Therapeutic contributions of Ayahuasca in cases of addiction

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Over the last twenty years, the interest of the citizens of the so-called "modern" societies towards psychotropic plants, that are a tool to modify the consciousness, has increased to the point of becoming a social phenomenon that goes well beyond the border represented by academic community and scientific laboratories. This interest is an extension of the attempts at self-exploration begun in the 1960s in the face of the lack of convincing answers on the meaning of life coming from churches, philosophical schools, political projects and conventional psychotherapies. The desacralization that goes hand-in-hand with modernity considerably reduces the ritual spaces that favor a deep symbolic investment.

Existential anxiety facing the absence of coherent life projects and the absence of a true mythical inspiration (in the noble sense of the term) that supports the cohesion of the community has led many people to an individual quest to find themselves and by themselves. Initially reserved for some poets or adventurers (Whitman, Duits, Michaux or Kerouac), for the growing number of writings devoted to psychoactive substances and under the impulse of the counter-culture, access to the induction of modified states of consciousness has become available to everybody. The pioneers of this movement, inspired by Amazonian or Asian cultures, thought it possible to get away from the symbolic context of borrowing, which was assimilated to simple cultural forms[1]. Leaving aside the thousand-years-old experience of the indigenous peoples, they forgot that the symbolic forms represent indispensable devices of support and integration of the experiences of a "beyond". In short, they acted as typical consumers, appropriating the instrument of psychoactive substances without integrating the religious dimension in the etymological sense of the term. Reasoning from the point of view of a physiological or biological reductionism, they assimilated semantic and mystical manifestations with a by-product of the mind resulting solely from neuro-pharmacological processes (Leary, 1964, 1983). This led to the explosion of the phenomenon of mass and indiscriminate consumption of addictive substances with all the harmful consequences that we know.

This reductionist tendency, which claims to "rationalize the irrational" (Cabieses, 1993, 2000), echoes the Freudian paradigm which considers that consciousness is only the subjective side of neurological processes located on the periphery of the inner universe and memory systems of the person, by postulating that there would be no consciousness external to the "me". In other words, the consciousness would be reduced to the brain, the latter to biological phenomena and those, finally, to fine molecular mechanisms that could be balanced or corrected with the appropriate prescription of a natural or synthetic pharmacopoeia. The human being would be the result of a kind of genetic-neuro-physiological determinism, locked up desperately in itself, and where the free subject and the creative transcendence that fecundate the meaning of existence disappear simultaneously. The exclusion of the spiritual dimension of human existence continues and today dominates the research on plants like *ayahuasca* where sometimes the enlargement of the reflection including the atomic, sub-atomic, even quantum processes does not have fundamentally altered the postulate of the divination of the divine but only pushed the boundaries (Shanon, 2001, Narby, 1998).

[1] Allen Ginsberg and Bill Burroughs, who experimented with these substances in South America, came to claim that it is necessary to induce a MSC to have a spiritual guide or "instructor of multiple realities" (Leary, 1983), but at the same time Thimoty Leary, Allen Ginsberg and Richard Alpert finally wrote in their famous book, *The Psychedelic Experience*: "The experience is sure... all the dangers that can be feared are unnecessary productions of the mind... try to keep the faith and confidence in the potentiality of your own brain..."(1964: 7).

Faced with this observation, I would like to show here that the issue with addictions does not lie in the substances themselves (or the various possible objects), but in their adequate or inadequate use on the one hand, and in their nature, be it natural or synthetic, on the other hand. For that, I will start from the hypothesis that the induced modifications of the consciousness in the human being are at the same time natural and indispensable (one cannot live without dreaming), since they are part in particular of its spiritual realization. It is not about family and social contexts that promote substance abuse. Although it is necessary to propose a reflection on the fact that the massive assumption of the problem of dependencies and addictions belongs to the emergence of the Western paradigm, particularly from the sixteenth century, and its exploration of "exotic" cultures. Traditional ancestral societies, despite the widespread use of psychoactive substances over thousands of years, have never experienced collective dependence on addictive substances (Rosenzweig 1998, Escohotado 1989). My field experience, in the Amazon in particular, and with both local and westernized addicted patients, leads me to offer some personal insights into the genesis of the addiction process, namely that drug taking is first of all a quest for oneself. It seems useful to me to analyze it here in a synthetic way to propose it to the necessary debate around the conceptualization of the phenomenon of dependencies.

