

The epistemics of ayahuasca visions

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Abstract In this paper, I discuss substance-induced visions and consider their epistemic status, meaning, and modes of proper interpretation. I focus on the visions induced by ayahuasca, a powerful psychoactive plant-made brew that has had a central status and role in the indigenous tribal cultures of the upper Amazonian region. The brew is especially famous for the visions seen with it. These are often coupled with personal psychological insights, mentations concerning topics of special significance to one, intellectual (notably, philosophical and metaphysical) ideations, as well as powerful religious and spiritual sentiments. Thus, under the intoxication, people often feel that they gain significant knowledge and understanding. The present discussion takes a cognitive-phenomenological perspective coupled with a philosophical analysis of the various epistemological questions at hand.

Keywords Ayahuasca · Altered states of consciousness · Epistemology · Hallucination · Visionary experience

This paper deals with the epistemic status, meaning and interpretation of substance-induced visions. In particular, the discussion focuses on the visions induced by ayahuasca, a powerful psychoactive plant-made brew that has had a central status and role in the indigenous tribal cultures of the Amazon since time immemorial. In modern times, the use of this brew has been extended beyond its original cultural context. In particular, various syncretic religious sects have been founded in Brazil that wed popular catholic practices and the use of ayahuasca.

Ayahuasca is especially famous for the visions it generates. These are usually coupled with personal psychological insights, intellectual (notably, philosophical and metaphysical) ideations, as well as powerful religious and spiritual sentiments. Thus, often intertwined with the visions are experiences in which people feel they are gaining significant knowledge and understanding. Such experiences naturally raise

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various epistemological questions: what types of knowledge can be obtained through ayahuasca? What is the epistemic status and import of the knowledge in question? What is its meaning, and how should it be interpreted? What are the cognitive processes and dynamics involved? The present article addresses all these issues.

General background

Until about two decades ago, practically all the scientific work concerning ayahuasca pertained either to the natural and medical sciences or to cultural anthropology. The primary interest of the former is obvious: botany, chemistry, and neurophysiology are essential by way of elucidating the mechanisms responsible for the brew to take its effect. Anthropology is pertinent because ayahuasca has always been consumed within well structured, ritualized settings. Furthermore, the brew has played a key role in the societies and groups that use it. As pointed out by Schultes (1982) it is centrally intertwined in their religious rituals, belief systems and cosmovisions, artistic productions, music, and healing practices. For brevity of exposition, the botanical, pharmacological, and anthropological background data pertaining to ayahuasca will not be reviewed here. Let me just cite the classical works of Reichel-Dolmatoff (1975), Harner (1973), Luna (1986), Luna and Amaringo (1993), Luna and White (2000); for a comprehensive summary exposition of the literature, the reader is referred to Shanon (2002a).

My own studies of ayahuasca pursue a cognitive orientation. My research program, which extends for a decade and a half, is grounded in the assessment that the bringing together of the study of ayahuasca and the study of mind is mutually beneficial. On the one hand, with its non-ordinary phenomena ayahuasca reveals new territories of the mind and significantly enlarges the geography of the mental. On the other hand, the modern cognitive sciences offer new perspectives and theoretical frameworks by which the phenomenology of the state of mind induced by ayahuasca may be approached, investigated, and analyzed. For a more detailed exposition of the rationale of my program of research and further argumentation in its favor, the reader is referred to Shanon (2002c, as well as Shanon 2002a). Empirically, my research is based on sizeable corpus of data, consisting of both extensive firsthand¹ experience with ayahuasca as well as interviews with a large number of informants. In order to analyze the data I have collected, I have developed a new conceptual scheme and a novel theoretical framework. While my research is primarily cognitive-psychological, throughout my writings I have also considered various philosophical ramifications that the ayahuasca phenomenology brings forth (see, in particular, the concluding chapter

¹ Possessing firsthand familiarity with the ayahuasca experience is, I strongly believe, crucial for the academic investigator. Such familiarity is requisite for a comprehending accounts furnished by informants, gaging the scope of possibilities in the subject domain in question, being sensitive to particular details in the data and appreciating special and/or novel patterns in them and, last but not least, formulate questions for study and directions of research. With ayahuasca, this might seem to be an unusual requirement but in fact, the same applies with any other phenomenal domain. After all, it would unimaginable for one to study dreams without ever having dreamt oneself or language without being a speaker of any.

of Shanon 2002a; Shanon 2003b). The discussion in the present paper examines both psychological and philosophical issues.

Personally, I have arrived to ayahuasca by mere chance. I am an avid traveler and in the course of a visit to Brazil in 1991, I had the opportunity to participate in several ceremonies of the Church of Santo Daime, a syncretic religious group that uses ayahuasca (calling it "Daime") as a sacrament. The experiences I have undergone impressed me greatly and subsequently I have returned to South America for extended periods of time during which I have partaken of the brew in many locales throughout Brazil, Peru, Colombia, and Ecuador doing so in practically all the contexts of its use. Further, having acquired substantial firsthand familiarity with ayahuasca, I began investigating it academically. For this, I have interviewed a very large number of individuals—again, in various locales and in various traditions of use—and have compiled an extensive corpus of data pertaining to the ayahuasca experience. In its totality, this corpus enabled a comprehensive systematic phenomenological study. This involved the development of a classification scheme coupled with a conceptual framework. With these at hand, I have subjected the data to a cognitive-psychological analysis grounded in contemporary theories of mind and of consciousness. The results of this research have been reported in several published articles (notably, Shanon 2001, 2002b, 2003a, b) and, most extensively, in my monograph "The Antipodes of the Mind" (Shanon 2002a). Subsequently, these data and analyses have also served me in the development of a novel theory of human consciousness (see Shanon 2003c, 2008a); the theory is "general" in that it sets itself to account for both ordinary and non-ordinary states of mind within one unified, integrated framework.

