

PSYCHEDELIC EXPANSION OF CONSCIOUSNESS

A Phenomenological Study in Terms of Attention

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Abstract: Induced by the ingestion of the psychedelic substances LSD, psilocybin, DMT and mescaline, psychedelic experiences have been extensively described by subjects as entailing a most unusual increase in the scope and quality of their consciousness. Accordingly, psychedelic experiences have been widely characterised as an “expansion of consciousness.” This article poses the following question, as yet unaddressed in contemporary philosophy and the tradition of phenomenology: to what exactly does “expansion of consciousness” refer as a general characterisation of psychedelic experiences, and what role might attention play therein? On the basis of Aron Gurwitsch’s phenomenology of attention, the following thesis is presented: (a) “expansion of consciousness” refers to a particular *restructuring* of consciousness in psychedelic experiences. (b) This occurs by means of certain extreme transformations in direction, scope, mode and degree of *attention*. In order to explicate this thesis, the characteristic features of psychedelic experiences that pertain to expansion of consciousness and attention are first systematically identified from a survey of subject reports. Second, it is demonstrated that the few previous attempts to understand expansion of consciousness in terms of attention as a filter/reducing-valve, spotlight or zoom-lens each fail to explain how consciousness is structured in psychedelic experiences. Third, it is argued that psychedelic expansion of consciousness is a general restructuring of consciousness by means of extreme attentional transformations. In conclusion, brief consideration is given to the question of whether psychedelic expansion of consciousness can have epistemic and ethical value for life.

Keywords: Attention, psychedelics, psychedelic experience, expansion of consciousness, phenomenology.

1. Introduction

In recent years, attention has become a vivid research topic in philosophy. Reasons for this include insights that attention is closely related to central philosophical problems such as the problem of consciousness, the interrelation between perception

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and proper (inter)action, and ethical struggles for recognition.² Moreover, we currently live in a global attention society wherein attention is constantly demanded for purported efficiency and productivity. Yet the prevalence of conditions such as Burn-Out and ADHD reveals that this constant demand is overwhelming for most people. There is, however, a countervailing quest for greater (self-)awareness, mindfulness and empathy through meditative and spiritual practices; ways of modifying habits of attention away from constrictively functional and egocentric to more encompassing and ethical forms of consciousness.³ We would here like to follow an increasingly popular path where attention plays an important role in our consciousness and, more precisely, to a radical change of consciousness that may be epistemically and ethically valuable.

Induced by ingesting the psychedelic substances LSD, psilocybin, DMT and mescaline, psychedelic experiences are widely characterised as an “expansion of consciousness” and psychedelics as “consciousness-expanding drugs.”⁴ But what does this mean? On the one hand, subjects commonly report that the world, their bodies and subjectivity appear with profoundly heightened detail and complexity during their psychedelic experiences. Furthermore, usually unnoticed or underappreciated phenomena and features are instead focalised. Inversely, this can result in greatly diminished awareness of usually fundamental aspects of consciousness—of reality, time and space, embodiment, and self. On the other hand, subjects commonly report drastic changes in *how* they are conscious. They emphasise a profoundly greater degree and scope of attention and, inversely, a loss of interest in ordinary foci.⁵

It thus seems that crucial features and objects of attention in everyday life are substantially altered in psychedelic experiences.⁶ Rather than eroding our usual way of experiencing the world, psychedelics seem to thereby shake ordinary consciousness like a snow globe.⁷ However, despite the radical transformations of consciousness and

² Christopher MOLE - Declan SMITHIES - Wayne WU (eds.), *Attention: Philosophical and Psychological Essays*, Oxford University Press, Oxford 2000.

³ See Evan THOMPSON, *Waking, Dreaming, Being*, Columbia University Press, New York 2017.

⁴ See, e.g., D. SOLOMON (ed.), *LSD: The Consciousness-Expanding Drug*, Berkley Medallion Books, New York 1966; Robin L. CARHART-HARRIS, *The Entropic Brain. Revisited*, “Neuropharmacology”, 142, 2018, pp. 167-178.

⁵ For an overview, see Robert MASTERS - Jean HOUSTON, *The Varieties of Psychedelic Experience: The Classic Guide to the Effects of LSD on the Human Psyche*, Park Street Press, Rochester 2000.

⁶ These phenomena are not exclusive to psychedelic experiences. Some are shared by other meditative and aesthetic experiences, but psychedelic experiences are extreme and specifically organized instances thereof.

⁷ Michael POLLAN, *How to Change your Mind. What the New Science of Psychedelics Teaches Us About Consciousness, Dying, Addiction, Depression, and Transcendence*, Penguin Press, New York 2018.

attention that psychedelic experiences entail, as well as growing popular interest in psychedelics for this reason, no philosophical study has yet determined the precise meaning of psychedelic expansion of consciousness (PEC). We thus set out to answer the following questions in a novel phenomenological study. To what does “expansion of consciousness” refer as a general characterisation of psychedelic experiences, and what role does attention play therein? Our thesis is that PEC refers to a particular *restructuring* of consciousness by means of extreme transformations of *attention*.

We initially identify from subject reports the general features of psychedelic experiences, across variabilities in setting, dose, personal background etc., that pertain to expansion of consciousness and attention. Second, we demonstrate that the few previous attempts to understand PEC by reference to attention as a filter/reducing-valve, spotlight or zoom-lens fail to explain how psychedelic consciousness is structured.⁸ Third, we apply Aron Gurwitsch’s phenomenology of attention to analysing subject reports. On Gurwitsch’s account, the field of consciousness (all that is presently experienced) is structured into the three dimensions of theme (the focus of attention), thematic field (whatever is secondarily attended to as relevant to the theme), and margin (all that is irrelevant but one is still dimly aware of).⁹ These dimensions are each transformed by corresponding types of attention.¹⁰ We accordingly describe PEC as a restructuring of consciousness by means of three extreme attentional transformations: (a) attentional *enlargement and elucidation* of the thematic field, (b) *restructuring* and consequent expansion of a theme’s features by deeply focused attention, and (c) *shifting of the margin*. Finally, we conclude with a brief consideration of the possible epistemic and ethical value of PEC.

