

Sociopsychotherapeutic Functions of Ayahuasca Healing in Amazonia[†]

WALTER ANDRITZKY, PH.D.*

The social and psychotherapeutic functions of healing rituals with ayahuasca among Amazonian groups are examined, and their healing effectiveness is explained in terms of Western scientific and sociopsychotherapeutic perspectives. The article includes an overview of the preparation and application of ayahuasca, the symbolic adaptations to the process of social change, the role of singing, the perceptive mode during the visionary state, and the structure of the visions. It is noted that the healing activities provide the entire community access to transcendental experiences, which clearly have integrative and cohesive social functions. Ethnopsychology provides important insights into the functions of archaic healing rituals, and can be used to illustrate the transcendental experiences and pathological use of drugs in modern societies.

Ayahuasca (*Banisteriopsis* spp.) is a natural hallucinogenic drug used in healing rituals among various ethnic groups of the upper Amazon area in Colombia, Ecuador, and Peru. A number of anthropological studies of this hallucinogenic plant are found, including symbolic studies for the Tukano Indians of Colombia (Reichel-Dolmatoff 1978, 1975, 1972, 1971), shamanism and drug experiences for the Siona (Langdon 1979), for the Yagua Indians (Chaumeil 1979), for the Jivaro Indians (Harner 1962), for the Cashinawa (Kensinger 1973), for the Machigenga (Baer 1979), for the Shipibo-Conibo Indians (Gebhardt-Sayer 1985), for the Zaparo Indians (Reinburg 1965), and for Peruvian urban Mestizos (Dobkin de Rios 1972). The complexity of the ayahuasca-related rituals and their corresponding symbolism varies greatly among these ethnic groups depending on the degree to which the particular group may have been influenced by Western industrial culture.

The present article focuses on the healing functions of these drug rituals among traditional native peoples of

Amazonia, and attempts to explain their effectiveness within the approach of Western clinical science. First, some structural dimensions of ayahuasca rituals will be examined from what anthropologists call the emic point of view (e.g., How does the native person perceive the function and content of the ritual?). This will enable an interpretation of them utilizing an etic point of view (e.g., a scientific theoretical approach that transcends any particular way of viewing data). The author's etic approach will utilize concepts from psychoanalysis, transpersonal psychology, and parapsychology. Berry (1969) has argued that the phenomenon of emic and etic analyses must have functional equivalencies within the respective frameworks or cultures. This means that one should apply theories that focus on therapeutic functions and explain them from an etic point of view.

During a field study in Peru during 1985 and 1986, the author of the present article had the opportunity to take part in four ayahuasca sessions with the healer Felipe Urquia from a village called Sepahua. He is a member of the Piro Indians of Eastern Peru. This ethnolinguistic group has approximately 1,600 members residing in 12 indigenous communities (*comunidades nativas*) (Roman & Szyszlo 1985) in the area of the lower Urubamba and the upper Ucayali Rivers (See Figure 1). In the 1960's, neighboring

[†]A slightly different version of this article will appear in German in *Anthropos* (Volume 84, Spring 1989).

*Seminar für Allgemeine Heilpädagogik, Sozialpädagogik, Soziologie der Behinderten und Patholinguistik, Universität zu Köln, Frangenheimstrasse 4, 5000 Köln, West Germany.



Figure 1. Residential area of the Piro and surrounding groups. (Map: G. Baer).

Machigenga Indians relinquished their use of ayahuasca and its associated healing rituals as the result of pressure from a Swiss missionary sect (Baer & Snell 1974). However, the Piro still perform individual ayahuasca healing sessions. In the next section, the author's experiences with Felipe Urquia will be integrated into a structural analysis of the ayahuasca ritual and its symbolic dimensions to delineate the healing parameters.

AYAHUASCA AND ITS PREPARATION

Naranjo (1969) has identified 18 different species of *Banisteriopsis* spp. in Peru, out of a total of 100 in the Amazon area. The hallucinogenic alkaloid from ayahuasca was first called yageine (after *yajé*, the word used in Colombia for the plant) or telepathine for its suggested properties of telepathic perception. Lewin (1929) extracted an alkaloid that he called banisterine and used it successfully in the treatment of different kinds of paralysis. Only in 1957 were

the alkaloids harmine, harmaline, and tetrahydroharmine identified as the main psychoactive substances.

Among the Piro, the *ayahuasqueros* (ayahuasca healers) have their own ethnobotanical classifications that mirror the psychoactive properties of the vine. Felipe knows five types (white, half-white, yellow, colored, black) and the Shipibo-Conibo four (*camaramti*, *chahua*, true ayahuasca, and *misha*). Without other ingredients present, ayahuasca works only as a purgative (*la purga*, *la limpia*) without any other hallucinogenic effects. Depending on the purpose of an ayahuasca session, various plant additives generally called *misha* are used. The *ayahuasqueros* distinguish between substances that "make you travel," that "make you see" or that "teach you to heal." The synergistic effects of the combined plants are described by healers as "the plants know each other" or "they fit together" (McKenna, Luna & Towers 1986). Piro Indians use ayahuasca in a sophisticated and functional way, showing their understanding of the psychopharmaceutical indications and purposes of the different species.

Before an ayahuasca healing session or a general village-wide ayahuasca ceremony takes place, the healer or all participants have to maintain a special diet. They may not use salt, meat or chutneys and must avoid sexual intercourse. The reason given is that the neophyte or new ayahuasca user has to envision entering the womb of the ayahuasca mother spirit in order to be reborn as her son or he has to marry the daughter of the ayahuasca mother, both of whom become jealous if the healer or ayahuasca user has sexual relationships with other women. In this instance, the spirits will not help and protect the *ayahuasquero* against attacks of bad spirits or sorcerers who have performed malevolent magic against the healer's patients (McKenna, Luna & Towers 1986).

Transculturally, sexual intercourse can be viewed as a mode of exchanging life energies that have effects on the outer world by means of sympathetic magic, such as ritual promiscuity to promote agricultural fecundity (Frazer 1976). An interesting question for ethnopsychopharmacologic research is whether or not there is a psychophysiological relationship between sexual abstinence, specific food restrictions, and the quality of experiences in drug-induced hallucinatory states.

To prepare the ayahuasca drink, the Piro cut the vine in pieces of approximately 20 cm in length, smash it with a stone, and fill a cooking pot with layers of ayahuasca, and leaves of the *chacruna* plant (*Banisteriopsis rusbyana*), and then add water. The drink is boiled for several hours until only about 10 percent of the liquid remains. This brew is then taken by the *ayahuasquero* in a special healing session or by all adult tribal members during ceremonies in an annual cycle of rituals.

AYAHUASCA MYTHOLOGY

The mythological structure of a typical ayahuasca experience is culturally defined with slight variations among the different groups similar to observations made by Eliade (1959) in his book about shamanism. Cosmological thoughts utilized by the *ayahuasquero* include traveling to visit helping spirits, the masters of animals or plants, in order to receive advice or counsel for the diagnosis and treatment of the shaman's clients. The shaman moves through various cosmic levels with numerous types of spirits that are able to represent every aspect of unconscious symbolism. These experiences during the state of intoxication are sometimes performed in a psychodramatic way: The Machigenga shaman climbs a ladder to communicate with his helpers (Cenitago 1943) and the Shipibo-Conibo shaman climbs a tree where his ayahuasca song medicine is stored in vats in the cloud houses of the tree spirits (Gebhardt-Sayer 1985). Each figure of the ayahuasca world is able to transform its character and shape.

