

Biophenomenology of Altered States

Vít Pokorný, Charles University Prague, Faculty of Humanities

1. My first experience with hallucinogens have resulted in haunting questions about a philosophical meaning of hallucinatory experiences and all similar extraordinary states, such as: How are such experiences possible? What is their nature, i.e. are they but anomalies of proper mental function or something else? What is their epistemological value, i.e. what kind of consciousness processes may we relate to them? What is their ontological value, i.e. what part of reality they constitute? And last but not least, what is the proper theoretical context for their explanation?

The states involved fall within the scope of interest of anthropology of consciousness (1), including dreams, certain mental disorders, near-death experiences, practice of meditation, religious experiences and especially the states induced by psychoactive substances. Different titles and concepts are circulating among academic and non-academic public to describe them, but as far as I know, no consensus has been established yet (2). Sometimes terms “extraordinary” (3), “altered” (4) or simply unusual states of consciousness are used, other times terms “hallucination”, “trance” or “ecstasy” are preferred. Psychonauts, literary authors and occasional drug users talk about “trips”, shamanic practitioners about “journeying”, the expression “spiritual” or “mystical experience” may be used in religious context; psychiatrists try to understand “dissociative states” (5). But in spite of such variety, there are certain features common to all beforementioned states: special induction technique (6) is required and different modes of alteration both of inner and outer experience are induced. Therefore I have decided to use the term altered states (AS). The reason is, as I am convinced, that the “alteration” involves not only cognitive processes but corporeal as well, and that even the entire existential situation undergoes a transformation.

As the term itself suggest, any interpretation of these states assumes that they differ from a common or normal state (of consciousness). And I believe that the conventional concept of consciousness is based on alertness. “Behaviorally, intrinsic alertness represents the internal (cognitive) control of wakefulness and arousal ...“ (7) To be alert means to be „fully aware and attentive, wide-awake“(8); it is characterized by states of vigilance and absence of sleep. To alert someone means to „warn to prepare for action“ or „to advice ... to be on guard“(8) To be conscious of something means, from the alertness perspective, to be aware of it with a degree of certainty. And to be certain means to be able to testify what one knows, i.e. to know that one knows it (self-reflection).

Such a concept of alertness implies the idea that any state of consciousness lacking direct self-control constituted in self-reflection is irrelevant. From this standpoint, modes of consciousness exceeding these hunter-like principles, actually rooted in a stress reaction (9), are referred to as unconscious. And as states lacking basic quality of alertnes, they are dismissed as mere fancies. Such concept of consciousness, at least in the context of everyday experience and scientific rationality, can therefore be termed „egocentric“, since it subordinates all epistemologically valid and ontologically relevant experiences to the alert self-reflecting ego, either empirical or transcendental. In accordance with Mark A. Schroll (10) or Thomas B. Roberts (11), we may call this perspective a “single state fallacy: the erroneous assumption that all worthwhile abilities reside in our normal, awake mindbody state”. (10)

To avoid the single state fallacy and consequently also the dismissal of AS as mere anomalies of experience, I will adopt a “multistate paradigm of consciousness” (10). From this perspective, a model of consciousness cannot be built around the central state of alert self-reflection. In order to better understand AS, it is more appropriate to model consciousness as a multilayer continuum of structurally different, but epistemologically and ontologically equivalent modes. Thus it could be possible to show that consciousness is not selfrelying, autonomous process, but biological acitivity deeply rooted in organism and its environment.

2. Perspectives

Once we reject the self-thinking ego as the primary center of conscious behavior, we need to replace it with another model that is able to bridge the mind-body gap and allows for rehabilitation of AS's cognitive value. Drawing from two different but interconnected traditions that cross the dualism of scientific thinking towards the „new synthesis“(12, 13) – the phenomenology of perception and corporeality on one hand (14), and biological theories referred to as biosemiotics (15) on the other – we may define consciousness as *a continuum of modes of self-referential (16), situated presence of an organism in its environment.*

Thus, in order to create an interpretational framework that could elucidate conditions of possibility of AS in a general, I have opted for the combination of phenomenology and biosemiotics. I understand phenomenology as a philosophical discipline dealing with structure and conditions of possibility of experience, whose primary aim is to explain how any kind of reality is constituted in our experience. And, in order to do that, it must also answer the question of how any experience is possible at all, i.e. what is the source of sense-making activity of consciousness. Biosemiotics is a set of biological theories that views life in general as cognition (16) (or knowing (17)) and allows us to trace self-referential processes on all levels of the incarnate mind, i.e. the conscious body, and model them as a multilayer continuum of different levels of self-referential behavior.

