

Report

A MODEL EXPLAINING BRAZILIAN SPIRITIST SURGERIES AND OTHER UNUSUAL, RELIGIOUS-BASED HEALINGS¹

Sidney M. Greenfield, Ph.D.

ABSTRACT

This paper seeks to explain unusual surgeries performed without antiseptics or anesthesia in which patients bleed but minimally when cut, experience little if any pain, do not develop infections or other post-surgical complications and furthermore, recover. Operations performed by three Brazilian Spiritists healer-mediums are described. The explanation of the Kardecist-Spiritists, whose belief system informs the surgeries and other healings, is presented and examined. The author then seeks an objective, scientific explanation for the phenomena in recent developments in new fields within biomedicine and in psychosomatic healing. Ernest L. Rossi's model (as developed in *The Psychology of Mind-Body Healing*) which focuses on information flow as a way to resolve the mind-body problem, is taken as a point of departure. Rossi proposes that hypnosis can be used therapeutically to introduce information at the level of the psyche that is then transduced to the endocrine system, the immune system, etc., activating them to contribute to the healing process. Observing that hypnosis, as understood and used in the individualistic west, usually requires someone to induce a patient so that healing and therapy may be initiated (by suggestion), the author then turns to the comparative record of anthropology to show that individuals regularly enter into trance states during religious rituals where they also are exposed to alternative realities in which there are forces and beings believed able to both cause and cure illness. This information, it is hypothesized, is transmitted symbolically to the psyches of individuals in both words and images. The results of anthropological studies of the role of symbols in healing are summarized. Adding the cultural dimension of trance states induced during religious ritual in which suggestions that come from the alternative reality are transduced to the psyche of the individual and then to his/her endocrine, immune, and other systems, Rossi's model is expanded and hypothesized as an explanation for the surgeries and other supernaturally mediated healings. An experiment conducted to test the model is presented.

KEYWORDS: Altered states of consciousness, alternative healing, alternate realities, anomalous behavior, Brazil, hypnosis, Kardecist-Spiritism, paranormal behavior, religion, religious ritual, Spiritist surgery

INTRODUCTION

In the following pages some unusual surgeries performed by Spiritist healer-mediums in Brazil are described and models (one offered by the Spiritists themselves and another based on a combination of biomedicine and comparative anthropology), are proposed to explain them. The second is offered as an hypothesis that adds the comparative, cross-cultural dimension of anthropology to recent developments in the understanding of healing.²

Kardecist-Spiritism is one of a number of what are called “popular” religions in Brazil.³ It is a variant of Spiritualism based on the writings of the French scholar-teacher Léon-Dénizarth-Hypolyte Rivail who codified the belief system writing under the name of Allan Kardec.⁴⁻⁶ Its major tenet is that living humans are assumed able to communicate and interact with the world of the spirits of the dead. By adding the African tradition of spirit possession, followers of Kardec in Brazil also believe that some mediums are able to receive, that is incorporate in their bodies, the spirits of the dead who come to them from the spirit world in order to interact with and to do the charity so important to them of helping the living.

Perhaps the most important form of charity recognized by Brazilian Spiritists is aiding the sick. While the healers provide a variety of treatment modalities, this paper is concerned primarily with the surgeries performed by some healer-mediums who cut into the flesh of patients using anything from a surgical scalpel to a rusty knife or even an electric saw. This is not simulated, or so called “psychic” surgery. Brazilian Spiritist healer-mediums really cut; and when they do they use no antiseptics. They often deliberately introduce dirt and other contaminants into freshly opened wounds. Some healer mediums do not wash their hands as they insert them into one patient after another. Moreover, the patients are not anesthetized. Most, however, report experiencing little if any pain both during and after the operations. In addition, they bleed but minimally. Finally, patients seem not to develop infections or other complications, and to recover rapidly and to be able to carry on with their lives.⁷⁻¹²

SOME UNUSUAL DATA

José Carlos Ribeiro

The surgeries reported in this section were performed by José Carlos Ribeiro, a healer-medium I learned about in a newspaper article in 1982 when I was living in the city of Fortaleza, capital of the northeastern Brazilian state of Ceará. When my wife, my daughter, and I first went to see him, I asked him if I might observe him work. His reply was that I was welcome to assist him. Without another word, he placed a tray in my hands on which there were scalpels, several pairs of surgical scissors, a few pairs of tweezers of assorted sizes, a syringe, some cotton, gauze, adhesive tape and a glass of water. José Carlos then turned to a poorly dressed, dark skinned man who had been waiting with his wife.

The woman tried to tell the healer about her mate's problem with his vision. José Carlos, however, directed his eyes away from her towards the ceiling. He mumbled some words I was not able to understand and began to shake, entering into what he later referred to as a trance state. Summarily, he interrupted the woman abruptly to ask a question and to issue a command. He did this with an authority not previously demonstrated and he spoke in a sharp accent that contrasted with the soft tone he normally used. It appeared to me as if he were a native speaker of Spanish trying to communicate in Portuguese.

He asked the couple if they believed in God. But before they could answer, he picked up a scalpel from the tray in my hand and, while ordering them both to think of God, plunged it with his right hand into the man's left eye, under the lid. With a series of jabbing and twisting movements he slid the instrument down under the eye. As he did this he substituted the back of a pair of tweezers taken from the tray with his left hand for the scalpel and eased the eye forward, tilting it out of its socket. He then scraped the lens of the protruding eye with the instrument still held in his right hand.

Some thirty men and women—mostly former patients and people to be seen by him later—were crowded into the small, hot, poorly ventilated room. Several gasped as the scalpel was thrust into the eye, and one woman was unable to stifle a scream. My wife, who had been placed directly behind the healer,

felt faint. As the blood left her face, José Carlos, though unable to see her, moved his left hand quickly in her direction, leaving the tweezers dangling momentarily from its place under the protruding eye. As he did so he again mumbled something I could not understand. As the blood returned to her cheeks, the healer secured his grip on the dangling tweezers. After a few more scraping motions with the scalpel still held in his right hand, he slid the tweezers, held securely again in his left hand, back to the top of the eye under the lid where he had first introduced the scalpel. As he covered the eye with gauze and some adhesive tape, he asked the man if he had felt any pain. To his negative reply the patient added that he had been aware of all that had happened. I estimated that the procedure lasted a little more than a minute.

José Carlos then wrote a prescription that seemingly flowed from the pen. He looked at neither the writing instrument nor the pad, but instead off into space as he wrote. As he handed it to the somewhat startled woman, he quickly listed things the patient was to do and not do, and foods he was to eat or avoid. He then dismissed the man telling him that he would be well.

The healer turned to the next patient on whom he also performed eye surgery, using the same scalpel and tweezers that had been returned to the tray in my hands without being cleaned. Diagnosis, surgery, bandaging, writing of a prescription for post-operative medication and the dictation of a list of behavioral restrictions and a special diet took only a few minutes.

EDSON CAVALCANTE DE QUEIROZ

The second healer, Edson Cavalcante de Queiroz, was observed in Recife, the capital of the neighboring northeastern state of Pernambuco. In contrast with José Carlos, who had attended the university but never completed his course work and Antônio de Oliveira Rios, the third healer to be discussed below, who had but a first grade education, Edson was a trained and licensed physician, a graduate of the medical school of the Federal University of Pernambuco.¹³ He earned his livelihood by providing medical services for a fee at a private clinic specializing in gynecology and surgery. Away from the clinic, at a center he founded in honor of his spirit guide, he performed Spiritist healing and surgeries.