In this context, one should distinguish two forms of

experiences during the trance state. The first is the visual experience, during which the drug user can clearly hallucinate animals in an extremely exact and naturalistic way. *Ayahuasqueros* use this imaginative power of the drug to teach unsuccessful hunters to recognize animals and their behavior. The hunter in the trance state has to imagine an animal and project it onto a natural setting; then he describes it to the shaman who corrects his vision (Bruce-Lamb 1975). Generally, thoughts are immediately perceived as real events in the environment. A second characteristic of the ayahuasca trance is a strengthening of the natural visual power. In the present author's own experience with ayahuasca among the Piro, he could see small leaves in the crown of trees in almost complete darkness at a distance of about 200 meters. Besides the projective mechanism and an increase of general visual power, there are tendencies among ayahuasca users to anthropomorphize the environment and for people to see living structures as fields of energy.

The author also saw plants in the environment as having an "emotional radiation" and some of them exhibited anthropomorphic gestures. Some aroused a feeling of positive affect ("love"), while others stood cold and rejecting. There was an astonishing congruence between the author's perceptions of these qualities and those of Felipe's, a fact that evokes many questions: Was this due to a telepathic process or due to real effects of the plants that in a normal state of consciousness are not perceptible? During another ayahuasca session, the author saw Felipe lying in his hammock in the guise of a jaguar while he explained his songs. Felipe had previously said that in ayahuasca mythology the strongest helper of the *ayahuasquero* is the jaguar (*otorongo*) and that shamans can convert themselves into the animal. During healing sessions, the shaman can "shoot" his jaguar-helper and his snake-helper against his enemies so that they eat their hearts. In the trance state, culturally defined mythological images and actions are personally seen and experienced.

SYNESTHETIC PERCEPTION DURING TRANCE STATES

Bellier (1986) viewed the ayahuasca user, with his/her "ultra-sensory" perception, as plunging into a synesthetically perceived universe of smells, colors, movements, lights, and sounds. The auditive stimulus of the songs evokes a general synesthetic function inherent in the language—warm colors, light sound—that in the normal state of consciousness is experienced only by 15 percent of individuals (Bruhn, Orter & Rösing 1985). One can hypothesize that the more homogeneous the symbolic matrix of an ethnic group is, the more uniform is the synesthetic experience and the mythological visions evoked by the drug and the songs.

Another mode of experience during the ayahuasca intoxication is associated with closed eyes. In this state, the present author saw an immense number of very fast-moving

figures, and later on quiet symbolic figures, such as an Indian standing on the moon shooting an arrow with a beautiful rainbow as his bow. The closed-eye experience is more autonomous and independent from conscious thoughts.

SYMBOLIC COPING WITH SOCIAL CHANGE

As previously noted, ayahuasca gives the user access to the conscious experience of processes of symbolization. The content of the symbolic world changes flexibly with the emergence of new cultural influences. They are integrated into the symbolic universe according to their functional similarity. Instead of traveling, fighting or healing exclusively with his "natural" helper spirits, Felipe integrates new elements of modern civilization into his cosmos:

You see a big town, an airplane approaches, a tractor, very big, you see a big town, everything comes, giant boats, tigers and jaguars come first, the people, you talk with them. You can travel wherever you want, visit your mother or father, the spirit takes you everywhere, but other people can't see you. They bring you into a big town, you change your clothes, a merchant comes along and says: change your clothes—and you are a soldier. Or: once upon a time, I took toé [*Datura suaveolans*, the effects of which can last several days] and two people came and said "come on, let's travel." It was dark and we went to the mountains, but the strings of the trees didn't hurt us. I met a jaguar, nothing! He gave me his fur—hey—you look like a jaguar. He makes you feel like a jaguar.

The visionary motifs are elements drawn from Sepahua, a small jungle town with a good deal of boat and air traffic. Cultural change has led to a fast process of simplification and the abstraction of the symbolic ayahuasca cosmos. Other more isolated groups, such as the Tukano or Yagua, still possess a broad variety of animal and plant spirits and a complicated system of cosmic levels. Felipe works beside his power animals with four doctors as helper spirits. There is a sanitary post and medical service operated by the Shell Oil Company in Sepahua, so that Felipe has had to integrate these healing powers in his symbolic world. He can thus compete with modern medicine by drawing on its most powerful representative, the doctor (and even four of them), to help his patients. Felipe converts the shamanic fights between his helper spirits and his enemies into a battle of two armies in his acculturated ayahuasca cosmos:

Your people are like soldiers, they protect you, so that no sorcerer can grasp you. The ayahuasca plant gives you these soldiers, all well-armed like a government. The other sorcerer who has done the evil magic [*daño*, caused by shooting a visionary magical palm spine, *chonta*, into the victim's body] comes to kill you, in order that you are not able to heal his victim. . . . You see him coming for a long distance. Then you call your people and you say "There comes the enemy, go on, let's see!" Afterwards, when his soldiers die and only a few are left, he flees. Then you can heal. As one makes war, so too do healers work.

Felipe knows the army from his experiences during his

conscripted in the Peruvian armed forces. Another healer has integrated the European world of black magic into his ayahuasca cosmos. He said: "I call Lucifer, Satan, Beelzebub, Casternoc, the red dragon, and Hell's horse. The mouth of the animal is closed by the key of magic, but I sing the magic words and open it with the key. . . . Then I want that soul to flee from the person and immediately it is inside . . . and then I close the mouth with the key of black magic." In order to heal, he calls Lucifer who appears to him as a giant animal. Then the spirit of the person who has caused the *daño* to his client manifests himself (San Ramon 1979).

Ayahuasqueros are able to cope with the problems of acculturation by creating a symbolic amalgam of new and traditional events, myths, and figures in their ayahuasca cosmos. In the visionary state, the *ayahuasquero* creates emotionally relevant pictures in which the elements of cultural change are interpreted from the indigenous point of view. Since colonial times, *ayahuasqueros* have been mediators between the indigenous and the Euro-American worlds, which are seen as fighting each other, and therefore they must utilize all the means of witchcraft available to them. Today there are computers, atom bombs, the birth-control pill, and extraterrestrial visitors—everything has been integrated into the informal folk culture. Nonetheless, the *ayahuasquero* still has to mediate between the highland and lowland cultures, which are quite distinctive from that of the rain forest. Since the time of the Inca, the tropical forest inhabitants (and above all, their magicians) have been considered more powerful and exert a strong influence on the highland from "below" (Randall 1982). Thus, the *ayahuasqueros* are said to have the strongest medicine, and a qualified highland healer improves his reputation by apprenticing himself to an *ayahuasquero* (Tausig 1980; Seijas 1969; Disselhoff 1939).

Within this process of cultural confrontation on the symbolic level, the *ayahuasquero* is the mediator between up and down, between different ethnic groups of Indians, Mestizos, Blacks, Mulattos, and Whites, as well as between the jungle and urbanized society. In this context, his treatments and practices are a method of symbolic confrontation or active imagery and they have extraordinary importance as a type of sociopsychotherapy for concerned peoples (Press 1978, 1971).