The phenomenology of the ayahuasca experience is rich and multifarious. Especially salient, and therefore famous, are the visions the brew induces (for pictorial representations of the visions, see Luna and Amaringo 1993). In previous publications, I have offered detailed and comprehensive accounts of both the contents of these visions and the structures in which they are manifested (Shanon 2002a, b) as well as the ideations, insights, and spiritual sentiments associated with them (Shanon 1998). I have also considered the conceptual problematics associated with the notion of hallucination (Shanon 2003b). Here, I shall only mention some overall characteristics of the visions and not deal with issues I have focally addressed elsewhere.

A side comment is in place before we proceed. While the most common and most salient non-ordinary perceptions encountered with ayahuasca pertain to the visual modality, by no means is this the only modality that is affected by the brew. Non-ordinary perceptions and interpretations are encountered with all other sensory modalities, and synesthetic effects are also common. Yet, there is no question about it: the visual effects are by far the most common, most salient, richest, most varied, and most complex. Moreover, practically all effects with epistemic import are associated with them. For this reason, the present focus on visions is true to both the empirical phenomenology of ayahuasca and its essence. For further discussions of the auditory mode and of synesthesia, the reader is referred to Shanon (2010a) and Shanon (2003d), respectively, as well as to Shanon (2002a).

Returning to the visions, I shall note that in general, ayahuasca visions are colorful and exceedingly beautiful, vivid with a remarkable feel of reality (not

infrequently the visions are described as being "more real than real"), and often they exhibit an air of the fabulous and the fantastic. The visions can be experienced both with open and closed eyes, usually they are stable (as contrasted with being fluid or fleeting), and more than visions induced by most other major psychedelic substances, they may resemble cinematographic presentations. Furthermore, drinkers² may find themselves immersed within the scenes of the visions and act and interact in them so as to experience themselves in another, virtual reality. Usually, the visions are accompanied by strong noetic (i.e., pertaining to knowledge) qualities whereby they are felt as having special significance, as articulating definite meaning, as conveying messages, as imparting knowledge that could not be acquired otherwise, and/or as serving as vehicles for higher teaching and learning. As noted, the visions are often associated with powerful religious and spiritual sentiments; for many individuals these have deep transformative, even long-lasting, effects. Strikingly, the contents and themes of the visions as well as the ideations associated with them exhibit marked cross-personal commonalities (for a detailed analysis of these, see the appendix of Shanon 2002a).

The noetic import of ayahuasca has been marked in all the traditions and contexts of its use (for anthropological background, see Langdon 1979; Luna 1984; Reichel-Dolmatoff 1971, 1975, 1978, 1996). In general, this is conceived in terms of external sources or realities. The brew is said to serve as the vehicle for messages originating from the beyond, as allowing drinkers to be privy of non-ordinary types of knowledge and information, and as revealing other, independent worlds—as if through the lifting up of a screen. As pointed out by Taussig (1987), traditionally the Amerindians regarded the brew as a school and conceived it as being the source of their knowledge and culture. Along with other psychotropic agents, the brew was taken to be the only path to true knowledge (Chaumeil 1983). Such attitudes are also central in the modern syncretic religious groups using ayahuasca. Thus, in the Church of Santo Daime, the brew is referred to as "the teacher of all teachers". As observed in Shanon (2002a), Westerners, even those partaking of ayahuasca for the first time, may spontaneously come to associate the brew with significant noetic qualities.

Types of knowledge

What types of knowledge may be encountered with ayahuasca and what validity can be attributed to them? Following is a typology of these types and corresponding comments on their status, epistemological import, potential meaning and proper (in my view) interpretation. The upshot of this survey is that while ayahuasca does not impart factual information, it does offer other, valuable types of knowledge and learning.

A. Factual knowledge The most common type of knowledge mentioned in conjunction with ayahuasca is the knowledge of facts, knowledge as the gaining

² This is a standard term used for referring to individuals partaking of ayahuasca (for a classical indigenous report, see Payaguaje 1983).

