supportive environment, and if follow-up is inadequate. A sense of proportion, however, is provided by a comprehensive study over twenty years of records in the UK. It showed that those treated with psychedelic therapy experienced significantly less danger in comparison to standard psychiatric populations when even the most drastic eventuality, suicide, was considered. (Sessa, 2012, pp. 70-1)

Associative patterns in the psyche are normally very helpful in the conduct of everyday life, providing habits that avoid the need to start from scratch every time we encounter a new situation. William James recognized habit as the enormous flywheel of society. (James, 1890, ch. IV, Habit) In the unfortunate alternative, excessively tight, rigid patterns of association can lead to neurosis, depression, or addiction. Psychedelic therapy seems particularly useful in the face of addiction’s rigid patterns. (Sessa, 2012, pp. 60-1)

Comparison with brain function works especially well to explain visual and fantasy-visionary levels of psychedelic experiences. At more profound levels it becomes important to think of mental activity as beyond the brain. When Carhart-Harris discusses those more profound levels by speculating about regression, neurosis, and creative openness, he opens up the realm of depth psychology. In that realm the issue of brain vs. mind begins to emerge, and major issues of epistemology and metaphysics require consideration.

Depth Psychology
Stanislav Grof, M.D., has conducted some of the most important psychedelic research regarding depth psychology. According to Grof, psychedelic substances “seem to function as relatively unspecific amplifiers that increase the cathexis (energetic charge) associated with the deep unconscious contents of the psyche and make them available for conscious processing.” (Grof, 2009, p. xxv)

Grof’s idea of amplification does not specify neurologically the effect of psychedelic substances on brain function, which in Carhart-Harris’s estimation involves deactivation of eliminative functions. Grof’s idea refers instead to the energy of mental or psychic process, which is very diverse from the energy the physicist measures in scans of brain activity. The diversity is due to the physicist’s conceiving energy only mechanically. Whitehead, however, brings physics under the rubric of a generalized psychology. Whitehead’s understanding thus affords a point of comparison between brain activity (or inactivity in Carhart-Harris’s reference) and emotional energy. This understanding supports the idea of cathexis, explaining that emotional energy can attach to material that is no longer repressed when psychedelics diminish the eliminative functions of the brain. Cathexis entails a concept of energy that is emotional and purposeful, rather than the concept of merely mechanical energy found in mainstream physics.

This mechanical-materialist metaphor underlies a conflation of brain and mind that metaphysically compromises neurophysiological research. Wilder Penfield, the pre-eminent neurosurgeon of the 20th century, cautioned that brain mechanisms do not account for the mind. (Penfield, 1975) Carhart-Harris’s research provides clues useful to understanding mind, but it also leads to paradoxes such as diminished brain activity, reported by the neurophysiologist, vs. mind expansion, reported by the psychedelic phenomenologist.

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3 “Whitehead … regards the matter aspect [of the world] as an abridged version of the mind-aspect. ‘The notion of physical energy, which is at the base of physics, must then be conceived as an abstraction from the complex energy, emotional and purposeful, inherent in the subjective form of the final synthesis in which each occasion completes itself’ [Whitehead, A. N. Adventures of Ideas. (New York: The Macmillan Company, 1933) p. 239.] Despite [the] obscurity of Whitehead’s exposition … it offers … the possibility of integrating the mind into a scientific picture of the world ….

Perhaps the great metaphysical implications of quantum mechanics—namely, nonseparability and the role of potentiality—have made the unification of physics and psychology somewhat less remote. Perhaps we are confronted with structural principles, which are applicable as much to psychological as to physical phenomena.” (Shimony, 1993, pp. 320-1)
Sessa courts this paradox by separating experience of the external world from experience of the internal world to assert that “psychedelics don’t actually ‘expand our minds,’ as we have always been lead [sic] to think. On the contrary, they may temporarily shrink our minds.” (Sessa, 2012, p. 30) By locating psychedelic experience only in the brain Sessa commits a mistake analogous to the fallacy of simple location. Whitehead’s distinction between presentational immediacy and causal efficacy is one useful means of addressing the paradox. Another is Whitehead’s stipulation of the polar nature of the actual occasion. I will address these concepts of Whitehead at length in the final sections of this paper.