THE ROLE OF SONGS AND WHISTLING

During ayahuasca sessions, the songs and whistling of the intoxicated shaman are means of structuring his own visions and those of the intoxicated participants. The songs elicit shape visions, and they control mentally preexistent, culture-specific patterns of motifs in their sequential activation. Stocks (1979) called the music the "control-center of the visions." The singing induces the visionary perfor-

mance, the "procession of the animals" who can lend their powers and properties, such as clothes, to a hunter or shaman. Felipe knows many songs to induce certain spiritual figures, including the song of the *pusanga* for love magic, or the *icaro* songs that call the four doctors, the song of the black cat, the snake, the tigrillo, and others (Dobkin de Rios 1972). The song of the doctors causes them to appear, and they help the *ayahuasquero* suck out the illness (*el mal*) and blow the tobacco smoke over the affected parts of the body. Long passages between the texts are filled with simple syllables, such as "nananancioeiohe . . ." or "tararareioeioe . . ." These senseless syllables can be explained as imitations of the songs of healers from other ethnolinguistic groups whose language is not understood (Wistrand 1969). Indeed, the *ayahuasqueros* often take part in the sessions of their friends (Taussig 1980).

One of Felipe's sessions was joined by a healer of the Yaminahua tribe who sang very simple melodies in his own language. He and Felipe communicated in Spanish. Halpern (1976) mentioned that the songs must be considered the private property of each *ayahuasquero*, and that the nonsense syllables are abbreviations or words or imitations of animal sounds. Whistling has a similar function and, like singing, serves to call the natural spirits (Katz & Dobkin de Rios 1971).

During the large yajé ceremonies of the Tukano Indians of Colombia, the singing is accompanied by flutes, drums, and dances while the shaman (*payé*) recites the myths of origin—how the first woman emerges from water, how the first men are formed, how the master of jungle animals appears, the jaguars, snakes, the sources of evil, and the jungle spirits. One hears its voices, the music of the mythical epoch, one sees the ancestors, the origin of the feather crowns, necklaces, and musical instruments. One sees everything, the splitting of the kinship groups (*phratryes*) and the special *yurupari* flutes spreading the laws of marital exogamy (Reichel-Dolmatoff 1972). In a similar way, the *ayahuasquero* of the Siona Indians guides his participants in collective ceremonies through the invisible world. Then one sees all the spirits with their paintings on their bodies, which are the same decorations as on the pots and clothes of the Siona (Langdon 1979).

Bellier (1986) found three kinds of songs among the Mai Huna. The first is the song of illusion that describes the state of the intoxicated person. The second is the song of power that calls the shaman's power objects and animals, and the third is the song of aggression that sets these forces in motion.

THE INITIATION OF THE AYAHUASQUERO

The training and initiation of the shaman follows the general initiation pattern, which was described by Eliade

(1961) as a series of experiences of rebirth and the step-by-step introduction to the spiritual world. After a certain number of ayahuasca experiences, the new *ayahuasquero* has incestuous relations with the jaguar mother and is reborn as her son. For the shaman, this initiation process is itself a ritual of symbolic healing (Dow 1986). It is a step-by-step symbolic regression within his chronological career. These unconscious materials are symbolized by preexistent cultural motifs that the teacher explains to the *ayahuasquero* just as the psychoanalyst interprets personal associations to his/her clients.

Among the Machigenga, training lasts about four months. Felipe offered the present author a training period of four months as well. During this time, the neophyte has to ingest the ayahuasca every other day. Among the Yagua Indians, the training lasts several years and the neophyte takes the drug only every four months. During the first six months, he has to be sexually abstinent, learn the songs, prepare the drugs, and learn the cosmology, as well as the use of tobacco smoke. Later, he learns the most important ability, which is to extract a palm spine out of a patient's body, a maneuver that is central in every healing session (Chaumeil 1979). Before the author's first session, Felipe prepared him by telling hour-long stories about the world of the mythological people and his own adventures with them. This kind of narrative preparation is very important because it creates mental expectations and structures for the drug-induced motifs. Without this preparation, the neophyte or any other user can easily be flooded by unconscious materials from his personal biography, which can hardly be interpreted by the *ayahuasquero*-teacher. As it is, personal constellations are expressed by means of culturally specific motifs and stories. The interpretation thus addresses the personal situation in terms of culturally determined patterns. In this way, the Western psychological phenomenon of resistance to hyperpersonal interpretation is elegantly avoided.

Through his stories and interpretations during the intoxication, the teacher can control the levels of anxiety and the depth of regression of his pupil in an exact manner as they are indicated by the emergence of certain mythic motifs. When the *ayahuasquero* as teacher and his pupil are simultaneously in the trance state, every barrier between their personalities vanishes and a kind of clairvoyant communication develops. Later this clairvoyance can be activated even without the trance state (Bruce-Lamb 1975).

Among the Siona, the jaguar mother tells the neophyte that he has to die. She shows him his coffin and creates intense fear of death. Later on, he enters the womb of the jaguar mother, which is painted symbolically as a vulva on the ayahuasca vessel. The vessel itself represents the jaguar mother. When she has accepted him as her son and nursed him, she shows him the golden yajé people, the songs and the myths (Langdon 1979). Within the sexual symbolism of the

Tukano, the entrance to the invisible world is imagined as a penetration of the cosmic uterus that later gives birth to the neophyte (Reichel-Dolmatoff 1971). According to Taussig (1980: 264), to become a shaman means, in the words of one Colombian *ayahuasquero*, "to become a jaguar, to learn to kill people with the magical palm spine and to heal."

THE EFFECTS OF AYAHUASCA

The evolution of the visionary experience follows a certain pattern. In some cases, the ayahuasca drink provokes intense vomiting and diarrhea about 10 minutes after ingestion. As Felipe said, the vomiting is due to the quality of the ayahuasca, which is very difficult to foresee. (In fact, the present author once participated at a session in which the ayahuasca did not work and the session had to be cancelled.) The vomiting does not seem to indicate fear or resistance on the part of the participant. Later on, a feeling of dizziness appears. The stronger the dizziness is, the more intense will be the visionary process (San Ramon 1979). The *ayahuasqueros* do not distance themselves from the hallucinatory experience by using concepts such as vision or hallucinations and they do not see the motifs as symbols for something else. Rather, they consider them as being from the otherworld, but absolutely real. Felipe said that "first comes the dizziness, then comes the people."

In the present author's experiences, colored geometric designs appeared first and seemed to soar in the space in front of his open eyes. For traditional groups, such as the Tukano of Colombia, these abstract motifs have sexual symbolism in that they represent sexual organs, rules of kinship exogamy, or kinship relations (Reichel-Dolmatoff 1978). As previously noted, many groups from the Urubamba and Ucayali River areas paint their clothes, vessels, and other objects with these magic geometric signs, which make visible the purely energetic cultural patterns that they believe penetrate the whole world. When the author closed his eyes, very quickly moving small figures (as in a cartoon) appeared. Later on, quiet symbolic motifs appeared. With open eyes, nature seemed to be vivid and the author's perception worked in a synesthetic mode. In this phase of intoxication, the ayahuasca healer sees the witches or evil spirits that have caused his clients' illnesses.

In the second phase of intoxication, the Tukano shaman of Colombia travels into the cosmic space "beyond the Milky Way" where the Tukano high god lives. The participants of the sessions see big snakes curling upward on their house posts, and on the walls appear colored butterflies and creatures that are aggregates of snakes, jaguars, and birds. Recently, Andritzky (1988) has argued that these hallucinatory motifs are the origin of the ancient Peruvian art styles of Chavin, Sechin, Paracas, Moche, Nasca, and other cultures (Andritzky 1986a; Dobkin de Rios 1982, 1977, 1976).