Since various different conceptions of phenomenology may be found in literature (18), I would like to specify mine as inscriptional phenomenology of perception and corporeality. Phenomenology of perception is based on the idea of „primacy of perception“(19, 20), meaning that the primal and original mode of our living presence in the world is centred around the perceiving body. Inscriptional phenomenology may be characterized with Merleau-Ponty's statement that „Being is the 'place' where the 'modes of consciousness' are inscribed as structurations of Being“(21) M. Nitsche interprets this statement as follows: „Merleau-Ponty explains

description more as an inscription. Thus, he completely overturns the usual way of interpreting consciousness: natural attempts of our consciousness to capture what is perceived within firm boundaries of meaningful contours and to inscribe it, thus captured, into our mind are not directed to our consciousness, but as a structuration into the visible world.“ (22) Thus, consciousness is not to be understood as registration and structuration of external stimuli inside our brains, but rather as active and bodily based transformation of perceptual fields.

In biosemiotics, we can call this inscriptive set of fields an „Umwelt“(23,24), i.e. an organism’s environment growing up from its modes of bodily and perceptual actions. It is, therefore, not appropriate to view an organism as a unity of two parts (body/mind) separated by a mystical gap; rather, the term ‘living system’ should be used to denote wholeness of an organism, with mind and body as two abstractive views of a single unit.

As E. Thompson puts it, „We need to focus on a kind of phenomenon that is already beyond this gap. Life or living being is precisely this kind of phenomenon. For biology, living being is living organisms; for phenomenology, it is living subjectivity. Where these two meet is in what phenomenologists call the lived body. What we need, and what the neurophenomenology aims for, is an account of the lived body that integrates biology and phenomenology, and so goes beyond the gap“(25).

3. Umwelts

AS provide a possibility to transcend the narrow boundaries of self-reflecting ego consciousness. They entail a direct experience of conscious activity that is not a mere reflection and registration of outer world affecting our sensory organs and thus producing data that our neural networks mysteriously¹ transform into conscious images inside our minds. Instead, a careful phenomenological analysis of AS may reveal that something different is the case, i.e. that a living organism organizes its

¹ so called hard problem of consciousness

lived world by its integral behavioral activity and that this activity itself is possible only as a situated presence of a living organism inside the world.

The key question here is: What are the ways living beings inhabit the world? And what kind of world do we have in mind? Here, we may refer to the concept of „Umwelt“, that translates as „the world around“ and can be explained as „a subjective world“(26). As J. Hoffmeyer states: „Modern biology employs the objective term ‘ecological niche’, that is to say, the set of conditions – in the form of living space, food, temperature, etc. – under which a given species lives. One might say that the *Umwelt* is *the ecological niche as the animal itself apprehends it.*”(27) So, from both phenomenological and biosemiotic perspective, there is not a single common world as a conglomerate of outer objects and conditions, but rather a plurality of subjective worlds originating in the behavioral structures of individual species and even individual organisms. The worlds of cats, sea anemones or humans differ essentially from each other, because of different ways in which these organisms inhabit, i.e. constitute, their worlds.

The semiotic niche, as Hoffmeyer puts it, is organized according to what is relevant for a certain species of organism or for an individual organism. The measure of relevance is what the organism experiences as relevant, i.e. meaningful. Relevance of a world is not firmly set in the structure of external environment; rather, it is constituted as a interplay of needs, sensory fields and mobility of an organism, and its environment.

Every organism tries to stay alive and for this purpose it must be able to maintain its inner equilibrium. It does so by communicative metabolization of the surrounding world – it communicates with individuals of the same species, it consumes food and tries to avoid all things hostile and threatening. This constant activity is carried out by means of continuous exchange of substances and information within the environment. Each and every organism must therefore keep itself open to remain closed. Or, to put it reversely, in order to stay closed, stable and alive, an organism must be open to the ongoing exchange of matter and information

that constitutes its umwelt. But the environment speaks, i.e. is accessible and relevant to an organism, only to the extent to which the organism is open. Each organism has a limited set of possibilities at its disposal of how to move, interpret and transform its surroundings. These possibilities determine what is harmful and what is beneficial, what poses danger and what keeps alive, what is to be accepted and what is to be avoided. This “knowledge” guides behaviour of an organism, and thus constitutes its world.

