RITUAL AND HEALING: EXPLORATIONS OF THE PLACEBO PHENOMENON AND PERUVIAN *CURANDERISMO* IN IQUITOS, PERU

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Ritual and Healing: Explorations of the Placebo Phenomenon and Peruvian

Curanderismo in Iquitos, Peru

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New College of Florida, 2014

Abstract

Placebo effects can be used to explain the effectiveness of ritual healing. The evidence

supporting the effectiveness of rituals and positive affective responses are due to

neurobiological studies on placebo effects that point to the activation of the descending

opioid and dopaminergic neural systems. Using Kaptchuk's (2011) proposal of a ritual

approach to understand the placebo phenomenon, I argue that placebo ritual theory can

help explain how language, culture and metaphor affect physiological processes.

Research for this thesis took place in Iquitos, Peru—the largest city in the

Peruvian Amazon. Qualitative research was performed using semi-structured interviews

and participant-observations. Healers and practitioners of the traditional healing system

of *curanderismo* were interviewed to gain an understanding of the elements of healing

(e.g. etiology of sickness, treatments, ritual ceremonies) present in this system. With this

information, a discursive bridge was developed to link placebo neurobiological studies

with the elements present in Peruvian *curanderismo*.

Dr. Gordon B. Bauer

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Introduction

Notions of healing are central to any system of medicine (Kirmayer, 2004). How healing occurs, is conceptualized, and practiced is informed by the beliefs of the cultural milieu. Beliefs about the body and illness causation, together with societal norms concerning when, why, and who to seek for medical help comprises one's "culture of medicine", or ethnomedicine (Quinlan, 2011). Existing in today's world is an array of healing systems that incorporate a variety of methods to treat illness and disease. Generally, healing systems exist within their situated cultural context, but in this day and age, medical plurality characterizes healthcare systems in most countries. For example, biomedical procedures are routinely practiced in most cities in South America.

With the rise of Western biomedical knowledge, inquiry as to how other forms of healing are effective has been explored. Is it the rituals in place that make a system of healing effective? Is it the therapeutic procedures used (e.g. plants, pills)? The emerging discipline of ethnomedicine has attempted to uncover just how elements of healing operate within different healing systems. Are these elements the products of the belief system of a group of people who share cultural worldviews? Ethnomedicine seeks out primarily an "emic" anthropological view (i.e., the perspective of a member of the culture being studied), to medicine and healing (Quinlan, 2011).

Alongside ethnomedicine, the discipline of psychoneuroimmunology (PNI) has contributed attention to the immunologic and endocrine effects of social and cultural constructs of healing. It is known that social context does modulate physiological and biological responses (Ader, 2007). PNI reveals that the immune system is affected by the interactions between psychological and physiological processes. Particularly the ways in

which thought, feeling, and behavior interact in disease processes (Winkelman, 2010; Lyon, 1993). The immune system represents an extension of the "self", insofar that it detects those entities that are "non-self", primarily through unconscious processes (Winkelman, 2010). Therefore, if interpersonal relations affect mental health, and cultures prescribe appropriate social interactions, then a population's culture affects its physiological well-being (Quinlan, 2011:390).

Rituals are characteristic of most systems of healing. Rituals are conscious, intentional, often repetitive bodily actions that attempt to impose meaning on one or another aspect of the world (Brody, 2010). Different types of rituals exist in systems of healing, namely the ritual of apprenticeship and the ritual of healing. Healing rituals explicitly transform a person's experience from one state of being to another and are performed with the specific intention to alter a person from a state of disharmony to one of harmony and health. These rituals are often performed with the guidance of an experienced healer. Healers, in the case of Western biomedicine, are physicians or clinicians; in Peruvian *curanderismo* and shamanism, it is the *curandero* or shaman who guide the rituals.

Different systems of healing feature their own unique healing rituals, which can be explicitly religious and moral: healing ceremonies, religion, morality, and art are fused into a single unity (Kaptchuk, 2011). Attempting to understand the efficacy of healing rituals has been an area of inquiry for decades. Many researchers (Kirmayer, 1988; 1993; 1998; 2004) (Kaptchuk, 2002; 2009; 2011) (Moerman, 1979; 2002) (Csordas, 1983; 1997; 1998) have touched on the effects that language, culture, and metaphor have on physiological processes. They attempt to explain the role of ritual in endogenous healing

mechanisms, especially the descending endogenous opioid and dopamine neural pathways. Healing rituals and other symbolic actions are known to have effects on physiology, experience, interpersonal interaction and social positions as defined by contextual roles (Kirmayer, 2004). The scope of this thesis is directed towards exploring and revealing how healing rituals and symbolic cultural interactions interact to alter physiological experiences.

Ayahuasca ceremonies and biomedical clinical encounters characterize two types of healing rituals that each belongs to a system of healing that exists for the given sociocultural context. *Curanderismo* is one system of healing that incorporates a series of rituals that work towards alleviating social and individual imbalances, ayahuasca ceremonies being one of many rituals.

In Western biomedicine, ritual healing often exists at the margin of therapeutic efficacy, where at best it has a subordinate role as the 'art' of medicine as opposed to the 'science' of medicine (Kaptchuk, 2011). However, Kaptchuk (2011) and Welch (2003) have contributed to an understanding of the ritual approach to biomedical clinical encounters. Their connection has led to an extension in both ritual theory and placebo discourse and bridges two distant forms of discourse. Although aesthetically and ideologically different, curanderismo and biomedicine share similar symbolic elements of healing that can be understood from a perspective of ritual theory and a theory of metaphor. Metaphor theory is grounded in abstract conceptualizations of the processes involving sensory-affective imagery and bodily action (Kirmayer, 2004).

In Shamanism: A Biopsychosocial Paradigm of Consciousness and

Healing, Winkelman (2010) traces the development of the biopsychosocial paradigm for

healing and consciousness. He writes about the affective physiological responses invoked by the symbolic representation of spirits within a ritualized healing setting. Winkelman (2010) explains that this symbolic action activates descending opioid endogenous processes and contributes to the likely therapeutic effect of a healing ritual. Current placebo research and theory point directly to the activation of this endogenous healing mechanism in healing contexts.

I propose that current thought in placebo discourse provides a bridge for integrating ethnographic research involving healing rituals with biomedical knowledge on the endogenous processes of human experience. In doing so, I will extend Winkelman's biopsychosocial paradigm. These claims allude to the necessity for further mixed-method research. Kaptchuk (2011) stated in one of his papers, "An important next step would be expanding mix-method research methodologies that somehow merge the biomedical need for the universal and the anthropological requirement for the particular" (p. 1856-7).

In this thesis, I will explore the current literature on placebo research and theory that lends perspective to the effects of ritual on the brain and body. Research concerning the many types of placebo effects makes it clear that symbolic stimuli and psychological attitudes and expectations can exert many effects on physiology, facilitating healing or aggravating disease (Kirmayer, 2004). My experience learning about biomedical procedures led me to question how and in what ways they work. In a similar vein, my childhood experiences with Peruvian traditional healing has led me to question how and why they work. These questions led to the development of this thesis in an attempt to understand how healing rituals in the Peruvian Amazon translate into therapeutic,

physiological responses through a biomedical lens. This paper will focus on the role belief systems play on healing rituals and how these healing rituals create the embodiment of healing.

By adopting a framework of ritual theory as proposed by Kaptchuk (2011) and situating it with the elements of healing I found in Peruvian curanderismo and shamanism, I will explain this healing system and bridge these elements of healing with current placebo ritual theory. I will construct this bridge between the ritual behaviors and elements of healing found in Peruvian curanderismo and the neurobiological responses associated with ritualized behaviors. Placebo research will be explained in the literature review portion of this thesis and then later in the discussion and conclusion of the analysis.

The ethnographic data collected for this research did not assess strict "placebo" principles, so extracting placebo-type generalizations from my research would be inappropriate. Instead, placebo discourse will be approached from a perspective of ritual theory, just as Peruvian shamanism and curanderismo will be in the analysis portion of this thesis. Ritual theory is the bridge that I will use to connect the two discourses, placebo ritual theory and Peruvian curanderismo, in an attempt to create a relationship between these two healing phenomena.

I: Literature Review

II. 1 Systems of Healing

Western biomedicine and *Curanderismo* in the Peruvian Amazon are two healing systems that are founded in specific cultural beliefs that render them appropriate methods to heal people who share the same worldviews. In this thesis, Peruvian *curanderismo* pertains to the traditional healing practices found in the region of the Amazon where I conducted fieldwork. There, healing involves the use of plants, rituals, and flower baths that are performed and directed by the *curandero* [healer]. Also present in this tradition of healing are shamanic practices.