At this point, it is important to note that in individual

healing sessions, usually it is only the shaman who takes the drug while the patient remains abstinent. This shamanistic use of hallucinogenic drugs differs sharply from the way that psychiatrists have used drugs, such as LSD in clinical settings. One of the functions of Western drug experimentation in a psychiatric setting has been to avoid resistance in a patient in order to reach unconscious material (Schultes & Hofmann 1980). A second important difference between modern Western and shamanic uses of hallucinogens is that the shaman uses drugs and symbols to heal somatic symptoms, while in the West these drugs have been used exclusively to treat psychiatric symptoms or to work with terminal cancer patients. To the present author, it appears that Western medicine has never understood the way that hallucinogens really work. Two typical types of ayahuasca use should be distinguished to clarify these processes. The first is the common, collective ingestion of the drug by all adult members of a community, with the aim of strengthening social cohesion and identity through periodic symbolic regression to the "powerful time" of mythical origin (Eliade 1961). Second, there is the use of the drug for the explicit purpose of healing sick people. The collective ayahuasca sessions do not aim at evoking visions from the individual's unconscious; rather, the unconscious biographical personality structure with all its conflicts and complexes is absorbed into the cultural patterns of the visionary motifs.

In these ceremonies, the behavior of the Tukano officiant corresponds exactly with the role of a psychoanalyst in a group setting who works in public, only on certain occasions, and who has to explain the meaning of visions to the group participants. Reichel-Dolmatoff (1971) argued that these periodic ceremonies are the best structured institutions of the socioreligious life of the Desana Indians of Colombia. They function as a periodic psychohygienic institution with nonspecific preventive and prophylactic qualities.

THE STRUCTURE OF AYAHUASCA HEALING SESSIONS

Individual healing sessions for somatic illnesses are usually fixed after previous treatment with herbs, massage, and diets (Dobkin de Rios 1972). The Piro *ayahuasquero* of eastern Peru is always an herbal healer as well. During a 60-minute botanical walk through the jungle with a Machigenga shaman, the present author was able to record over fifty plants and substances from tree barks, and the shaman explained their exact use. The *ayahuasquero* treats almost every kind of illness on two levels: pharmaceutically and by means of the drug ritual. Little is known about indigenous empirical symptom classification and the corresponding pharmaceutical applications. The parallel magic-causation theories in the healer's psychosomatic treatment technique have symbolic value and are applicable to each illness he treats. The shaman's treatment deals with a global model of

object intrusion by a sorcerer and the loss of a soul caused by apparitions of spirits or as the result of a shock (*susto*), which leads to increasing debility (Valdizan & Maldonado 1922). Other folk syndromes are *saladera* (a series of misfortunes caused by witchcraft), *pulsario* (a kind of hyperactivity and free-floating anxiety accompanied by the feeling of having a stone in the stomach), and *mal ojo* (the evil eye, with a special risk for children, which leads to weight loss and sleeplessness).

The Spanish terms are abstractions from a wide variety of tribally specific models to explain disease, which focus on psychological and group-dynamic tensions, as is especially clear in the case of *susto* or witchcraft disorders. In treating these disorders, the *ayahuasquero* visualizes the sorcerer whose witchcraft is harming the patient, or he catches a lost soul by following a spirit. Surprisingly, Felipe said that it is not important for the patient to tell him about these visionary adventures. This means that the model of symbolic healing cannot explain the processes of hallucinogenic healing (Dow 1986).

Besides the physical symptomatic level of illness and the sociosymbolic level used in treatment, there is a third aspect involved, which the present author calls the energetic level. This is a model of illness dynamics used by the *ayahuasquero* to understand the healing process. In this model, illness is perceived as a disturbance of the body's energetic field. This disturbance is visually different depending on the specific tribe involved: The Shipibo-Conibo shaman sees geometric energy lines disturbed in the patient; the Tukano *ayahuasquero* sees the illness as a black wrap around the body that the healer has to dismember like an embryonic sac, with the aid of a helper spirit, after which the patient's recovery is like a rebirth (Reichel-Dolmatoff 1971).

In the trance state, Felipe sees illness as dirty spots on the body and his treatment methods of sucking and blowing tobacco smoke work like cleansing dirty clothes (Wilbert 1979). After cleansing the patient of his/her spots, the healer presents the patient with a piece of the magical illness arrow (*chonta*) or simply spits, like Felipe does. He says that his saliva gets its illness-absorbing power only through the tobacco smoke. For the Tukano, tobacco has polyvalent meanings. The smoke commands clouds and rain and therefore fecundity itself, which is a symbol for health. Smoke can disguise, provide magical protection, and it cleanses people and things that are bathed in it. According to Reichel-Dolmatoff (1971), tobacco smoke also takes messages to the spirits and serves as a vehicle for magical aggression (e.g., when the *ayahuasquero* buries a cursed cigar under the house of an enemy). All these connotations are reverberant in the manipulation of smoke during the ayahuasca ritual.

The following is a description of one of Felipe's sessions with five patients, who were all diagnosed with witchcraft disorder (*daño*). One of them was Felipe's son, who had an inflamed wound on his leg. The session took

place on the open-air veranda of Felipe's hut at 9:00 p.m. After a short period of conversation, the patients and two other guests of Felipe's sat silently. The only sounds that could be heard were those of insects and the jungle animals who would later be seen and heard as transformed sorcerers and spirits. After half an hour, Felipe lit the forest tobacco in his pipe and blew the smoke over the vessel with ayahuasca to give it power. Then, he moved a bundle of aromatic leaves over the pot. Smoke and smell are the mediums of communication with the plant-spirits of ayahuasca and tobacco (Baer 1979; San Ramon 1979). First, Felipe drank the ayahuasca and then his brother and the present author did. It tasted bitter and astringent. After 10 minutes, the author began to feel nauseous and dizzy. Felipe sat in front of his son, moved the bundle with the leaves over his leg, and sang healing songs for about 15 minutes. Then he blew the smoke over his leg and holding his fist between his son's leg and his own mouth, he began sucking loudly. This was more in the nature of a pantomime, inasmuch as his lips did not touch the patient's skin. After each sucking action, the saliva infected by the negative energy was spat out. In this way, Felipe and his brother treated the other patients, who had not ingested any ayahuasca. During the treatment phase, only the sounds of the singing, sucking, the pipe smoking, and the spitting gave clues as to what was happening in the darkness. After four hours, the hallucinogenic effects ceased. Some patients had silently left the hut and Felipe spoke with his friends, who had also ingested the ayahuasca. Another session had to be interrupted because the ayahuasca did not work. This is important to note, because it indicates that healers do not consider their symbolic actions, such as the tobacco smoke blowing or sucking, to be the effective essentials for healing.

EXPLANATIVE RANGE OF DEPTH PSYCHOLOGY

The Chilean psychiatrist Naranjo (1979) has used ayahuasca and harmaline in analytic psychotherapy. Although this process did not offer insight into the patient's individual psychological conflicts, 10 out of 30 psychoneurotic patients exhibited changes that would otherwise be expected only after intensive psychotherapy. It seems that a holistic vision and confrontation with the *true self* is the quintessence of hallucinogenic therapy, while orthodox analytical therapy offers only fragmentary and partial insight into particular aspects of the self.