2. Phenomenological Overview of Subject Reports

Our phenomenological study begins with an overview of the general features of psychedelic experiences, as commonly reported by subjects, that pertain to “expansion of consciousness.” This overview is organised along three axes: world expansion, bodily

⁸ See Aldous HUXLEY, *The Doors of Perception*, Harper and Row, New York 1970, pp. 22-25; Alan WATTS, *A Psychedelic Experience: Fact or Fantasy?*, in D. SOLOMON (ed.), *LSD: The Consciousness-Expanding Drug*, pp. 128-131; Chris LETHEBY, *Philosophy of Psychedelics*, Oxford University Press, Oxford 2021, pp. 110-156.

⁹ Aron GURWITSCH, *The Field of Consciousness*, in R.M. ZANER - L. EMBREE (eds.), *The Collected Works of Aron Gurwitsch (1901-1973) III: The Field of Consciousness: Phenomenology of Theme, Thematic Field, and Marginal Consciousness*, Springer, Dordrecht 2010, pp. 1-409.

¹⁰ Aron GURWITSCH, *Phenomenology of Thematics and of the Pure Ego: Studies of the Relation Between Gestalt Theory and Phenomenology*, in F. KERSTEN (ed.), *The Collected Works of Aron Gurwitsch (1901-1973) II: Studies in Phenomenology and Psychology*, Springer, Dordrecht 2009, pp. 193-317.

expansion, and expansion of subjectivity. Focusing in this section on reports of expansion in psychedelic experiences, we revisit its relation to contraction of consciousness in Section 4.

2.1. World Expansion

“World expansion” denotes alterations in the scope and quality of whatever the subject perceives as being objective and distinct from themselves. Moreover, it may concern a broadened epistemic perspective with respect to perceptions that reportedly revise or expand knowledge of the world. In psychedelic experiences, world expansion first concerns an extraordinary intensification of the senses along with a great increase of detail and complexity in perceived phenomena across the sensory domains:

Sensations were acute. I heard, saw, felt, smelled and tasted more fully than ever before (or since) [...] what I had experienced was essentially, with few exceptions, the usual content of experience but that, of everything, there was MORE. This MORE is what I think must be meant by the ‘expansion of consciousness.’¹¹

Subjects under the influence of psychedelics—henceforth “psychedelic subjects”—also emphasise consciousness of an extraordinary spectrum of colour and heightened contrast both in the external world and the imaginative world of closed-eye visions:

Mescaline raises all colors to a higher power and makes the percipient aware of innumerable fine shades of difference, to which, at ordinary times, he is completely blind.¹²

Moreover, synaesthesia is commonly experienced. This denotes an expansion of different sensory domains beyond their usual delimitations such as that they blend together.¹³ While the “usual content of experience” is thus expanded in the sense of appearing with an unusually intense vividness and complexity, world expansion secondly concerns the common attestation that usually unnoticed or underappreciated phenomena instead become the centre of attention:

¹¹ MASTERS - HOUSTON, *Varieties*, p. 11. See also LETHEBY, *Philosophy of Psychedelics*, pp. 40-45.

¹² HUXLEY, *The Doors*, p. 27. See also, e.g., Havelock ELLIS, *Mescal: A New Artificial Paradise*, “The Contemporary Review”, 73, 1898, p. 132; Weir S. MITCHELL, *Remarks on the Effects of Anhelonium Lewinii (The Mescal Button)*, “The British Medical Journal”, 2, 1875, 1896, p. 1627.

¹³ See David P. LUKE - Laura LUNGU - Ross FRIDAY - Devin B. TERHUNE, *The Chemical Induction of Synaesthesia*, “Human Psychopharmacology: Clinical and Experimental”, e2832, 2022, pp. 1-13.

Those folds in the trousers—what a labyrinth of endlessly significant complexity! And the texture of the gray flannel—how rich, how deeply, mysteriously sumptuous!¹⁴

Third, psychedelic subjects frequently describe experiencing a single phenomenon dramatically expanding in the scope and complexity of features when fixated upon:

The depth of light and structure in a bursting bud go on forever. There is time to see them, time for the whole intricacy of veins and capillaries to develop in consciousness, time to see down and down into the shape of greenness, which is not green at all, but a whole spectrum generalizing itself as green—purple, gold, the sunlit turquoise of the ocean, the intense luminescence of the emerald.¹⁵

Finally, psychedelic experiences characteristically feature an expansion of time and space. Psychedelic subjects report an extreme orientation to the present, experiencing brief moments as infinite and rooms stretching to impossible sizes:

When my eyes were closed and I was hallucinating, time seemed to be an eternity and I was frightened. I opened my eyes and, watching the clock on the wall, I realized that only two minutes had elapsed.¹⁶

The walls of the room are 150 meters from each other, and above them there is but a vast and deserted expanse. The extended hand is as high as the wall.¹⁷

2.2. Bodily Expansion

Following the last quotation given above, we note that the first sense in which “bodily expansion” is reported concerns perception of body parts as ridiculously enlarged. Second, heightened consciousness of the body is commonly described. Minute and typically unnoticed aspects of the body are foregrounded:

I looked at my hands. They were no longer flesh colored, but rather had a pattern of alternating magenta and green stripes, or a sort of web-like design. I suspect I was picking

¹⁴ HUXLEY, *Doors of Perception*, p. 30.

¹⁵ Alan WATTS, *The Joyous Cosmology*, New World Library, Novato 2013, pp. 27-28.

¹⁶ Benny SHANON, *The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience*, Oxford University Press, Oxford 2002, p. 4. See also Benny SHANON, *Altered Temporality*, “Journal of Consciousness Studies”, 8, 1, 2001, pp. 35-58.

¹⁷ MERLEAU-PONTY, *Phenomenology of Perception*, tr. eng. Donald A. Landes, Routledge, London and New York 2002, p. 294.

up on the network of blood vessels beneath my skin [...] they were also slightly metallic and shimmered in the sunlight.¹⁸

Such expanded consciousness of the body may cause it to appear deeply strange or alien. However, there is a second sense of bodily expansion in which there is instead a dissolution of the boundaries between body and world. The body is felt to viscerally merge with surrounding objects, the bodies of other subjects, and even the whole perceptual field which leads to a sense of boundlessness.¹⁹ For example:

After the first awareness of tactile strangeness [...] there comes a dilation of the sensory frontiers (e.g., one feels as though one were part of the chair and the floor). There is no lightness or dizziness, but on the contrary a strong sensation of massivity, as though one were part of an immensely powerful living structure.²⁰

Third, psychedelic subjects can experience an expansion of embodied consciousness in terms of a bodily “transpersonalisation” into another entity:

I moved to the floor of the room, where I became the ocean. I was in the ocean and I was the ocean. I moved and rolled like the ocean [...] Then I felt myself slowly becoming an animal. I tried to resist this, but finally accepted it. I found that I had become a panther and writhed about, stretching my limbs as if I were a panther.²¹

On this point, we turn to the axis of subjectivity. We thereby conclude this section by identifying a fundamental expansion in *how* subjects are conscious across our three axes.