of information. It is rather common to hear people report that the brew enabled them obtain specific information about their own past, discover otherwise hidden facts related to the biographies of their fellow women/men, gain privileged access to facts concerning the natural world, and even directly observe other places and other times (including remote ones). By way of example, let me focus on the last case. Especially common are instances in which people have visions of scenes that are associated with ancient civilizations. Thus, drinkers may experience visions of (what they take to be) ancient Egypt and with this conclude that various specific things about this civilization are shown to them and they are led to believe that what they see is/was actually the case. Personally, I do not believe in ayahuasca providing or enabling any such non-ordinary factual knowledge at all. This categorical stance of mine is a corollary of my disbelief in the paranormal and the parapsychological in general. In the specific context of ayahuasca, despite of many attestations by many drinkers of paranormal experiences, more careful inspection on my part revealed no actual substantiation for such claims. In particular, let me comment on telepathy. It is often claimed that ayahuasca elicits telepathic communication. Indeed, an earlier name of one of its active chemical constituents was "telepatina". I have experienced the feeling of telepathy too. Yet, it is crucial to distinguish between experiences in which a person feels telepathic and actual occurrences of such paranormal information transfer. Admittedly, the former are very common with ayahuasca, but from this it does not follow that the latter is the case (for further discussion, see Shanon 2002a). That factual knowledge is not obtainable with ayahuasca, however, does not imply that the brew affords no knowledge at all, that it affords no learning. To the types of knowledge, I believe ayahuasca does impart we now turn.

B. Psychological knowledge There is no question about it, ayahuasca induces personal insights, self understanding, and novel psychological comprehension. First and foremost, these apply to the drinker him/herself. In this respect, ayahuasca sessions may function as dense psychotherapeutical sessions. After my very first encounter with the brew, I have felt that in a couple of hours, I have learnt more about myself than in several years of psychoanalysis. Attestations of this kind are very common, and the sentiments they convey usually remain long (at times, even very long) after the ayahuasca experience itself.

Psychological insights may also apply to other persons. Inter-personal empathy is elevated as well. Thus, under the intoxication one may observe a person and feel that one is grasping their character. In principle, I find such claims plausible but I do not associate them with any paranormality. Rather, I would say that the brew heightens people's sensitivities and intuition. In other words, as I see it, no non-ordinary information or factual knowledge is involved but "knowledge of the heart" may be verily enhanced. Experientially, this may generate situations in which one person is under the impression of sensing what he/she may feel "within the skin" of another. Is the knowledge in question valid? I tend to believe that to an extent, it is. As we all know, in human conduct and discourse much is revealed by gestures, facial expressions, and bodily posture and movement. Likewise, human beings are very good at detecting such expressions and making psychological inferences on their basis, often in a non-conscious manner (see, for instance Ekman 1982, 2003). It stands to reason that in unison, heightened sensitivity, perceptiveness, intuition, and

empathy may, in a fashion, enable stepping beyond the walls of personal individuality. Whereas, this feat is part and parcel of the general human potential, with ayahuasca its force may be greatly increased. At the same time, prudence should be maintained and it is crucial to remember that it is definitely not the case that all the mentations taking place under the intoxication are valid.

Parenthetically, let me note that the psychological understanding just surveyed readily lends itself to actual empirical check. Following ayahuasca sessions, drinkers can be asked about insights they had concerning other people present at the session and these can, in turn, be verified with the individuals in question. It seems to me that such a study is well worth to be conducted, and surely, practically it is feasible.

Experiences of one's transgressing the boundaries of individual identity, getting within another person or creature, and even undergoing identity transformation and metamorphosis are quite common with ayahuasca and are also at the heart of indigenous shamanism and ayahuasca mythology (for insightful discussion of alterity in the Amerindian context, see Lagrou 2007).

Lastly, psychological insight and comprehension can apply not only within the personal and individualistic scope but extend to human understanding at large. Thus, it is fairly common for ayahuasca drinkers to claim having gained a novel grasp of the meaning of human life in general. As will be seen in the next two sub-sections, an orientation towards the general is typical with ayahuasca ideations, and not confined to the psychological domain.

C. Knowledge related to nature and life Frequently, ayahuasca drinkers experience a special, close link to nature with ensuing insights and apprehension concerning plants, animals and the global phenomenon of biological life. Such reports are especially common when the brew is consumed, as in its original contexts of use, in naturalistic environments such as the Amazonian rain forest.

The knowledge in question needs not be extraordinary. The information gained may be banal but its mode of appreciation might be experienced as special nonetheless. The following example of my own happened during an ayahuasca session held in a hut, in the midst of the Amazonian forest, early in the morning. I was looking at the leaves of plants observing how they were directed towards the rays of the sun. I felt I was actually seeing the nurturing sustenance of the solar light. Have I obtained any "information" I had not known beforehand? I doubt it. But I was open to see the world in a new light, perhaps in the manner a poet or an artist may. As many have stated, a key function of paintings is to make people see things afresh, in a new light. Other cases pertaining to this category that I and my informants have experienced concerned the eternal cycles of life, life and death, social interaction and love, the harmonious being of animals in the wild and biological evolution.

Quite often, people report having experienced what it is like to be an animal³; at times, this is linked to experiences of identity transformation and animal metamorphosis (for anthropological data, see Lagrou 2007; Reichel-Dolmatoff 1975; for further discussion, see Shanon 2002a, Chapter 13). Experiences of this kind may be regarded as extensions of those noted in (B) above concerning other

³ Of course, this brings to mind Nagel (1974).

persons. In other words, just as one may, in the visionary state, see oneself as an individual in other places and/or at other times (past, future or hypothetical) one can also experience oneself as an animal or even a plant or an inanimate object. Admittedly, one could never verify these sentiments, but I would not wave them off outright. After all, in normal, real-life animals regularly perceive humans and make sensible judgments about them, all without the transfer of any explicitly articulated information. Perhaps with ayahuasca, we human beings can reclaim, at least to a degree, some of these primitive animal instincts?