One of the surgical procedures I observed was done on a young woman who had a growth on her right shoulder.¹⁴ She had been brought to Edson by her mother who had heard stories about patients not having pain when he operated on them. Fatima became uncontrollably irrational at the thought of the possible pain she might experience should a doctor try to remove the growth on her shoulder surgically.

A professional nurse who regularly assisted the healer handed him a scalpel still wrapped in its sterile packaging. The patient, seated on a small operating table, did not move nor did she make a sound when Edson unwrapped the instrument and thrust it into her shoulder. A small trickle of blood appeared that stopped after being patted with a piece of gauze. Fatima did not react when Edson next put down the scalpel and jabbed a pair of scissors into the opened wound. She did not flinch as he pulled at the growth first with the scissors and then with his unwashed fingers which he inserted into the opening.¹⁵

After tearing loose and removing the infected material, Edson handed it to a pathologist who prepared a report on all of the healer's cases. Fatima meanwhile sat motionlessly on the surgical table. The healer then placed a piece of adhesive tape over the open wound saying that there was no need for suturing. The nurse completed the bandaging and then directed the patient, and her mother who stood at her side throughout the procedure, to the other side of the room where she was given a glass of special (fluidified) water to drink. Edson then wrote a prescription which, as had been the case with José Carlos, appeared to flow from the pen. He looked at neither his hand nor the paper. The entire procedure had taken no more than a minute or two.

Another patient had been suffering from sinus problems and a perennially stuffed nose. To treat her a pair of scissors were driven up each of her nostrils deep into the sinus cavity. To demonstrate that in spite of the apparent lack of asepsis there would be no infection, Edson asked a bystander to spit on the gauze he wrapped around one of the pairs of scissors before driving it into the sinus cavity. The healer regularly asked those observing him to introduce germs and other contaminants into open wounds.

Earlier that same evening he had jammed several 22-gauge syringe needles into the back of a woman who could scarcely walk. She had made the journey to

the center on crutches assisted by her relatives. Edson forcefully inserted the needles in a line about two to three inches apart, along her spinal column. As he placed the final one just above the base of the spine, he ordered the pathologist to bring him a test tube in which he collected the spinal fluid that was starting to flow. When the tube was about one-third full, he slapped the patient's back forcefully and rapidly removed the needles. As he dismissed the somewhat startled woman—telling her that she would be fine—he handed the test tube to the pathologist and ordered a complete analysis.¹⁶

On another occasion Edson removed a growth of film from the eye of a poor, elderly, diabetic woman. She said that she had come to him, rather than going to a conventional doctor, not only because he charges no fee,¹⁷ but more importantly, because she feared that she might not survive the chemical anesthesia used in hospitals by conventional surgeons.

As the nurse directed her to lie on the table, Edson told her to think of God. He ordered her not to move the eye as he secured the end of the growth with tweezers held in his left hand. Snipping at the film with a pair of scissors in his blood stained right hand, he explained that this procedure takes between 30 and 40 minutes when done in the operating room of a hospital. It took him approximately 25 seconds.

Edson had invited a visitor to assist him by holding the patient's eye lids open while he cut out the growth. When he finished he ordered the stranger to spit into the eye. This was to show that in spite of the apparent absence of asepsis there would be no infection.¹⁸

As the nurse bandaged the eye, the healer wrote a prescription. The woman then drank the fluidified water given to each patient. As she left she told me that she had experienced no pain and was confident that she would be well.

The final surgery by Edson was performed on a distinguished looking man in his sixties wearing a well tailored three-piece suit. His card indicated that he was a physician with his own clinic in an elite section of Rio de Janeiro. He had a large bandage on the left side of his neck. When Edson removed it, he exposed an infected festering growth. One of those assisting, who happened to be a physician, could not hold back the question on the mind of all present:

“How could he (the patient), a trained doctor, permit something like this to go on so long without treating it?”

Unmoved, Edson ordered the man to take off his jacket and lie down on the table. As he did, the healer picked up a scalpel and pierced the wound which he secured with a pair of tweezers. He lifted as he cut. When blood started to spurt, he put down the scalpel to place pieces of gauze, handed to him by the nurse, over the wound.

Edson told those observing that he had permitted the bleeding in order to show that this was human blood and not a trick, as had been reported about “psychic” healers in the Philippines who use the blood of chickens and who do not cut open the skin of their patients.

When the bleeding subsided, Edson picked up the scalpel and started to cut again. Cutting and stopping to control the bleeding, he paused for questions when the growth was about half removed. During surgeries Edson often stopped for questions which he answered with short sermons on Spiritist themes.

When he finished speaking he turned back to the patient, cutting away at the growth with renewed vigor. Within minutes it was removed leaving a raw, slightly concave wound. More gauze was applied to control the bleeding. The open wound was covered with an ointment that the healer said was not necessary. As he bandaged the wound, Edson promised that it would heal and that there would be no scar.

Before he left the room, I asked the patient to tell me what he had experienced. In a soft, dignified voice he said that he had felt the cutting, but had sensed no pain. Stating that he now felt fine, he added that he was relieved that it was over. I asked him why he, a doctor, had come to Edson and not gone to a physician when the growth first appeared. With his head erect and a straight look he responded, as would most believers in the Spiritist doctrine, that it was because he wanted to get at the *source* of the problem. “Conventional doctors,” he said, “only treat symptoms and work at the surface.” If you want to get at the cause, you go to a Spiritist healer; and since Edson is the best, he had waited until he was able to go to Recife to see him.

A year later I had the opportunity to visit this man, as I have visited other patients whose surgeries I have witnessed,^{11,12} at his penthouse home on Avenida Atlântica overlooking Copacabana beach in Rio de Janeiro. He appeared to be, and said that he was in excellent health. He had no reaction to the surgery and when he showed me his neck I could find no trace of a scar.

ANTÔNIO DE OLIVEIRA RIOS

In contrast with Edson, José Carlos, and most Spiritist healers who work in large urban centers, Antônio de Oliveira Rios treated patients in the small town of Palmelo, about 100 kilometers from the national capital of Brasília in the interior state of Goiás.¹⁹ Semi-literate, with only a first grade education, and a bricklayer by trade, Antônio diagnosed patients from photographs shown to him. On Saturdays large crowds lined up outside his center waiting to see him. Each person brought with them their picture, or that of a friend, or a relative—the sick person did not have to be present. When their turn came, the healer would look at the picture and write, in an almost illegible, child-like script—that had to be rewritten for the patient (or his representative) by the healer's wife—a diagnosis and a course of treatment that often combined medications, diet, and a visit to the center for surgery.