2.3. Expansion of Subjectivity

This axis concerns expanded consciousness of self-related phenomena as well as alterations in *how* subjects are conscious of all phenomena. First, a variety and intensity

¹⁸ CRAIG, *This is the Moment You Realize*, Erowid.org, November 1st, 2012 (accessed March 18th, 2022) <https://www.erowid.org/experiences/exp.php?ID=90410>. See also, e.g., MASTERS - HOUSTON, *Varieties*, pp. 9-10.

¹⁹ Raphaël MILLIÈRE - Robin L. CARHART-HARRIS - Leor ROSEMAN - Fynn-Mathis TRAUTWEIN - Aviva BERKOVICH-OHANA, *Psychedelics, Meditation, and Self-Consciousness*, “Frontiers in Psychology”, 9, 2018, pp. 8-12; Raphaël MILLIÈRE, *Varieties of Selflessness*, “Philosophy and the Mind Sciences”, 1, 8, 2020, pp. 12-13.

²⁰ Sidney COHEN, *Drugs of Hallucination: The Uses and Misuses of Lysergic Acid Diethylamide*, Martine Seeker and Warburg Limited, London 1965, p. 155. See also Anna LUTKAJTIS, *Four Individuals' Experiences During and Following a Psilocybin Truffle Retreat in the Netherlands*, “Journal of Psychedelic Studies”, 5, 2021, p. 26.

²¹ MASTERS - HOUSTON, *Varieties*, pp. 206-207.

of emotions exceeding the usual emotional range is frequently reported.²² Drastically expanded memory is also commonly described in the sense both of gaining access to memories of which psychedelic subjects are usually unaware and of recalling them with such peculiar vividness that they are “re-lived”:

I was reliving childhood experiences of which I had scarcely any conscious knowledge. Until today I had remembered only isolated fragments, but now the entire sequence reeled off as from a microfilm that surely was stored within my head. This reliving was very painful, and I could see that in burying it my life had been altered. One of the fabulous aspects of this microfilm was the clarity of color and form, from the facial expressions to the most minute details of the background.²³

Greatly intensified imagination, closed-eye visions of bizarrely intricate worlds, and vivid hallucinations of complex geometric patterns further contribute to a sense of the mind being expanded beyond its usual capacities.²⁴

We next identify an expansion in *how* psychedelic subjects are peculiarly conscious of phenomena across our three axes. That is to say that reports abound with descriptions of a «supernormally clear focus of attention», «extraordinary intensity of attention», «heightened awareness», and «immense concentration».²⁵ First, psychedelic subjects commonly report being utterly captivated by a spectrum of minute and mundane phenomena—albeit cracks on a wall or steam rising from a cup of tea—that are typically not focally attended to:

Each object that I looked at held my fascinated attention [...] I felt I had never really seen this garden before. I was enchanted with each plant, leaf, flower, tree trunk and the earth itself. Each blade of grass stood tip separate and distinct, edged with light. Each was supremely important.²⁶

²² Alexander B. BELSER - Gabrielle AGIN-LIEBES - Thomas C. SWIFT - Sara TERRANA - Neşe DEVENOT - Harris L. FRIEDMAN - Jeffrey GUSS - Anthony BOSSIS - Stephen ROSS, *Patient Experiences of Psilocybin-Assisted Psychotherapy: An Interpretative Phenomenological Analysis*, “Journal of Humanistic Psychology”, 57, 4, 2017, p. 366.

²³ COHEN, *Drugs of Hallucination*, pp. 153-154.

²⁴ See Heinrich KLÜVER, *Mescal: The “Divine” Plant and Its Psychological Effects*, in *Mescal and the Mechanisms of Hallucinations*, The University of Chicago Press, Chicago 1966.

²⁵ COHEN, *Drugs of Hallucination*, p. 160; Samuel W. FERNBERGER, *Observations on Taking Peyote (“Anhalonium Lewinii)”*, “The American Journal of Psychology”, 34, 2, 1923, p. 269; Gerald HEARD, *Can This Drug Enlarge Man’s Mind?*, “Psychedelic Review” 1, 1, 1963, p. 9; MASTERS - HOUSTON, *Varieties*, p. 95.

²⁶ COHEN, *Drugs of Hallucination*, pp. 167-169.

Second, psychedelic subjects report states of such deep and sustained attention to some usually unnoticed thing that they lose awareness of the surrounding world, time and space, embodiment, and even self-awareness:

The legs, for example, of that chair—how miraculous their tubularity, how supernatural their polished smoothness! I spent several minutes—or was it several centuries?—not merely gazing at those bamboo legs, but actually being them—or rather being myself in them; or, to be still more accurate (for "I" was not involved in the case, nor in a certain sense were "they") being my Not-self in the Not-self which was the chair.²⁷

As seen in the preceding quote, what commonly emerges from a state of intensely deep attention to some phenomenon is “ego-dissolution”: «a (reversible) loss of one’s sense of self and sense of self-world boundaries».²⁸ This is often accompanied by a sense of oneness with the universe and transcendence of time and space, implying an expansion beyond the limits of ordinary subjectivity—of what one is usually conscious of as oneself—that is often described as “oceanic boundlessness.”²⁹ Having identified the general features pertaining to PEC along our three axes, we next consider previous explanations thereof.

3. Critique of Attentional Metaphors for PEC

In the history of psychedelia, several brief explanations have been given for PEC in terms of attention. These can be categorised into two groups according their deployment of certain metaphors for attention: (1) attention as a filter/reducing-valve, and (2) attention as a spotlight or zoom-lens.

3.1. Filter/Reducing-Valve

Aldous Huxley famously claimed that the brain and nervous system function as a «reducing-valve» to filter out all phenomena that are not useful to survival.³⁰ This aligns with classic views in psychology, such as David Broadbent’s “bottleneck theory,”

²⁷ HUXLEY, *The Doors*, pp. 21-22.

²⁸ Raphaël MILLIÈRE, *Looking for the Self: Phenomenology, Neurophysiology and Philosophical Significance of Drug-Induced Ego Dissolution*, “Frontiers in Human Neuroscience”, 11, 2017, pp. 19-20. See also Chris LETHEBY, *Being for No One: Psychedelic Experience and Minimal Subjectivity*, “Philosophy and the Mind Sciences”, 1, 5, 2020, pp. 1-26; MILLIÈRE, *Varieties of Selflessness*, pp. 1-41.