In this context, shamanism refers to practices that involve a healers' voluntary entrance into altered states of consciousness with the intent to heal societal and/or individual afflictions. In literature, shamans are reported as experiencing themselves or their spirit(s) interacting with other spiritual entities, often by traveling to other realms (Walsh, 2007). This can be accomplished with use of sacred plants, or psychointegrators (Winkelman, 1995). Psychointegrators are sacred plants that are used to communicate and interpret societal afflictions through spiritual inspiration and mystical participation.

II. 1. A. Medical Thought

Western biomedicine is founded on ideologies originating from Cartesian thought and contributes to the understanding of the mind and body as two separate entities. This thought has resulted in the creation of fields that are tailored to treat specific ailments that the mind and body might face (e.g., psychology for issues of 'mind' and general medicine for somatic issues). An understanding of the human self as composed of two separate, yet related, functions pervades common language and thought in Western

culture. This dualistic approach of the mind-body relationship pervades in so far that holistic and psychosomatic medical approaches accommodate to conventional Western medicine paradigm rather than resulting in any reform of practice (Kirmayer, 1988).

In curanderismo, as understood within the descriptive limitations of Western thought, the human self comprises spiritual, corporal, and psychological components. This, however, is not necessarily the way that practitioners of curanderismo articulate the self. It is important to note that, according to the model of curanderismo, the physical, psychological, and spiritual are intertwined rather than being seen as separate realms (Fotiou, 2012). Sickness, therefore, is treated and understood as an imbalance of the whole human self, as opposed to a disharmony in any one component of the self.

Psychosomatic medicine in Western biomedicine best illustrates this idea of a holistic approach to understanding the human experience in the context of health and sickness. Helman (1988) uses Lipowski's (1968) account of psychosomatic disorders. In Lipowski's definition of a psychosomatic approach to medicine he describes it as, "to study, and to formulate explanatory hypotheses about the *relationships* between biological, psychological, and social phenomena as they pertain to a person." (p. 97). Foundational beliefs and values that comprise a healing system inform how illness and disease are characterized and sequentially treated.

III. 1. B. Illness and Disease, and Sickness

Illness and disease in Western medicine are viewed as two separate experiences that are treated differently, at times separately, depending on the causation. Kirmayer (1988) observes that the real dualism in modern medicine is not between two substances but between the physician as active knower and the patient as passive knower. He argues that

this duality is captured in the distinction between disease and illness (1988). Disease stands for the biological disorder, or malfunctioning of biologic and psychophysiologic processes in the individual (Kirmayer 1988; Kleinman et al. 2006) and is more accurately the physician's biomedical interpretation of disorder (1988).

Illness represents personal, interpersonal, and cultural reactions to disease or discomfort (Kleinman et al., 2006) and represents the patient's personal experience of distress (Kirmayer, 1988). Kirmayer (1988) argues that this dichotomy between illness and disease is precisely one of the reasons why healing in biomedicine is devoid of an adequate empathetic relationship between patient and healer. Rather than catering to the whole experience of the patient, physicians view the "real disease" as the true object of medicine (Kirmayer, 1988).

In Western biomedicine, distress is dichotomized into physical and mental, real and imaginary (1988), and the patient's experience is seen as the subjective interpretation of sickness rather than the objective understanding.

Beyer (2009) adopts the term "sickness" to describe social and somatic distresses as best suited for studying healing systems across cultures. He argues that his position for adopting the term "sickness" to articulate distress in curanderismo is done in an attempt to evade the culturally loaded dichotomy between illness and disease. This is not directly translatable in curanderismo terms. In curanderismo, distress is believed to occupy the spiritual realm and it can be a result of societal imbalances as well as somatic disharmonies. Therefore, separating the experiences of patients between a dichotomy of illness and disease is not appropriate because, in curanderismo they do not exist as exclusive experiences or interpretations of experience. For consistency, as it relates to

translatability illness and disease, I too will adopt the term 'sickness' to describe states of distress and harm.

Fotiou (2012) and Beyer (2009) offer alternative ways of understanding Peruvian curanderismo concepts of sickness by proposing the terms "internal" and "external" to describe causes of sickness. In many ways, these beliefs correspond to the distinction between biomedicine and ethnomedicine (Beyer, 2009). Beyer (2009) explains that beliefs about sickness can be explained as internalizing or externalizing. The former focuses on pathophysiological processes in the development of illness. The latter focuses on causes that lie outside of the body—for example, *mal de ojo* or the evil eye, and *brujeria*, witchcraft or sorcery. In curanderismo, these externalizing forces can be traced to social causes, such as resentment or envy (Beyer, 2009, p. 135). Fotiou (2012) argues that labeling sicknesses as external is a Western derived concept, where it can be argued that curandero[s] do not perceive said sicknesses as "external" to the person. However, regardless of external or internal explanations for sickness, curanderos heal by manipulating and communicating with the spirit realm, and thus the internal manifestations of sickness in the patient.

Good (1994) proposes his claim, "that medical knowledge is socially and culturally variant, and that in part this is true because illness itself, the object of medical knowledge, is socially and culturally variant" (p. 118). In this, Good highlights the subjectivity of medical knowledge and practice, primarily because medical knowledge exists within a larger cultural belief system that informs this knowledge. Understanding the foundational elements of the social and cultural constructions of medical knowledge within any given system of healing is vital to understanding how these elements may or

may not manifest themselves physiologically. With this said, I will analyze how language, culture and metaphor interact and create the lived experiences of people faced with sickness. This will provide the necessary means to create a bridge that connects the healing rituals associated with Peruvian curanderismo with the neurobiological determinants associated with placebo ritual theory.

I. 1. C. Language, Culture and Metaphor

Symbolic representations of reality, and therefore of health and sickness, are inscribed within a larger cultural system that informs how healing occurs and what roles are to be assumed. Good (1993) argues that medicine formulates the human body and disease in a culturally distinctive fashion. This is accomplished not only by learning the language and knowledge base of medicine, but by learning quite fundamental practices through which medical practitioners engage and formulate reality in a specific "medical" way (p. 71). How the practitioner learns to see the human body translates into how the practitioner treats the human body. The patient, then, is informed about this way of seeing and treating the body, and in turn, it becomes the way a patient thinks and acts towards his or her own body, bringing it to a state of harmony. Csordas (1983) supports this view by explaining that the locus of therapeutic efficacy is in the particular forms and meanings, i.e. the discourse, through which the endogenous processes (affective and cognitive) are activated and expressed. Placebo research illustrates exactly how these endogenous processes are activated through language, words, and rituals (Benedetti, 2011; Kaptchuk, 2011).

Dow (1986) explains in his analysis of symbolic healing that there are psychological processes in which symbols affect the "mind", which in turn affects the

body. This concept of symbolic healing was originated by Moerman (1979) and adopted by Dow (1986). Dow (1986) argues that, "the first requirement for symbolic healing is that the culture establish a general model of the mythic world believed in by healers and potential patients" (p. 60). In biomedicine, that mythical world is created by the language and discourse of physicians in the event of diagnosing a patient. Similarly, in Peruvian curanderismo, the mythical world is created by the curandero, and later with the patient, in the patient's primary evaluation during an ayahuasca ceremony. Healers decisively mediate culture and nature; they are enacting *cultural physiology* (Moerman, 1979).

Moerman (1979) additionally argues that the metaphorical structure, the system of meaning, of a healing discipline is decisive in its effectiveness, and as important as any other "actual", "physical", "pharmacological" agents. In this, he is pointing to the importance of the symbolic representation of a healing encounter, primarily the treatment procedures used, i.e. pills, needles, plants, and tinctures, in invoking endogenous healing responses. He then goes on to make an analysis about placebo research. In his analysis of placebo research, Moerman (2002) dissects and attempts to understand how the symbolic representations of a clinical encounter have direct physiological manifestations that, in biomedical language, are written off as "placebo effects." Moerman (2002) proposes two main concepts to illustrate the symbolic components of the "placebo effect"— (i) form of therapeutic intervention, (ii) the relationship created in the event of a clinical encounter and applies these concepts to his analysis of placebo research. Moerman (2002) argues the reframing of the placebo response as a "meaning response", defining the latter as "the physiological or psychological effects of meaning in the treatment of illness" (p. 14) (Thompson, Ritenbaugh & Nichter, 2009).

Benedetti (2011) expands on Moerman's (1979) symbolic approach to the placebo effect by attaching a semiotic analysis that is inclusive of the roles that expectancies and conditioning play in eliciting placebo responses. Moerman (2002) explained that his symbolic analysis of the placebo effect did not address the roles of expectancies and conditioning. Therefore, extending Moerman's symbolic approach with a semiotics analysis lends for a more comprehensive understanding of the full "placebo effect".