D. Philosophy and metaphysics Ayahuasca often generates philosophical and metaphysical ideations and reflections. This happens even with uneducated individuals and without people having any background in philosophy or a prior concern for it. I find this very fact, in itself, both striking and significant. It suggests, I think, that by our very nature human beings are philosophically minded creatures. It seems to me that this, along with the marked inter-personal commonalities pertaining to philosophical and metaphysical ideations (see below), is an empirical finding with utmost importance for cognition and the study of the human mind. Recall that metaphysics and cosmovision are pivotal in the ayahuasca lore of the indigenous Amerindians.

It stands to reason that at the root of the metaphysical orientation associated with ayahuasca is the impression—both experiential and intellectual—that meaningfulness underlies all there is. Indeed, in the reports of my informants, the statement that "It all has meaning" is very common. Also common is the attestation "There is a great story behind it all".

Extending insights such as those concerning life and the living noted in (C) above, we reach more general, and more fundamental, ideations concerning reality and existence at large. It is only natural for such insights to lead to further philosophical reflection. As reviewed in Shanon (2002a, Chapter 9; as well as 1998), in their totality, the themes being entertained usually converge upon a coherent metaphysical outlook, one which is monistic, idealistic, pantheistic, imbued with religiosity and tainted with optimism, joy, and love. Significantly, none of my informants have reported experiences, ideations, and/or insights countering this outlook.

Other grand metaphysical schemes brought up with ayahuasca include animism and a platonic realism. Animism is at the very heart of the ayahuasca experience. It may also involve the extra attribution of significance and the personification of the inanimate, both very common—with the brew. Platonism is especially interesting in that it postulates the existence of realms outside of time where eternal truths and the essences of meaning (the Platonic ideas) reign. Most remarkably, Overing (1985a, b) discovered similar ideations to be entertained by indigenous Amerindians. Platonism is also invoked by Huxley (1959/1971) in his account of his experience with mescaline and the intellectual commentary on it. For an in depth discussion of psychedelic atemporality, the reader is referred to Shanon (2001); see also Polari (1984). The writings of Plotinus and his followers in the neo-Platonic school also present a worldview exhibiting interesting resemblance to that associated with ayahuasca.

The philosophical and metaphysical ideas induced by ayahuasca exhibit striking inter-personal commonalities. Indeed, most of my informants employ identical

phrases. "All is one", "Everything is interconnected", "All is consciousness/spirit", and "This world is an illusion". Quite often, a notion of cosmic, super-consciousness or some sort of *anima mundi* is invoked. Interestingly, the metaphysical outlook at hand is similar to that reported by mystics in various cultures throughout the ages and is in line with what Huxley has characterized as the "perennial philosophy" (Huxley 1944). For related views and discussions, the reader is referred to James (1882, 1929), Bucke (1901/1991), Stace (1961), Watts (1962) and Grof (1972, 1998).

Is this metaphysical outlook valid? How are we to approach this question and determine whether this is so? Surely, the veracity of mystical experiences is a complex topic that extends beyond both ayahuasca and visions. A serious examination of this question demands an entire discussion in its own right. Here, let me make two suggestive points. First, the marked inter-personal commonality in people's philosophical and metaphysical ideas may perhaps be taken as lending validity to the metaphysical view in question. Whether or not this view is true in any absolute sense, it might still have a special status as far as humans are concerned—perhaps it (and only it) is ingrained in the very architecture of the mind.

My second point draws upon the esthetic. Perhaps instead of delving into an unending debate on the epistemological and ontological levels, we might shift perspective and adopt considerations akin to those embraced in the arts. Eschewing the issue of absolute truth, we may adhere to a poetic stance. Whether true or not, the worldview experienced with ayahuasca (as well as with other psychedelics) may be valuable for the artistic-like qualities that it exhibits and the poetic sentiments, refined state of being, and mere joy that are associated with it. Following a pragmatic line, not unlike that proposed by James (1929), the poetic stance may be favored even merely for the feelings of happiness it evokes in people's hearts and the smiles it induces on their faces. Indeed, during the ayahuasca inebriation, it is very common to see smiles and other manifest expressions of happiness. Both metaphorically and literally, the faces of drinkers shine.

E. Well-being, overall comportment, and wisdom Typically, ayahuasca confers well-being. Under the intoxication, it is very common for people to feel that they are endowed with more stamina, are more in touch with their bodies, better tuned, and in a state of higher overall existential harmony. These inner sensations, in turn, may lead to a superior flowing of overt behavior, both bodily and social. During my very first exposures to the brew, I was surprised to discover a marked enhancement in the use of my body. In particular, I have found myself maintaining corporal coordination (as when balancing on a beam) that normally I would not be able to achieve. I have heard numerous similar attestations from other people.

The heightened bodily energy afforded by ayahuasca is publicly observable in rituals of the Church of Santo Daime. In some of these, participants engage in vigorous, strictly structured communal dancing that lasting as much as 11 or 12 h. The dance demands perseverance, inter-personal coordination, and adherence to established order. Clearly, this kind of performance could not be achieved and maintained under conditions of ordinary states of mind.