²⁹ See Matthew NOUR - Lisa EVANS - David NUTT - Robin L. CARHART HARRIS, *Ego-Dissolution and Psychedelics: Validation of the Ego-Dissolution Inventory (EDI)*, “Frontiers in Human Neuroscience”, 10, 2016, pp. 1-13.

³⁰ HUXLEY, *The Doors*, pp. 22-27.

according to which attention is highly selective: stimuli and information are attentionally filtered so that only the most salient and important content is perceived. Thus, much does not enter consciousness.³¹ According to Huxley, ordinary consciousness is consequently a «measly trickle» or «reduced awareness» of reality.³² However, psychedelics «can be a means to by-pass or circumvent» the reducing valve and thereby allow «something more» of the world to flow into consciousness.³³ Huxley further states that for this expanded form of consciousness, «the so-called secondary characters of things are primary» and that what is usually attended to by practically oriented, self-interested consciousness instead becomes secondary.³⁴

Most recently, we find a near identical explanation of PEC in Chris Letheby's *Philosophy of Psychedelics* (2021). Letheby states that «conscious experiences are simply identical, in some sense, to states or processes occurring entirely within the brain».³⁵ He accordingly argues, following recent cognitive neuroscientific studies, that psychedelics disrupt the usual functioning of key neural structures, among others, the Default Mode Network and the Salience Network.³⁶ Broadly explained, the DMN—also known as “task-negative network”—is active whenever we are not undertaking tasks or are doing something seemingly purposeless (though not necessarily task-less), e.g., when we mind-wander or daydream. As Thomas Metzinger claims, we then do not control our mental processes and attention.³⁷ The SN is active when communication, social behaviour, and self-awareness are concerned. It is, e.g., involved in the detection and integration of sensory and emotional stimuli. The SN also mediates between the DMN and other task-related networks.

According to Letheby, the DMN and the SN encode a «hierarchical predictive self-model» that «regulates and constrains the allocation of attention, the attribution of salience, and the construction of mental representations».³⁸ In other words, the DMN and the SN filter phenomenal reality by dictating which sensory stimuli are habitually attended to or ignored as determined according to the goals, interests and beliefs of the self-model encoded by the DMN and the SN.³⁹ Letheby consequently argues that since

³¹ Daniel BROADBENT, *Perception and Communication*, Pergamon Press, Oxford 1958.

³² *Ibid.*

³³ *Ivi*, pp. 10-13.

³⁴ *Ivi*, pp. 25-27.

³⁵ LETHEBY, *Philosophy of Psychedelics*, pp. 34-35.

³⁶ *Ivi*, pp. 133-135.

³⁷ Thomas METZINGER, *M-Autonomy*, “Journal of Consciousness Studies”, 22, 11-12, 2015, pp. 270-302.

³⁸ *Ivi*, pp. 129, 133.

³⁹ *Ivi*, pp. 129-135.

psychedelics disrupt these networks, subjects «gain new perspectives on their lives, see things differently, and access information previously filtered out or ignored» and thus «psychedelics expand the phenomenological possibility space».⁴⁰

3.2. Spotlight or Zoom-Lens

PEC has also been conceptualised in terms of attention as a “spotlight.” Like Huxley, Alan Watts states that ordinary consciousness is a reduced awareness of reality. It is characterised by «concentrated attention, on using the mind as a spotlight rather than a floodlight, and by this means analysing the world into separate bits».⁴¹ Attention is thus programmed to scan for and illuminate only those phenomena that «are relevant to certain preselected ends—survival, social or financial advancement, and other fixed goals».⁴² Yet Watts claims that «psychedelics expand attention. They make the spotlight of consciousness a floodlight which not only exposes ignored relationships and unities but also brings to light unsuspected details—details normally ignored because of their lack of significance, or their irrelevance to some prejudice of what ought to be».⁴³ Thus, PEC is once more linked to a widened scope and «unprogrammed mode of attention»—i.e., disruption of the DMN and SN—that «expose[s] consciousness to events beyond those that are supposed to deserve notice».⁴⁴

Similarly, Michael Pollan deploys the lantern metaphor by which Alison Gopnick distinguishes the attention of babies and children from the spotlight attention of adults. Whereas the latter focuses attention narrowly on a goal, the lantern consciousness of babies is «more widely diffused, allowing the child to take in information from virtually anywhere in her field of awareness».⁴⁵ Lantern consciousness is thus more expansive: «babies seem to be more conscious of much more of the world at once».⁴⁶ Pollan suggests that this is likewise the case for psychedelic subjects. Finally, the “zoom-lens” metaphor has been employed to explain magnified detail and complexity in psychedelic experiences: focused attention functions like a microscope and psychedelics greatly

⁴⁰ *Ivi*, pp. 121, 137. For further critique of attempts to reductively identifying attention with neural processes, see Sebastian WATZL, *Structuring Mind: The Nature of Attention and How It Shapes Consciousness*, Oxford University Press, Oxford 2017, pp. 13-25.

⁴¹ WATTS, *A Psychedelic Experience*, p. 129.

⁴² *Ibid.*

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ POLLAN, *Change Your Mind*, p. 325.

⁴⁶ Alison GOPNIK, *The Philosophical Baby. What Children's Minds Tell Us about Truth, Love and the Meaning of Life*, The Bodley Head, London 2009, p. 119.

increase the power of this attentional microscope «through which the mind delves deeper and deeper into the intricately dancing texture of our world».⁴⁷

3.3. Phenomenological Critique

The above attempts to conceptualise attention as a filter/reducing-valve, spotlight or zoom-lens all express the same basic idea. Attention as a filter denotes the top-down process of including and excluding input according to what is relevant to a subject's goals and interests. Attention as a spotlight or zoom-lens denotes scanning for and highlighting content of interest so that it can be further focalised. What is not illuminated is excluded from consciousness or only dimly appears on the attentional beam's periphery. The basic idea is thus that psychedelic experiences entail an inhibition or suspension of attention's selectivity. The shared conclusion is therefore that consciousness is expanded in psychedelic experiences because the scope of attention is expanded: "more" of reality enters past the attentional filter or the attentional beam is cast to parts of reality usually outside its scope. Our critique of this conclusion now draws on Aron Gurwitsch's critique of attention understood solely as selection, especially in terms of illumination.⁴⁸ To conceive of attention as selecting content is to see attention as an organising principle acting upon unorganised givens: input from an external source is filtered or something "out there" is illuminated. What is attentively selected is thereby organised. This means that before being selected, the content in question is undifferentiated from other content and thus has no determinate relationship to the latter. Moreover, all that is filtered out or falls outside the attentional beam remains undifferentiated and unorganised.