Shifting from consideration of psychedelic experience in terms of brain function to consideration in terms of depth psychology better explains the nature of regressive episodes that can occur. I use the term “regressive” at this point only because it is a common clinical designation for an approximate constellation of phenomena. It does unfortunately carry baggage from Freud’s conception of psychic function in terms of hydraulic mechanism. Whitehead’s characterization of an actual occasion offers a superior and coherent explication of the phenomenon of regression, as well as a means to resolve the paradox of reduction, which Huxley adopts from Broad, versus amplification, as Grof suggests. I will address this paradox at some length in the Conclusion.

For now I will indulge standard clinical terminology and note that some regressive episodes with psychedelics involve not only vivid recollection of childhood experience; people can also re-experience their own birth process. In complex instances people can simultaneously experience both their own birth and the process of giving birth. An additional layer of complexity with archetypal overtones occurs when the person involved is a childless woman, or even a man.

From the point of view of brain function, psychedelic experience can be treated as an episode limited to a number of hours, usually from one to twelve, depending on the substance used. Grof’s depth psychology perspective considers a much larger context. In Grof’s view, it is critically important that psychedelic experience occur in a context where it can subsequently be examined and discussed with someone knowledgeable about the entire nature of such experience. This facilitates integration of the experience and development of self-understanding.
Grof has made a major discovery in depth psychology that bridges the gulf between Freudian and Jungian ideas. Subsequent to his extensive research in the psychology of LSD experience, he developed, together with Christina Grof, a technique that facilitates psychedelic experience without the use of substances. He calls the technique Holotropic Breathwork. Grof’s major discovery, based on his work with LSD psychotherapy and extended by his Holotropic Breathwork practice, is that experience around the birth process, which he terms “perinatal,” plays a potentially critical, though not deterministic, role in a person’s subsequent psychology, particularly in the case of abnormal psychology and psychopathology.

Grof also offers a means to resolve what has historically been a large gulf between Freudian focus on the importance of individual biography and Jungian focus on the significance of archetypes for human experience. Grof’s elucidation of the nature of perinatal experience suggests that the birth experience is a primary occasion for the insinuation of archetypes into individual biography.

That a child is not born *tabula rasa* has become progressively realized mostly in the latter half of the 20th century. The prevailing view before then was that new babies didn’t even experience pain *per se*. Traditional Freudian ideas support that misconception, because they refer only to postnatal experience. There were also instances under the *tabula rasa* presumption where open heart surgery was practiced on babies without the use of anesthesia.4

Psychedelic experience can bring biographical events to the fore with their original vividness. A subject may dramatically relive experience from, e.g., an automobile crash or an instance of abuse. Psychedelic experience can also bring to the fore events that occurred around the birth process, as Grof has shown.

The method established by Grof (Grof & Halifax, 1977, p. 33) situated patients in safe, comfortable settings with eyeshades and stereo headphones that played carefully selected musical programs. This focused patients on their thoughts and inner feelings. It especially

prevented their projecting mental images onto surroundings. The hallucinatory projection of mental images onto the external world can in extreme cases lead to acting out that exacerbates original trauma, which by a kind of circularity may actually be the source of such images. A psychedelic session, however, is not an appropriate occasion to try to explain the epistemological issues involved in hallucination.

Reliving of biographical events does not demand explanation beyond conventional theories of memory, and stretching theories such as Carhart-Harris’s might explain reliving perinatal events by suggesting ‘regression’ to brain functions in fetal development. Psychedelic experience, on the other hand, can bring to the fore events that occurred before any personal history. This phenomenon discounts all conventional theories of memory, especially those that presume a material basis for memory. Whitehead’s stipulation that every occasion inherits from the entirety of the past singularly explains present experience of events prior to personal history.

Besides the emergence of repressed perinatal and biographical material, Grof recounts from his researches instances of material emerging from a vast transpersonal realm. (Grof, 1988) Among instances of this experience are identification with other persons and animals, experiences of oneness with all creation, ancestral experiences, past incarnations, encounters with spirit guides, visits to other universes, experiences of universal archetypes, and many others. These transpersonal experiences go well beyond the possibility that they could have been recorded on a material substrate such as the brain or DNA molecules.