I. 2 Placebo Theories and Concepts

Interest in the placebo effect rapidly grew in the 1970's-80's following Henry Beecher's (1955; Bensing and Verheul, 2010) account of the first clear identification of a positive analgesic placebo effect experienced by his patient's following an invasive surgical procedure. Beecher found that patients' expectations of receiving a powerful analgesic injection resulted in patients' experience of analgesia in the face of a saline injection. With this, he stated, "35 percent of a drug's or a doctor's success is due to the patient's expectation of a desired outcome, or the placebo response" (Beecher, 1955; Bensing and Verheul, 2010). This event marked one of the first instances in placebo history that the doctor's input was identified as having a significant role in a patient's perception of *getting better*.

Theories underlying this event point to the role of expectancies and conditioning in evoking a placebo response. The placebo response designates both the behavioral change of subjects receiving placebos (Shapiro and Shapiro, 1997) and the biological responses evoked by the procedure (Benedetti and Armanzio, 2011). Insight into understanding how and why the placebo response occurs in patients is largely due to

research studies on the subjective experience of pain and the activation of the endogenous opioid neural pathways.

A major advance in placebo research was the demonstration that endogenous opioids were involved in placebo-induced analgesia and that the effect could be blocked by the opiate antagonist naloxone (Daruna, 2012). Likewise, research with Parkinson patients has recently demonstrated that the endogenous dopamine neural pathways are evoked as well in response to expectations and conditioning (De la Fuente-Fernandez et al., 2001).

The important thing to highlight when speaking of the placebo effect is that no one theory explicates the full effect. Scholars and academics have identified that several factors (i.e., conditioning theory and expectancy theory) are implicated in the placebo response. More anthropological approaches propose a sociocultural and biocultural perspective for the placebo effect and placebo response in order to unravel the placebo effect and its affective elements.

I. 2. A. Placebo as Context

The placebo effect is a topic of interest to psychologists, anthropologists, health practitioners, and the like. The term 'placebo' was first introduced into medicine in 1875 and since has evolved and transformed in meaning. The use of placebos—'inert' or 'inactive' procedure—has since been incorporated into routine medical practice and research. The concept of a 'placebo effect' did not surface until the introduction of placebo controls into single and double-blind clinical trials. In clinical trials, control groups are usually passive comparison groups. Either individual patients are given an active drug and a placebo at different times, or they were alternately given an active agent

and no treatment (Shapiro and Shapiro, 1997, p.137). A patient's response to the inactive placebo control is considered the *placebo effect*, which is defined as the changes influenced through the use of a *placebo*.

Historically in clinical studies, the placebo effect has often been defined negatively by what *it is not*, rather than by positive terms that indicate what *it is* (2008). Terms like 'noise' or 'bias' or 'non-specific' (Miller & Kaptchuk, 2008) circulated conceptual understandings of the placebo response. However, research on the placebo effect indicated that the placebo response was in fact due to the context of the treatment procedure. Factors like personal history, past medical evaluations, the organizing of the "self' in clinical settings, environment of the clinical setting, cognitive and affective communication of clinicians, and the ritual of administering treatment are attributed to the placebo response (Kaptchuk et al., 2009; Miller & Kaptchuk, 2008). For these reasons, Miller and Kaptchuk (2008) proposed a reconceptualization of the placebo effect as "contextual healing" to account for all of the formal factors known to mediate placebo effects.

Psychological explanations for the placebo effect account for the role of expectancies and conditioning in mediating placebo effects. Research implementing these theories account for most of the neurobiological evidence pointing to the mechanisms that underly placebo responses.

I. 2. B. Conditioning and Expectancy Theories.

Conditioning theory stems from Pavlov's theory of classical conditioning that is based on learning through associations (Koshi & Short, 2007). Pavlov found that dogs would salivate as a response to a neutral stimulus such as ringing a bell (conditioned stimulus:

CS), which was previously associated with food (unconditioned stimulus: US) (2007). Similarly, this learned association between stimuli was demonstrated in humans. In placebo research, when a drug is administered, the active substance represents the US producing pain relief (unconditioned response: UR), whereas shapes, color, taste of the tablets represent the CS (Benedetti & Amanzio, 1999).

After repeated associations, shape, color and taste are sufficient to produce pain relief (conditioned response: CR) (1999). Benedetti and Amanzio (1999) found that placebo respiratory depressant responses, a characteristic symptom of analgesic opiates, can be induced after repeated administrations of the partial opioid agonist buprenorphine. These findings demonstrate that the placebo respiratory depressant response reported and measured in participating subjects was a result of the previously learned unconscious response after administration with the opioid agonist buprenorphine. The findings also point to the neurobiological correlates mediated by placebo effects, namely through the activation of the endogenous opioid systems. The role of the endogenous opioid pathway was demonstrated because researchers found that this response was blocked completely with 10 mg of naloxone, an opioid antagonist.

Other examples of placebo conditioning have been demonstrated with immune and endocrine responses in humans and animal models (Brody, 2010). However, conditioning cannot explain all placebo effects, but it accounts for placebo effects thought of as mediated through unconscious processes (i.e. immune and/or endocrine system responses). Expectancy theory points to the role of expectations in eliciting placebo responses. Conditioning theory and expectancy theory do not exist as mutually

exclusive. It is known that the conditioned stimulus (CS) in a conditioning trial generates expectancies, and therefore the two theories can mutually account for each other.

Expectancy theory simply points to the idea that a placebo produces an effect because the recipient expects it to; an expectation for a subjective experience leads directly to that subjective experience (Williams & Podd, 2004). Expectancies can be produced without direct personal experience, for instance, through observational learning, suggestion, verbal information, and persuasion (Koshi & Short 2007). This theory postulates that a placebo response is related to patients' expectations of improvement, which are connected to the physiological changes that take place (2007).

Pollo et al. (2001) found that patient's expectations of receiving a powerful analgesic were strongly influenced by the physician's verbal suggestion and the symbolic representation of basal infusions. In the study, the symbolic meaning of this basal infusion was changed in three different groups of patients: one group was told nothing about any analgesic effect (natural history group), the second group was told that the basal infusion injection was either a powerful painkiller or a placebo (classic double-blind administration), and the third group was told that the basal infusion was a powerful painkiller (deceptive administration) (Pollo et al., 2001). Whereas the analgesic treatment was exactly the same in the three groups, the verbal instructions about the basal infusion differed (2001). The third group reported more accounts of analgesic relief compared to the other two groups. The placebo effect of saline basal infusion was measured by recording the successive doses of buprenorphine requested over the three-days treatment.

This study highlights the relative influence of verbal suggestion and expectations in conjunction with the symbolic representation of the treatment procedure being used in

evoking placebo responses. Moerman (2002) argues precisely this in his accounts of the placebo effect, and also demonstrates that the *form* (i.e., injection vs. pill) of treatment plays an important role in eliciting placebo effects. In his analyses, he found that injection placebo trials were more successful in eliciting powerful placebo responses compared to placebo pill interventions (2002).

A meta-analyses performed by de Craen et al. (2000) supports Moerman's argument and Pollo et al. (2001) findings that the symbolic import of a therapeutic treatment often leads to differences in reports of therapeutic relief, "a change in patient's illness attributable to the symbolic import of a treatment rather than a specific pharmacological or physiological property." (2000). This meta-analysis was devised to compare placebo effects for: (1) subcutaneuous vs. oral administration, and (2) inhospital setting vs. at-home setting of administration (de Craen et al., 2000) in 22 published placebo studies. Subcutaneous placebo administration had a greater effect in the acute treatment of migraine than oral placebo administration (2000). Additionally, researchers noticed a relationship between treatment setting and reported headache relief: 27% of at-home patients reported no or mild headache severity 2 hours after administration compared to 32.1% of patients treated in the hospital (2000). Clearly, as evidenced by this study, the influence of the physician's word and knowledge on the expectancy of analgesia has a direct influence on the subjective reports of analgesia after placebo treatments. Likewise, the contextual environment in which the procedure takes place has a direct influence on the subjective reports of analgesia in patients.

I. 2. C. Neurobiological Studies of the Placebo Response

A biological path by which a placebo affects pain was first demonstrated by the administration of naloxone. Naloxone is an opioid antagonist that reverses opioid-induced placebo analgesia. Grevert et al. (1985) were the first researchers to identify the role of endogenous opioids in placebo analgesia. Researchers found that naloxone alone has no effect on ischemic arm pain unless participants are verbally instructed that they are receiving a powerful analgesic in the event of placebo administration. When participants were administered naloxone following verbal placebo analgesia instruction, participants reported a *decrease* in perceived analgesic relief, which supports the idea that placebo analgesia is mediated by the endogenous opioid system. If naloxone was not effective in decreasing perceived analgesia after placebo treatment, then hypotheses would not be pointed to the role of the endogenous opioid system, and rather placebo analgesia would be postulated to be a result of mechanisms other than the descending opioid system.