Jung (1975) called basic and transculturally similar symbolic patterns the archetypes of the collective unconscious. They form the *prima materia* of myths, gods, and religions. The ayahuasca mythology is one example of these relatively uniform archetypal structures. Their evocation in the collective ayahuasca sessions corresponds to the terminal phase of psychoanalysis, according to the Jungian process of individuation, in which these archetypes can

emerge after the biographic contents of the unconscious have been cleared up. Jung considered religious rituals and symbols to be the main cultural medium to drain the psychic energy of the archetypes that otherwise would poison human beings. The manipulation of cult images would allow the archetypes to be clearly exhibited as something distinct from human beings. This concept of the religious cult as institutionalized periodic psychotherapy explains the great effectiveness of the ayahuasca and other hallucinogenic cults.

The present author has mentioned that during the ayahuasca intoxication all of nature seems converted into an anthropomorphic drama, and the myths sung by the shaman are experienced multisensorially as absolute reality. The hallucinogenic vitalization and the synesthetic perception of the mythological events by various sensory systems immensely strengthen the power of symbols to reorganize the personality. Like many psychologists, Levi-Strauss (1971) has attributed the capacity to reorganize the world of unconscious symbols to the simple recital of fairy tales. How much more intensive must these affects be when the legends are not only heard, but seen in their full vitality and experienced with their emotional impact!

These hypotheses are strengthened by Pahnke's well-known experiment (1966) on religiosity and hallucinogens, which is an almost perfect cultural analog to the ayahuasca ceremonies of the tropical rain forests of South America. The Good Friday Experiment concerned two groups of 10 students of theology in Massachusetts. Before the Good Friday service, complete with organ music, soloists, lectures, prayers, and meditations, one group of divinity students ingested psilocybin while a control group received 200 mg of nicotinic acid. The experience was evaluated along 10 dimensions: (1) the experience of inner unity, (2) transcendence of time, (3) transcendence of space, (4) deeply felt positive mood, (5) feelings of holiness, (6) insights into the nature of reality, (7) feelings of paradox, (8) no expressible feelings, (9) transience, and (10) positive changes toward others (more tolerance, openness, true love). After a four-hour interview six months after the experiment, Pahnke reported that eight of the 10 participants in the experimental group had maintained a deep impression of the experience. The dimensions of inner unity, transcendence of time and space, transience, paradoxes, and elements of positive changes scored the highest within this scale of mysticism among this group. The participants, themselves, reported that their experiences had a therapeutic quality.

The experience of Western psychiatry in the use of hallucinogenic drugs in therapeutically structured settings, with an experienced group leader, leads one to argue that ayahuasca rituals also have individual, group, and socio-therapeutic functions. Following the invasion of missionaries and the introduction of Western medicine as well as state prohibitions of the use of hallucinogens, one finds that the loss of these hallucinogenic rituals contributes to the process

of disintegration of native cultures, and dystonic effects for the individual as well. Art, myth, traditions, and social group cohesion are all affected. The individual now lacks an effective psychohygienic ritual that previously functioned to reinforce his/her personal identity.

TRANSPERSONAL PSYCHOLOGY

Processes in transpersonal psychotherapy resemble the ayahuasca experiences even more closely. As Grof (1987) showed, transpersonal experiences that center around the events of birth (perinatal processes) and death (aging, dying, pain, invalidism) and are independent of the personal biography of the individual are responsible for therapeutic success. Table I shows the functional equivalencies of transpersonal therapy in Grof's system and experiences during ayahuasca rituals.

In the collective ayahuasca rituals, in the initiation of the *ayahuasqueros*, and in the rare ingestion of the drug by ill people, the visionary experience appears to be equivalent to the stages delineated by Grof in his phases of the birthing process and its subsequent effects on individuals' adult experiences. The process of ayahuasca healing, with a nonverbal ritually defined working phase and short conversations in the beginning and/or at the end, finds its analogy in the transpersonal therapeutic situation. Grof stressed the fact that direct experiences are primary transforming forces, while verbal interaction is limited to phases before and after the central therapeutic situation. The therapist provides only a supportive, facilitating framework to the client and offers a technique to activate his/her unconscious.

The amalgamation of the collective, archetypal motifs of ayahuasca healing with the contents of the individual unconscious has another equivalent in the method of active imagination (Leuner 1983). In a daydream, the client develops emotionally loaded images that crystallize on motifs, such as a mountain, river, meadow, volcano, swamp, and forest clearing, which are offered by the therapist. Like the singing *ayahuasquero*, the psychotherapist accompanies the evolutionary process of the imagination, and s/he can intervene and direct it through questioning. The role of music in the evocation of visions is also well known in active imagination. Leuner (1974) has argued that music intensifies the visual and affective experience in a way that corresponds to experiences under LSD or psilocybin intoxication. The colors become more lucid, the motifs more plastic, the scenery more vivid, and the experience flows in a steadier way than is the case when music is not present. The panorama, the weather, and the seasons change, men and animals come and go, and mythological beings appear and act.

The structuring and guiding effect of music and singing in ayahuasca ritual finds another analog in the psycholytic therapy of Leuner (1987), in which the patient receives a

dose of LSD that induces a state of protopathic consciousness. In this state, the situational orientation is maintained as it is in ayahuasca ceremonies. As can be seen by a variety of parameters (e.g., the group situation, protopathic consciousness, intensifying background with singing and music), the collective ayahuasca ceremonies are the most intense psychotherapeutic ritual. Nonetheless, it does not directly serve to treat sick people.

The therapeutic parameter of dance at ayahuasca ceremonies, which has not as yet been discussed, is illustrated by the "terpsichore trance therapy" that Akstein (1987) developed on the basis of the Brazilian trance cults of Umbanda and Macumba. They are based on a kinetic trance induced by rotating the body. This leads to emotional outbursts, mystical experiences, and convulsions that have a cathartic quality. The ayahuasca dances seem to be more structured and the kinetic and synesthetic perceptions are paralleled with the mythical motifs (e.g., the Shipibo-Conibo follow the geometric designs they believe to be projected on the dance court).

Transpersonal therapy, as with other trends in Western psychotherapies that utilize dance, trance, music, group situations, and narrative methods, seems to show a strong convergence toward archaic settings like the ayahuasca ceremonies. However, they do not achieve a high degree of integration among a variety of parameters, because Western culture has lost the cultural cohesion that would enable it to synthesize various therapeutic methods in a ritual-like manner. Therefore, they are practiced by different persons as different schools of psychotherapy in different situations. Inasmuch as the patients in individual ayahuasca healing ceremonies generally do not ingest the drug, these psychological theories are only partially applicable. The remaining psychotherapeutic parameters—except the general healing suggestion of the entire situation and some very unspecific moments of group interaction—cannot explain the resulting somatic healing effect of the drug ritual. Unfortunately, there are no empirical studies on the efficacy of such healing, but it is an accepted fact and seems plausible.¹ In order to glimpse what is the hypothetical healing factor, one must transcend psychological theories and look for equivalents to the phenomenological events described and to the explanations of the *ayahuasqueros* themselves concerning their procedures.

Gebhardt-Sayer (1985) and Baer (1987) have hypothesized that the intoxicated healer influences the bioenergetic field of the patients as it is seen in the geometric designs, the black wrap or the dirty clothes. Tibetan medicine lamas are trained to see similar fields of aura whose colors indicate character and help to diagnose the illness (Lobsang Rampa 1982). The abundant literature on aura research is beyond the scope of this discussion, but it is worth noting that humans may possess one or more subtle bioenergetic or plasmatic bodies impregnated by an energy that is called

prana in Yogic philosophy, *chi* in Chinese medicine, and *mana* in the Pacific area. Furthermore, it seems that this bioenergy corresponds in some way to the radiations made visible in so-called Kirlian photography (Krippner & Rubin 1980), although that research is beset with methodological failings.