In one of the surgeries I witnessed (and videotaped) Antônio perform, an educated, sophisticated business man, who had traveled by plane from São Paulo, had his abdomen opened.²⁰ The man was lying on a gurney outside the center when Antônio exited the building, wearing gloves, a white jacket and a surgical mask. He took a scalpel from a cart on which instruments were laid out and brought it towards the man. Before he could cut, the patient asked him a question. Antônio answered him and the two soon were deep in conversation. Still chatting Antônio thrust the scalpel into the man's chest, below the ribs, and slid it down some six to eight inches. He then took a pair of scissors and spread open the incision. Blood flowed, and an artery soon resembled a fountain. As Antônio placed gauze inside the wound, eventually stopping the flow of blood, the patient, seemingly oblivious to the fact that he was being cut open in the street with a hundred or more people watching, continued the conversation. After cutting and chatting for a minute or more, Antônio put down the scalpel and walked away, leaving the patient alone on the table in the street with his stomach open. Still unbothered, after bending over to look at the open wound, the man put his head back and quietly closed his eyes.

A few minutes later Antônio's wife appeared with a needle and surgical thread in her hands. As she sutured closed the wound, which was still bleeding a little, the patient opened his eyes and began to converse with her as he had with Antônio. When she completed her task, covering the sutured area with gauze and adhesive tape, she helped the patient, who still was talking with her, to stand up. In front of the startled crowd she wrapped a bandage around his chest and stomach and instructed him to put on his shirt. As he did so, he informed me that he had felt no discomfort, as he had not the previous time Antônio had operated on him. He then took out his business card and invited me to visit him in São Paulo to follow his progress if I wished. The final patient also was placed on a gurney outside the center. He told me prior to being treated that he had been the victim of a bullet wound some ten years previously and still had no use of his legs.

Antônio injected something into the upper part of the man's back.²¹ He then took a scalpel from his instrument cart and made an incision some 10 to 12 inches in length and about one-half inch deep along the spinal column. He patted the small amount of blood that flowed with some gauze. He then took a pair of scissors and jammed them at an angle into the open wound. He took another pair of scissors and used them to hammer the first pair deeper so that they could be heard hitting against the bone. After a short pause he repeated the procedure.

The healer then took what appeared to be an electrical saw with a six inch blade attached to it from the lower shelf of the instrument cart. The observers in the street moved closer to see what he would do with it as he connected the saw to an extension cord handed to him through an open window at the side of the building. The patient meanwhile remained motionless, apparently unaware of the saw. Antônio turned on the tool and inserted its churning blade into the open wound, running it along the spinal column. A small amount of blood spurted up as the opening in the patient's back was enlarged. The onlookers gasped. The patient, however, did not move or react in any other way.

After running the blade up and down the patient's back a few times, Antônio turned off the saw, disconnected it, removed the blade, and returned the parts to the cart. Without stopping to look at the patient, he pushed the cart hurriedly through the door into the building, stopping it in front of what was

to be his next patient. The man whose back had been opened with the saw, meanwhile, was lying quietly on the gurney in the street unattended.

A few minutes later Antônio's wife again exited the building with a needle and surgical thread in her hands. She closed the patient's back and covered the area with a bandage. Before I could reach him several of the onlookers questioned him about what he had experienced. He had felt no pain and had been only slightly uncomfortable when the saw blade entered his back. As he left with the friends who had helped him travel to and from São Paulo, he gave me his address so that I might visit him on my next visit to that city.

EXPLAINING THE SURGERIES AND OTHER UNUSUAL HEALINGS

There is little doubt that surgeries, in which neither anesthesia nor antisepsis are used, and the patients report experiencing little if any pain, bleed minimally (most of the time), do not develop post-surgical infections and recover, are not only unusual, but also anomalous in that they are as yet unable to be explained by the paradigms of either psychology, or any other conventional medical science. How then may they to be explained?

At this point the reader might expect a discussion of parapsychology. This could involve me in the often tendentious and polemical debates between parapsychologists and psychologists, or parapsychologists and their debunkers. Anthropologists, however, seek explanations for unusual phenomena such as the surgeries presented at the social and/or cultural levels rather than that of the individual.

Within anthropology two explanatory options are available. One is labeled "emic" and the other "etic." The former recognizes that peoples from other cultures who behave in ways that are unusual to us, as outsiders, often have their own ways to explain their behavior. The second refers to the western conviction that science should be able to provide "objective" explanations for all phenomena.

THE EMIC APPROACH

KARDECIST-SPIRITISM'S EXPLANATION

Brazilian Kardecist-Spiritists conceive of a dual universe. At the time of creation they believe that God made not one but two worlds, the material one familiar to us and a second, inhabited by spirits, that is unknown to us. The spirits are the vital force in the dual universe who animate both planes of reality. They are assumed to be morally driven towards progress. In order to advance morally, they return to the material world periodically where they are exposed to what are thought of as lessons that if learned move them along their path towards perfection. Since they are attributed free will, individual spirits may choose not to master a lesson they have returned to the material world to learn. They then must return again, usually after a period in the spirit world, to repeat the same lesson once more. At any point in time, the vast number of spirits in both worlds are at different levels of advancement.

Spiritism as previously mentioned, is based on the premise that communication, leading at times to interaction, is possible between the living and the dead. Historically the communication was literal: messages were sent by means of rappings, on ouiji boards, by writing, etc., with answers returned in the same way. In Brazil, however, with its strong African-influenced tradition of spirit possession, spirits of the dead are believed to be able to return to the material world to interact with the living without reincarnating by taking possession of, or incorporating in the bodies of mediums.²² Special mediums, who receive spirits that in a previous lifetime were trained as and practiced healing as doctors, surgeons and/or other health care givers, are called healer-mediums.²³

When José Carlos Ribeiro, Edson Cavalcante de Queiroz, Antônio de Oliveira Rios, or any one of a number of other healer-mediums do surgeries, they, according to Spiritist belief, are not wielding the knife, scalpel, or saw. Each has a spirit guide who is operating using their body.²⁴ A deceased German—or a spirit who in his last incarnation was trained in medicine and practiced in Germany during the First World War—who identified himself as Dr. Adolph Fritz, for example, performed the surgeries attributed above to Edson Queiroz. An Italian—or spirit trained in medicine in Italy in the last century—named

Dr. Ricardo Stams, was operating with the saw using the body of Antônio. When José Carlos treated patients it was St. Ignatius of Loyola who was believed to be using his body.

It may be difficult for the reader to accept the reality of the descriptions of surgeries done with an electric saw, without antiseptics and anesthesia, and the patient surviving. Would even the most extreme cultural relativist accept the explanation that they were done by the spirits of deceased doctors and healers? But this is the emic explanation, that of the “natives,” Brazilian Kardecist-Spiritists. The natives in this case are unusual themselves in that they are not members of small-scale, marginal populations that anthropology traditionally has studied. They are neither “primitive” nor “pre-literate;” nor are they necessarily poor, illiterate or uneducated members of large scale, complex, modern national societies. Many of the Spiritists I have worked with are practicing medical doctors, lawyers, university professors, engineers, architects, pharmacists and other professionals who hold positions of prestige and importance in Brazilian society. Some are members of elite families who have traveled to and studied in North America and Europe. Many are well educated in western, rationalist knowledge. But they fully accept the Spiritist belief that the surgeries are done by spirits who use other-worldly technology while incorporating in a medium’s body. They believe in spirits and choose, as did the doctor above, to be operated on by healer-mediums using unsterilized instruments. Furthermore, they are convinced that their beliefs, and the practices it informs, are more advanced than biomedicine and the sciences on which it rests. Spiritism, they contend, is based on the science of the future, a science we in North America and Europe have not as yet recognized. In brief, this is a situation in which rather than the often ethnocentric western scholar looking down on the beliefs and practices of people whose way of life he or she studies, we have the “natives” looking down on us and our knowledge and telling us that they really know better than we do.