Grof discovers these sorts of phenomena not only in psychedelic experiences, but across a whole range of other “sacred technologies.” (Grof & Grof, 2010, pp. 9, 33, 54) Sacred technologies include shamanism generally and specific practices such as yoga, Sufi whirling, Voodoo, Lectio Divina, meditation, chanting, flagellation, fasting, blood-letting (a notable Mayan technique), Mandan (American Plains Indian) Sun Dance, Witches’ Cradle, Gabriel Roth Power Dance, San (Kalahari Bushman) Dance, and numerous other techniques. These sorts of experiences also profoundly call into question the materialist hypothesis that Whitehead challenges explicitly, especially calling attention to the fallacies of misplaced concreteness and simple location.
Whitehead’s philosophy is one of a few that provide an account sufficiently broad to encompass the whole range of psychedelic experience. Some ancient and a few modern philosophies approach this compass, but Whitehead’s has the additional virtue that it is substantially informed by the deliverances of modern science.

According to Shimony (in footnote 3, above), Whitehead brings physics under the rubric of a generalized psychology. Whitehead’s characterization of each actual occasion as inheriting from the entirety of its predecessors comprehends such specifics of contemporary physics as the path integral formulation of quantum mechanics. That formulation generalizes the action principle of classical mechanics. It replaces the classical notion of a single, unique trajectory for a system with a sum, or functional integral, over an infinity of possible trajectories to compute a quantum amplitude.

Whitehead

Epistemology

Whitehead’s epistemological scheme in Symbolism (Whitehead, Symbolism, 1927) analyzes perception into three modes: presentational immediacy, causal efficacy, and symbolic reference. Carhart-Harris’s above discussion of the operation of the visual system primarily describes functioning in the mode of presentational immediacy.

Photons of various frequencies of light fall on the retina. Beginning at the level of the retina there is a selection. The sensors in the center of the retina can respond to a single photon. (More photons are required to activate the retina at a distance from its center.) Neural filters, however, only allow a signal to pass to the brain to trigger a conscious response when at least about five to nine arrive within less than 100 milliseconds. As the signals are passed up, the associative functions of the brain come progressively into play, first giving the brain to associate the signals into shapes and then, for the example Carhart-Harris chooses, faces and on to more complex associations. Carhart-Harris’s description of associative functions has a tinge of symbolic reference.
Hume, working well prior to the understanding we now have, considers perception only as what we now know to be just the particular level of that associating process that is definitive of sensation. One might argue that the associations provided by brain function speak to the operation of causality, but Hume could argue contrarily that those associations occur simply as customs that developed along the path of evolution. Whitehead, however, would speak to the withness of the brain (Whitehead, Symbolism, 1927, pp. 50-1) in associative functioning as an example of causality.

A more cogent issue develops when we consider what Carhart-Harris’s example does not explicitly speak to. In the brain’s associative functioning, the visual images following from the retina very soon get associated with signals of causal efficacy from the muscles of the eye and then other parts of the body. This is fully the mode of symbolic reference, and it is difficult to think of visual perception even at its earliest stages simply in the mode of presentational immediacy, rather than in the mixed mode of symbolic reference.

A variety of notable effects of psychedelics manifests in an apparent dissociation of the modes of perception Whitehead describes. Different substances have somewhat different effects. Psilocybin may especially yield visual effects of flowing arpeggios of varied colors. LSD may yield patterns that seem to represent the kind of atomic structures an electron microscope would show.

These visual effects, however, are minor in comparison to the consequences of the profound loosening of symbolic reference, which can lead one to feel substantially and even utterly unhinged from causally efficacious perception. The ground may move under one’s feet. To step down a single stair may feel like falling from a great height.

Such dramatic dissociation is a principal reason why it is essential that a psychedelic session be conducted in a physically safe environment. The protocol ultimately developed by Grof, Walter Pahnke, and their team at the Maryland (State) Psychiatric Research Center, where they treated patients with terminal cancer, encouraged the patients to wear eyeshades and don earphones that
supplied specially programmed music. (Grof & Halifax, 1977, pp. 32-3) This helped the subjects to interiorize their experience. In Whiteheadian terms, this protocol diminishes problems that can arise in unsupportive and uncontrolled environments due to the loosening of symbolic reference.