4. Patterns

Each organism shares its individual world not only with beings of the same species, but also with those of many other species, based on similarity of their bodily organization and patterns of experience. For example, while the food is different for different organisms, some food is always needed to survive. Therefore, various organisms share similar patterns of experience (lack or sufficiency) and activity. As G. Bateson puts it, they experience similar “stories”, with a story being “a little knot or complex of that species of connectedness which we call relevance.” (28) And „whatever the story means in the story which I told you, the fact of thinking in terms of stories does not isolate human beings as something separate from the starfish and the sea anemones, the coconut palms and the primroses. Rather, if the world be connected, if I am at all fundamentally right in what I am saying, then thinking in terms of stories must be shared by all mind or minds, whether ours or those of red wood forests and sea anemones.“ (28)

But what kind of connectedness is Bateson actually referring to? Or, what is the „pattern of all patterns“(28) he speaks about, that connects all the living beings and reveals the „necessary unity of mind and body“(28)?

Let us again consider the two ways one could address these issues. The first takes place in the realm of inscriptive phenomenology and may be called chiasmatic. Chiasm(21) is Merleau-Ponty’s concept of reversible unity of dual opposites, such as body and mind, inner and outer environment, self and the world, etc., any of which

is impossible without its opposite. They create unity, but do not represent the same perspective on it. We are beings of the world, we are present in it as its parts; we grow within our world in a similar way fungi grow out of their mycelial web. The world precedes us. Who we are, how we decide and act, what we want is given to us along with our conscious bodies and shared stories. What is meaningful or relevant to us is determined by the structure of openness of our species, our tribe and our family. But at the same time, we transform and influence our world, its physical as well as narrative appearance. The structure of the world depends on our personal and/or collective qualities, abilities and decisions.

Singular worlds of individual beings may thus merge to co-create shared worlds of whole communities. Different communities of organisms compete and choose various modes of coexistence – symbiotic, parasitic or antagonistic. Communicational macrocommunities of different kinds of organisms and niches gradually emerge, such as forests, lakes, meadows or cities. All the inhabitable environments may thus be understood as a multiplicity of stories, as bio-semiosphere or a multilayered planetary web of life.

The second path begins with the idea of the entire bio-semiosphere, traditionally referred to as 'nature'. Microorganisms, fungi, plants or animals may appear, develop and prosper under certain favourable conditions. The sum of all inhabitable environments may be called planet Earth. The Earth as a cosmic body provides nutritious matrix suitable for the emergence and evolution of living organisms in its atmosphere, geosphere and hydrosphere. Individual organisms and their communities grow out of this matrix in constant cycles of appearance and disappearance. Singular forms ascend from their concealment in the multiverse of possibilities only to die again and submit their dead bodies to the new generation of individual forms. Thus, every living organism is preceded by the evolution of life on Earth as its condition of possibility, becoming its active co-creator for a given time and place, and finally dying and dissolving in its nurturing and devouring complexity.

5. Rhizomatic model

This brings us to the question: How can we employ this idea of an incorporated organism, a result of the overall conditions of planetary life and simultaneously a co-creator of these conditions, to explain altered states?

Regardless of the way AS are induced, the notion of „altered“ states suggests the existence of an unaltered state in relation to which other states are evaluated. I have said before that the unaltered or normal state consist in alertness as its main quality.

At the core of this alertness, and hence the centre of the unaltered consciousness, resides the self-reflecting ego. Ego is the “I” that is in conscious control of its own actions, may relate to them in reflection and describe them as its own. This concept of the ego as a self-inspecting, self-mirroring and constantly self-present entity, known as the subjectivity of modern science and philosophy, remains the measure of veracity and plausibility of any experience to this day, despite being massively criticized by philosophy. We tend to consider any experience that are not „egocentric“ like this mere anomalies, and it is only exceptionally that we acknowledge them to be of any informative value.