Benedetti (1996) supports Grevert et al.'s (1985) finding, and expands on it by explicitly saying that participants have to be aware and cognizant of receiving a powerful analgesic, thus eliciting a placebo response, before they can experience an increase in pain due to the hidden administration of naloxone. Researchers found that when a saline injection into the intravenous line was performed in full view of the subjects (open injection), a strong placebo response could be elicited (1996). In this way, a partial reversal of the analgesic placebo response was detected after the hidden administration of naloxone in the participants who received an open injection of saline. This supports the fact that placebo analgesia is implicated in the release of endogenous opioid systems and placebo response is heightened depending on participants' adherence to verbal instruction and placebo responsiveness (Benedetti, 1996; Grevert et al., 1985).

In an extensive review of neurobiological placebo studies', Benedetti and Amanzio (2011) highlight the role of expectation alone eliciting placebo analgesia that involves a top-down mechanism, and argues that the best evidence of placebo analgesia is demonstrated primarily by understanding the role of the anterior cingulate cortex (ACC). He says, "the higher the expected level of the stimulus, the stronger the activity in the ACC and other areas implicated in the activation of the descending inhibitory pathways" (Benedetti & Amanzio, 2011).

Both placebo analgesia and emotional regulation are associated with increased activation in the modulatory network that includes the rostral anterior cingulate cortex (rACC) and the ventrolateral prefrontal cortex (VLPFC). Likewise, the rACC in particular and the periaqueductal gray (PAG) mutually work together in placebo analgesia responsiveness. The PAG is known to contain many of the brain's opioid-containing neurons, thus Wager et al. (2007) formulated a placebo research study to investigate the exact role of the PAG in placebo responsiveness. Wager et al. (2007) found that an increased connectivity between the PAG and rACC was identifiable with placebo treatment as well as an increase in functional integration among limbic regions and the prefrontal cortex (2007). The limbic system's role in opioid-mediated placebo responses sheds light on the fact that affective contextual stimuli and perception of pain influences the nervous system's release of endogenous opioids.

In support, Atlas et al. (2012) found that placebo and opioid analysesia both target the opioid system and affect opioid-rich medial prefrontal-subcortical circuits, particularly in the PAG and the rACC. It is thought that the expectancy and beliefs patients have in the therapeutic efficacy of an opiate drug serve as an additive effect for

the specific action of the drug. Given this information, the process of delivering a therapeutic procedure and being told that the procedure is effective and powerful is, and can be, dissociated from the actual effects of an active drug. Drug effects and expectancy responses are dissociable in the sense that they primarily influence different brain regions, although they both do act synergistically in brain areas associated with the affect and perception of pain. For example, expectations associated with information about drug delivery reduced activity in the limbic areas, which appeared to be shared with drug effects, and increased prefrontal activity, which was not shared with drug effects (Atlas et al., 2012). In summary, placebo treatment may potentiate either anticipatory or pain-related endogenous opioid-release, or elicit opioid release itself (Wager et al., 2007).

Expectations are also implicated in eliciting a positive placebo response in Parkinsonian patients primarily through activation of the endogenous dopamine pathways. De la Fuente-Fernández (2001) demonstrated a powerful placebo effect in Parkinson patients in a single blind placebo-controlled study, where six patients with Parkinson's disorder (PD) were placed into two experimental conditions: one condition was told that they would either be receiving the active drug (apomorphine) or a placebo, and the other condition was exclusively given the active drug. The second group was primarily used to compare endogenous dopamine mediated placebo effects against the dopamine effects of apomorphine. Researchers found that a powerful placebo effect exists for the patients in the placebo condition, namely through the activation of endogenous dopamine pathways that are illustrated by an increase in the synaptic levels of dopamine in the striatum (de-la Fuente Fernández et al., 2001). Researchers conclude

that dopamine release in the nigrostriatal system is linked to expectation of a reward—in this case, the anticipation of therapeutic effect (2001).

I. 2. D Implications for Ritual Theory

Ted J. Kaptchuk, a leading investigator for placebo studies at Harvard Medical School, has devoted a tremendous amount of work into uncovering the mechanisms behind the physiological responses associated with placebo effects—what is happening in our bodies, in our brains, in the method of placebo delivery (pill or needle, for example), even in the room where placebo treatments are administered (Feinberg, 2013). His primary approach has involved investigating the affects of ritualized treatment procedures, e.g. acupuncture and placebo acupuncture. Kaptchuk (2002) proposed unraveling the placebo effect of alternative medicine as a distinct identity. He argues that alternative medicine may administer an especially large dose of what anthropologists call "performative efficacy" (2002). Performative efficacy relies on the power of belief, imagination, symbols, meaning, expectation, persuasion, and self-relationship (2002).

Researchers have proposed that new categories be formulated to adequately study placebo responsiveness stay true to the components known to influence the placebo effect. The new categories created for placebo research involving randomized controlled trials (RCT) are separated into two sub-categories: characteristic (specific) effects and incidental (placebo, non-specific) effects (Paterson and Dieppe, 2005). Characteristic factors are defined as the therapeutic actions or strategies that are theoretically derived and are specific to a given treatment and are therefore believed to be causally responsible for the outcome—for example, a drug. Incidental factors are the many other factors that have also been shown to affect the outcome, such as the credibility of the intervention,

patient expectations, the manner and consultation style of the practitioner, and the therapeutic setting (Paterson & Dieppe, 2005; Crow et al., 1993; Di Blasi Z et al., 2001).

This new presentation and isolation of the components known to evoke placebo effects supports the argument that the symbolic nature and ritualized performance of the therapeutic setting directly affects physiology and thus results in the placebo response.

Kaptchuk et al. (2008) support this in their study of pain management in patients diagnosed with irritable bowel syndrome (IBS). The main goal of this study was to determine whether separating the components of placebo effects—assessment and observation, a therapeutic ritual (placebo treatment), and a supportive patient-healer relationship—would be effective in uncovering the true influences of placebo effects (2008).

In addition, researchers quantified the extent to which the patient-practitioner relationship enhances the effects of a placebo treatment alone and whether a placebo intervention is more effective than no treatment/natural course of the illness alone (2008). Researchers found that such effects can be divided into three components that can then be recombined to produce incremental improvement in symptoms in a manner resembling a graded dose escalation of component parts (2008). A next step for this type of research is to correlate these findings with neurobiological evidence and the researchers pointed at this necessity.

I. 3 Ritual and Healing

In Kaptchuk's (2011) ritual account of the placebo effect, he touches on the commonalities between biomedical placebo studies', Navajo healing, and acupuncture

through a ritual theory lens. He adopts theoretical contributions from Rappaport's (1999) model of ritual: an evocation of space and words separate from the ordinary, a pathway of enactment that guides and envelopes the patient, a concrete embodiment of potent forces, and an opportunity for evaluation of a new status (Kaptchuk, 2011). Kaptchuk (2011) supplements this model with Csordas (1983) ritual framework that emphasizes the internal states a patient undergoes in a healing ritual, namely the three following stages that point to the inward experiences of a patient in the course of a healing ritual: (1) a predisposition to be healed; (2) an experience of empowerment; (3) a concrete perception of transformation. With this, Kaptchuk (2011) argues that for the patient healing is a performative process that is accompanied by a series of shifting internal states, bringing the argument back to this idea of 'performative efficacy': the participatory experience of the ritual itself automatically shifts perceptions, emotions, meaning and self-awareness (p. 1854). Clearly, for ritual theory and ritual healing, the placebo effect is the specific effect of a healing ritual (Kaptchuk, 2011), whereas biomedical thought places placebo effects as the 'non-specific' effects of a healing intervention.

I. 4 Summary of Literature Review

I argue that placebo discourse and current placebo theory can be used to construct a bridge between the elements of healing found in Peruvian curanderismo with the neurobiological correlates known to be mediated in placebo effects, and placebo responsiveness. To get the necessary information about Peruvian curanderismo, I formulated an ethnographic study that took place in Iquitos, Peru where I interviewed various healers of Peruvian curanderismo about their healing practices, namely by

collecting information on their individual concepts of what health and illness means, common sicknesses they encounter, and how these concepts translated into healing procedures. Additionally, I participated in an ayahuasca ceremony during my fieldwork to gain an understanding and observe how the ritual ceremony played through. I did not, however, experience the ayahuasca medicine for myself. It is important to note that I did not interview patients of the healers; I only interviewed the healers so my analysis will be purely synthesized from their interviews.

For the remainder of this paper, I will report on the findings of my fieldwork and then follow it with a theoretical approach to understanding what I found. By applying placebo ritual theory to my field analysis, an 'etic' approach, I will create a bridge using the 'emic' explanations of my informants. An etic account is a description of a groups behavior according to the observer. In this case, I am the observer. An emic account precisely uses the language of the cultural group being studied to explain observed behaviors. Quinlan (2010) explains,

"Anthropological translation of these "strange" emic beliefs can make them understandable etically. For westerners, the etic perspective is almost always the bioscientific one" (p. 382).

This is precisely what this thesis proposes to do.