Well balanced and tuned performance may be extended from the physical domain to the behavioral one. Many times, I have observed that during the ayahuasca

inebriation I, like many others, manifested a remarkable level of *bon ton*: easy going gentility, effortlessly uttering of the right words at the right time, flowing interpersonal dynamics. Vacillating between the metaphorical and the literal and with a link to the observations in (B) above, I would say that the intoxication induced a better performance in the "dance of life". Furthermore, the well-balanced, harmonious comportment is likely to render behavior, individual and inter-personal alike, more proper. In turn, this may entail patterns that might be characterized as more ethical and even more wise. It will be noted that explicit linking between ayahuasca and both wisdom and righteousness is made in the lore of the various syncretic ayahuasca religions in Brazil.

F. Specialized knowledge The classical case of knowledge associated with ayahuasca is that of the Amazonian shaman. The indigenous ayahuasqueros are healers, and they primarily use the brew for medical care. They routinely explain that ayahuasca enables them both to diagnose their patients' ailments and to figure out proper ways to remedy them. I have no doubt that ayahuasqueros are good practitioners. Yet, I would attribute this to their actual, realistic experience and know-how, without the involvement of anything paranormal. After all, in their real lives ayahuasqueros have extensive knowledge of herbs and plants, their medicinal qualities and their application. It is not that shamans are in a state of naïve *tabula rasa* which, upon the consumption of ayahuasca, is suddenly invested with knowledge. Rather, it seems to me that what ayahuasca furnishes is heightened insight and comprehension which are based on already existing empirical knowledge and long-term practice. The affinity between this specialized knowledge and the general, personal knowledge described in (B) is clear.

While the shamanic context is the paradigmatic case involving ayahuasca and specialized knowledge, by no means need it be the only one. I myself can attest that with ayahuasca, I too have gained significant comprehension and new ideas concerning my own field of professional interest and expertise—namely, the study of human consciousness. Under the intoxication, I have had many insights concerning consciousness. By and large, to me, all proved to be valid and of worth well after the effect of the brew was over, and I ended up sustaining them even after sober inspection and prudent consideration (see Shanon 2003c, 2008a). Indeed, over the years, I have kept many of these insights and incorporated them within my personal and intellectual conceptualization of human consciousness and mind (see further comments in (H) below).

G. Artistic performance and creativity Still another domain in which personal expertise can manifest itself is that of artistic performance. Especially to be noted are performances that are publicly observed—notably, the chanting and singing, the playing of musical instruments, the occasional dancing, that are executed in the framework of ayahuasca rituals and ceremonies. I have numerous attestations that under the intoxication, the level of such performances is greatly increased. This is often coupled with impromptu feats of creativity. Apparently, it is not by chance that art is intimately linked with the ayahuasca experience as well as the rituals in which it is embedded. Thus, music serves as the skeleton of ayahuasca ceremonies, visions are akin to paintings and films, transformations in personal identity and

metamorphosis (which in the original Amerindian context are regarded as the epitomes of the ayahuasca shamanic experience) are reminiscent of theatrical acting, and there are ayahuasca rituals in which participants dance and ones in which mythological stories are narrated. In Shanon (2002a), I propose that the psychological processes at play in the generation of ayahuasca visions are of the very same kind operative in artistic creation.

H. Consciousness Whether or not ayahuasca drinkers can actually discover anything new about the external world, be it physical, biological or social, they certainly encounter novelties in the domain of subjective experience. Since on my view, the experiences at hand are not paranormal, they pertain to the psychological realm of consciousness. As classically stated by James in his "Varieties of Religious Experience" (1929) and by Huxley in the opening section of "Between Heaven and Hell" (Huxley 1959/1971), psychoactive agents reveal heretofore unknown territories of the mind. These, by the very fact of being experiences are (psychologically) real and whoever is confronted with them is indeed beneficiary to novel discoveries. It is in recognition of this view of Huxley's that I have titled my own book on ayahuasca "The Antipodes of the Mind", a phrase he coined.

The new territories of mind and non-ordinary phenomenology of consciousness clearly have important repercussions for cognitive psychology in general. These are both empirical, in the furnishing of data that could not be obtained otherwise, and theoretical, in their implications for the understanding of human consciousness. As pointed out by James in a very famous passage, "Our normal 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" (James 1929, pp. 378-379). Significantly, James arrived to this conclusion through his personal experimentation with psychoactivity. As argued at length in Shanon (2002a), the phenomenology of ayahuasca (along with other psychoactive agents) uncovers parameters of the cognitive system thus establishing a basis for more general statements concerning consciousness. Indeed, my own study of the ayahuasca experience and the attempt to tackle it theoretically has led me to develop a novel theory of consciousness. As mentioned above, the theory is general in that it accounts for both ordinary and non-ordinary states of mind within one unified, integrated conceptual framework. A sketch of this theory is outlined in Shanon (2008a); more extensive presentation is the topic of a monograph now in preparation.