From this perspective, all the intriguing and mysterious experiences such as separation from one’s own body (29), hallucinatory transformation into another being (30) or empathic fusion (31) with other’s psyche are perceived as disorders, since they represent a disruption of the normal egocentric order. AS experiences cannot be directly controlled, and when you are “on the trip” you can’t simply leave, which is how you cease to be the sole author of the contents of your mind. The subject of such experiences is neither the empirical person with its fluctuating alertness, nor a pure transcendental ego independent of anything physical and empirical. That is AS are inseparable from changes in biochemical processes taking place in the brain and the entire body.

Therefore, I suggest the following: A) It is not precise to speak about altered states of *consciousness*, because in altered states not only cognitive functions are transformed, but emotional and corporeal as well. We should possibly, to be precise, speak about altered states of situated and integral presence of organism's behavior in its environment. B) A model of consciousness should be proposed that avoids the "single state fallacy" of the egocentric model. Instead, consciousness could be interpreted as a multidimensional continuum of communicative states of organic presence in the world – from vegetative states to transcendental ones. In accordance with G. Deleuze, I propose to call the model a "rhizomatic" (32) one. The model makes it possible to perceive consciousness as a multiplicity (32) and is based on following principles:

Consciousness (in any state) is a process of "communication" of an organism inside its environment or "umwelt". I understand the term in a broadest sense as "to commune, to share, to participate in; to join, and unite" (33) and thus to inhabit our environment. It is necessary to stress that the environment is not an inert space of objects, but a web of living exchange of matter and meaning.

Communication is an integral part of bodily activity of living organisms and of external physical processes. Every form of consciousness, including out-of-body or transpersonal experiences, is bound to an organic and/or physical medium. That is AS are not purely psychic or mental nor solely neural activities, but the transformation of your situation.

The assumption that incarnation is a necessary condition of consciousness allows us to model consciousness using a biologic scale. It begins with elementary forms of cellular communication, continuing from various types of signal and neural systems to simple sign systems, and culminating in complex symbolic systems.

From this point of view, the conventional alert consciousness becomes but a part of another scale. Its center is represented by everyday alertness. To the left from the centre, the extent of alertness and authorial self-control decreases, ranging from impulsive behaviour within alert states to daydreaming, sleep, unconsciousness and

clinical coma, and finally to the irreflectible processes of bodily regulation. To the right from the centre of the scale, alertness intensifies from common and deep concentration to abstract and symbolic thought, contemplation, meditative states and finally to the mystical experiences.

While consciousness is necessarily incarnate and impossible without physical and chemical processes taking place within living tissues, it cannot be reduced to these processes. Consciousness cannot be localized into any part of the body, and the meaning of any such localization is merely a metaphorical one. Indeed, I believe that the communicative and therefore transitive nature of consciousness implies that it is never present to itself or other conscious entities in anything else than in what it generates, i. e. in certain behaviour from which it is inseparable. From this point of view, the existence of consciousness assumes not only the wholeness of a living organism, but also the connection to its living environment as a medium of its appearance.

Conclusion: My intention was to uncover possibilities of bio-phenomenological interpretation of AS. I have tried to open a perspective on consciousness as a integral part of corporeal situatedness of an organism in the world of communication. In the home state, an organisms is under the control of automatic feedback control and habits. But during altered states, one's home base is transformed. The sensory and neural networks change their biochemistry and consequently also the manner of communication with themselves and the outside environment. This allows us to break out of our usual patterns and enter the continuum of life from which we have to separate ourselves in order to be unique, but, paradoxically, from which we are also inseparable, because it represents the necessary conditions of our existence.

References:

1. The Society for Anthropology of Consciousness SAC. United States. American Anthropological Association (updated 2012 April, cited 2012 April 16). Available from: www.sacaaa.org.
2. Rock AJ, Krippner S. Does the concept of „Altered States of Consciousness“ rest on mystake? *The International Journal of Transpersonal Studies*. 2007/26: 33-40
3. Ludwig AM. Altered States of Consciousness. *Arch Gen Psychiatry* 1966; 15:225 - 34
4. Cardeña E, Winkelman M, editors. *Altering Consciousness: Multidisciplinary Perspectives*. PRAEGER; 2011
5. Bremner JD, et al. Measurement of dissociative states with clinician-administered dissociative states scale (CADSS). *J Trauma Stress* 1998 Jan; 11(1):125-136
6. Lewis-Williams D. *The mind in the cave: consciousness and the origins of art*. Thames & Hudson; 2002
7. Sturm W, et al. Functional anatomy of intrinsic alertness. *Neuropsychologia* 1999 Jun; 37(7): 797-805
8. Dictionary.com LLC. Oakland CA. Dictionary.com (updated 2012 April, cited 15.12. 2011). Available from: <http://dictionary.reference.com/browse/alert>
9. Bracha HS et al.. Does “Fight or flight” need Updating?, *Psychosomatics* 2004 Oct; 45: 448-449
10. Schroll ME, Greenwood S. Worldviews in collision/worldviews in metamorphosis: towards a multistate paradigm; *Anthropo Consciousness J* 2011; 22 (1): 44-60
11. Roberts TB, *Psychedelic Horizons*. Exeter, UK: Imprint-Academic.com; 2006
12. Prigogine I, Stengers I. *Order out of chaos: man’s new dialogue with nature*. New York : Bentam; 1984
13. Sanders TI. *Strategic Thinking and the New Science: planning in the midst of chaos, complexity and change*. New York: The Free Press; 1998
14. Novotný K et al., editors. *Thinking in dialogue with humanities: paths into the phenomenology of Merleau-Ponty*, Zeta Books; 2011
15. Barbieri M. What is biosemiotics?. *Biosemiotics* 2008 Feb; 1:1–3
16. Varela F, Thompson E, Rosch E. *Cognitive science and human experience*, MIT Press; 1991
17. Narby J. *Intelligence in nature: an inquiry into knowledge*. Penguin; 2005; chapter 11: CHI-SEI and Knowing Nature, pp. 137 - 148
18. Petříček M, Die Bedeutung der Phänomenologie. in: Waldenfels B, Tengelyi L, Richir M. *Mesotes: Das Phänomen und die Sprache*; 1998. p. 62-68

19. Merleau-Ponty M, Edie JE, editor. *The Primacy of Perception, History and Politics*. Evanston: NUP; 1964
20. Gendlin ET 1992. *The primacy of the body, not the primacy of perception: how the body knows the situation and philosophy*. *Man and World* 1993; 25 (3-4): 341-353
21. Merleau-Ponty M, Lafort C, editor. *The Visible and the Invisible*. Evanston: NUP; 1968; p. 253
22. Nitsche M. *Topological space as a model of being in the late working notes of Maurice Merleau-Ponty*. *Filosofický časopis* 2010; 58(1): 49-56
23. Witzany G. *From umwelt to mitwelt: natural laws versus golden rule-governed sign-mediated interactions (rsi's)*. *Semiotica* 2006; 1(4): 1-14
24. Witzany G., *From biosphere to semiosphere to social lifeworlds: biology as an understanding social science*, *TripleC* 2005; 1 (1): 51-74
25. Thompson E. *Life and mind: from autopoiesis to neurophenomenology: a tribute to Francisco Varela*. *Phenomenology and Cognitive Sciences* 2004; 3: 381 - 398
26. von Uexküll J. *Theoretische Biologie*. 2nd ed. Berlin: Julius Springer; 1928; p. 22
27. Hoffmeyer J. *The Semiotic Niche*. *J Mediterranean Ecology* 2007; 9: 5 - 30
28. Bateson G. *Mind and Nature: A Necessary Unity*. New York: E. P. Dutton; 1979
29. Twemlow SW., Gabbard GO, Jones FC. *The out of body experience: A phenomenological typology based on questionnaire responses*. *Am J Psychiatry* April 1982; 139(4),
30. Winkelmann M., *Shamanism as neurotheology and evolutionary psychology*. *Am Behav Sci* August 2002; 45:12,
31. Larøi F. *The phenomenological diversity of hallucinations: some theoretical and clinical implications*. *Psychol Belg* 2006; 46 (1/2):163-183
32. Deleuze G, Guattari F. *A Thousand Plateaus: Capitalism and Schizophrenia*, Minneapolis: University of Minnesota Press; 1987; p.6-7
33. Charlton LT. *An Elementary Latin Dictionary*. New York, Cincinnati, and Chicago: American Book Company; 1890 - the term *communicó*