HISTORICAL BACKGROUND OF BRAZILIAN SPIRITISM

Modern Spiritism, or at least the revival of the belief in a world of the spirits and the possibility of communication with them by the living, had its origins in the fourth decade of the nineteenth century in Hydesville, New York when

the Fox sisters, two young girls were reported to have communicated with the spirit of a murdered man who was buried in the basement of their parent's home.^{25,26} Attempts to contact the dead spread rapidly across North America, and then to Europe with séances held in Great Britain and on the continent. In France, the beliefs and developing practices were codified by Kardec who published the answers to the 1,008 questions he asked “enlightened” spirits—through two young mediums—in volumes entitled *The Spirits' Book* and *The Mediums' Book*.^{4,5} Copies of these books were brought to Brazil not long after their publication and by the late nineteenth century ouiji boards and table-turning were common diversions for the upper classes. By the end of the century a Spiritist Federation was functioning and Spiritism was on its way to becoming a popular religious alternative to Roman Catholicism and Afro-Brazilian practices.²⁷

The movement's codifier was a well educated graduate of the Pestalozzi Institute at Yverdon who became a teacher, scholar and an author, mostly of scientific textbooks.²⁸ Perhaps more important than this is the fact that Kardec was an active member and president of the Mesmer Society of Paris where he devoted considerable time and energy pursuing the issues Mesmer had initiated.

In the late eighteenth century Franz Anton Mesmer developed a theory he called “animal magnetism” as an alternative to the then accepted explanations of illness.²⁹ He applied the theory in the medical practice he established in Paris. Although many of the patients he treated are reported to have believed themselves cured by him, and his practice was quite successful, Mesmer was severely criticized by his medical colleagues and eventually by an international scientific committee convened by the French government.³⁰⁻³² Mesmer's name has come to be associated with the state, called hypnosis by his disciple the Marquis de Puységur, into which he is reported to have placed his patients while treating them.

The importance of Kardec's interest in Mesmer for this paper is twofold: 1) he incorporated into Spiritist thinking aspects of Mesmer's philosophy; and 2) what was to become healing by spirits in Brazil is derived from a theory that was a part of the history of scientific medicine that was rejected by the mainstream.³³ The phenomena for which an explanation is being sought in this paper, although not known in their specifics in the nineteenth century, were familiar

in other forms to western science and medicine in their formative period. Claims of the existence of another world and the "evidence" for communication and interaction with those in it, however, were rejected out of hand. The position taken not only by medical science, but also by the new science of psychology, was to debunk all claims to such communication and interaction with the other world as fraud. In response to the often outright dismissal by science of this extremely unusual, or paranormal phenomena, psychic research, the forerunner to parapsychology emerged to fill the void.^{25,34}

THE SEARCH FOR AN ETIC MODEL OF EXPLANATION

CONTRIBUTIONS FROM ANTHROPOLOGY

Anthropologists and students of comparative religion often have encountered unusual events in their investigations into the supernatural. With few exceptions, however, they too have not taken seriously even the possibility that supernatural entities might effect life in the "real world." Instead, following the lead of early writers such as E. B. Tylor and J. G. Frazier, they sided with the debunkers. All claims to healing and/or other interventions in the material world by spirits or other supernaturals, without even considering the evidence, were to be dismissed outright as mere superstition; and superstitions, like the belief in the efficacy of spirits, would in time, be "banished by the magic wand of science from hearth and home, from ruined cell and ivied tower, from haunted glade and lonely mere . . ." ³⁵

In *The Golden Bough*, for example, Sir James G. Frazier referred to all such phenomena as magic. And, he added, "it must always be remembered that every single profession and claim put forward by the magician as such is false; . . ." The social position of magician, which he observes "draws to its ranks some of the ablest and most ambitious men of the tribe," is filled with deceivers who, he baldly states, "dupe their weaker brother and . . . play on his superstition for their own advantage."³⁶

With respect to healing, E. B. Tylor adds: "Where the world-wide doctrine of disease-demons has held sway, men's minds, full of spells and ceremonies, have scarce had room for thought of drugs and regimen."³⁷

W. Bogoras, in his often quoted description of the shamanic healing of the nomadic, reindeer-herding Chuckchee, according to Lessa and Vogt, tells us, of “the consummate artistry of the shaman without becoming so enamored of [his] skill as to be unable to view his performance objectively.” The Chuckchee shaman “employs superb verbal skills—ventriloquism, singing, beating the omnipresent drum, sleight of hand—to capture his audience in a semi-trance state . . . They [his audience] do not suspect him of fraud or wither him with ruthless logic, for if he is a fraud then so are they, and if he is open to logical criticism then so are they, since they both share the same logical premises . . . When the shaman transports himself to the spirit world to divine or cure, the audience does not look for tricks; they anxiously and respectfully await answers.”³⁸ But the anthropologist, according to Bogoras—and Lessa and Vogt—should. S/he, like the nineteenth century psychologist and medical scientist, should debunk him.

In his discussion of the Chuckchee, Bogoras uses the word *séance* to describe the shaman’s ritual performance.³⁹ This is the same word European and North American Spiritualists and Spiritists used for their ritual encounters with the spirit world. Anthropologists, like their colleagues in medicine and psychology, also refused to acknowledge as much as the possibility that supernatural forces could account for the unusual healings and other phenomena reported to them by their informants. As had happened both in psychology and medicine, anthropologists concluded *a priori* that it all had to be fraud, trickery, flim-flam, in which the naive and gullible were duped.

It was not until the 1960’s, with Claude Lévi-Strauss’ analysis of a song used by a Cuna Indian shaman to facilitate a difficult childbirth, that anthropology finally acknowledged the possibility that ritual healing might actually work.^{40,41} The shaman Lévi-Strauss discusses went into trance to enlist the powers of supernatural beings in the aid of a patient. No one touched her, nor were any of her organs manipulated physically. Yet the ritual was successful in that she was cured, that is, after the treatment was able to deliver a healthy infant. In his explanation of the healing Lévi-Strauss draws a parallel between shamanic curing and psychoanalysis; he maintains that both attempt to cure by creating a myth which the patient then must relive.⁴²

After acknowledging that symbolic, ritual healing might actually work, others, primarily in the then new and expanding sub-field of medical anthropology, proceeded to study what has come to be called traditional or alternative—to western, or biomedical—systems of healing.

In a study of patients treated by shamans in Taiwan, Arthur Kleinman, a medically trained anthropologist, reported that most patients considered themselves to be cured.^{43,44} Similar results were presented by Kaja Finkler in her study of Mexican Spiritualist healers.^{45,46} In both studies, however, the authors separated patients who had physical illnesses, for which they were treated by doctors, from those with other maladies they took to the shaman or spiritual healer. It appears from the work by Kleinman *et. al.* and Finkler, and others to follow their lead, that although the traditional healers, who invoke supernatural intervention, might actually be able to cure, they could not be expected to be effective with what Kleinman termed disease, that is, “malfunctioning biological and psychological processes.” Their success, it was assumed, was with what he termed illness, “the secondary psychosocial and cultural responses to disease.”^{43,47}

Although anthropology as a discipline in theory may have accepted the possibility that healers who rely on supernatural intervention may be able to cure, the consensus seems to be that they can be successful only with psychosocial and culture-bound illnesses, and not with physical diseases—which should be left to biomedicine. Based on this belief, and other theoretical developments in the field, anthropologists studying religion and healing presently describe and analyze rituals and examine the symbolic meaning systems of religious beliefs and practices that often include healing. As interesting and important as this new trend may be, it contributes little to explaining the phenomena of surgeries without antisepsis and anesthesia done by healer-mediums who, with the aid of spirit guides, are claimed to cure the physical illnesses of patients in Brazil.