I. The art of ayahuasca drinking Longitudinally, consuming ayahuasca people may eventually become accomplished in the very art of drinking ayahuasca.⁴ As noted above (and further expanded upon in Shanon 2002a), partaking of ayahuasca is not a one shot affair, but rather it is a long term course of study, a school. The knowledge

⁴ This insight and this term are due to my friend, the anthropologist Els Lagrou (personal discussion).

acquired in this schooling involves not only the objects of knowing (whatever they might be), but also the vehicle of knowing itself. Thus, drinking ayahuasca is an artful skill in its own right, and as such has to be mastered. As I stress in my book, what happens under the intoxication may be likened to a *pas de deux* between the drinker and the drink, not a mere mechanical physiological effect of chemical substances. As one progresses along the ayahuasca path, one acquires mastery in an involvement that may be a genuine source of pleasure and beauty in its own right.

Ayahuasca teaching

The foregoing survey and discussion were taken from a structural point of view, primarily focusing on types of knowledge. We can also examine the phenomenon of ayahuasca visions from a procedural perspective. Here, the main question is how ayahuasca visions impart their teaching. In this section, I survey various patterns whereby this happens.

A. Overall impact In itself, the overall direct impact of visions may have its own forceful effect. This is particularly marked with regard to the esthetic dimension: time and again drinkers report that the beauty exhibited by the visions surpasses anything that they have ever seen or imagined. Often, the very encountering of such beauty induces deep affective responses. These include awe and an orientation towards the sacred. In turn, such sentiments can entail new attitudes towards life; hence, constitute a significant learning experience.

B. Teaching by showing Visions are, of course, visual. Given the epistemic focus of the present discussion, the following question poses itself: is there any intrinsic link between the visual and the pedagogic? In other words, is there anything inherent about ayahuasca for which its main mode of instruction is through showing in a visual manner or form? I would like to propose that both these questions are to be responded to in the affirmative. Following is a series of cases exemplifying the various ways by which visual showing is operative in ayahuasca teaching.

A simple, yet paradigmatic case is for the visions to present the drinker with visual snapshots of past situations in his/her life. Inspecting these as an observer, one can view one's life in a new perspective and thus gain better self-understanding. Snapshots can also depict hypothetical scenarios. These may show drinkers how they might feel and/or behave were they to be in similar situations in the future.

Especially remarkable are the compound structures I call *thematic serials*; these are series of visions pertaining to a common theme. For example, one of my informants saw a series of snapshots depicting various moments in her biography. The shots were not ordered chronologically, but rather juxtaposed thematically. The juxtaposition revealed some patterns in the drinker's personality and conduct of which she had not been previously aware. With this, the person in question gained novel self-understanding. Thematic serials may also deal with non-personal topics. Amongst such serials in my corpus are ones dealing with the animal kingdom, healing, art and the adoration of the Gods.

Another type of showing is by means of *metaphorical parables*. Visions of this type are structurally similar to parables narrated in the Old Testament: an image is presented and the viewer draws a moral from it. In my corpus, all cases of this type involve psychological self-knowledge. An example is a vision of a dilapidated building I have heard reported independently by two different informants. Apparently, when originally constructed, the building was a nice, well-functioning edifice; but with time, it has deformed and became shabby and in disrepair. Upon inspecting their visions, the two informants understood that the buildings they saw were in fact they themselves; this, in turn, made them appreciate that they should effectuate some basic changes in the conduct of their lives.

C. Scenes of teaching There are also visions in which a teaching event constitutes a scene of the narrative proper. Specifically, a figure of a teacher or a guide appears who instructs the drinker and directs him/her. Instruction by a guide is especially common in accounts of indigenous ayahuasqueros with regards to their learning how to heal (Langdon 1992; Luna 1984, 1986; Payaguaje 1983). A vision that especially impressed me is one in which a magnificent fairy tale figure sat in front of me (I myself was in the position of oriental sitting, both in the vision and in real life) and demonstrated a sequence of mudras (hand and finger positions such as those employed in Hinduistic and Buddhist rituals practices and dance) to me, which I watched and replicated.

D. Enactment Usually, the relationship of the ayahuasca drinker to the visions that he/she experiences is that of a spectator. However, when visions are powerful they may be most absorbing with the drinker immersed within the scene of the vision and functioning as an active participant in it. Following work I have done on ordinary consciousness, I refer to the phenomenon of acting within the vision as "enactment" (see Shanon 1987). As in life, so in the visionary world: confronting challenges and managing hurdles, overcoming fear, collecting one's resources and findings solutions to difficult problems and situations—all these can constitute meaningful learning experiences. Even failing in mid course and discovering one's weaknesses and pitfalls may be revealing and instructive. As in many mythologies, typical examples involve journeys and the various obstacles one encounters on the way. Enacting performances of this kind may, in fact, function as rehearsals for life and as *bona fide* schedules of training. In fact, when the immersion is full, the enactment may feel very much like a veritable action and psychologically function as such.