Here are excerpts from a report of one subject’s experience:

I fused with the music and was transported on it. So completely was I one with the sound that when the particular melody or record stopped, however momentarily, I was alive to the pause, eagerly awaiting the next lap of the journey. A delightful game was being played. What was coming next? Would it be powerful, tender, dancing, or somber? ... I was alone in a timeless world with no boundaries. There was no atmosphere; there was no color, no imagery, but there may have been light. Suddenly I recognized that I was a moment in time, created by those before me and in turn the creator of others… I became poignantly aware that the core of life is love. (Grof & Halifax, 1977, pp. 22-3)

The report of such an harmonious and beneficent experience poetically describes central characteristics of an actual occasion. The report contrasts in emotional affect with the following partial account of another that takes place outside a safe context, as happened often in the turmoil of the 1960’s in the U.S. This contrasting account is nonetheless interesting for speaking to the diversity of prehension of an actual occasion:

Eternity had elapsed since I’d last had a structured thought, so it was difficult to remember tiny details such as where I was or what had happened. I tried, and when I couldn’t I suddenly felt afraid. The landscape, my body, everything around me changed form and color and validity so rapidly that it was useless to move in any one direction. There was no direction that couldn’t shift without warning. I vaguely remembered a man named Admiral Dewey and then, with absolute clarity, a portion of the Book of the Dead. Wise teaching which applied perfectly to my situation. I began to meditate on the protective figure of Admiral Dewey…with poor results. Gray smoke crept in to cover everything. A horrible stench filled my nostrils. “Burning brain cells,” hissed a coiling
energy snake, encircling my left leg. “There’s no business like show business!” sang Milton Berle, accompanied by a brassy band composed of mummified fire-men, plucking strings, tapping keys and pushing valves with brittle brown French fried fingers. (Craddock, 1970, p. 93)

Support and control of the environment can significantly obviate the chaos evident in this second experience. Elimination of visual stimuli by using eyeshades prevents projection of fragmented internal material onto the external world. Appropriate music increases therapeutic effectiveness by offering a thread of coherence amidst disjoined, capricious emotions. This allows a subject’s psychic energy to be reserved for coping with disconnections in the sense of self and with existential dilemmas, which occur at more profound and intense levels than the mere (so to say) chaos of sensation and emotion.

Grof’s technique of Holotropic Breathwork does not as certainly facilitate intensity as do psychedelic substances. It requires significant commitment by participants. Nonetheless, it can give rise to experiences that are indistinguishable from the most powerful substance-provoked psychedelic experiences.

Grof has developed an additional technique of bodywork that is used in Holotropic Breathwork to repair the disjunction of psyche and soma often attendant on the loosening of symbolic reference in extraordinary experience. The technique even more profoundly addresses the disjunction than standard methods of debriefing with talk therapy.

The neurophysiological aspects of psychedelic substances loosen symbolic reference and higher level associative functions in the experiences they engender. Holotropic Breathwork avails the physiology of intense breathing to loosen the suppressive aspects of the associative process. This leads to regression in service of the ego and provides an opportunity for positive prehensions to replace negative ones.

What happens in this process is that faster breathing extended for a long period of time changes the chemistry of the organism in such a way that blocked physical and emotional
energies associated with various traumatic memories are released and become available for peripheral discharge and processing. This makes it possible for the previously repressed content of these memories to emerge into consciousness and be integrated. (Grof & Grof, 2010, p. 37)

Some integration can be accomplished through catharsis and abreaction. A second means promotes intensification of muscular tensions, after which deep relaxation follows. Thirdly, supportive and nourishing physical contact can be used. A common characteristic of all of these methods is that they can facilitate the release of significant ideation and let it come to the fore.

The orientation of most mainstream psychotherapeutic techniques is cognitive. As such they suffer the Humean disconnection of mind and body. Holotropic Breathwork is radical in availing the close connection emphasized by Whitehead’s stipulation of mental and physical bipolarity. In this respect Holotropic Breathwork even represents an advance beyond early LSD psychotherapy, where post-session work was primarily cognitive. Bodywork was not a feature of psychedelic experiences common in the 1960’s, although people sometimes sought out hot springs and tubs as a means of grounding themselves.

Metaphysics

Whitehead’s metaphysics supplies four notable concepts that illuminate psychedelic experience: (1) the nature of time, (2) the immanence of the past in the present (subjective form), (3) the transience of experience (perpetual perishing), and (4) the intensification of experience by contrasts. Grof’s description of LSD as an amplifier, coupled with Whitehead’s explanation of an actual occasion that involves all of these concepts, provides a unique and powerful means to understand the metaphysical significance of psychedelic experience. It resolves problems that cannot be understood within ordinary discourse and the mechanist-materialist framework dominant in Western culture.