Experimental research done by the physicists Popp and Strauss (1979), following Gurvitch's experiments (1959) on mitogenetic radiation, suggested that an "ultra-light bioluminescence" in the ultraviolet range is the medium that transports and communicates information about all physical processes in and around the body. The present author thinks that the healing interaction between the *ayahuasqueros* and their patients may be mediated by a kind of resonant communication (Jantsch 1982) between isomorphic energetic structures of the healer and the patient. Systems theory has long operated with the assumption of isomorphic structures in various fields of reality, and Jantsch described a global coevolution of macro- and microcosmic dissipative structures that communicate with their environment to reproduce themselves. When one also assumes isomorphic psychological and physiological structures, as Levi-Strauss (1981) has done to explain the healing power of symbolic action, then ayahuasca healing can be seen as a holistic resonant communication between the bioenergetic field of the healer and that of the patient.

In this model, the drug serves the function of setting free psychic energy or bioenergy in the healer. The infinite acceleration of the associations that are all loaded with psychic energy and the possibility to structure and form this energy through singing and evoking culturally powerful motifs (e.g., such animals as the jaguar or snake) in a synesthetic sensory field seems to be the crucial point of drug healing. This analysis of the concrete ritual process and the explanation of the *ayahuasqueros* make it highly possible that the psychological symbolic behavior is not the healing medium but rather the setting free of structured bioenergy. When the healer sucks or when he blows tobacco smoke over the ailing or infected parts of the body, this may be seen as a symbolic act, but as the healers themselves say, this is not the healing agent. Otherwise, they could simply give up using the hallucinogenic intoxication altogether. However, until concrete evidence is established concerning somatic effectiveness in ayahuasca healing, these assumptions are only speculative.

PARAPSYCHOLOGICAL ASPECTS

Alongside the process of *seeing* and *cleansing* the bioenergetic field of the patient (which is not explainable by mainstream models of the natural and psychological sciences), some parapsychological phenomena are frequently reported to occur. These include telepathic perception and states of dissociation of the soul and body. Kensinger (1973)

TABLE I
COMPARISON OF MODES OF EXPERIENCE IN TRANSPERSONAL PSYCHOTHERAPY (GROF 1987)
AND IN COLLECTIVE AYAHUASCA HEALING RITUALS

Perinatal Events	Experiential Representation in Transpersonal Psychotherapy	Visionary Experiences During Ayahuasca Intoxication
Phase of intrauterine existence	Positive affect; peace; serenity; transcendence of subject and object; identification with water, the sea, cosmic travels	Relating the myths of origin; the visionary entering into the jaguar-mother; existence in the womb; voyage "beyond the Milky Way"; encounter with the water snake, the creator of the universe
Phase of contractions of the uterus; chemical signals that the fetus is being contracted	Feelings of claustrophobia, torture, hell, being a victim of the Inquisition, being trapped by a spider, being engorged by a monster, eternal damnation	Visions of being eaten by snakes; the jaguar-mother tells the neophyte that he has to die; intensive fear of death; aggressions by other shamans; various examinations
Phase of expulsion	Experiences of death and rebirth, of ego death on all levels, titanic fights, intense sexual excitement, war, satanic orgies, brutality	Confrontation with wild animals; fights with sorcerers; meeting exciting female persons; see sexual symbolism of the first intoxication phase; motifs of cosmic fires
Birth (doorway to the transpersonal area)	Visions of light, golden lights, colorful patterns of plants; feelings of being rescued and liberation of fear, depression, guilt; senses world as a beautiful place Abolition of linear time and spacial boundaries; identification with animal ancestors, with consciousness of other people, of plants, and animals; insight into chemical processes Visions of archetypal figures, mythological sequences; meetings with gods and spirits Intuitive understanding of universal symbols (cross, swastika, six-pointed star) Experiencing the <i>chi</i> energy of Chinese medicine; activation of energy centers (<i>chakras</i>) of Yogic philosophy	Flashes of light; birth from the jaguar- mother; see world of the golden yajé people; hear harmonic music; jaguar-mother nurses the neophyte; phase of grand visions Soul-flight through time and space (traveling clairvoyance); meetings with spirits of dead shamans; mental location of lost objects; communication with the masters of plants and animals; plants and animals serve as teachers and helpers; intuitive recognition of the qualities of healing herbs Meetings with the different beings of various cosmic levels of otherworlds, earth, and heaven See geometric symbols of the first intoxicification phase See aura as patterns (Shipibo-Conibo), as black wrap (Tukano) or dirty clothes (Felipe Urquia), and influencing it by singing, blowing tobacco smoke or sucking

has written about an ayahuasca session with the Cashinaua in which the participants described in detail distant places where they never had been and that were entirely alien to their range of knowledge. After one session, six of the nine participants told him that they had seen Kensinger's father die. Two days later, the anthropologist received news of the event by radio. A similar report emanated from Cordova-Rios, a Peruvian Mestizo captured as an adolescent at the beginning of the century by the Amahuaca tribe who attempted to make him a powerful leader against the invading rubber traders (Bruce-Lamb 1975). Cordova-Rios had been initiated into the cultural world of this group and trained to acquire the psychic sensibility for chieftainship by a long series of ayahuasca sessions under the guidance of the old chief. In one of these sessions he saw his mother die. Later on, the events and all their circumstances previously seen by him were confirmed when he escaped and managed to reach the city of Iquitos and resume a semblance of his civilized life, becoming an urban ayahuasca healer. The telepathic perception of the death of close relatives is a well-reported phenomenon of parapsychology. Murphy (1966) argued generally that telepathic perception can be directed by the emitter of a message if its content is of great emotional relevance for the receiver. This extrasensory perception or biocommunication (the Soviet term) seems to be instigated by an emission of energy generated by the death of living organisms or by strong emotions. It may be that ayahuasca intoxication sensitizes the human potential for extrasensory perception.

The *ayahuasqueros* also say that they can fly to other places (e.g., to kill an enemy). This procedure corresponds to "traveling clairvoyance," in which someone can think him/herself mentally into distant places and then give a detailed description of the place from an elevated perspective as if they had seen the place from a height (Behrendt 1972; Mischo 1966). These perceptions are facilitated in hypnotic sleep or in dreams. As previously noted, the ego functions of reality control are maintained during intoxication and the telepathic messages are quite concrete. These circumstances have their correlates in lucid dreams during which the dreamer is in full possession of his/her ego consciousness and can move in the dream cosmos at will (Faraday 1982; Holzer 1980).

Manipulation of the bioenergetic field finds partial parallel in telepathic experiments on influencing physiological parameters (Grad 1965). Capra (1975) is perhaps one of the most cited authors in this area of relating phenomena from subatomic physics to an understanding of parapsychological phenomena. One could cite many studies in the field of parapsychology that correspond to those reported by ayahuasca users and that provide food for thought about the need to design further empirical research focusing on self-experience in the natural setting rather than the experimental procedures that are quite inappropriate in verifying parapsy-

chological phenomena intimately connected with the dynamics of primary process thinking.