In animals already[2], the observation reveals an instinctual and almost compulsive quest for experiences of consciousness modification by means of the ingestion of natural substances. The aspiration to constantly acquire higher degrees of consciousness seems to manifest itself as an impulse belonging to every living being. This exploration of consciousness through the modification of perceptions goes well beyond the use of psychoactive substances. There are indeed an infinite number of methods of inducing these states thanks to hypo (withdrawal) or hyper (excitation) stimulation of the various senses. Finally, in everyday life, the human beings constantly modify their state of consciousness spontaneously without having ingested any substance (orgasm, sleep, trauma, extreme physical exercise, acute pain, fasting, prayer, meditation, music, etc.).

The treatment of addictions, in this context, could in no way be aimed solely at sobriety or abstinence without offering another way of access to the depths of consciousness, to an "afterlife" or a world of spirits, according to the way in which each one designates these dimensions of the invisible, so as not to confiscate the patient's right to self-realization, that is, to discover his personal connection to transcendence. The opposite would ultimately be equivalent to get him out of prison and lock him up in another one even more sad: a position most often rejected by those concerned. We can clearly see how, for example, heroin addicts under control of substitution products outflank the medical prescription to regain enjoyment (high, flash) by other routes of administration of the product or by adding other types of consumption.

In a certain way, in the face of a drug addiction produced by a wild initiation, the drug addict may be proposed to begin a new initiatory journey, this time in a controlled, organized and guided manner. In this way, by welcoming, instead of denying, his legitimate desire to explore the invisible, it becomes more acceptable for the patient to submit to the conditions and rules accompanying the process, both initiatory and therapeutic, and it’s easier for the therapist to set this framework by relying on the voluntary collaboration of his patient. The therapeutic bond is therefore inserted more in a teacher-student relationship (as defined by Amazonian populations) rather than repressor-offender. Benefiting from an indigenous tradition that is still very much alive and equipped with tools for the transmission of knowledge, ayahuasca can, in my opinion, offer an alternative way to access the therapeutic potential associated with transcendence.

[2] Ronald K. Siegel elaborated on this theme with great humor: "After tasting a certain number of nectars of some orchids, the bees fall to the ground in a state of temporary stupor and then come back to consume more. Birds gorges themselves with engrossing berries and then fly aimlessly. Cats obviously inhale aromatic plants and start playing with imaginary objects. Cows, after ruminating certain seeds shake, make turns and come back without coordination towards the same plant. Elephants get consciously drunk with fermented fruits. The ingestion of "magic mushrooms" causes in the monkeys the position of Rodin's Thinker, sitting head in hand "(1989: 11).

Chemical components and psychological and psychical benefits of ayahuasca

Ayahuasca is a mixture of at least two South American psychoactive plants: the vine ayahuasca (*Banisteriopsis caapi*) that gives the potion its name, and the leaves of chacruna (*Psychotria viridis*). The result is a very particular composition made by the combination of the pharmacological effects of these two plants. The β-carbolinic alkaloids of *Banisteriopsis* play the role of inhibitor of MAO (mono-amine-oxidase) which allows the psychoactive (visionary) effects of the tryptaminic alkaloids of *Psychotria,* normally degraded by MAO when ingested orally. This specific action, which modern science has identified only a few decades ago, has been known for at least 3000 years by the indigenous tribes of the Western Amazon according to archaeological evidence (Naranjo, 1983). This fact alone deserves our full attention because it reveals the extraordinary research potential that indigenous groups are capable of, using data provided by their subjective perceptions; their phytotherapeutic discoveries being in no way the result of chance or a groping search that comes from the empiricism of the test-error method (Narby, 1998).

It is worth mentioning here that the two types of alkaloids of ayahuasca are present in our body (Strassman, 2001) and participate in the serotonergic circuit, which led researchers to talk about the existence of a natural endo-ayahuasca (Metzner et al., 1999). The use of ayahuasca does not constitute for the human being an external contribution that could do violence to its physiology but on the contrary it is grafted on natural neuro-pharmacological processes by potentiating them in order to amplify their usual functions[3]. Its absorption produces a reduction in the categorizing epicritic functions, while an exacerbation of emotional and melodic functions can be observed (Sacks, 1988). It is as if, by taking ayahuasca, the person deciphered his somatic memories and reintegrated the psycho-emotional energy associated with them. As a result, ayahuasca releases deep emotional knots from their active charge usually hidden from ordinary consciousness but operating on it. These clinical observations remain consistent with the description of brain structures according to the tri-unique schema of the brain proposed by Paul MacLean (McLean P., 1990): from the rational conceptual world (higher cortical functions) a descent into the emotional or psycho-affective (sub-cortical) field is practiced, until reaching the unconscious paleocerebral functions (archaic brain). These hypotheses have been reinforced by the observation under the effect of ayahuasca of a major blood flow in the pre-frontal and para-limbic areas which are supposed to play a particular role in the neurobiology of interception and emotional processes, subjective effects characteristic of the ayahuasca intake (Jordi & al., 2006).