1. **Time**
Carhart-Harris and Friston note that “Freud considered timelessness to be a major characteristic of the id, and time perception to be a function of the ego.” (Carhart-Harris & Friston, 2010, p. 1272) They suggest that the sense of timelessness in psychedelic experience results from impairment in temporal perception due to the breakdown of associative brain function that produces ego disintegration and brings primary process to the fore.

The idea of impairment of time perception entails the notion that time is an objective reality and suggests that psychedelic experience is a deficient perception of reality. This contradicts the certainty that attaches to the sense one has in profound psychedelic realization that eternity is at the heart of experience. Whitehead’s metaphysical framework deems the ordinary perception of time to be abstract and deficient in respect to the internal timelessness of an actual occasion.

For Whitehead time is an abstraction from actual experience. The amplification promoted by profound psychedelic experience promotes intense focus on the immediate present occasion and can magnify that occasion to the extent that one experiences fully and completely its timelessness, which is eternity. From Whitehead’s perspective, intense psychedelic experience does not entail a deficiency of perception. The deepening of experience under psychedelic influence brings a person experientially into the timelessness of the actual event that is the single, present occasion in the society that exhibits the person’s thread of identity. In such experience one achieves felt understanding that time is an abstraction, or more poetically stated, an illusion. In that same moment of experience the Void is manifest.

“Personal identity is the thing which receives all occasions of a man’s existence,” Whitehead says, comparing it to Plato’s Receptacle, “as a natural matrix for all the transitions of life,” which, since it “receives all manner of experiences into its own unity … must be bare of all forms…. [It] is invisible, formless, and all receptive.” (Whitehead, 1933, pp. 240-1) Personal identity is not actual in and of itself, because only occasions are actual, but it is the thread of continuity that runs through the society of occasions that are the ultimate instances of perception (prehension) of human life. As it compares to the Receptacle, it also compares to the Void of Oriental philosophy.
Plato’s description in the *Timaeus* of time as “the moving image of eternity” (Plato, p. 36d) applies immediately to this peak experience. Not only is timelessness magnified into eternity in this moment, but the whole immanence of the past in the present is intensely immediate in its subjective form. It manifests as a profound feeling of pervasive oneness, and the “suchness” Zen Buddhism speaks of is revealed. So the poet is given:

To see a world in a grain of sand,<br>And a heaven in a wild flower,<br>Hold infinity in the palm of your hand,<br>And eternity in an hour. (Blake)

2. **Subjective form**

Concomitant with the timelessness in the peak, ultimately deep experience of the present moment in one’s society of actual occasions, one feels the force of subjective form from even the most distant past occasions. This is the basis of the mystical comprehension of oneness.

In the ordinary experience of a living person the immediacy of the subjective feelings that is reenacted from its predecessors quickly fades. (Cobb, 2008, p. 70) In extraordinary, profound psychedelic experience that deepens to eternity, all prior subjective form is present in a manner that reflects what Whitehead calls the consequent nature of God. Not only then does the experience elicit oneness with all of creation, but also oneness with the Divine, signified by *tat tvam asi*, the famous Hindu expression of the relationship between the individual and the Absolute. This last is very difficult, because in the aftermath of psychedelic experience one may believe oneself devoid of ego. Unfortunately, in that mistaken belief, one may adopt the mantle of divinity as a substitute for genuine self-understanding. This error involves a spiritual bypass that avoids coming to terms with unresolved biographical material. Therapeutic engagement and committed personal work are important means of averting this error.

3. **Perpetual perishing**
Just as powerfully as experience is absorbed in eternity and oneness, however, the perishing that is perpetual irrevocably follows, and mortal fear may erupt at the prospect of death for the ego. “I found myself all at once on the brink of panic.” (Huxley, 1963, p. 55)

To overcome the fear is a momentous effort. It may mean giving oneself over to be devoured by the bear that has suddenly emerged from a dark cave of one’s Jungian shadow or cracking under the pressure of some impossible paradox of existential logic. Support from someone who understands the experience is critical in this situation. When courage is summoned, however, and one makes the plunge into the emptiness beyond the Void, the next occasion is born. But it cannot be born before the previous moment perishes. At the most intense level this sequence of experience yields the human feeling of death, rebirth, and salvation. At lesser levels the doors of perception get a temporary cleansing.