HYPNOSIS, ALTERED STATES OF CONSCIOUSNESS, AND DEVELOPMENTS IN ALTERNATIVE MEDICINE

The beginnings of what may be a scientific explanation for the phenomena reported here, I believe, are to be found at the frontiers of medical science, in

what is called alternative medicine, along with insights from such rapidly developing fields within medicine such as endocrinology, neurology, immunology and psychoneuroimmunology. An excellent summary of the relevant research, in which the author provides a theoretical model for its integration, is Ernest L. Rossi's, *The Psychobiology of Mind-Body Healing*.⁴⁸ After reviewing an extensive number of studies in a variety of fields, Rossi, a psychologist who uses hypnosis in his clinical practice,⁴⁹ applies what has been learned from it to propose an alternative to the Cartesian mind-body opposition that has dominated western medical thinking and its therapeutic practices. Following Black,⁵⁰ who first suggested "how hypnosis could modulate psychophysiological mechanisms of the immune system,"^{48,p.23} he cites Bowers:^{51,p.231} to argue for using information theory as a metaphor for rethinking the relationship between mind and body.

The entire human body can be viewed as an interlocking network of informational systems—genetic, immunological, hormonal, and so on. These systems each have their own codes, and transmission of information between systems require some sort of transducer that allows the code of one system, genetic, say, to be translated into the code of another system—for example, immunological.

Now, the mind, with its capacity for symbolizing in linguistic and extra-linguistic forms, can also be regarded as a means for coding, processing and transmitting information both intra- and inter-personality. If information processing and transmission is common to both psyche and soma, the mind-body problem might be reformulated as follows: How is information, received and processed at the semantic level, transduced into information that can be received and processed at the somatic level, and vice versa?^{48,pp.23-24}

Rossi then reviews the evidence for, and outlines how many of the major pathways of brain activity involved with memory, learning, and behavior, support the view that the limbic-hypothalamic system is the major mind-body transducer. He introduces the concept of state-dependent memory and learning: "What is learned and remembered is dependent on one's psychophysiological state at the time of the experience."^{48,p.36} Rossi then explores the evidence supporting the transduction and flow of information between the

psyche and the autonomic nervous system, the endocrine system, the immune system, and the neuropeptide system, and their respective transduction of information to and from each other. The result is a model of mind-body interaction and interdependence in which information theory provides the basic imagery that opens the way both to a new form of understanding and to a range of possible alternative therapies.

Hypnosis and hypnotherapy had their roots in western science and medicine, as previously noted, in the therapeutic practices of Mesmer. In the nineteenth century, it was used with considerable success in surgery before the introduction of chemical anesthesia.^{52,53} Today it is being used again with reported success.

A large and growing number of studies show that hypnosis can be used to alter the flow and supply of blood going to specific parts of the body, thereby influencing the course of some conditions, their treatment, and cure.^{54,55} Hypnotized individuals also show a drop in the so-called stressors, such as adrenaline, noradrenaline, and cortisol, while the body's own pain killers, the beta endorphins, are released.^{56,p.39} Furthermore, there is evidence indicating that hypnosis also can be used to stimulate the body's immune system, enabling it to fight off infections that are the cause of many clinical conditions.⁵⁷

If patients operated on in this study are hypnotized, perhaps their experiencing so little pain is to be explained by suggestions by the healer-mediums that their beta endorphins be released. Likewise changes in the flow of blood to specific parts of the body, following suggestion, may explain the absence of excessive bleeding. And suggestions that stimulate the immune system may account for the paucity of infections and other post surgical complications in unsterile conditions.

I was told many years ago by an anesthesiologist to whom I showed videotapes of Edson Queiroz' work that those patients were hypnotized. This was reaffirmed by several stage magicians I consulted to see if they could detect any slight of hand or fraud.⁵⁸ I was able to confirm it myself after I completed an introductory training program in hypnosis. But something was still missing.

Hypnosis, according to Kirsch, Lynn and Rhue in their introduction to the *Handbook of Clinical Hypnosis* published by the American Psychological Association,⁵⁹

. . . is a situation or set of procedures in which a person designated as the hypnotist suggests that another person designated as the patient, client, or subject experience various changes in sensation, perception, cognition, or control over motor behavior (cf. Kihlstrom, 1985). It is useful to think of these suggestions as being divided in two phases—induction and application—although in practice they may be entirely distinct. Some responsive subjects report that hypnotic inductions produce an altered state that is much different from the normal waking consciousness, but most describe it as a normal state of focused attention (McConkey, 1986). Most people are more responsive to suggestion after an induction than they were before (Hilgard, 1965).

In their paper in the same volume on “An Eriksonian Model of Hypnotherapy,” Matthews, Lankton and Lankton add that,⁶⁰

A view held by much of the scientific community regarding hypnosis is that it is a particular state of consciousness (Bowers, 1966; Gill & Brenman, 1959; Hilgard, 1966; Orne, 1959) that can be experienced only by those with the personality trait of “hypnotizability” (Hilgard 1965, 1975; Hilgard, Weitzenhoffer, Landes, & Moore, 1961). Hypnotizability as a trait has often been measured by classical scales of hypnotizability (Shor & Orne, 1962; Weitzenhoffer & Hilgard, 1959, 1962). The trance state is assumed to exist because of the behaviors manifested by hypnotized people. Because these behaviors do not usually occur in the normal waking state, it is assumed to exist because of the behaviors manifested by hypnotized people. Because these behaviors do not usually occur in the normal waking state, it is assumed that inducing hypnotizable people puts them in this special state of mental functioning. This model is an approach common to most psychological research (*i.e.*, the influence of the independent variable [hypnotic induction] on the dependent variable [hypnotic behaviors; Araoz, 1982]).

Eriksonian approaches to hypnosis emphasize the intervening variables of the inner processes of the individual. . . The essence of the Eriksonian approach is creating the context that will allow hypnosis to occur.

Hypnosis then is related to two interdependent features: 1) a state of heightened suggestibility; and 2) the procedure for its induction. Hypnotic suggestibility refers to both a trait or capacity and the state in which the individual accepts as true, with varying degrees of intensity or receptivity, information, presented in a particular way under particular conditions. An individual's becoming hypnotized is said to depend on the establishment of a special relationship between the hypnotist and a subject or client called "hypnotic rapport." Two other traits or conditions also are said to be critical: 1) the fantasy-proneness of the subject—his or her capacity to imagine and to believe what is imagined; and 2) the ability to focus one's total attention (absorption).