II Methods

Fieldwork for this project was conducted between June 2013 and July 2013 in Iquitos, Peru. Iquitos is the largest city in the region that makes up the Peruvian Amazon and is the fifth largest city in Peru. The project received approval from New College of Florida's Institutional Review Board (IRB). Qualitative data was collected through participant-observation and semi-structured interviews. Fieldwork and data collection were conducted and recorded in the dialectal Spanish found in Iquitos, Peru.

II. 1 Participants

Five (N=5) participants were interviewed for this project: 3 shamans, 1 *curandero/espiritista*, and 1 vendor of traditional remedies. The method for contacting participants varied depending on who recommended them to me, and what the informant's relationship was with my mentor and/or family member. Informants were selected through recommendations from my mentor, Elsa Rengifo, who is affiliated with the Peruvian Amazon Research Institute (IIAP) and/or family members. They were individually contacted via telephone or e-mail. Verbal consent was obtained from participants at the time of each interview.

Interviews were recorded using a digital recorder. A field notebook was used to record interviews if participants expressed discomfort using a digital recorder.

Each participant's role in traditional Amazonian healing was self-identified prior to, or during, the interview. Pseudonyms were used for confidentiality purposes. A list of questions was prepared before each interview to accommodate the role of each healer and to assure that specific questions would be addressed in the interview. Their names are as

follows: Pedro, Juan, Lucas, Andres, and Señora Dora. Pedro, Lucas, and Juan each identified himself as a shaman. Andres identified himself as both a curandero vegetalista and espiritista. Señora Dora identified as a vendor of traditional medicines but mentioned that she was familiar with curanderismo. The three participants who referred to themselves as shamans also considered themselves curanderos vegetalista.

I believe that using the term shaman for this research is justified, namely because my informants identified as shamans in meeting. However, it is important to note that the term shaman does not encompass the full traditional practice of curanderismo present in this region of the Amazon. Shamanic traditions are found around the world and they do not pertain to any one specific region. The term shaman more broadly refers to an experienced healer who practices by contacting with the spirit world under a state of altered consciousness with the intent to heal and harmonize some aspect of the spirit world and/or material world. Therefore, shamanic practices are present in this region of the Peruvian Amazon as witnessed by the practices of Juan, Lucas and Pedro. Healers who use hallucinogenic plants in this region, namely the ayahuasca medicine (*B. caapi and P. viridis*), to reach altered states of consciousness are called *ayahuasqueros*—the person who uses ayahuasca.

The practice of Curanderismo is the overarching traditional practice in this region. Curanderismo directly translates as "practice of healing". Therefore, to be a curandero vegetalista means that one learned from the healing plants of the jungle and heals people using that knowledge. A curandero vegetalista learns his or her knowledge directly from the plants in apprenticeship, *el aprendizaje*. An espiritista is an individual who communicates with spirits via telepathy or incantation. A vendor of traditional medicine,

in this project, is an individual who sells traditional medicine tinctures, plants, and elixirs but who does not necessarily identify as a healer.

Throughout the rest of this thesis, the terms shaman and curandero will be used interchangeably—they are two sides of the same coin. Shamans can also be curanderos vegetalistas in this region of Peru as evident in the case of Juan, Lucas and Pedro.

Arguably, the term curandero vegetalista is the overarching role of healers in this region, and to be a shaman is an extension to this role. Curanderos do not always practice shamanic traditions because not all curanderos use hallucinogenic plants to heal. This is the case with Andres. Andres does not use hallucinogenic plants to heal.

II. 2 Procedures: Semi-structured Interviews and Participant-Observation

I used semi-structured interviews to achieve a qualitative understanding of Peruvian *Curanderismo*, including how each informant conceptualized health and illness, what type of treatments and remedies are used and how they are used in practice. This informed me how ritualized healing behaviors were contingent on the beliefs of the cultural group I was studying and additionally, this research method illuminated the beliefs placed on specific treatments, (i.e., plant medicines, tinctures). Having an openended interview approach to this research permit the informants to describe what is meaningful and salient to them, without being pigeon holed into standardized categories (Patton, 2002). Each successive draft of interview questions were directed towards addressing new information presented to me in preceding interviews. This is what made the interviews semi-structured. I decided to interview healers and practitioners who

practice Peruvian *Curanderismo* because I found them to be the most knowledgeable group of people to answer the questions I had for this project.

II. 3 Researcher as Participant Observer

Researcher as participant observer, as defined by Patton (2002), refers to the researcher making firsthand observations of activities and interactions, while at times engaging personally in those activities. As a participant observer, I also felt that my cultural and linguistic relationship with the people of Iquitos and the city played a role in the information I gathered. My mother is from Iquitos and most of my family presently lives there. Growing up, I was sent to Iquitos every year to visit my family and to be enrolled in school.

As a person who identifies with the culture of Iquitos and someone who is familiar with the traditional healing practices in this region, I found it interesting to see how commercialized shamanic traditions are in Iquitos and the number of Westerners searching for the ayahuasca experience. It was not until I started reading more literature on the topic of shamanism and *curanderismo* in the Peruvian Amazon that I noticed the amount of attention focused on the 'ayahuasca tourism' phenomenon. Since then, and since analyzing my data, I noticed how much of an influence Western ayahuasca tourism has on shamans and *curanderos* in Iquitos. Two of my informants, Pedro and Lucas, have websites advertising their shamanic practices to an international audience. The websites are both written in English and appeal to a Western audience. I will touch on this 'ayahuasca tourism' phenomenon briefly in my conclusion and discuss the influence of this phenomenon on the information my informants provided to me.

I participated in one *ayahuasca mesa*, or table ceremony, which was offered to me by one of my informants. I observed first-hand how the patient-healer relationship developed throughout a healing ceremony and sequentially how this relationship was facilitated with the ceremonial use of plants, song, and objects. The key informant who invited me to this ayahuasca mesa believed that my participation in the ceremony would greatly benefit my research. I did not take the ayahuasca brew in this ceremony. In this healing setting it was not necessary for me to drink ayahuasca. It is the shaman who always drinks ayahuasca—it is the medium from which the shaman makes his evaluation of the patient. I am aware that my presence in the ceremony could have influenced the informant to behave differently throughout the course of the ceremony. The difference my presence could have caused remains undetermined and will be explored in my discussion.

Data Analysis

II. 4. A. Transcribing and Translations.

Four out of five interviews were recorded with a digital recorder. One interview was recorded using a field notebook and was later transcribed into a full interview. The recorded interviews were transcribed in Spanish using a transcribing program,

ExpressScribe. I am a native speaker of the specific dialect of Spanish found in Iquitos.

Translations of the Spanish transcriptions to English were only done for direct quotes.

Translations to English for in-text quotes in the results and discussion are provided with the Spanish transcript.

II. 4. B. Cross-Case Analysis:

"Indeed, an investigation may flow from inductive approaches, to find out what the important questions and variables are (exploratory work), to deductive hypothesis-testing or outcome measurement aimed at confirming and/or generalizing exploratory findings, then back again to inductive analysis to look for rival hypotheses and unanticipated or unmeasured factors." (Patton, 2002: p. 57)

The interviews recorded for this research project were approached from an individual case-by-case analysis. Analyzing these interviews' as case studies was better suited to properly explain and situate each informant's personal perspective on the subject matter. This type of approach lends itself to a cross-case analysis wherein similarities and differences between informants will be addressed. Patton (2002) defines cross-case analysis as a method in which answers from different people to common questions, while analyzing different perspectives in central issues. Patterns and themes will surface that cut across each individual's experience (2002), thus ensuring that emergent categories and discontinued patterns are grounded in specific cases and their contexts (Glaser and Strauss, 1967).

Both inductive and deductive approaches were applied to the analysis, each representing emic and etic approaches, respectively. The inductive approach involved independently writing up the separate cases in order to properly address each informant's individual experience. Categories, themes and patterns were extracted directly from each

interview transcript. Themes were extracted according to the language and concepts articulated by informants.

At times, each informant presented individual themes and they were applied to the collection of transcripts. I address this in the discussion section of this thesis. This reflects an emic approach to the analysis. Using an emic approach places the content of the analysis within the cultural group's frame of thought. This is where issues of translatability surfaced. I translated the themes extracted from the interviews using my native language skills and with the help of a native speaker.

Deductive approach to the data analysis was applied using a framework of ritual theory adopted from the literature reviewed for this thesis. Applying ritual theory to this analysis reflects an etic approach.

III Results

III. 1 Description of the Field Site: City of Iquitos, Peru

The city of Iquitos is located in the northern jungle of Peru and is the largest city in the Peruvian jungle (Fotiou, 2010). Iquitos is a city-island in that three major rivers surround it: the Nanay, the Itaya, and the Amazon. It is the largest city in the world that cannot be reached by road. The only road that extends outside of the city is the Iquitos-Nauta highway that leads to the southern city Nauta. Transportation within the city itself is usually done by bus, motorcycle or motocarro (auto rickshaw) (Fotiou, 2010). Most of the people I interviewed lived off of the Iquitos-Nauta highway and I had to travel great distances to get to them. Only one person I interviewed resided in Iquitos and routinely practiced in the city.