4. **Intensity**

The intensity of experience with psychedelics is somewhat dose dependent, but intensification may develop for reasons that have no direct relation to dosage or even the substances themselves. As repressed material comes into awareness with its unresolved conflicts and dilemmas, great mental effort may be required for a person to cope with their impact. Environmental factors in an uncontrolled setting may pose puzzles that are distressfully difficult for a person in a non-ordinary state to comprehend. Profound metaphysical questions may arise and precipitate existential crises. All of these situations can become self-reinforcing in a kind of autocatalytic process.

This autocatalysis is prominent in a variety of sacred technologies that do not use substances, such as the indigenous African tribal initiation reported by Patrice Malidoma Somé. (Somé, 1974, pp. 191-291) His account shows that the content of the experiences we have been calling psychedelic is not produced by the relevant substance but results from the phenomenon of intensification common to both substance and non-substance-related experiences. The substance-related effects of the various psychedelics are sensory and secondary.
In Whitehead’s metaphysic intensity results from contrast. There are many kinds of contrasts: contrasts in terms of perception, valuation, ideation, etc. Psychedelic displacement of these contrasts from ordinary states is one source of intensification. As psychedelics loosen suppressive brain functions, repressed material emerges into contrast with customary mental associations. Amplified mental function begets greater intensity of intellectual contrasts, especially the contrasts involved in conscious perception. For this reason psychedelic experience sometimes gets called “consciousness expanding.” This phrase is problematic, however, to the extent that it brings to consciousness connotations of Cartesian substance. The phrase is only useful in conjunction with William James’s and Whitehead’s characterization of consciousness as a function. In this respect, the so-called expansion of consciousness can be understood as an expansion of function rather than an expansion of substance. Beyond initial contrasts lie more complex contrasts and contrasts of contrasts.

Out of intensity arises value. The more complex the contrasts, the greater emerges the felt value and the sense of profound meaning that psychedelic experience can encourage.

**Conclusion**

Whitehead’s characterization of an actual occasion in terms ofprehensions, inheritance, and contrasts is useful to reconcile the apparent discrepancies between the notions of amplification, of consciousness expansion, of psychedelic’s bringing deep unconscious material to the fore, and of the brain as cerebral reducing valve.

Whitehead’s metaphysical scheme does not support the notion of the Freudian unconsciousness and his hydraulic representation of the psyche. The idea of the brain as a valve is also tainted with this hydraulic notion. These analogue metaphors are an attempt to characterize phenomena that are better understood in Whitehead’s quasi digital terms, which speak to the discreteness and atomicity of the actual occasion. The first step is to think of the brain in terms of digital circuitry. Contemporary digital electronics readily substitutes for processes that were historically conceived as analog. In these terms, the reducing function of the brain can be reconceived in terms of logic gates. “A logic gate is an idealized or physical device implementing a Boolean
function, that is, it performs a logical operation on one or more logical inputs, and produces a single logical output.” (Wikipedia)

Psychologically, however, our final concern is not with the brain, but with the mind, which lies beyond the brain. (Penfield, 1975) Consider mind in terms of Whitehead’s characterization of the final percipient occasion. As such it inherits massively from the previous occasions exhibiting its thread of personal identity. It also as well has the entire past in its broader background. Its becoming is a decision that selects from the entire welter of inheritance. That decision establishes a focus of attention, which may be more or less expansive. It is also discriminative, ruling prehensions in and out.

One’s history is not in the brain, which would be presumed by the box metaphor of consciousness that derives from the Cartesian paradigm. One’s history is among occasions in the past. Some aspect of that past comprises what the psychologist conceives as the unconscious. To what extent that unconscious becomes conscious in any given moment depends on the decision actualized in the becoming of the final percipient occasion.

The brain provides much material for the final percipient occasion. It also eliminates some material, but personal history and the history of the universe are objectively immortal, beyond the brain. Consciousness is a function of selection from that objectivity, although to a significant extent filtered and processed by the brain. Repressed material is a part of objective personal history that is excluded from present mentality for any one of a number of reasons. Interest in what that portion is and why is a major province of the psychologist and psychotherapy.