E. Manifest display The teaching afforded through ayahuasca may have its force specifically in virtue of the fact that things are being displayed manifestly (rather than being conveyed by means of another perceptual or cognitive mode), and thus are experienced in a direct manner. As the common saying goes "Seeing is believing". I shall highlight this by means of one specific visual phenomenon which is reported by many ayahuasca drinkers, namely, the seeing, with open eyes, of a matrix of translucent strings, very much like spider webs, that connects all there is. Seeing this, people feel that they hold testimony to a cosmic connectivity by which everything is inter-linked. The theoretical significance of this phenomenon lies in its being indicative that what could be taken as an intellectual idea ("Everything is

inter-connected.") is apprehended in the manner of visual perception. With this, the insight concerning reality is experienced as immediate and direct. This phenomenal pattern is quite common and is described in the very same manner by all people privy to it, myself included. All in all, this is a case where perception and ideation converge, the figurative and the literal blend, and perception of the real and enchanted fantasy unite.

Underlying cognitive factors and processes

Having surveyed the various types of knowledge and of teaching patterns associated with ayahuasca visions let us consider the cognitive factors and processes that are operative in the phenomenon at hand. Unlike the discussions in the previous sections, which were primarily phenomenological, the one here is analytical-theoretical. Most factors and processes to be indicated have already been mentioned in the course of the foregoing discussion. Some involve more than one type of knowledge and/or teaching pattern. The survey in this section will serve by way of bringing together various observations made above; it also offers an integrative theoretical summary of our discussion.

A. Mental lucidity, speed of mentation, and omniscience The first cognitive factors to be indicated are global, as distinct from specific, ones affecting the entire cognitive system. Very often, ayahuasca drinkers report that the brew endows them with remarkable mental lucidity making their minds run faster and in a more creative manner. As a result, drinkers feel that their power of ideation and understanding is greatly enhanced. With this, the likelihood for novel insights and original ideas is increased. Moreover, some individuals report feeling that ayahuasca enables them to grasp and know everything.

B. Sensitivity and perceptiveness, intuition, and empathy As marked throughout the foregoing discussion, fundamental to the special epistemic state of mind induced by ayahuasca is the implication of sensitivity and perceptiveness, intuition, and empathy. Certainly, all four factors are operative throughout our entire lives, and in my view of psychology at large they are basic to human cognition in general (Shanon 1993; for a revised and expanded edition, see Shanon 2008b). With ayahuasca, they are all enhanced. Thus, it seems that ayahuasca draws upon the given structures and resources of the cognitive system and drives them to unexpected heights. The fact that the same basic parameters are operative in conjunction with various effects of the brew can be taken as corroborative support for the cognitive-psychological account proposed here.

C. Direct knowing A characterization of ayahuasca cognition that I find very apt is one I have heard stated by a Master of one of the Brazilian religious groups using the brew: "Knowing things in the manner which is normally encountered in perception". In other words, with ayahuasca, knowing becomes direct. Deltgen, an anthropologist who was totally skeptical about ayahuasca and not even interested in experiencing it

firsthand, ended up writing the following: "I was 'seeing' with my brain, not with my eyes. Or more adequately: I was seeing with my mind." (Deltgen 1978/1979, p. 69). In this conjunction, the reader is asked to read again the subsection on manifest display in the previous section.

D. Meaningfulness As already noted, at the heart of the ayahuasca experience is the appraisal, both experiential and reflective, that "Everything is invested with meaning". I have heard this from many informants, and have experienced it numerous times myself. Common is the feeling that banal, seemingly insignificant facts (e.g., the placements of objects, specific movement that just happen) are not at all contingent. Not infrequently, the meanings associated with things and states of affairs are invested with special status and depth. As argued in Shanon (2002a, 2003c) meaningfulness can be conceived as a cognitive parameter that with ayahuasca becomes more forceful. In this conjunction, the following lines of the poet and mystic William Blake are pertinent: "'What,' it will be question'd, 'When the sun rises, do you not see a round disk of fire somewhat like a guinea?' O no, no, I see an innumerable company of the heavenly host crying, 'Holy, holy, holy is the Lord God Almighty.'"

E. Poesis The domain in which meaningfulness is paramount is poesis, the making of poetry and art. Whereas in reality, things are to a great extent contingent; in good works of art, nothing is. The citation from Blake above attests to the very close link between enriched meaningfulness and poesis. As for ayahuasca, the state of mind associated with it manifests what may be called a "poetic stance". In other words, the mind functions in a mode akin to that operative in artistic creation. Indeed, various patterns manifested in the phenomenology of ayahuasca closely resemble artistic performances and products. Visions are akin to paintings and the cinema; enactment and personal transformations remind us of the theater; metaphors and parables pertain to literature; music is central in all the ayahuasca traditions. In unison, all these tie into a unified, coherent picture. The cognitive-psychological theory of ayahuasca presented in Shanon (2002a) models the ayahuasca visions as the products of spontaneous, local artistic-like creativity.⁵ More on this will be said in the next section, when the meaning of ayahuasca visions and their interpretation are discussed.

F. The wonder of creativity Overall, ayahuasca is shrouded in magic and mystery, wonderment, and enchantment. This is prominent in all ayahuasca traditions and contexts of use: the Amerindian myths dealing with the brew, the theologies of the new syncretic churches in Brazil, and the private experiences of contemporary drinkers. I myself end my book on ayahuasca with a personal comment about the mysterious.