First of all, this account rests on the idea that there are purely objective givens that are independent of consciousness and unaffected by attention: to filter sensory stimuli does not affect the sensorial object from which they issue, and to illuminate phenomena does not alter their structure. But we do not experience any such givens that are independent of consciousness and unaffected by attention. For, on this very account of attention, we are only conscious of what has been filtered or illuminated. Thus, the independent givens that attention is supposed to select from is a matter of pure speculation.⁴⁹ Second, since to select is to organise content, and thus what is not selected

⁴⁷ WATTS, *Joyous Cosmology*, p. XXV.

⁴⁸ GURWITSCH, *The Field of Consciousness*, pp. 23-93, 257-264; GURWITSCH, *Phenomenology of Thematics*, pp. 213-215, 223-224, 240-246, 260, 280-285. For a similar critique see MERLEAU-PONTY, *Phenomenology of Perception*, pp. 28-48; Diego D'ANGELO, *The Phenomenology of Embodied Attention*, "Phenomenology and the Cognitive Sciences", 19, 2020, pp. 961-978.

⁴⁹ Cfr. MERLEAU-PONTY, *Phenomenology of Perception*, p. 29.

is unorganised, one cannot explain how attention knows what to select. Phenomena must, to some degree, already be differentially identifiable by appearing in particular saliences and configurations, lest attention have no reason to select anything in particular.⁵⁰ Yet there is truth to the idea that attention involves focused selection. We do often attend to a certain something to study its details. However, if this particular activity of attention is identified with attention *as such* then no explanation can be provided as to how phenomena are related to each other and attended to outside the selected focus of attention. It is not the case that there is no attention to and awareness of anything except the selected focus, nor that phenomena outside the selected focus are undifferentiated and unrelated to one another. As you focus on this sentence, for example, you are attending to it in relation to a certain organisation of distinct phenomena to which you also attend secondarily: to the screen on which the sentence is displayed, the desk on which the laptop rests, the room in which you are situated, etc. Moreover, there are other forms of attention than focused attention. We often distribute our attention over different objects of a scene or features of objects, for example, when selecting blue socks from white laundry. Or sometimes we experience “free floating attention”—we attend to anything and nothing, so to speak, but are somehow open to everything around us. We can also distinguish between hyper attention, when attention switches rapidly from one object to another, and deep attention when we sustain narrow focus on one object.⁵¹

In conclusion, any explanation of PEC in terms of attention solely as focused selection—albeit as a filter/reducing-valve, spotlight or zoom-lens—is insufficient to the task given the problems that we have identified with this basic idea of attention. As we next demonstrate, Aron Gurwitsch’s theory of consciousness is alternatively the most fruitful approach for understanding PEC. It provides a typology of attention that does not conceive of attention solely in terms of selectivity and thus avoids the above problems that underlie previous explanations. It can also account for how consciousness is structured in psychedelic experiences with respect to attention, and is furthermore parsimonious because it does not require appeal to anything except psychedelic experiences just as subjects describe them.

⁵⁰ *Ivi*, p. 30.

⁵¹ Katherine N. HAYLES, *Hyper and Deep Attention: The Generational Divide in Cognitive Modes*, “Profession”, 2007, pp. 187-199.

4. Introducing a Gurwitschian Approach

4.1. Attention and the Field of Consciousness

Gurwitsch (1901-1973) argues that the field of consciousness—everything co-presently experienced—is always structured into three dimensions that can be pictured as concentric circles: the theme, thematic field, and margin.⁵² The theme is the focus of attention: that which stands out as the centre of a certain context. The context is the thematic field: all that is secondarily attended to because of its relevancy to the theme. Finally, the margin comprises all that is irrelevant to the theme but one is still dimly aware of whilst focally attending to the theme.⁵³ This tripartite structure is immanent to the field and its objects are *Gestalt* objects. This means that experience is never a set of unorganised data requiring attention to impose upon or derive organisation from it.⁵⁴ Rather, the field is always immediately experienced as already organised. This is because the phenomena that comprise it are immediately experienced as already having a certain organisation of features, and this immanently delineates phenomena from and relates them to each other.⁵⁵

Although the structure “theme - thematic field - margin” is an invariant feature of the field of consciousness, it is not static. Correlated to each dimension are certain types of attentional transformations that operate on the basis of their immediate structure and objects. I attend thematically to this salient object rather than that one, or to this salient feature rather than others, and by consequence the object’s appearance and relationship to everything else of which I am conscious is transformed. This change of appearance just is a restructuration of an object’s features and a transformation of structural dimensions. There is no structure behind appearances, and thus no given “reality” independent of or unaffected by attention. However, there is a basic phenomenological distinction to be made in terms of intentionality. Consciousness is always consciousness *of* something, most generally, of the field of consciousness. But consciousness is not consciousness of just anything in just any way. It is «never a stupid staring at» something.⁵⁶ Rather, to be conscious is to attend to certain things in certain ways. The structure of what is attended to is thereby transformed. But attention is

⁵² GURWITSCH, *Phenomenology of Thematics*, p. 296.

⁵³ GURWITSCH, *Field of Consciousness*, p. 53.

⁵⁴ GURWITSCH, *Phenomenology of Thematics*, p. 283-284.

⁵⁵ GURWITSCH, *Field of Consciousness*, p. 28-53.

⁵⁶ GURWITSCH, *Phenomenology of Thematics*, p. 222.

guided in doing so by the structural saliency of the field.⁵⁷ Thus, the field of consciousness and consciousness of the field are interdependent. Accordingly, attention is definable as the subjective activity of transforming the field of consciousness.⁵⁸

To illustrate this point, imagine walking hurriedly down the street. You are late for the bus. You hear cars passing by, birds chirping, and rain pitter-pattering. You are not in the best mood. The noise of cars stresses you. The rain is cold on your skin. You scan your environment with regard to your aim. Is the traffic light green? Can you cross the street? Is the bus approaching? Now, applying Gurwitsch's framework, we can say that the scene is co-constituted by the given field of objects and your attention. Catching the bus is your theme. The traffic lights, cars, and perhaps the rain, since it urges you to walk cautiously, are in the thematic field as relevant to your theme. Shivering, birdsong, and other pedestrians are at the margins. How is your attention correspondingly structured? You execute *focused attention* towards the theme: you bring signs of the approaching bus to the foreground. You *distribute* your attention over thematic field, switching *hyperattentively* between relevant saliencies as you move. You have dim *awareness* of irrelevant phenomena: the noisy cars, your mood, pedestrians. Additionally, your habits influence how you attend to the scene. Perhaps you are habitually in a hurry, and so you never "stop to smell the roses." All phenomena in the described scene are immediately structured in relation to one another in order to form a field. But by passively and actively attending to the field, you enactively transform its structure.