Psychedelics impact the physiology of the brain. By causing the brain’s gates to admit more material they facilitate widening of what is available to the final percipient occasion. Included in what is available, there may be some material that the psychologist would call deeply repressed. Somewhat paradoxically, opening the brain’s gates amplifies its functioning in some way. The amplification, however, may also make available a muddle of incoherent material, as we saw for the fellow lying on the beach. Thus consciousness expanding and consciousness confusing may happen together.
While considering psychedelic experience consequent on ingesting substances, however, it must also importantly be noted that such experience can happen by non-substance means, and even more importantly with utter spontaneity. The ultimately critical concern is the process actualized in the final percipient occasion. To the extent that that process more fully encompasses all that is available to it and resolves the exclusions of contradiction into harmonies of contrast, the resulting experience is Peace, which is

- the removal of inhibition and not its introduction. It results in a wider sweep of conscious interest. It enlarges the field of attention. Thus Peace is self-control at its widest,—at the width where the ‘self’ has been lost and interest has been transferred to coordinations wider than personality. Here the real motive interests of the spirit are meant, and not the superficial play of discursive ideas. Peace is helped by such superficial width, and also promotes it. In fact it is largely for this reason that Peace is so essential for civilization. It is the barrier against narrowness. One of its fruits is that passion whose existence Hume denied, the love of mankind as such. (Whitehead, 1933, p. 368)

Neurophysiological characterization of the effects of psychedelic substances presents interesting possibilities of corroboration with psychological interpretation, especially respecting depth psychology. Psychedelic experience, however, opens realms well beyond psychological consideration and requires epistemological and metaphysical consideration. Whitehead’s metaphysical scheme is notably useful for investigating issues raised by the most profound psychedelic experiences and experiences engendered by various sacred technologies.

In terms of moral and legal considerations, one conclusion to be drawn from the fact that similar experiences obtain from psychedelics, Holotropic Breathwork, and a variety of sacred technologies is that the experience is not a consequence of some property of a substance.

In terms of philosophical consequence, psychedelic experience can bring the illusory nature of ordinary perception powerfully to awareness, thereby promoting the emotional comprehension of
Whitehead’s conceptual analysis of ordinary perception as dominated by the mode of presentational immediacy.

Beyond matters of perceptual function, psychedelic experience has significance for the pursuit of metaphysical endeavor. William James’s observations are to the point:

Some years ago I myself made observations [regarding] nitrous oxide intoxication, and reported them in print. One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are there in all their completeness, definite types of mentality which probably somewhere have their field of application and adaptation. No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question,—for they are so discontinuous with ordinary consciousness. Yet they may determine attitudes though they cannot furnish formulas, and open a region though they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality. (James, Varieties of Religious Experience, 1903, pp. 387-8)

James’s suggestion that the experience “may determine attitudes” is the significant issue for metaphysical endeavor. It is not that the experience delivers the truth about the nature of things, but that it provides a relatively available and reliable means for engendering the sort of profound experiences that offer grounding for metaphysical investigation. Such experience previously in the history of Western philosophy has mostly depended on moments that cannot be fostered readily or that require long practice in difficult, idiosyncratic methods.
One might compare the difficulty of astronomy with instruments prior to the telescope or biology before the microscope. Such instruments fed the genius of Galileo and Van Leeuwenhoek, but they also unleashed creativity in many others, because the instruments afforded reliable, reproducible observation. The instances of creativity have dramatically promoted the progress of human understanding. The instrumentality of psychedelics represents a new level of scientific possibility. Psychedelics not only offer the opportunity for dramatically deepened phenomenological observation of mental process, but they promote an experience that has “special relevance to the creative process.” (Sessa, 2012, p. 118)

Modern philosophy has become progressively divorced from practice that facilitates it as “a concrete attitude, a way of life and of seeing the world.” (Hadot, 1995, pp. 107-8) This separation has developed not only because methods of practice are difficult, but also because the belief systems that historically supported them have faded. Psychedelics do not obviate difficulty, because they must be used with the same scientific rigor that makes previous instrumentalities valuable. Given scientific discipline, however, they offer similar advantages of reliability and reproducibility with the potential for even greater enhancement of scientific and social creativity.

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