Iquitos used to be on the Amazon River but is now on the Itaya River due to a change in the course of the river (Fotiou, 2010, p. 20). The city of Iquitos is the capital of the department Loreto, which is one of four departments of Peru that lie completely within the Amazon area. The other three departments are San Martín, Ucayali, and Madre de Dios.

Iquitos is a product of colonization and Western expansion. Luna (1986) writes in his account of Iquitos that in the past few decades the Amazon area has witnessed a great demographic expansion due to various colonization programs as an effort on the part of Lima, the Peruvian capital, to integrate these territories with "the nation". Iquitos is a city of interest to investors because of its geographical location to timber and rubber trees located in the Amazon.

In the past few decades, eco-tourism has increased and has resulted in a flood of tourists and foreigners into Iquitos. I have a salient image of growing up in Iquitos wondering why there were so many people from the United States in this city. Why this city in Peru? My family always asked me to translate for them in order to communicate with Western foreigners. Little did I know at the time the attraction of the 'other' knowledge situated in the city of Iquitos, namely the knowledge of the jungle—its fruits, medicines, and peoples. Fotiou's (2010) dissertation talks about Western foreigners' interest in this 'other' knowledge, the cultural constructions of ayahuasca and shamanism, and the phenomenon of shamanic tourism.

In the context of my research, Iquitos is an interesting field location. I see Iquitos as a geographical bridge between Western curiosity for alternative forms of healing and self-transformation contrasted by traditional shamanic practices within the larger tradition of *Curanderismo* found in this region of Peru.

Iquitos serves as a research tool from which to examine social relations founded on medical beliefs, namely the dissolution of biomedicine by Western foreigners and the search for a better-suited form of healing. Fotiou (2012) writes in her account of this shamanic tourism phenomenon that she found that what seemed to draw Westerners to shamanism as a more desirable healing tool was that it addresses a spiritual dimension of healing, along with the physical. She found that Westerners felt that biomedicine lacks respect when addressing the spiritual component of a patient's well being. This is not surprising given the influx of "alternative" medical practices being incorporated into the framework of biomedicine.

For the purpose of this research, I decided to study conceptions of health and illness in Iquitos, Peru because of my own disillusion with the ways health and illness were perceived in the United States, namely in the paradigm of Western biomedicine. In a way, I am that "Western" foreigner who is in pursuit of an alternative way of viewing the body, health and illness. However, I pursued this research with the specific intention of bridging these two different systems of healing to demonstrate that no one system of healing is *more than* the next; they can mutually benefit each other.

The most recent visit to Iquitos I have had was for my research. This experience was new to me. Never had I visited Iquitos with the intention of studying its culture and what the city had to offer. Rather, my experiences were always explicitly family oriented. When I would visit, I always noticed that my grandmother regularly used herbal plant medicines when she found it necessary. She even treated me with traditional medicine treatments and herbs. She swears that the reason I no longer suffer from asthma is because growing up she always gave me *aceite de raya*, stingray oil, which is known to help with upper respiratory problems.

One afternoon, half a year before my thesis proposal was due, my grandmother asked me to accompany her to go buy plant remedies. That's when I first met my mentor, Elsa Rengifo, who sells plant medicines to my grandmother. This prompted my future thesis idea and project.

I will report on the information that my informants shared concerning their individual conceptions on health and sickness. How they heal and treat patients provides a reflection on each of my informants' foundational ideologies and interpretations of the traditional practice of Peruvian curanderismo. I will present each of my informants

background histories, including a brief background on their apprenticeship, *el aprendizaje*, and follow it with a survey of each of my informants descriptions of the elements of healing.

III. 2 Informants Juan

I met Juan through my uncle on June 15, 2013. Juan helped my uncle get through tough life situations a few years back, and have developed a strong relationship. My uncle felt that Juan was a good fit for my research and connected me with him. I met with him four times in the span of one month, making him my main informant. In one of our meetings, he demonstrated to me and explained his process of making the ayahuasca medicine. To him, the process of making the medicine is sacred and has to be treated as so or else the medicine will not be suited to effectively heal. Therefore, he devotes 12 hours to making the medicine every Tuesday and prepares it in the same place every time.

Juan is a local shaman and *vegetalista*. He holds ayahuasca ceremonies in the city at peoples' homes, and at times, he goes out to the jungle and holds his ceremonies in a camp. He works primarily with the ayahuasca medicine, but also applies various healing plants when necessary. He drinks the ayahuasca medicine on Monday, Wednesday, and Friday, usually with the same network of people. Juan specifically does not cater to tourists or foreigners. He likes to keep his ceremonies close-knit.

Juan began his apprenticeship at the age of 10 under the guidance of his grandfather. His journey began in the desert regions of Peru, geographically located in the mid-west region of Peru. In the early days of Juan's apprenticeship, he was exposed to negative work and harmful doings that drastically transformed how he perceived magic

and healing. His early experiences involved learning the ways of *brujeria*, or witchcraft, and *majias oscuras*, dark magic, introduced to him by his family, namely through his grandfather. Juan's early experience with these two practices exposed him to the negative work associated with witchcraft and dark magic. He explained that the practices involved harming people for personal vengeances. That, he explained, was not the path he wanted for himself. His experience with brujeria and majias oscuras led him in search for a path that appeared his desire to help and heal people.

When he got to Loreto, he felt as ease with the place, impassioned with the richness and abundance of plants and fruits in the region. He noticed that the traditional healing practices in this region of the Amazon were generally calm and healers rarely harmed each other using their powers, like they did where he originally came from. He started learning the ways of mestizo groups and indigenous groups as he traveled around the region of Loreto. He learned about the medicinal plants of the region and became fascinated with the ayahuasca plant (*Banisteriosis caapi*) and medicine. In his past experiences, he had been exposed to other sacred plants (e.g., San Pedro) and he was familiar with the traditional uses of these sacred plants, and he quickly became acquainted with the traditional uses of the ayahuasca medicine. This marked the beginning of his practices with the ayahuasca medicine and likewise with the medicinal plants found in the Peruvian Amazon. In present day, Juan practices under the guise of a shaman and a vegetalista.

Pedro

I found out about Pedro's ayahuasca treatment center through my mentor, Elsa Rengifo's, suggestion. She told me that he had been practicing for years before he decided to open

up his healing practices to foreigners and tourists. I searched for his online website and got his contact information from there. I instantly e-mailed and within the week he got back to me and agreed to meet me to talk about what he does. I did not realize at the time that Pedro's fame extended internationally.

I met Pedro on June 19, 2013. To meet him, I had to ride a *comvi*, a public bus, to get to his lodge cabins, which were located in the middle of the jungle 45 minutes east of the Iquitos-Nauta highway. His location was very nice and fixed up, and it was noticeable that he catered to tourists and foreigners. This, however, did not detract from his knowledge about the traditional healing practices of the Amazon.

Pedro, too, began his apprenticeship at the age of 10 under the guidance of his grandfather. His grandfather taught him about the regional fruits and plants, everyday bringing in a new learning experience of different flavors and tastes. At the age of 14, Pedro made his first ayahuasca medicine mixture and experienced the effects of the medicine for the first time. He explained that his first ayahuasca trance made him realize that he still needed time to wake up, *despertarse*, to understand the essence and *fuerza*, or strength, of the ayahuasca medicine. From that point on, he continued his experiential journey learning the ways of the ayahuasca medicine.

Pedro incorporated his grandfather's teachings into his eventual practice of curanderismo. In this present day, Pedro centers his work with the ayahuasca medicine and identifies himself both as an ayahuasquero and a curandero vegetalista. His knowledge of vegetalismo, plant knowledge, stems from his past experiences with his grandfather learning the plants of the Amazon. Nowadays he incorporates this knowledge into his everyday healing practice. In the context of his practice, Pedro complements his

ayahuasca medicine with a variety of healing plants that are specifically tailored to giving the patient a full bodied healing experience, rather than just a visionary one.

Andres

I met Andres with the help of my mentor. She had previously worked with him on various ethnobotanical projects and was acquainted with him and his practices. She thought talking to him would provide another lens to my research. Andres does not consider himself an ayahuasquero or a shaman, and refers to himself as a curandero vegetalista and espiritista. Andres is the only informant who identified as an espiritista, or spiritualist. I met Andres on July 2, 2013. He lives off of the Iquitos-Nauta highway, relatively close to the city.

Andres has been practicing curanderismo for 60 years and is by far the most experienced informant I interviewed during my fieldwork. Andres shared his story about his learning apprenticeship, where he explained that he was called into this healing tradition by the voices and spirits of the rainforest. When he was 7 years old, he encountered an injured woman who was in need of help. He heard a voice call to him telling him to heal this woman—he referred to this voice as *clave de llamada*, or the key calling, and he proceeded to help her and heal her. This experience led to his successive experiences learning the traditional healing practices of this region of the Amazon.