Following this introduction to Gurwitsch, we next explicate his typology of attentional transformations in the course of explaining PEC as a certain *restructuration* of consciousness by extreme attentional transformations.⁵⁹ This occurs at two levels—the inter-dimensional and intra-thematic—and covers every possible sense in which PEC has been identified along our three axes.

4.2. Inter-Dimensional Expansion

The thematic field comprises all phenomena to which attention is secondarily distributed because they are relevant to the theme. The thematic field is thus organised with respect to the theme as its centre. PEC in the sense of experiencing an unusually

⁵⁷ P. Sven ARVIDSON, *Restructuring Attentionality and Intentionality*, "Human Studies", 36, 2013, pp. 199-216.

⁵⁸ P. Sven ARVIDSON, *Attention in Context*, in Shaun GALLAGHER - Daniel SCHMICKING (eds.), *The Handbook of Phenomenology and Cognitive Science*, Springer, Dordrecht 2010, p. 114.

⁵⁹ See GURWITSCH, *Phenomenology of Thematics*, pp. 241-277.

great scope of phenomena is now explicable as an extreme attentional «enlargement» of the thematic field's structure.⁶⁰ As Gurwitsch defines this attentional transformation, «the range of what is cogiven as materially belonging to the theme becomes larger so far as new items, previously not experienced, now appear».⁶¹ This significantly occurs in psychedelic experiences because the scope of attention is widened: more becomes secondarily attended to as relevant. This does not mean that psychedelic subjects are experiencing some reality that is concealed from ordinary consciousness. Rather, what is typically marginal in their ordinary consciousness is instead shifted into the thematic field during a psychedelic experience and thus enlarges it. For example, we are always marginally aware of the texture of threads in our clothing or the shades of colour presented by the veins in our hands. But we do not usually notice them because they are irrelevant to our habitual and functional themes of attention, and because noticing them would distract us from our functional activity. Thus, we typically only attend to their outlines as general types of things and overlook their myriad features. But they do become relevant in psychedelic experiences, and thus become available as potential themes.

There is furthermore an extreme attentional «elucidation» of the thematic field in psychedelic experiences whereby «the thematic field is not enriched by *increase* of components not previously given but in which components which had appeared in a certain obscurity, nebulosity, and confusedness become elucidated, clarified, and determined to a higher degree than before».⁶² This concerns becoming conscious of intensely vivid detail and complexity in phenomena that are usually unnoticed or at least underappreciated. For example, psychedelic subjects describe being thunderstruck by the multitudinous patterns that adorn a plain white wall or the depth of emotions that are usually pushed aside in the busyness of ordinary life.

Phenomena become more salient the nearer they are in relevancy to a theme because they are thereby attended to more closely, given their relevancy, and thus an enlargement of the thematic field in psychedelic experiences entails that more phenomena become unusually salient. Since more is available to the psychedelic subject as readily potential themes, their attention has a greater spectrum of themes to shift between. Their attention is then drawn onwards by the novel salience of usually unnoticed things. Following this call to attention, they thereby enlarge and elucidate the thematic field, bringing into focus what is usually peripheral. This process is often described as a state of childlike curiosity and wonder, free of the rigid habits and

⁶⁰ *Ivi*, p. 247.

⁶¹ *Ibid.*

⁶² *Ivi*, p. 248.

demands of attention and thus hardly transforming structure of adult consciousness.⁶³ As Walter Benjamin stated during his mescaline induced experience, «the child's dawdling, his lolling about: he plucks the fringes of experiences, unravels them, therefore the child lolls. Being indolent and taking one's sweet time».⁶⁴ So it is with psychedelic subjects. However, this process can also be experienced as overwhelming, chaotic and unstructured, as an experience of "too much," resulting in an infamous "bad trip" if the psychedelic subject fights to restore their usual structure of consciousness.

Concerning "taking one's sweet time," Samuel W. Fernberger first noted that the expanded scope of attention in psychedelic experiences is a major reason for why there is an expansion of time and space. When more phenomena are attended to in a given space than usual, and thus more of their features are rendered with greater saliency, space appears expanded. When more is attended to in a given period of time than usual, time feels expanded.⁶⁵ Space is an organisation of attended phenomena and time is a period of attentive activity. Thus, enlargement and elucidation of the thematic field leads to expansion of time and space.

Now, as Benjamin also stated during his psychedelic experience, «fringes are important. It's by the fringes that one recognises the material».⁶⁶ The thematic field, or fringe of thematically relevant phenomena, determines the way in which the theme appears. For example, a cup thematically attended to on a table does not appear the same way if it is thematically attended to while resting on the head of an elephant. There is a different structuration of the cup's features in each case as different features are prominent given a particular context: its handle if I am drinking from it, its fragility when upon the head of an elephant. Because psychedelic subjects experience expansion of consciousness in the sense of extreme enlargement and elucidation of the thematic field, any theme therein appears deeply "strange," "unreal," "otherworldly," or "absurd."⁶⁷ This is because «the variety and quality of its material relations, the possibilities of connection, the aspects which it opens up, have become different».⁶⁸

⁶³ See, e.g., COHEN, *Drugs of Hallucination*, pp. 7-8; LUTKAJTIS, *Four Individuals' Experiences*, p. 24.

⁶⁴ Walter BENJAMIN, *On Hashish*, tr. eng. Howard Eiland (ed.), The Belknap Press of Harvard University Press, Cambridge and London, 2006, p. 88.

⁶⁵ FERNBERGER, *On Taking Peyote*, pp. 269-270.

⁶⁶ BENJAMIN, *On Hashish*, p. 95.

⁶⁷ See, e.g., COHEN, *Drugs of Hallucination*, pp. 18, 95, 125, 136; HUXLEY, *The Doors*, pp. 33, 59-60.