DISCUSSION

By creating parallels among indigenous ayahuasca-using cultures and some concepts of Western science, the author of the present article has tried to explain the healing dimension of these Amazonian drug cults. It seems especially important to note that this mode of drug use provides the entire community access to transcendental experiences and thereby has integrative and cohesive functions for the society. This contrasts with the use of hallucinogenic drugs in industrial societies in Europe and America in which the drugs are a symptom of social and personal disintegration. There seems to be little doubt among researchers that a clear distinction must be made between drug use and drug abuse patterns.

Ethnopsychology as a field can contribute basic insights into the functions of healing rituals in autochthonous societies that are constants for the anthropologist. Moreover, these rituals express a basic human desire for transcendental experiences rather than pathological traits of social groups or individuals. Periodic ayahuasca use does not appear to have any pathological side effects, such as those known from alcohol and nicotine abuse in industrial societies.

The description of the cultural confrontation between ethnic groups in the Amazon on a symbolic level is manifested in the changing ayahuasca mythology. This further indicates that the introduction of Western medicine could be viewed as having pathological effects by debilitating the social position of the shaman as the central person in the tribe. When ayahuasca use is abandoned due to the lack of the presence of a *real* shaman, as in former times, and tribal members are quick to use this explanation for the loss of the relative power of their leaders; the resulting social disorganization hypothetically results in new, emerging psychosomatic illnesses. As is known from epidemiological research in social psychiatry and ever since Durkheim's classic studies (1973) of social factors involved in comparative suicide rates, social disintegration generally is closely connected with psychic illness. Therefore, ethnopsychological studies of indigenous healing procedures and systems can help aid in gaining insight into the pathogenic potential of modernization in the Third World, especially as Western medicine and psychology are introduced. At the same time, one can obtain a better understanding of the healing role of hallucinogenic drug rituals as one component of the multidimensional Amazonian healing systems. The present author personally rejects attempts by nation-states, churches, and sects to prohibit ayahuasca use (e.g., Baer 1963) and recommends that research be carried out on the empirical effects (Andritzky 1986b; Taussig 1980). In view

of the cruel persecution of folk healers during the Spanish Colonial Inquisition, which stigmatized all ritual behavior as superstitious and deceitful (Andritzky 1987), this would also be a gesture of historical reconciliation between Western and indigenous cultures.

NOTES

1. See discussion of the biology of hope in the article by Dobkin de Rios (1989) in this issue of the *Journal of Psychoactive Drugs*.

REFERENCES

- Akstein, D. 1987. Reizüberflutung als Therapiemethode: Die Terpsichore-Trancetherapie. In: Dittrich, A. & Scharfetter, C. (Eds.) *Ethnopsychotherapie*. Stuttgart: Enke.
- Andritzky, W. 1988. *Schamanismus und rituelles Heilen im Alten Peru*. 2 vols. Berlin: C. Zerling.
- Andritzky, W. 1987. Die Volksheiler in Peru während der spanisch-kolonialen Inquisition. *Anthropos* Vol. 82: 543-566.
- Andritzky, W. 1986a. El jaguar volador. Escenas de arte médico ritual en cerámicas del antiguo Perú. *Humboldt* Vol. 88: 64-71.
- Andritzky, W. 1986b. La medicina autóctona: Una alternativa real para regiones del Perú. *Boletín de Lima* Vol. 45: 49-56.
- Baer, G. 1987. Peruanische Ayahuasca-Sitzungen. Schamanen und Heilhandlungen. In: Dittrich, A. & Scharfetter, C. (Eds.) *Ethnopsychotherapie*. Stuttgart: Enke.
- Baer, G. 1979. Religión y chamanismo de los Matsigenka. *Amazonia Peruana* Vol. 2: 101-140.
- Baer, G. 1963. Eine Ayahuasca-Sitzung unter den Piro (Ostperu). *Bulletin der Schweizer Amerikanistischen Gesellschaft* Vol. 33: 5-8.
- Baer, G. & Snell, W. 1974. An ayahuasca ceremony among the Matsigenka. *Zeitschrift für Ethnologie* Vol. 99: 63-80.
- Behrendt, H.C. 1972. *Parapsychologie*. Stuttgart: Kohlhammer.
- Bellier, J. 1986. Los cantos Mai Huna del yajé (Amazonia Peruana). *América Indígena* Vol. 46: 129-145.
- Berry, J.W. 1969. On cross-cultural comparability. *International Journal of Psychology* Vol. 4: 119-128.
- Bertalanffy, L.V. 1968. *General Systems Theory. Foundations, Development, Applications*. New York: Braziller.
- Bruce-Lamb, F. 1975. *Wizard of the Upper Amazon*. Boston: Houghton Mifflin.
- Bruhn, H.; Oerter, R. & Rösing, H. 1985. *Musikpsychologie*. Munich: Urban, Schwarzenbeck.
- Capra, F. 1975. *The Tao of Physics*. London: Wildwood House.
- Cenitago, V. 1943. *Los Matsigenka*. Lima: San Marti.
- Chaumeil, J.P. 1979. Chamanismo yagua. *Amazonia Peruana* Vol. 2: 35-69.
- Disselhoff, H.D. 1939. "Brujos" im Hochland von Ekuador. *Zeitschrift für Ethnologie* Vol. 71: 300-305.
- Dittrich, A. & Scharfetter, C. (Eds.) 1987. *Ethnopsychotherapie*. Stuttgart: Enke.
- Dobkin de Rios, M. 1989. A modern-day shamanistic healer in the Peruvian Amazon: Pharmacopoeia and trance. *Journal of Psychoactive Drugs* Vol. 21(1).
- Dobkin de Rios, M. 1982. Plant hallucinogens, sexuality and shamanism in the ceramic art of ancient Peru. *Journal of Psychoactive Drugs* Vol. 14(1-2): 81-90.
- Dobkin de Rios, M. 1977. Plant hallucinogens and the religion of the Mochica—an ancient Peruvian peoples. *Economic Botany* Vol. 31(2): 189-203.
- Dobkin de Rios, M. 1976. Plant hallucinogens, autosomatic experiences and New World massive earthworks. In: Du Toit, B. (Ed.) *Drugs, Rituals and Altered States of Consciousness*. Amsterdam: Balkema.
- Dobkin de Rios, M. 1972. *Visionary Vine: Hallucinogenic Healing in the Peruvian Amazon*. San Francisco: Chandler.
- Dow, J. 1986. Universal aspects of symbolic healing: A theoretical synthesis. *American Anthropologist* Vol. 88: 56-83.
- Durkheim, E. 1973. *Der Selbstmord*. Neuweid: Luchterhand.
- Duviols, P. 1986. *Cultura Andina y Represión*. Cuzco, Peru: Centro de Estudios Rurales Andinos "Bartolomé de las Casas."
- Eliade, M. 1961. *Mythen, Träume und Mysterien*. Salzburg: Kiesel.
- Eliade, M. 1959. *Schamanismus und archaische Ekstasetechnik*. Zurich: Rascher.
- Eliade, M. 1957. *Das Heilige und das Profane*. Hamburg: Rowohlt.
- Faraday, A. 1982. *Die Positive Kraft der Träume*. Frankfurt: Ullstein.
- Fleury, L. 1958. El Caapi y el Hataj, dos poderosos ilusígenos indígenas. *América Indígena* Vol. 18: 293-298.
- Frazer, J. [1911] 1976. *The Golden Bough. A Study in Magic and Religion*. Vol. II, 3rd ed. London: Macmillan.
- Gebhardt-Sayer, A. 1985. The geometric designs of the Shipibo-Conibo in ritual context. *Journal of Latin American Lore* Vol. 11: 143-176.
- Grad, B. 1965. Some biological effects of the laying-on of hands. A review of experiments with plants and animals. *Journal of the American Society for Psychical Research* Vol. 59: 95-129.
- Grof, S. 1987. Psychedelische Therapie und holonome Integration: Therapeutisches Potential außergewöhnlicher Bewußtseins-zustände. Beobachtungen bei psychedelischer und holotroper Therapie. In: Dittrich, A. & Scharfetter, C. (Eds.) *Ethnopsychotherapie*. Stuttgart: Enke.
- Gurvitch, A.G. 1959. *Die mitogenetische Strahlung. Ihre physikalisch-chemischen Grundlagen und ihre Anwendung in Biologie und Medizin*. Jena, East Germany: VEB G. Fischer.
- Halpern, J. 1976. On the interpretation of "meaningless-nonsensical syllables" in the music of the Pacific Northwest Indians. *Ethnomusicology* Vol. 20(2): 253-272.
- Hamer, M. 1962. Jivaro souls. *American Anthropologist* Vol. 64: 258-272.
- Holzer, H. 1980. *Träume und ihre Botschaften*. Munich: Goldmann.
- Jantsch, E. 1982. *Die Selbstorganisation des Universums*. Munich: Dtv.
- Jung, C.G. [1942] 1975. *Über die Psychologie des Unbewußten*. Frankfurt: Fischer.
- Katz, F. & Dobkin de Rios, M. 1971. Whistling in Peruvian ayahuasca healing sessions. *Journal of American Folklore* Vol. 84: 320-327.
- Kensinger, K. 1973. *Banisteriopsis* usage among the Peruvian Cashinahua. In: Hamer, M. (Ed.) *Hallucinogens and Shamanism*. New York: Oxford University Press.
- Krippner, S. & Rubin, D. 1980. *Lichtbilder der Seele*. Munich: Goldmann.
- Langdon, E.J. 1979. Yajé among the Siona-cultural patterns of visions. In: Brownmann, P. & Schwarz, R. (Eds.) *Spirits, Shamans and Stars—Perspectives from South America*. New York: Mouton.
- Leuner, H.C. 1987. Die psycholytische Therapie: Durch Halluzinogene unterstützte tiefenpsychologische Psychotherapie. In: Dittrich, A. & Scharfetter, C. (Eds.) *Ethnopsychotherapie*. Stuttgart: Enke.
- Leuner, H.C. 1983. *Katathymes Bilderleben, Ergebnisse in Theorie und Praxis*. Bern: Huber.
- Leuner, H.C. 1974. Die Bedeutung der Musik in imaginativen Techniken der Psychotherapie. In: Revers, W.J.; Harrer, G. & Simon, W.C. (Eds.) *Neue Wege der Musiktherapie*. Düsseldorf: Econ.
- Levi-Strauss, C. 1981. *Strukturelle Anthropologie*. Frankfurt: Suhrkamp.
- Levi-Strauss, C. 1971. *Das Rohe und das Gekochte*. Frankfurt: Suhrkamp.
- Lewin, L. 1929. *Banisteria caapi* ein neues Rauschgift und Heilmittel. *Beiträge zur Giftkunde* Heft 3.
- Lobsang Rampa. 1982. *Das dritte Auge*. Munich: Goldmann.
- McKenna, D.J.; Luna, L.E. & Towers, G.H. 1986. Ingredientes bio-dinámicos en las plantas que se mezclan al ayahuasca. Una farmacopea tradicional no investigada. *América Indígena* Vol. 46: 73-99.