Andres' role as a spiritualist involves communicating with spirits, both near and far, present and absent. He uses various instruments and objects to call the spirits in, where each object he uses serves a specific intention and purpose for calling spirits. For example, in his home he uses an African drum gifted to him to call spirits that are present in the realm of voodoo spiritualism.

As a curandero vegetalista, Andres prescribes and uses medicinal plants on a regular basis to heal his patients. Unlike my other informants', Andres does not incorporate the ayahuasca medicine into his practice. He does not feel the medicine is fit for all of his patients and does not want to risk any health complications that could result from ayahuasca use. Andres later indicated that he does, however, drink the ayahuasca medicine for his own personal healing. He uses it to harmonize his internal space and his spiritual surroundings.

Lucas

I met Lucas through my uncle and mentor. Like Pedro, Lucas is internationally recognized for his ayahuasca ceremonies. I learned about him from both my mentor and my uncle. I arrived to Lucas' lodging camp June 23, 2013 and met with him only once. The first things I noticed were the two French lodgers who were preparing their lunch. Lucas told me that they were French researchers who were staying at the lodge for a couple of months. I realized then how commercialized his practice had become.

Lucas has been practicing curanderismo for over 30 years. He identified as a curandero vegetalista who practices shamanic traditions because of his complementary use of the ayahuasca medicine with other healing plants. He focuses primarily on the ayahuasca medicine but also integrates other medicinal plants as necessary for each patient he treats.

Like Andres, Lucas explained that his introduction to the traditional practices of Amazonian healing began with voices and spirits calling to him, their energies reaching out to him when he walked through the rainforest. In that moment, Lucas explained, he was not *despierto*, or awakened, to perceiving and interpreting the energies around him.

The ayahuasca medicine helped him reach an understanding of vegetalismo, learning directly from the plants and using them as they taught him. From this point on, Lucas started to adopt the ways of the ayahuasca medicine and it has developed into his present day practice.

Señora Dora

I met Señora Dora through my mentor. My mentor had worked with Señora Dora many years back on various ethnobotanical projects. I met Señora Dora on June 18, 2013-- this was the only time I met with her. Señora Dora did not identify as a healer, curandera, or shaman. Her knowledge of traditional Peruvian Amazon medicine extends to the medicinal tinctures, plants, and animals. She sells these products in the popular urban market *Belén* in a section of the market called *Pasaje Paquito*. Pasaje Paquito is home to about 60 traditional medicine vending shops.

Señora Dora has been selling traditional remedies in Pasaje Paquito for 38 years. Señora Dora is well versed in the various popular medicinal plants commonly used by people in Iquitos—especially in the context of *pusangas*, love perfumes to help with business and envy—but she is not familiar with the practices of curanderismo or shamanism. However, she did mention that she sells plants to curanderos when they come by. She shared with me that when curanderos come by her shop it is usually them who are the experts on the medicinal plants, not her.

III. 3 Plants as Teachers: Vegetalismo

Vegetalismo is best translated as knowledge learned from the healing plants and also to the practice of using this learned knowledge to heal. Vegetalismo involves communicating with the plants and learning their healing powers. When my informants shared their experience of vegetalismo, they generally spoke of 'plants as teachers', a concept that was salient throughout my fieldwork. Luna (1986) reports this in his ethnography on curanderismo in Iquitos, Peru. In his experience, he noticed that his informants, who were 4 shamans, articulated their relationship with the healing plants of the jungle as one where they learned directly from the plants how to heal. These healing plants are not only teachers but they are also *doctores*, or doctors. As doctors, they inform healers how to heal and what to use in the healing process. They occupy an important sector in Peruvian curanderismo, and are foundational in the shaman and curanderos practices. It is their belief that if they fulfill certain conditions of isolation and follow a prescribed diet, these plants are able to teach them how to diagnose and cure illnesses (Luna, 1986). They heal by singing *icaros*, magical songs, and using the *vegetales* medicinales, medicinal plants.

III. 3. A. Three Sacred Plants

In the practices of my informants, three sacred plants are used regularly that hold specific intentions for healing. The three [sacred] plants reported to me by my informants are ayahuasca (*Banisteriosis caapi*), tobacco "mapacho" (*Nicotiana tabacum*), and ajosacha (*Mansoa alliaceae*).

Many different healing plants are used in this tradition of healing and each plant embodies a specific purpose and intention for healing. The three sacred plants mentioned are considered foundational and are used by my informants who practice Peruvian curanderismo: Juan, Andres, Pedro, and Lucas. As I outline the uses of each plant, I will specify who [informants] reported using the plants and for what reasons.

Ayahuasca (*B. caapi*), tobacco 'mapacho' (*N. tabacum*), and ajosacha (*M. alliaceae*) occupy important places in the tradition of Peruvian curanderismo because of their purgative qualities, hallucinogenic properties, and for the belief that these plants guide both healer and patient through the spirit world in search of spiritual harmony and balance.

Aside from the similarities between these plants, differences, too, exist that give each plant its individual significance. These sacred plants are used both directly and spiritually, so it is hard to separate the direct application from the spiritual application. However, it will be apparent what type of application I report on in context.

Ayahuasca.

Ayahuasca (*B. caapi*) is the most common plant reported on, yet *Banisteriopsis caapi* in its singular form does not make up the ayahuasca medicine that is used in healing ceremonies. *B. Caapi* is one component of the final mixture; the other component of the final mixture is *Psychotiria viridis* commonly known as chacruna or yagé. The two plants together make up the commonly known ayahuasca medicine. One of my informants, Pedro, reported a unique way of preparing his ayahuasca medicine that differed from the other informants. In the preparation of his ayahuasca medicine, Pedro complements the ayahuasca mixture with 12 other healing plants to give his patients a complete healing

experience. In doing so, he works towards strengthening the immune system, while still giving the patient a visionary experience. Drinking the ayahuasca medicine results in auditory and visual hallucinations, and it induces purging.

Juan, Pedro, and Lucas reported using the ayahuasca medicine as a standard in their practice. Andres does not use it to heal patients, but he did mention that he drinks it to self-heal (heal himself). Señora Dora made no mention of using ayahuasca, nor did it look like she sold ayahuasca at her vending shop.

Pedro described ayahuasca as the body and the strength. Juan shared that the ayahuasca medicine allows a patient, and the healer, to travel into the past, present, and future, thereby allowing the patient and healer to introspect and find ways to harmonize all dimensions of human existence.

It is in these explanations of ayahuasca that I found the theme of *guia*, guide, in my research. This theme will be explored in more depth in the analysis portion of this thesis. Lucas presented to me the concept of *sensibilidad*, sensitivity (relating to the senses), in his description of ayahuasca. For him, ayahuasca medicine helped open his senses up, making him more sensitive to the environment around him. This medicine allowed him to transcend normal existence and respond to the callings of the spirits of the jungle.

Juan, Pedro, and Lucas specified that ayahuasca is used to evaluate a patient in the first ayahuasca ceremony, or ayahuasca *mesa*. This is where and when a patient's primary diagnosis is made. It is not necessary for the patient to drink the ayahuasca medicine during the ceremony, but the healer always drinks it in ceremony. Juan specifically reported that not all people are fit to drink the ayahuasca medicine, and if so they should

not drink the medicine for the ceremony. This was the case for me in my first ayahuasca mesa experience. Juan explained to me that *la doctora* ayahuasca, the doctor ayahuasca, told him that I was neither fit nor ready to consume the medicine.

Ayahuasca provides the necessary medium for the healer to communicate with the spirit realm. It is during this transcendence that the healer communicates with *la madre de la planta*, mother of the plant. The mother of the plant then tells the healer how to heal the patient and what plants to successively use to heal the patient. Ayahuasca medicine, in this way, is used to harmonize all aspects of the human body and makeup—mind, body, and spirit. All of this occurs in the course of an ayahuasca mesa and in subsequent healing ceremonies as the healer deems necessary.

Ayahuasca also has purgative qualities that are held in high esteem by my informants. It is used as a purgant to help eliminate *toxicidades*, toxicities, and *flemosidades*, phlegm, from the body. Juan explained that some of these toxicities physically manifest themselves in people's bodies as *fuertes frios*, strong colds, that end up stagnating the body making it difficult to effectively heal the patient. Ayahuasca contains warming properties that signal to the patient *where* in their body they are hurting and informs the healer how to dislodge the 'coldness'. For healing to occur, these stagnations need to be expelled. Ayahuasca, therefore, is a perfect medicine to begin any healing experience.

Tobacco.

Tobacco (*N. tabacum*) is by far the most commonly used plant by most of my informants'. Neither Lucas nor Señora Dora made any mention of using this plant.