Since effective doses of ayahuasca at the cerebral level are close to toxic doses (Callaway, 2005), the orthosympathetic phase, first phase of the session, may be accompanied by a gastrointestinal discharge in the form of vomiting or diarrhea. This has earned ayahuasca the name of "purge" that is commonly given to it by local people. At the time of vomiting, the person experiences the concomitant elimination of the emotional burdens associated with the re-contacted memories and experiences it subjectively as the expulsion of fear, anger, or other negative feelings. These different forms of purgation do not therefore represent undesirable side effects of ayahuasca intake but rather constitute an essential curative and cathartic function. The proposal of some authors to use only the combination of active ingredients ("pharmahuasca") of the mixture of ayahuasca in order to reduce or eliminate purgative effects and thus provide comfort to the person (Ott, 1999) seems in this sense quite inappropriate. It characteristically illustrates this view that reduces Ayahuasca's interest to its visionary effects alone, to the detriment of the integration of the information provided, transforming ayahuasca into an additional consumer product.

The Takiwasi experience

In an experimental logic, I tried to concretize the above expressed hypotheses concerning addiction and its possible treatment by means of the restorative offer of a true initiation in which ayahuasca plays a central role. The development of a therapeutic protocol combining the practices of traditional Amazonian medicines and the resources of Western psychotherapy has taken shape in a rehabilitation center for addicted patients.

[3] For more details on the neuro-pharmacology of Ayahuasca, see Callaway et al. (1999), Callaway (1999), McKenna, Callaway & Grob (1998), Riba, Valle, Urbano, Yritia, Morte & Barbanoj (2003).

After six years of experimentation and training of a group of therapists with shamanic Amazonian practices, the Takiwasi Center was founded in 1992 in the city of Tarapoto (Peruvian High-Amazon).

Drug addicts must come on their own free will and live an average of nine months in a therapeutic community that gathers a maximum of fifteen patients at a time. Upon arrival, we proceed with the total suspension of all addictive substances (cold-turkey), including tobacco, as well as exciting foods (chili, coffee, etc.). No psychotropic medication is used throughout the entire process except in rare cases of emergency. In accordance with Peruvian legislation, only male patients are accepted, thing that promotes the necessary sexual abstinence required by the regular use of psychoactive plants. The therapeutic protocol is based on a therapeutic tripod that combines: the use of medicinal plants, psychotherapeutic monitoring and community life.

The plants, which constitute the original contribution of Takiwasi, are divided into two groups. Depurative plants and psychoactive plants. The first (purgatives, emetics, sudorific and diuretics), while soliciting the emunctories, allow physical detoxification and the drastic and rapid reduction of withdrawal syndrome both physically and psychically. This phase allows in particular to avoid the use of psychotropic medications which are always ambivalent in this kind of pathology. The low strength of withdrawal syndrome allows that in an average of two weeks the majority of the patients find a spontaneous and repairing sleep, and a rich dream life without using any hypnotic. The other group of plants (psychoactive) include: ayahuasca, which is used during nightly ceremonies once a week, a person averaging twenty-five intakes throughout the whole process; the master plants, which include a very large group of plants whose psychotropic effects are activated in particular conditions: isolation, strict dietary rules (especially no-salt), sexual abstinence, etc. Most often, the patient lives this experience as a direct relation to the intelligence of the plant (its "spirit" or "mother" according to the local terms), hence the attribute of "masters".