- Mischo, B. 1966. Milan Ryzl's ASW-Experimente. In: Bender, H. (Ed.) *Parapsychologie. Entwicklung, Ergebnisse, Probleme*. Darmstadt, West Germany: Wissenschaftliche Verlagsgesellschaft.
- Murphy, G. 1966. Eine qualitative Studie telepathischer Phänomene. In: Bender, H. (Ed.) *Parapsychologie. Entwicklung, Ergebnisse, Probleme*. Darmstadt, West Germany: Wissenschaftliche Verlagsgesellschaft.
- Naranjo, C. 1979. *Die Reise zum Ich. Psychotherapie mit heilenden Drogen. Behandlungsprotokolle*. Frankfurt: Fischer.
- Naranjo, P. 1969. Etnobotánica de la ayahuasca. *Ciencia y Naturaleza* Vol. 10: 3-92.
- Pahnke, W.N. 1966. Psychopharmaka und mystische Erfahrung. *Zeitschrift für Parapsychologie und Grenzgebiete der Psychologie* Vol. 9: 85-106.
- Popp, F. & Strauss, E. 1979. *So könnte Krebs entstehen*. Frankfurt: Fischer.
- Press, J. 1978. Urban folk medicine: A functional overview. *American Anthropologist* Vol. 80: 71-84.
- Press, J. 1971. The urban curandero. *American Anthropologist* Vol. 73: 741-756.
- Randall, R. 1982. Qoyllur Riti, an Inca fiesta of the Pleiades: Reflections on time and space in the Andean world. *Bulletin de l'Institut Francaise des Etudes Andines* Vol. 11: 37-81.
- Reichel-Dolmatoff, G. 1978. Beyond the Milky Way. Hallucinatory imagery of the Tukano Indians. *UCLA Latin American Studies* Vol. 42.
- Reichel-Dolmatoff, G. 1975. *The Shaman and the Jaguar*. Philadelphia: Temple University Press.
- Reichel-Dolmatoff, G. 1972. The cultural context of an aboriginal hallucinogen: *Banisteriopsis caapi*. In: Furst, P.T. (Ed.) *Flesh of the Gods*. New York: Praeger.
- Reichel-Dolmatoff, G. 1971. *Amazonian Cosmos. The Sexual and Religious Symbolism of the Tukano Indians*. Chicago: University of Chicago Press.
- Reinburg, P. 1965. Bebidas tóxicas de los Indios del Amazonas: Ayahuasca—el yajé—el huanito. *Ciencia Nueva* Vol. 4. Universidad Nacional de San Marcos.
- Roman, L. & Szyszlo, V. de. 1985. Sinopsis del mundo Piro. *Antropológica* Vol. 3(3): 143-152.
- San Ramon, V. 1979. Visiones, curaciones y "brujerías." *Amazonia Peruana* Vol. 2: 7-32.
- Schultes, R.E. & Hofmann, A. 1980. *Pflanzen der Götter*. Bern: Hallwaag.
- Seijas, H. 1969. *The Medical System of the Sibundoy Indians of Colombia*. Ann Arbor, Michigan: University Microfilms.
- Stocks, A. 1979. Teniendo un puente entre el cielo y la tierra en alas de la canción. *Amazonia Peruana* Vol. 2: 71-100.
- Taussig, M. 1980. Folk healing and the structure of conquest in southwest Colombia. *Journal of Latin American Lore* Vol. 6: 217-278.
- Valdizan, H. & Maldonado, A. 1922. *La Medicina Popular Peruana*. Vol. 1. Lima: Torres Aguirre.
- Wilbert, J. 1979. Magico-religious use of tobacco among the South American Indians. In: Browmann, P. & Schwarz, R. (Eds.) *Spirits, Shamans and Stars—Perspectives from South America*. New York: Mouton.
- Wistrand, L.M. 1969. Music and songs: Texts of Amazonian Indians. *Ethnomusicology* Vol. 13(2): 469-488.