Concluding this brief cognitive analysis, let me add the following reflection: isn't all of art, especially its high achievements, the work of wonder? To what extent can

⁵ This is in line with my view of cognition and mind in general. In Shanon (1993), I argue against the standard views in contemporary cognitive science which model the mind in terms of the manipulation of stored symbolic representations and the processing of information. Instead, I propose that the generation of novelty is the fundamental feature of the human cognitive system.

we scientifically account for the genius of Mozart or Bach? Rather than say that ayahuasca involves paranormality; I would say that it involves the same challenge, both personal and intellectual, nay mystery, that is presented by the genius of artistic creation. It is, I gather, not for nothing that in many wisdom traditions—the Jewish and Kabbalistic, that of ancient Greece, European Christianity, Islam, classical Hinduism, as well as that of the Amerindians using ayahuasca—the Divine creator has been likened to an artist—a poet, a master of language, a philosopher toying with ideas, a singer, a musician, a dancer. Both I and some of my informants have actually had grand ayahuasca visions with a glimpse into such divine acts of creation and poesis (for references related to ayahuasca and art in the context of indigenous Amerindian cultures, see the works of Reichel-Dolmatoff cited above as well as Lagrou 2007).

G. Inspiration Lastly, it might be said that ayahuasca teaches through inspiration. Inspiration is conceived differently by different people and different cultural traditions. In general, it is invoked in conjunction with prophecy, artistic creation, and divination. As indicated by the famous expression "The muses fall upon one", some associate it—be it ontologically or metaphorically—with superior or transcendent sources. Yet, even if inspiration does not actually involve any external and/or higher sources or agents, the psychological fact holds that when they are inspired people often have the subjective experience of an involvement of this nature.

The meaning of ayahuasca visions

By way of conclusion, I would like to spell out my stance regarding the meaning of ayahuasca visions and the proper way to interpret them. This stance is defined by a series of theoretical propositions; most should be already familiar from the foregoing discussion.

- (a) The ayahuasca experience does not involve any paranormality. In particular, whatever is taught or learnt under the intoxication is not due to receiving messages from beyond nor to accessing any paranormal ontology.
- (b) Ayahuasca visions are not to be conceived and modeled in terms of depth psychology. Specifically, I do not believe that accounts in terms of stored covert mental materials along psychoanalytically minded lines properly capture the ayahuasca phenomenology. Arguments for this proposition were given in the final chapters of Shanon (2002a) and I shall not repeat them here. Let me just report comparisons of visions and dreams that I have conducted and subjected to statistical analysis. As demonstrated in my monograph and corroborated by numerical data in its Appendix, visions and dreams are categorically different with respect to the items seen in them, the themes they portray and the ideations associated with them. Thus, while ayahuasca visions exhibit a marked preponderance for the fantastic and the fabulous and are often coupled with spiritual ideations, in dreams individuals and objects associated with people's recent personal experiences are prevalent and individual conflicts and affective concerns are especially salient.

- (c) Ayahuasca visions are not to be interpreted in terms of symbolic representations. [In point of fact, I do not think dreams are to be thus interpreted either; see Winnicott 1971]. Following the terminology of Shanon (1993) I would say that rather than being representations, the visions are presentations and as such they are best addressed not as codes but as depictions. Thus, rather than conveying hidden messages, the visions offer a virtual or fictional space in which fantasy, enchantment, magic, and grace reign. Embraced prudently, this space and one's local navigation in it can serve as a great opportunity for learning and personal growth. It seems to me that, at least in part, ayahuasca's healing power may be conceived in a similar manner (see Shanon 2010b).
- (d) The foregoing observations further suggest that the meaning of ayahuasca visions is akin to the meaning of works of art. Neither paintings nor pieces of music are texts or codes to be deciphered. Rather, they are to be approached and appraised in terms of their impact upon viewers and listeners. Thus, I would say that the proper manner by which these visions are to be interpreted is similar to the hermeneutics applied in the arts, not the procedures of positivistic natural science.
- (e) Since the topic of our discussion is visions, it would seem that the plastic and performative arts are the disciplines by which the semantics and pragmatics of ayahuasca is to be modeled. But no less pertinent is music. Please reflect upon the following: what is the meaning of musical pieces? How does music convey what it does? In what ways is music to be interpreted? A good way to approach ayahuasca is, I maintain, to appreciate that its visions function in the manner supreme music does. Adopting the synesthetic language which is prevalent with ayahuasca (see Shanon 2002a, 2003d), I would like to suggest that the music of the divine is perhaps orchestrated in the visual modality. As has been proposed by other scholars, it might even be that non-ordinary experiences of the sort induced by psychedelics are at the source of the invention of art by our ancient ancestors (see, for instance, Devereux 1997).

A last remark

Let me end with a personal avowal. When not adhering to the common credence of ayahuasca drinkers concerning knowledge and proclaiming that I do not believe that the brew reveals factual information in any paranormal fashion, very often I have been criticized for being cynical. It is important for me to clarify that I am not. The formula that best captures my position is that while I do not believe in miracles, the miraculous has actually been very significant for me. (Note: unlike the nominal, the adjectival form, does not entail any reification or ontological commitment). Without any question, my encounter with ayahuasca has been one of the most meaningful and important happenings of my life. The experiences I have savored are marvelous, beyond regular imagination, and truly wondrous. Yet, in trying to make sense of them, I avoid referring to miracles. And for all I have learnt with ayahuasca, I am grateful.

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