The conduct during these retreats of eight days in the forest (also known as "diets") requires a very specialized mastery by the therapist because they strongly mobilize the energetic body of the patient, inducing strong psychosomatic upheavals. The "diets" are carried out every three months and play a central role in the therapeutic process. They work in addition to ayahuasca sessions and help integrate the process of psychotherapy workshops and community living. For the therapists, each master plant is endowed with a precise psychotherapeutic effect which allows them to refine the prescription in order to mobilize the patient in the desired direction (to face fears, be able to take decisions, take root, remember past traumas, strengthen structures, etc.). The perception of patients, the clinical observation of therapists and the empirical teaching of indigenous healers all coincide to recognize the "diets" a more important role than ayahuasca in healing. They very clearly make it possible to cross a threshold in the therapeutic process (qualitative leap). Patients perform an average of four diets during their stay.

The ritual context

For indigenous societies, the essential tool for learning, transmitting knowledge and therapy is the body itself, which assumes a "psychic function of integration of the order of the universe" (Mouret, 1990). The body does not only designate a somatic entity but also a physic-energetic totality. It assumes an essential function of presence to the world and to oneself, which converts it into support of all ritual. That is to say the conceptualization of the world is elaborated on the basis of somatic experience.

The ritual constitutes, indeed, a symbolic device of contention and integration of the experience lived during the sessions which, with the ayahuasca, are generally nocturnal and last from three to twelve hours. It is equivalent to shaping and managing in the sensitive world (this world) a relationship with the insensitive world (the invisible or world-other). It allows the consciousness to circulate from one world to another, without discontinuity, and thus assures the assimilation to the ordinary consciousness of the information collected in an extra-ordinary state of consciousness.

In an addictive practice, the person leaves behind part of his living consciousness as a prisoner of the "world-other". For this reason, the worst time for a drug addict is that of "descent" which corresponds to the painful sensation of separation ("dissociation"), loss (lack) and oppression. On the other side, the person involved in

the therapeutic ritual does not dissociate. At the end of a well-conducted ayahuasca session the participant feels on the contrary unified ("associated"), in peace and with an enriched, amplified and reconciled consciousness. It is significant that in their wild initiation attempt drug users try to intuitively recreate supportive ritual frameworks (language code, dress code, music, tattoos, etc.), as pointed out by Thomas Szasz (1974 & 1976). However, this approach is not effective to really protect because it ignores the norms regulating the ritual function which are:

1. A clear intention from the person and not a simply playful and curious purpose;
2. An induction guided by an experienced master (*maestro*), at least initially;
3. Some preparation for the person (because the experience cannot be improvised); it is necessary to establish a context which includes certain precise rules concerning the energetic handling of the body (diet, sexual behavior, postures, etc.) and the surrounding environment (the experiment must take place in an adequate space-time);
4. The body is the essential instrument for the induction of MSC and therefore of initiation;
5. As the person learns the techniques of induction of MSC, they obtain an equivalent result while reducing the inductive stimulus (e.g. dose, duration, rhythm ...).

Through the ritual, the therapist thus establishes a suborder which offers the patients the possibility of reintegrating in some way their internal order (microcosm) within a universal order (macrocosm), their individual history in that of humanity and their spiritual nature in transcendence. After possible phases of confusion or relative disorder related to the process of exploration of their internal disturbances and deconstruction of them, the patients can somehow "return to themselves" by relying on the integrating framework posed beforehand by the therapist. Destructuration, always temporary, is a source of awareness of internal failings as latent potentialities never expressed, and which will gradually bring the instruments of emancipation of the patient in the face of the therapist. This experience, which carries meaning, thus reinforces the internal coherence of the person.

It must also be understood that the ritual is subject to the rigor of symbolic forms which, in indigenous conceptions, govern the universe. It is a language that cannot be improvised and requires a long learning. Many Westerners are mistaken in imagining that an aesthetic and pleasant context is enough and that the ritual is only the elaboration of an environment intended to create a simple state of relaxation proper to suggestion. The ritual is operative and efficient because of the psychic investment and the manipulation of the symbolic forms at stake. A lack of knowledge of what one could call a "technology of the symbolic or the sacred" can cause disturbances, sometimes serious, during and after the exploration of the "world-other" by the person. This notion begins to be taken into account by some researchers who observe the inadequacy or even the danger of taking ayahuasca outside of specific ritual forms and recommend to get closer to the thousand-years' experience of Amazonian healers (Metzner & al ., 1999).