To be able to enter into an hypnotic state in which healing can occur (*i.e.*, in which the flow of blood may be controlled, the immune system activated, etc.) an induction procedure, or someone to help create "the context that will allow hypnosis to occur,"⁶⁰ or training in self hypnosis generally is believed to be necessary.⁶¹ If what we know about hypnotism and hypnotic suggestion can contribute to explaining the phenomena of the unusual surgeries, how do we get around the apparent absence of an induction procedure (or its equivalent)?

ALTERED STATES OF CONSCIOUSNESS, HUMAN CULTURE, AND ALTERNATIVE REALITIES

When one enters a trance state spontaneously in the western world, as Goodman reminds us, he or she usually is singled out, specifically by psychiatry, as being "abnormal and hence crazy."^{56,p.36} To counter this widely held, popular and often scientific belief that people in altered states of consciousness, the larger category of which hypnosis is one form, are crazy, Goodman reviews the work of Erika Bourguignon and her students who found that in a sample of 488 small-scale societies, 92 percent showed evidence of religious trance behavior. "Unless one wanted to maintain that the overwhelming majority of humanity was insane, . . . the conclusion was inescapable," according to Goodman, "that religious trance was a perfectly normal human experience."

Goodman then adds a qualifier that moves the study of hypnosis and trance states from the individualistic level of psychology and western experience to the

societal and cross-cultural level of analysis when she adds: “*Institutionalized* religious trances are normal. That is, when and if the trance represents controlled behavior, when it is a *ritualized action*, capable of being called forth and terminated on a given cue or signal, *then* it is a perfectly normal phenomenon”^{56,p.36}

Hypnosis then is a form of trance or altered state of consciousness which may be a normal human experience that can be induced in the performance of religious rituals. Individuals in many cultures learn to enter these trance states during religious practices that take them into alternative realities which often are filled with forces and beings believed to have causal efficacy with respect to their lives, to what makes them ill and to how they may be cured.

Religious rituals, however, as Lévi-Strauss,^{40,41,62} Victor Turner^{63,64} and others have emphasized, are a form of communication, perhaps, as Goodman adds, “the most exalted form of human communication,”^{56,p.33} In the course of their unfolding, information about the other reality, with its powerful forces and beings, is conveyed to the participants. This communication “of the sacra,” as Victor Turner stated in his discussion of ritual initiation in “Betwixt and Between: The Liminal Period in Rites de Passage,” “both teaches the neophytes how to think with some degree of abstraction about their cultural milieu (and the forces in it) and gives them ultimate standards of reference. At the same time, it is believed to change their nature, transform them from one kind of human being into another.”⁶⁵

Symbolic representations, as Aijmer reminds us in a discussion of symbolically mediated interaction, do not always require language for their expression.

. . . people in interaction also draw on their repository of images when they construct social life. The force of imagery is something which is not easily retrievable in terms of language. The evasiveness of the iconic texture does not allow introspective insight—informants cannot readily explain verbally the construction and use of images in a society Images make themselves known through cultural institutions, not by way of reflexive thought.

. . . imagery, especially in the form of stable icons, frames and supports the social discourse. The force it transmits, being differ-

ently construed than the sentences of language, gives a particular dignity—the voice of human morality—to its messages, which are clearly intuited and yet not reflexively understood. The flow of symbolism that is the imagery of a society is, of course, also something which is reviewed by the social actor, but his intrinsic knowledge about this sort of symbolic phenomenon has no real cognitive foundation (in the more standardized use of this term) . . . it is different, not being stored in terms of concepts and distinctive features or organized with the help of syntactic and semantic rules. It seems to operate mentally more like visual pictures than formulations in words, and its semanticity hinges on the simultaneous presence of elements that are in themselves images . . . If an actor constructs a great part of his scenarios as a resultant of his social review, he also calls on his social cognizance (for want of a better term) of cultural imagery, thereby drawing into his acts implications of morality, righteousness, correctness, order, and ultimately the force of blessing.⁶⁶

Ajimer is referring to reflections of which the actor is conscious. What if the actor is in an altered states of consciousness? In their review of the literature on trance behavior Peters and Price-Williams refer to this as dissociation.⁶⁷

Bowers (1976:152) defines dissociation as the ability to “register (and sometimes respond to) information that is not consciously perceived.” Highly hypnotizable subjects have a superior capacity for this experience, as do subjects administered suggestions during sleep or while anesthetized. It is maintained that information learned in these states can have a dramatic impact on the person’s mental functioning despite its unavailability to ordinary consciousness. This registration without perception” (sic.) is believed to be a fundamentally important aspect of “trance logic.”^{67,p.20}

With respect to healing, it may be that when an individual enters an altered state of consciousness in response to cues emitted during a religious ritual, thereby entering the culture’s alternative reality, the understandings embedded in its sacred knowledge, which often is in the form of images that include what has causal efficacy with respect to illness and its cure, are communicated, as information, that is then transduced from the culture through the mind or psyche of the individual to the autonomic nervous system, the endocrine system, the immune system, etc. It may be that many of the physiological

changes reported in the scientific literature that have focused on hypnosis take effect, bringing about so many of the unusual healings (and other phenomena) similar to the ones that are the subject of this paper.

AN EXPANSION OF ROSSI'S MODEL

By recognizing that communication of the symbolic content of a culture's alternative reality occurs during religious rituals, we may have the piece needed to raise Rossi's model for resolving the mind-body opposition from the level of individual psychology and western therapy to that of cross-cultural universality he seeks. During religious rituals information from the powerful symbols of a culture's alternative reality may be transduced to the minds and then to the various physiological systems of the individual participants.⁶⁸ Only in the western world, where healing is conducted "as if" human beings were independent and autonomous—and not parts of socio-cultural systems—and altered states of consciousness and alternative realities are not ordinarily acknowledged, might there be a need for a specific person, using special techniques, to initiate culture-mind-body transduction and information flow. In most cultures, especially those familiar to anthropology, it happens during religious and other rituals. The symbolic information, analogous to the suggestions made by therapists in the western world who use hypnosis, may be transduced to the minds of individuals from the sacred beliefs of their culture's alternative reality. Then, as Rossi proposes, it may in turn be transduced to the autonomic nervous system, the endocrine system, the immune system, the neuropeptide system and back again.

What I am suggesting is that the surgeries performed without antiseptics and anesthesia by Brazilian Spiritist healer-mediums, during which the patients experience little pain, do not develop infections or other complications, and recover rapidly, may be explained by Rossi's information model of mind-body interaction as expanded by the addition of beliefs and understandings from the alternative reality of an individual's culture communicated to him or her as information (often expressed in images) when s/he participates in a religious ritual and enters a controlled altered state of consciousness.