⁶⁸ GURWITSCH, *Phenomenology of Thematics*, p. 248. A good, non-psychedelic, example of this concerns "The Fountain" by Marcel Duchamp. Here, Duchamp transforms a urinal into an artwork by turning it upside down, signing it, and presenting it at an art exhibition. This provoked many questions concerning what art can be, whether its value depends on its beauty, and whether an object must be

Whatever appears so strangely does so because it appears in such an unusual context, and it thereby draws the subject's attention most strongly. There is consequently a third attentional transformation intensified in psychedelic experiences: contraction of the thematic field. This pertains to reportedly becoming so immersed in attending to some phenomenon that it expands to all that one is conscious of. There is consequently a «narrowing of the thematic field [which] purports a narrowing of the horizon; the theme loses connecting links, the variety of its material relations is reduced». ⁶⁹ We shall later explicate what this means for the margin, but first consider what happens when attention drastically contracts to a particular theme.

4.3. Intra-Thematic Expansion

Thematic attention denotes focused attention to a particular phenomenon such as that it is selected as the centre of a thematic field. Besides appearing within a structural relation of thematic field and margin, the theme is itself a certain structuration of interdependent features or constituents. This makes the theme a *Gestalt*. This entails that certain constituents have a more central function in determining the theme's general structure and thus characteristic appearance: «they “stand out,” they carry the “accent,” they have an incomparably heavier emphasis than the other constituents». ⁷⁰ But they are central only in their structural relation to other less prominent constituents, and the latter derive their appearance from being organized around the former. ⁷¹

Upon an intense contraction of focused attention to some theme—no matter how mundane or minute—psychedelic subjects commonly report an explosive proliferation and transformation of its features that seems to deepen endlessly. ⁷² The overall impression is that «worlds within worlds have been explored». ⁷³ This effect has often been compared to a “zoom” or “Mandelbrot fractal zoom”:

Ever more complex variations upon a theme—ferns sprouting ferns sprouting ferns in multidimensional spaces, vast kaleidoscopic domes of stained glass or mosaic, or patterns

worked upon by an artist in order to be “art.” Aesthetically experiencing “The Fountain” can expand the “world” of the perceiver as they become aware of new aspects of an ordinary object when taken out of its ordinary context and use.

⁶⁹ *Ibid.*

⁷⁰ *Ivi*, p. 210.

⁷¹ *Ivi*, p. 211-212.

⁷² See, e.g., KLÜVER, *Mescal: The Divine Plant*, p. 54; MASTERS - HOUSTON, *Varieties*, p. 312.

⁷³ MASTERS - HOUSTON, *Varieties*, p. 21

like the models of highly intricate molecules—systems of colored balls, each one of which turns out to be a multitude of smaller balls, forever and ever.⁷⁴

I fell deeper and deeper into the visual experience. The visuals were more powerful than I've ever known [...] It felt as if I was speeding through a tunnel of fractals, like zooming through a Mandelbrot set.⁷⁵

What is being described here is an intra-thematic expansion of consciousness occurring by means of an intensified attentional transformation that Gurwitsch terms «restructuration».⁷⁶ First, contracted attention to the theme presents the opportunity for usually unnoticed features to be focalised as the psychedelic subject inspects the theme with unusually deep and sustained attention. To use Gurwitsch's words, though we must greatly exaggerate them in reference to psychedelic experiences:

The further [they] proceed, the more the system expands. More and more perceptual noemata [constituents of the theme], all in agreement, are integrated into the system thus enlarging it progressively. The expansion may consist in the insertion of unexpected appearances into the enlarging system, or else appearances may be actualized in genuine sense-perception, with definiteness and determination to which, at earlier phases of the expansion of the system, only anticipatory references of an indeterminate and indistinct nature had been implied.⁷⁷

Unexpectedly salient features can then be centrally attended to, and thus a restructuration of the theme occurs: usually central features are backgrounded while the usually peripheral features are foregrounded. Since it is strange for usually unnoticed features to be brought so vividly to attention, these newly foregrounded features then capture attention in turn. Upon intense attention to these newly focal features, finer details thereof are then brought to attention and the whole process repeats. This is indeed analogous to a “Mandelbrot fractal zoom” as a continual interplay of contraction and expansion. Contracted attention to a particular feature results in its expansion into further features for attention to be contracted to in turn, which then expand in detail and complexity of further features, and so on, and so on, until rapt attention is broken by some sufficiently salient occurrence in the environment. Rather than the formerly central constituents of the theme becoming part of its background structure, a constituent may also otherwise be «singled-out» as a

⁷⁴ WATTS, *Joyous Cosmology*, p. 56. See also MASTERS - HOUSTON, *Varieties*, pp. 19, 21, 24, 222.

⁷⁵ LOLA B, *Prime, Probe, Process*, Erowid.org, October 13th, 2006 (accessed March 24th, 2022), <https://www.erowid.org/experiences/exp.php?ID=56384>.

⁷⁶ GURWITSCH, *Phenomenology of Thematics*, p. 263.

⁷⁷ GURWITSCH, *Field of Consciousness*, p. 206.

new, independent theme while the rest of the theme is split off into the thematic field.⁷⁸ In any case, the same attentional process then follows: a profusion and complexification of thematic features. We now consider the implications that all the above attentional transformations have for the margin.

4.4. Shifting of the Margin

The margin comprises all that is irrelevant to the current theme but one is still dimly aware of while attending to the theme. Despite being the domain of irrelevancy, the margin is not a chaotic accumulation of content lacking structure but of *Gestalt* objects that are obscurely structured and related because they are not within the thematic field. Although the content of the margin is constantly shifting because it is determined by relevancy to the theme which is always shifting, Gurwitsch claims that a theme is never experienced without at least marginal awareness of the perceptual world, our embodied existence, phenomenal time, and self-awareness.⁷⁹

Yet psychedelic subjects frequently report varying degrees of derealisation and depersonalisation. Extreme enlargement and elucidation of the thematic field entails that marginal phenomena are shifted nearer to the centre of attention or even thematised. The familiar structure of marginal phenomena is obscure, but this shift from the margins entails their elucidation by inclusion in the thematic field. Experienced within a new context, the phenomena in question appear strange and thus draw attention. If further thematised as a result, there is an attentional expansion, elucidation, and restructuration of a marginal phenomenon's usually unnoticed features. It consequently appears as deeply strange to the point of derealisation—concerning formerly marginal aspects of the perceptual world—or depersonalisation—concerning formerly marginal aspects of the body and self. Here, there is still an awareness of being in the world, of being embodied and being a self, but only as unfamiliar.