The initiatory dimension

Therefore, the use of plants in Takiwasi is performed within a ritual context in such a way that the integration of their effects takes place simultaneously at the physical, psycho-emotional and spiritual levels. In other words, all the material that arises from the ingestion of plants (physical reactions, emotions, visions, dreams, intuitions, etc.) will then be analyzed, deciphered, interpreted and developed by the patient himself with the help of different techniques of individual and group psychotherapy (mask making workshop, hyperventilation, verbalization, symbolic reading with a grid of comparative analysis of tales, legends and myths, etc.). Apart from the use of plants, psychotherapeutic techniques are also enriched by ritual shaping. This is the case for certain practices that mark an initiatory stage, that is to say the transition from one phase of the treatment to the next one. The person is solicited not only psychosomatically but also in its spiritual dimension. Thus, is led consciously to take into consideration an integral resolution of their problem that embraces the whole being and goes far beyond mere dysfunctional behavior. In turn, the patients will be invited to manifest their spirituality in forms consistent for themselves and to exercise it through regular

ritual practices. To do this, spaces are offered for workshops of meditation, yoga, and participation to religious cults and liturgies offered optionally to believing patients (the majority being Catholics in our context). In order to ensure the coherence of this approach, in front of themselves and in front of the patients, those who accompany in the ritual spaces, including the Catholic priest, must have followed the same initiatory process as the patients that involves the intake of different plants (depurative, ayahuasca and master plants).

This elaboration and integration space opens a window on decisions concerning attitudes, behaviors, body expression, affective, relational and spiritual manifestations, which will have to be embodied in the everyday life within the community. This exercise allows the confrontation with reality and verifies that the integration does not remain in words and good intentions without concrete implications in a real life-change. Moreover, the incidents and difficulties that arise during this stage of materialization will be again worked during the subsequent plant intakes and psychotherapy sessions, thus forming a permanent feedback system between the three axes of the therapeutic tripod mentioned above[4].

Throughout this protocol, the importance of the initiatic dimension is made clear and seems to confirm the need to respond to the ordalic behavior of the drug user through a well-conducted initiation. Without going into details, the initiatory death that can arise during ayahuasca sessions takes three forms: the feeling of dying (physical death), the feeling of becoming insane (psychic death) and the feeling of being swallowed by a snake (symbolic death). This experience is most often followed by a significant change in behavior. Although the last case is often described in the indigenous world, it is also experienced by patients who are foreign to the Amazonian culture and ignore its cosmogony. In a recent study of former patients, Anne Denys observes that "*the experience, in a safe context, of a fictitious death experience [I would say "symbolic" in a strong sense], given that at no time vital functions are in danger, would allow the individual to transform his way of representation [of life]"* (2005: 31). On the other hand, for patients whose treatment has failed, "*the fact of not experiencing the evacuation of a difficult emotional charge and initiatory death seems to indicate the non-integration of the teachings associated with them*" (op.cit.: 28).

Interest of ayahuasca in the cases of addictions

According to this, it appears that ayahuasca, used in compliance with the norms indicated, represents therefore and without any doubt a very powerful means of self-knowledge and a privileged tool in the work of the psychotherapist with drug-dependent patients, for the following reasons:

1. The visionary effect of ayahuasca provides access to realities of the invisible world and allows to discover active elements in the unconscious of the person that go beyond the cultural, social, intellectual, idiomatic or religious frameworks of the participants to a session. The material that appears requires a symbolic interpretation in the manner of reading dreams. The ayahuasca thus offers a kind of new symbolic mold for living the dead-rebirth process up to the level of the most archaic physical *anchors* and deep somatic memories[5]. These last in the daily life of the person beyond his daytime or ordinary consciousness.
2. Patients with a limited capacity for symbolization and little access to verbal therapies benefit from visionary induction and can be exonerated, at least initially, from the need of verbalization. If the invasion of the psyche of drug addicts by upsetting experiences has made them regress to preverbal fusion states, the awareness of their problematic by means of "seeing" and "feeling" gives them a direct access to their inner world.

[4] The results of this protocol have already been evaluated (Denys, 2005) in 15 patients by means of correlated responses to the ASI (Addiction Severity Index). For detailed results linked to this protocol see also Dr. Rosa Giove's report published by the Peruvian Inter-Ministerial Bureau for Fight Against Drugs (2002) and also (Mabit, 2002).

[5] Sometimes it is even considered in the psychopathology of the transmission of certain family secrets or serious ethical transgressions made by ancestors (murders, betrayals, occult or magic practices, abortions, suicides, rapes, incest, false filiations...) among the descendants, sometimes in the total recklessness of the recipient. In this case, ayahuasca is of great help since, not only it puts in evidence these trans-generational memories, but also promotes the possible resolution of problems that, beyond the biographical history of the patient, lie in his pre-history in some way.