ALTERED STATES OF CONSCIOUSNESS IN BRAZIL

With respect to Brazil, first a comment on fantasy-proneness which is known to be so important in the ability of the individual to follow suggestions made when in an altered state of consciousness. Brazilian culture, in contrast with our own, teaches, reinforces, and rewards fantasy. Children (and adults) who claim to see the Virgin Mary, St. Francis, other Saints, or some other being such as *Xangô*, *Iemanjá*, *a preto velho* (the spirit of a wise and helpful deceased former slave) or a *caboclo* (the spirit of an Indian) not only are not punished or taken to a therapist—as they would be in North America or Western Europe—but are rewarded and held up for praise. Those who claim to “receive” a spirit, whether a doctor from the past like Adolph Fritz or Ricardo Stams, or a deity from Africa such as Iemanjá, Oxalá, etc. (in Candomblé, Xangô or Batuque), or the spirit of a former slave or an Indian (in Umbanda), not only are believed, but their help is sought by others who treat them deferentially and with respect. Participants in the Spiritist tradition, or in one of the several Afro-Brazilian religions, learn to go into trance and to believe that they, or others around them, are possessed. Since most Brazilians, from all geographical regions, classes and segments of the population are exposed to and participate to some degree in these alternately religious (and healing) traditions, we may hypothesize that large numbers of Brazilians, like good hypnotic subjects, are able to imagine and believe what they imagine.⁶⁹

Brazilian culture also patterns social relationships in ways that parallel those between hypnotist and client. Social relationships of patronage and clientage have long characterized the society.⁷⁰⁻⁷⁵ Many of the new urban religious leaders function as patrons to their client-followers.^{8,76-78} They fill a social and economic void, providing needed services, as the society has urbanized and modernized. The spirits—and/or deities—they receive have come to be viewed as supernatural patrons who validate and reinforce the social acceptance of the mediums who receive them. The often desperate urban clients accept the help of the new patrons. They place their trust in the religious leaders and in return for the help they receive are willing to do almost anything asked of them. The patron-client relationship in Brazil shares many of the features of that between successful hypnotist and client.

Although no formal induction procedures are used by religious leaders and healers, their client-dependents, many of whom have been socialized to

recognize and acknowledge altered states of consciousness, and to enter them, often go effortlessly into trance when they are in the presence of a healer-medium. When entering trance they embrace the alternative reality of the healer's religious tradition. Spiritism, although many of its intellectuals (following Kardec) resist calling it by that name, is a religion, one of the many Brazilian alternatives to hegemonic Roman Catholicism. Spiritism has its rituals that are performed at the beginning of all sessions at which healing (including surgery) is done.¹⁴

Healer-mediums participate in one set of rituals when they enter into trance and receive their spirit guides. The patients, meanwhile engage in other rituals during which the spirit world and the power its beings have in influencing the lives of the living are presented vividly and in great detail. The interrelationship between the spirit world and the material one is emphasized to the point at which it is difficult for those present, especially nervous and often desperate patients, not to internalize the words and images that hold out the hope that they too will be the recipient of the helpful charity of goodly spirits such as Dr. Fritz or Dr. Ricardo. Patients, when they enter an altered state of consciousness during the ritual, often absorb and transduce information about what "causes" and/or "cures" sicknesses that in turn is communicated to their autonomic nervous system, their endocrine system, immune system, etc. in ways they could not do in an ordinary state of consciousness. They may be able, as are hypnotized subjects in the laboratory or clinic, to (on suggestion) control pain, alter the flow of their blood—to slow down bleeding or speed it up to heal wounds—access state dependent memories, and make physical changes, as Rossi proposes, that result in their being able to modify (heal) a variety of symptomatic conditions.

AN EXPERIMENT TO TEST THE MODEL

A field experiment conducted in collaboration with Dr. Norman S. Don, a neuropsychologist, Dr. Enrique Beckmann, and immunologist, Gilda Moura and Eleanor S. Greenfield, based on an earlier study by Don and Moura,⁷⁹ may be viewed as an attempt to test the model.

In their pilot study Don and Moura found changes in blood levels of cytokines, messengers that carry signals involved in immune and inflammatory responses.

Mann-Whitney U tests revealed that there was a tendency towards an increase in IL 8, post *vs.* pre-treatment, for the patients ($p = .108$), which was absent for the controls. Only one of the 10 patients had been cut; the rest had been treated non-invasively. This suggested the activation of immune-enhancing mechanisms not related to cutting.

On separate occasions in 1992, Don and Moura collected blood serum samples from 50 patients treated by two different healer-mediums in Rio de Janeiro and Salvador and from 50 controls. In 1993 Eleanor Greenfield and I collected samples in Campo Grande from 50 patients treated by a third healer-medium and 50 controls. We then tested for increases in two components of the cytokine system, Interlukins (IL) 6 and 8, and for changes in concentration of tumor necrosis factor alpha (TNF-alpha).⁸⁰

Of the 200 blood serum samples taken, only 44 of the patient samples and 23 of the controls were suitable for analysis in the spring of 1995 when the chemical determinations were performed.⁸¹ Twenty-seven percent of the patients did show statistically significant increases in both IL 6 and IL 8, and 10 percent showed statistically significant increases in TNF-alpha. However, 10 percent of the samples also showed statistically significant decreases in IL 6 and 20 percent showed decreases in IL 8. Furthermore, 48 percent, almost half of the sample, showed statistically significant decreases in TNF-alpha. Although we found statistically significant changes, not only did they go in both directions, up and down, none were exceptionally large, *i.e.*, above 50 percent. More significantly, the results from the controls showed a pattern similar to that of the patients.

These mixed results may be due to the fact that even though the samples were stored in the laboratory at -70° Celsius, at which temperature biological activity is arrested, the activity of many of the samples appeared to have been compromised both by the field conditions under which they were collected and other logistical factors.

Another important consideration in evaluating the outcome is that the experiment was based on the assumption that the healer-mediums would be doing surgeries like the ones described above. Unfortunately, between the time the experiment was designed and the data collected, Edson Queiroz was murdered and Antônio de Oliveira Rios killed by the poison from a swarm of bees. The

healer-mediums from whose patients the blood serum samples were taken in 1992 and 1993⁸² did not do the kind of surgeries described above. They at most inserted needles into patients and only occasionally made small incisions with scissors. A further complication was that since it is never possible to know in advance which patients will be operated on, we had no way of knowing if those sampled actually had been cut.

What we had not appreciated when the data was collected, since we had not explored the role of religious ritual in inducing altered states of consciousness and entry into alternative realities, was that the controls had participated in the same religious rituals as the patients, rituals that took place not in the inner room where the healer-medium went into trance and healed, but in an outer room. Having participated in the same ritual as the patients, it should not be surprising that the controls showed changes similar to those of the patients. Should we or others attempt to replicate the study, controls should be selected who do not participate in the Spiritist religious rituals. Furthermore, since this type of study cannot be conducted in a laboratory or hospital, even in Brazil, a more organized and better funded effort will be needed to deal with the conditions under which the phenomena occurs. At present we can only say that the data tends to support the hypothesis.

CONCLUSION

In conclusion then, the phenomena examined (the surgeries without antisepsis and anesthesia in which patients bleed but minimally, experience little pain, do not develop post surgical complications and recover), while undoubtedly unusual or paranormal, are no longer anomalous. By adding findings and insights from comparative anthropological studies of religious ritual, altered states of consciousness and alternative realities to a psychological psychophysiological model based on studies of the use of hypnosis applied in immunology and other fields at the frontiers of medical science that reframes the mind-body problem, we have been able to take a direction different from parapsychology. The model presented is a hypothesis combining cultural, psychological and physiological factors in the tradition of science that can be tested (*i.e.*, falsified), revised or discarded. By recognizing the role played by religious ritual in inducing altered states of consciousness, and of the often neglected informa-

tion content contained in the words and images of alternative realities that may be transduced via the minds or psyches of their individual members and communicated so as to activate physiological systems, we may not only be able to explain the unusual surgeries by Spiritist healer-mediums—and other treatments invoking the supernatural—but, more importantly, we also may have a new way of looking at and understanding the illness/healing process. With the role of culture, and its at times nonverbalized alternative realities to which individuals are exposed, not necessarily consciously but by participating in religious rituals, added to and integrated with Rossi's framework, we may finally have, to use his words, "the common denominator between traditional Western medicine and the holistic, shamanistic, and spiritistic approaches to healing that depend on highly specialized cultural belief systems, world views, and frames of reference."⁴⁸,p.55

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CORRESPONDENCE: Sidney M. Greenfield • University of Wisconsin • Department of Anthropology • Bolton Hall, P.O. Box 413 • Milwaukee, WI 53210.