However, we can secondly explain the occurrence in psychedelic experiences of ego-dissolution—defined broadly as a radical diminishment of self-awareness—and disembodiment—defined in the same way only concerning bodily awareness—as resulting from extreme contraction of the thematic field. Since self-awareness and bodily awareness are typically marginal, there is a radical diminishment thereof upon intensely contracted attention to a theme since this conversely entails a shrinking of the thematic field and margins. Indeed, subjects frequently report ego-dissolution and

⁷⁸ GURWITSCH, *Phenomenology of Thematics*, pp. 266-269.

⁷⁹ *Ivi*, pp. 295-317.

disembodiment in connection with intensely deep and sustained attention to some theme:

Slowly the music seemed to absorb all my consciousness [...] It seemed to me as though the music and I became one. You do not hear it—you are the music. It seems to play in you [...] [LSD] seemed to induce an effortless, absorbed and timeless power of inward-turned concentration. One *is* the thought.⁸⁰

There is currently a vibrant philosophical debate concerning whether it is possible, as some psychedelic subjects report, to lose all self-awareness and yet still have conscious experience.⁸¹ We shall not enter this debate here, but suggest a basis for intervening from our Gurwitschian approach: to whatever degree, ego-dissolution results from extreme attentional transformations. This also applies to losing awareness of time and space.

Third, we can broadly explain bodily expansion and expansion of subjectivity by consciously “merging” with some aspect or the whole field of consciousness, and thus having a sense of “oceanic boundlessness,” in terms of the attentional transformation of «synthesising». This is when the theme «grows into its ground and merges with it; or, expressed from the other point of view, the ground absorbs the theme and pervades it. A new theme results on a new ground».⁸² Gurwitsch continues to state that «whenever a theme is given in a thematic field, this situation by its very nature implies the possibility that through a new act the entire field of consciousness is made a unitary theme to which, in turn, a new thematic field belongs».⁸³ In psychedelic experiences, this involves an intensified synthesizing whereby the body, self, or some aspect thereof, is synthesized as a constituent of another theme, e.g., the chair upon which the psychedelic subject is seated or the flower at which they raptly gaze. The effect is a sense of merging with the object of attention. Moreover, if the entire field of consciousness is made a unitary theme, then this synthesis of the embodied subject themselves as a constituent within the field-as-theme entails the often-reported experience of a dissolution of boundaries between self and world, i.e., they are not attended to as separate, as attending subject and attended object, but as a unified theme of attention. This dissolution of the two poles of attention into each other results in a larger theme emerging, and thus there is a most dramatic expansion of consciousness.

⁸⁰ COHEN, *Drugs of Hallucination*, p. 160.

⁸¹ See MILLIÈRE, *Varieties of Selflessness*, pp. 1-41; LETHEBY, *Being for No One*, pp. 1-26.

⁸² GURWITSCH, *Phenomenology of Thematics*, p. 274.

⁸³ *Ivi*, p. 275.

5. Conclusion

We have thus argued, by applying Gurwitsch's phenomenology of attention, that PEC refers to a general restructuration of consciousness by means of extreme attentional transformations. However, the following question remains: what is the epistemic and ethical value of PEC? In conclusion, we touch on possible answers. The claim could be made that PEC enriches subjects' knowledge of consciousness and attention: *more* aspects and details of the world and themselves are experienced than usual as novel, more intensive ways of attending to them are discovered. A possible objection is that psychedelic subjects merely imagine or hallucinate experiencing "more". Thus, PEC does not produce real knowledge and is epistemically dangerous if psychedelic subjects think otherwise. If so, an ethical problem arises: people could be deceived under the influence of psychedelics. Yet there is no good reason to doubt the verity of subject reports of PEC given how extensive and similar they are, while there is reason to think that PEC might provide both propositional and non-propositional knowledge.

First, propositional knowledge is *knowledge that* something is factually the case. In PEC, this can be gained, e.g., when usually marginal phenomena shift to the thematic field or are thematised. Psychedelic subjects can then gain deeper knowledge of aspects of the world and themselves that are usually obscure to them, e.g., discovering finer shades of a colour or recalling something from their distant childhood. Second, PEC can also provide non-propositional knowledge in three forms: knowledge by acquaintance, empathic knowledge, and knowing how.⁸⁴ Knowledge by acquaintance denotes knowing something or someone by getting "in touch" with it or them. There is a distinction, for instance, between having propositional knowledge *that* the colour "green" has multifarious shades and having an expansive perception «down into the shape of greenness, which is not green at all, but a whole spectrum generalizing itself as green».⁸⁵ Psychedelics are not the only means by which we can experience expanded features of phenomena beyond our usual scope of attention, but they do facilitate this with a remarkable reliability and intensity. Finally, PEC can foster empathic knowledge and knowing how by affording different ways of attending to the world, ourselves, and others. Empathic knowledge is knowledge of what it might feel like to be another being. It involves a process of "feeling into" another, and of grasping another's expressivity that can allow for a change of perspective. Subjects commonly report greater openness

⁸⁴ See LETHEBY, *Philosophy of Psychedelics*, pp. 160-200.

⁸⁵ WATTS, *Joyous Cosmology*, pp. 27-28.

to and empathy for other people and nature during psychedelic experiences.⁸⁶ They sensitively attend to aspects of living beings that they usually do not notice or appreciate due to their typically egocentric interests, and even have experiences of transforming into other beings. This is of ethical value insofar as PEC may thereby afford empathic knowledge that could lead to improvements in social and environmental relationships beyond psychedelic experiences.⁸⁷ Through PEC we can also realise that *how* we narrowly attend to and thus are conscious of the world in ordinary life is neither necessary nor universal, and so come to know that our habits of attention can be transformed. The task for further research, following from our phenomenological specification of PEC, is therefore to study how subjects describe its epistemic and ethical value for their lives as a whole.

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⁸⁶ Emily BLATCHFORD - Stephen BRIGHT, *Tripping Over the Other: Could Psychedelics Increase Empathy?*, “Journal of Psychedelic Studies”, 2021, pp. 163-170.

⁸⁷ Nicolas LANGLITZ - Erika DYCK - Milan SCHEIDEGGER -Dimitris REPANTIS, *Moral Psychopharmacology Needs Moral Inquiry: The Case of Psychedelics*, “Frontiers in Psychiatry”, 2021, pp. 1-6.

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