3. During the ayahuasca session the patients don't lose consciousness. They are themselves the object of observation and can intervene actively in their own inner world, becoming the leading character in their treatment. This does not fail to improve one's own self-esteem and powerfully reinforce one's conviction about the discoveries made about themselves and at the same time, to consolidate their motivation to materialize the changes in their life.
4. Since ayahuasca acts without ever violating the intimacy of the person, it can't go beyond the authentic intentionality, that of the heart, which the person presents at the moment of swallowing the brew. On the opposite, lack of sincerity or commitment to the process limits the therapeutic effectiveness. It is probably the main contraindication to the intake of ayahuasca.
5. Ayahuasca causes concomitant physical and mental cathartic effects, followed by a rebalancing of the autonomic nervous system and emotional restorative outcomes. By shifting the patient's issues onto the imaginary stage, ayahuasca promotes a reworking of intra-psychic conflicts. Solutions, interpretations or alternatives that the patient had never conceived then make their appearance. This defocusing or widening of the consciousness enables them to approach in a new way their internal knots and blockages.
6. No addiction to ayahuasca has ever been reported in the literature or observed in my therapeutic practice in Takiwasi. Its use is therefore not a form of substitution treatment. On the contrary, with the increase in the number of shots, the sensitivity of the patient grows while the dose decreases gradually for the same intensity of effects. Then, there is no risk of toxicity, since the physiological barriers are respected and the mechanisms of self-regulation act by means of evacuating functions (diarrhea, vomiting, transpiration, urine...) when the patient reaches the limits of its resilience. (note on toxicity)

To summarize, on the psychological level, ayahuasca activates the natural processes of reparation such as the increase of intellectual capacity and concentration, the emergence of memories, the reformulation of internal conflicts, the reduction of anxiety, the stimulation of the dream life, the progressive identification of the "shadow" which then ceases to possess the person and induces them to understand the other and to have access to forgiveness, the reduction of the mechanisms of projection, the prompt gratification of the effort that strengthens the motivation and increases the tolerance to frustration, the improvement of self-esteem, the awareness of the uniqueness of the human being and of its place in the world, which facilitates the process of differentiation or individuation.

All these qualities are to be weighed against the limits of its use in a therapeutic context, of which the main ones we wish to point out now.

Psychic and physical contraindications

The use of ayahuasca must be avoided in cases of dissociative psychic processes in which delusional elements (psychosis) manifest themselves. However, certain pictures of delusional rush that can be attributed to drug intoxication (eg, cannabis psychosis) may benefit from the controlled use of ayahuasca if part of a global and structured therapeutic approach which includes prior detoxification and psychotherapeutic support for long-term integration.

Similarly, *border-line* cases should be evaluated on a case-by-case basis in order to analyze the ability of the person to integrate the symbolic experience, their motivation, the family environment, etc. Taking ayahuasca in these cases cannot be totally excluded or systematically proposed. Neither can it be decontextualized from the framework of contention and integration offered or not by the therapeutic team. According to my observations, in the proper context described above, if the dissociated person cannot access the area of his psychic hiatus (cleavage), the psychic defense mechanisms will abolish any psychoactive effect and those of physical self-regulation will proceed with the expulsion of the brew. Nevertheless, personality disorders do not represent an ideal indication for taking ayahuasca.

Apart from these cases of exclusion, it is possible to affirm that the transfer of the use of ayahuasca from the indigenous cultural framework to a modern therapeutic setting poses the problem of the coherent integration of the visionary material that is accessed. When Westerners see their visions as a first-degree message, they omit the symbolic reading and do not master metaphorical codifications, thus they can assume that content in a wrong way. The brutal discovery of energetic and psychic powers, whose holders are usually unconscious, contains a potential for fascination that can lead to a form of alienation. It is common, for example, to see Westerners and drug addicts claim to be called "healers" or "shamans" after a session where they visualized the flow of energy in their bodies and between people.

In this case, it's up to the therapist to lead their patient, who is faced with this compensatory phenomenon to a profound feeling of insignificance, to discern what arises from his projections from what can really constitute fundamental information. The therapist will have to show them that this is a common phenomenon, although new to the person, and that if there are potentialities, there is however an abyss between perceiving them and believing to be already able to master them at full. In the absence of a correct interpretation and integration of the information that arises during the MSC, the person risks, so often, of being lead to an inflation of the ego, instead of a widening of the consciousness.