REFERENCES AND FOOTNOTES

1. A revised version of a paper presented under the title "Popular Religion and the Paranormal: A Model for Explaining Spiritist Surgeries and Other Unusual, Religious Based Healings" at the Meetings of the Netherlands Association for Social and Cultural Sciences, Leiden, The Netherlands, April 21, 1995.
2. The phenomena presented are sufficiently unusual that they have been considered by some to be "paranormal"—from the Greek meaning *most* unusual. As paranormal they are assumed to be anomalous: unable to be explained by science, or at least science as we know it.
 Calling unusual phenomena paranormal, as Bonewits observes, is a sneaky way to get around calling it "supernatural" (Isaac Bonewits, *Real Magic*. [Samuel Weisner, Inc., York Beach, Maine, 1993], p. 34). [Original 1971] Psychology, and especially experimental psychology never has had much interest in the supernatural, which, in the scientific division of labor is the domain of anthropology and comparative religion. Students in these fields, however, refer to unusual phenomena as exotic, another kind of unusualness—which is of little interest to parapsychologists as it is to psychologists—rather than paranormal.
3. The term "popular" is used by Brazilian scholars to differentiate a variety of religious beliefs and ritual practices from those of hegemonic Roman Catholicism. Included are pilgrimages and other practices that focus on the cult of the saints, along with the many African derived and mostly syncretized religions that go by names such as Candomblé, Xangô, Batuque, Tambor de Minas, and Umbanda. During rituals that follow the African tradition of spirit possession, mediums, after at times vigorous singing and dancing, enter into trance and incorporate some mixed combination of Catholic saints and African orixás, or at times

other supernatural beings. While possessed, they interact with both fellow practitioners and visiting non-participants, offering them help from the spirit world with material and/or spiritual problems.

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10. Sidney M. Greenfield, Hypnosis and Trance Induction in the Surgeries of Brazilian Spirit Healer-Mediums, *The Anthropology of Consciousness* 2,3-4 (1991), pp. 20-25.
11. Sidney M. Greenfield, *Spirits, Medicine, and Charity: A Brazilian Woman's Cure for Cancer*, A Video Documentary Produced at the Media Resource Department of the University of Wisconsin-Milwaukee (1995). 39.36 Min.
12. Sidney M. Greenfield, The Patients of Dr. Fritz: Assessments of Treatment by a Brazilian Spiritist Healer. To appear in *Social Science and Medicine*.
13. I use the past tense because Edson, as he was known to his patients and supporters, was killed in October of 1993.
14. The reader may see this and other surgeries by Edson in *The Return of Dr. Fritz: Healing by the Spirits in Brazil*, A video documentary produced by Sidney M. Greenfield and John B. Gray at the Educational Communications Department of the University of Wisconsin-Milwaukee (1988). 63 Min.
15. Edson did not wear gloves when performing surgeries nor he did he wash his hands until after attending the last patient he would see on a given night. To the best of my knowledge, however, no cases of infection, or other post-surgical complications were reported by any of his patients.
16. In another patient, who had complained earlier of a problem with her adenoids, Edson thrust needles into her throat. As the young woman sat motionlessly and did not utter a sound, the healer jammed eight needles, one at a time, into her throat only to pull them out with equal force a few seconds later. When I asked the startled patient if she had felt any pain, she at first did not answer. The healer meanwhile kidded me, saying that she did not understand my Portuguese. When she realized what was happening, she apologized explaining that she could not hear in her right ear. Immediately the healer thrust two additional needles into the ear. When he removed them the shocked woman claimed that she could now hear the questions I was asking.
17. All healing is done by Spiritists as charity. See reference 8; (P. McGregor, *Jesus of the Spirits*. [Stein and Day, New York, NY, 1967]); (Park Renshaw, *A Sociological Analysis of Spiritism in Brazil*, Unpublished Doctoral Dissertation, University of Florida, 1969); (David St. Clair, *Drum and Caudle* [Doubleday, Garden City, NY, 1971]).

18. In similar surgeries he had others run their finger across the bottom of their shoe and then rub it into the open wound.
19. Antônio also was killed (in 1990) after being attacked by bees while fishing.
20. In contrast with José Carlos, Edson, and the other Spiritist healers I have observed, Antônio said that he did not actually operate on the patients. He claimed only to cut them open. Any therapeutic procedure that benefited them was performed by one of the spirits who worked with him. His wife, or an assistant then sutured the patient while Antônio rushed off cutting open other sick people. Patients were placed on surgical tables in the several small rooms of the center. Additional patients were placed on gurneys and rolled out under an extension of the roof on the concrete sidewalk that faced onto the dirt road that ran through the town. On an average Sunday and Monday, the days on which Antônio operated, there were usually several hundred people standing in the road waiting to be treated or to observe the surgeries.
21. I was unable to learn what was in the syringe.
22. Mediumship is believed to be a gift that selected individuals have that enables them both to communicate with spirits and/or to receive them, that is turn their bodies over so that independently of them a spirit may interact with others presently incarnate.
23. These spirits are believed not to wish to (or need to) reincarnate at present. They simply desire to perform the highly valued charitable act of helping the sick. They incorporate in a healer-medium with whom they develop what is usually a long term relationship and, through them, perform surgeries and other treatments on patients. Spiritist healer-mediums in Brazil perform a number of healing modalities ranging from the administering of passes, in which healing energy is transmitted to the patient from the spirit world, to the writing of prescriptions for either allopathic or homeopathic remedies, to doing dispossessions in which low level spirits that are believed to be the cause of most mental illnesses are exorcised. Only a small number perform surgeries.
24. Spirit doctors, like their modern counterparts, do not do surgery alone. They are part of a team in which each member contributes his or her specialized knowledge and training. Each is said to take over the body of the medium when his or her specialty is called for. Anesthesia then is provided by a spirit that is an anesthesiologist. Antisepsis is taken care of by another member of the team. Needless to say, we mortals, that is incarnate beings, are unable to see or experience the other-worldly technology used by these highly trained spirit specialists.
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81. In the part of the sample Eleanor S. Greenfield and I collected, we arranged with the director of a local laboratory and his staff to have blood taken from each of the patients who volunteered on two different Wednesdays, once before they went into the inner room for treatment and again after being attended by the healer-medium and returning to the hall. Blood samples were taken from the controls early in the evening, before the healer-medium began treating patients, but after at least an hour or so of participation in Spiritist rituals, and then a second time when the second sample was taken from the patients.
82. Mauricio Magalhães—whose spirit guide also is Dr. Fritz—and Venacio Almera de Sampaio—whose spirit guide is Dr. Arikson.

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