This refers to a central question that is the training of therapists who can accompany the intake of ayahuasca that they themselves must ingest to be empathic with the psychic state of their patients. Indeed, in a modified state of consciousness, the person is not very accessible by linear rational language. They must be contacted using a metaphorical, symbolic language, based on energy modulations both fine and powerful, and shaped through sacred songs (*ikaros*), perfumes, tobacco smoke, various sound instruments, prayers and certain gestures carried out on the patient's body. This art requires a long apprenticeship, very demanding, which includes long periods of diet, fasting, sexual abstinence and isolation in order to prepare the body around which the therapist builds the ritual that ensures the safety of patients and the maintenance of their integrity. This preparation is necessary if the therapeutic goal is to reach the transcendental dimension of the patient's higher "self" and not be limited to superficial psychic effects. In other words, it requires the therapist to be a true enlightened on the subject.

On their hand, the physical contraindications are relatively few with regard to the organic problems so, as a precaution, are excluded people who have serious metabolic (diabetes, uremia, for example) or functional (heart failure) deficiencies or advanced degenerative diseases (Parkinson's disease, multiple sclerosis, ALS, etc.). Similarly, ayahuasca intake will be discarded for people showing digestive lesions that could degenerate into hemorrhages because of vomiting efforts (stomach ulcer, varices or oesophageal fissure).

Pregnant women are also excluded, especially for the risks of abortion during the first three months that may be caused by the possible efforts of vomiting. It should be noted that in the indigenous tradition pregnancy is no contraindication and ingestion of ayahuasca is even recommended to give more "strength" to the fetus. Indigenous healers, however, avoid to include pregnant women in collective sessions, since their powerful energy is likely to disturb other participants.

Other "*energetic*" reasons are taken into account for women during the menstrual period. Being the product of a cleansing not only physical (uterus) but also energetic (blood), menstruations are therefore considered potentially very disruptive and dangerous during the course of a session (induction of bad trip). The therapeutic experiments carried out in Takiwasi revealed that the menstrual blood emits subliminal odors with respect to the olfactory perceptual threshold in the normal state, that become perceptible because of the olfactory exacerbation produced by the ingestion of ayahuasca. Contemporary studies on the olfactory system, the vomer and the role of pheromones seem to corroborate what healers say about the relationship between menstruation and subliminal odors (see, for example, Stern & McKlintock, 1998).

Finally, the risk of serotonin shock associated with the use of serotonin reuptake inhibitor antidepressants or SSRIs has been reported as possible (Callaway & Grob, 1998). However, so far, no specific case of such an incident has been documented in the scientific literature. As a precaution and as far as possible, the therapeutic protocol used in Takiwasi demands to stop the intake of these antidepressants three months before the ayahuasca intake and a prior detoxification with purgative plants is also put in place, thanks to

which no case of serotonergic overload has been observed to date. These precautions can be extended to prescriptions of major psychotropic drugs (lithium, neuroleptics, etc.).

In conclusion, any intake of ayahuasca requires prior to the person a preparation both physical (purge, for example) and psychical (identification of the motivation and intentionality of the subject), and to follow dietary rules (strict diet, fasting, elimination of certain foods like chili and pork), as well as sexual abstinence. It is also prohibited the concomitant use of certain psychoactive substances (mescaline cactus, cannabis, for example). The observation of these rules ensures the security of the process and the physical and psychological integrity of the subject.

The audacity of a qualitative leap

Therapeutic procedures in Takiwasi call for reconsideration of future research on the appropriate use of visionary substances, such as ayahuasca, in the treatment of addictions. It is a matter of widening the neuropharmacological analysis towards the psycho-clinic field, and especially of paying particular attention to the operational symbolic dimension or religious dimension[6]. It becomes necessary and urgent to break the modern taboo that prevents the consideration of the factor of spirituality in research. Can we take the risk of starting from the subjective experience of individuals with the audacity to assume it as real in its totality? This is the path explored by the wise men of many traditions and which they invite to follow in order to get out of an oppressive reductionism. This supposes a qualitative leap that consists in admitting the existence of the "world-other" (or at least accepting the hypothesis of it) and thus opening up to a transcendent dimension, unique to each one and, to a certain extent, similar to all. Many accounts could already serve as a basis for this type of study (Calvo 1995, Plotkin 1993).

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