However, given Lucas' role as a curandero and shaman, he most likely uses mapacho in healing ceremonies.

The tobacco plant serves an important role in the traditional healing practices of Peruvian curanderismo and it is called by its common name mapacho. Mapacho includes the strains of tobacco that grow in the Peruvian Amazon and that are used in healing. When smoked, it is believed to wake up the spirits in the surrounding environment. Smoking mapacho also has prescribed intentions and purposes aside from awakening the spirit realm, and it varies from healer to healer depending on their specific intent for healing within their practice. According to all of my informants, though, mapacho is smoked and used to augment the medium between the spirit realm and material.

Juan, given his experiences with dark magic and witchcraft, uses mapacho for strong energies, to expel evil and make it disappear from the area he is occupying. Similarly, he explained that he blows mapacho smoke on a patient when they are having bad visions or if they are faced with negative energies in their trance. It is like undoing all of the bad *vibraciones*, or energies, so that prayer and the songs, *icaros*, of the plants can enter the body. He said in the interview, "*el tabaco symboliza lo que tu dominas*", translated as, "tobacco symbolizes what you dominate". What he is saying here is that mapacho embodies the strength, *la fuerza* that he has learned and obtained. The strength he speaks of is the strength of the plant, *la madre de la planta* that one learns in aprendizaje, apprenticeship.

Pedro introduced me to the concept of *intenciones*, intentions, in the context of mapacho. He explained that in smoking and blowing mapacho onto someone, one is transmitting a specific type of energy that is similar to transmitting a personal prayer.

This energy, like a prayer, carries a specific intention for healing embodied by the smoke. The smoke, now blown over the patient, penetrates the patient's body in the form that the healer intends it to be and heals the patient accordingly. Mapacho, then, begins to alter patient's energy, bringing the patient closer to spiritual harmony and balance. Pedro also reported smoking mapacho at specific moments in the day, what he called *puntas*, or points. These points are at 12 a.m., 6 a.m., 12 p.m., and 6 p.m., each point carrying its individual purpose and intention. He did not explain why he smokes mapacho at these times, but he stressed importance in their significance.

Andres explained to me that to him mapacho is used for five specific reasons: cleaning the body, to look at the spirits your [patient] is looking at, to scare spirits away, to take care of the body, and for esoteric work, *baños esotericos*. He, too, smokes mapacho at certain periods of the day to cleanse the air and environment around him. Andres has three specific tobacco pipes he uses to smoke mapacho from, all of which have specific intentions for use in practice. He stressed the importance of one of his pipes, *El Papa*, the father, which he used during the interview to cleanse the environment. During my interview with him, he excused himself to do his daily ritual of blowing smoke around his place, explaining to me that he was blowing away all of the negative energy. This happened at 4:30 p.m., which differs from the points Pedro shared with me. This might have something to do with the fact that Pedro is an ayahuasquero and Andres is not; however, I do not have the appropriate information to objectively say so.

Baños Esotericos

One situational use for mapacho that Juan and Andres reported was for baños esotericos, esoteric baths. Juan shared a small anecdote about a man he healed who had been cursed

by an anaconda. The anaconda took the man's ability to walk so that it would have a better chance to eat him. Upon finding him, Juan gave the man an esoteric bath, the intention aimed towards cleansing the man of the anaconda's curse, and after a day and a session of mapacho blowing, the man was able to walk again. The mapacho smoke's intention in that situation, in conjunction with the esoteric bath, was to dispel the anaconda's curse from the man's body.

Andres shared a similar use for mapacho in esoteric baths, but with less specificity. He simply stated the importance of mapacho during esoteric baths, saying that it is important not to forget the significance of smoking mapacho to achieve a complete healing experience.

Ajosacha.

Ajosacha (*M. alliaceae*) is best recognized among my informants for its purgative qualities. Just as ayahuasca is held in high esteem for its purgative qualities, ajosacha is sacred for those informants who reported employing this plant in their healing practice. Only Pedro and Andres reported using ajosacha in their practice.

For Pedro, ajosacha is foundational to his practice of curanderismo. He specified that using ajosacha, along with the other 12 plants he complements with his ayahuasca medicine, is his way of integrating his knowledge of vegetalismo, plant knowledge, with his knowledge of shamanism, which is focused around the use of the ayahuasca medicine. Pedro has his patients consume this plant everyday in the form of tea or extract. He believes this plant helps strengthen immune systems, and cleanses a person's energies: mind, body and spirit. He believes that consuming this plant gives you more lucidity in your thinking, allowing you to think clearer and cleaner. He also believes that

ajosacha helps dreams be clearer and more lucid, allowing one to introspect in his or her dream-state. To him, this plant is like a personal guide, *un guia*, in healing, where consuming this plant helps strengthen the weak parts of your mind whilst cleaning your blood and strengthening your bones and joints.

For Andres, ajosacha is precisely used to reach the desired purgative effects necessary to effectively heal the whole body. Since he does not like to use ayahuasca to heal his patients, he gives his patients ajosacha to purge. Aside from this information, Andres did not report using ajosacha for any other purpose other than to purge.

III. 3. B. Icaros: Magical Songs

Icaros are magic songs, the healing music of the plants they [icaros] directly embody.

Juan explained to me that icaros are sung to call in the mother of plants, *para llamar a la madre de las plantas*, in the event of a healing ritual. He followed this by explaining that when he calls in the mother of the plants by way of singing their *icaros*, the songs are going to have an effect [on you] as if you were drinking the actual plant.

In conversation, Juan talked about using icaros with the verb form of icaros—
icarar. For example, "entonces que yo te voy a icarar", I'm going to sing a healing
[plant] song to you. This also means that he is going to invoke the healing powers of the
plants through song and transmit the plant's powers over to the patient. Metzner (1999)
explains in his reporting of icaros and healing that this form of healing is radically
different from allopathic medicine, namely because the healer is not just singing these
songs to please and calm the patient; rather, shamans are indeed singing the icaros with
the sole purpose of healing whole body, not just for temporary satisfaction.

The plant's powers come out of the healer (curandero, shaman), explained Juan, in the way healers experienced the plants after eating them during sessions of *dietas*, prescribed eating rituals. To sing the icaro is to sing the plant's healing powers into existence. In healing ceremonies and healing sessions, icaros are always used in complement with the smoking of mapacho and when drinking the ayahuasca medicine. Icaros are the direct embodiment of plants' powers. Each plant has its own icaro that is unique to the healer who ate the plant and learned from it.

My informants shared with me that the plants themselves teach them their icaros in the event of *dietando*, dieting or eating. Healers generally do not share their icaros with other shamans or curanderos unless a guided leader shares an icaro with them during apprenticeship, or if it is passed down as part of ancestral tradition.

III. 4 Conceptions on Health and Illness

In Peruvian curanderismo, the spirit component of the self is foundational to understandings of health and sickness. The spirit self comprises the body and mind, thus making it the most important aspect of the human make up and organization. I found that my informants often referred to diseases and sicknesses as consequences of spiritual imbalance. One informant, Pedro, explained, "porque en realidad si hablamos de plantas medicinales trabajamos con base lo espiritual", translated as, "in reality, if we talk about medicinal plants we are working within a spiritual foundation".

Therefore, in the context of Peruvian curanderismo, concepts of health, illness, and the body are founded on the principal of keeping the spirit in harmony and balanced.

All of the treatment, rituals and procedures, and practices found in this system of healing

involve a direct manipulation of the spirit realm. All of the informants I spoke to have developed their own practice that is a culmination of their life experiences and a product of their aprendizaje, apprenticeship.

"There is a link between someone's ethnomedical conceptions of the nature and cause of an illness and what he or she does to prevent that illness or to right the body, should illness occur." (Quinlan, 2011, p. 391)

III. 4. A What Does It Mean To Have Health In Peruvian Curanderismo?

Medicinal plants in Peruvian curanderismo are an essential component of the practice. Healers heal using the strength and power of the plants—one cannot talk about Peruvian shamanism or curanderismo without an explicit mention of the medicinal plants. The plants are not called *plantas medicinales*, or medicinal plants, by the healers, but rather, they are called *vegetales*, or vegetables. By vegetales they do not necessarily mean vegetables as we know vegetables. Instead, healing plants are called vegetales, an edible or healing plant used as medicine. When my informants referred to themselves as curanderos it was explicitly as a curandero vegetalista, a healer that employs plants. This was expressed by four of the five informants: Pedro, Juan, Andres, and Lucas.

Since my informants reported that health starts with *alimentacion*, or nutrition, it is not a coincidence that medicinal plants are referred to as vegetales, vegetables. Without proper or healthy nutrition, *alimentos sanos*, the body is left open to any impacts and illnesses. The idea that alimentacion is vital for attaining health is translated into preparation of an ayahuasca ceremony.

Before ingesting ayahuasca, or any medicinal plant for that matter, one has to undergo a *dieta*, diet. However, this is not a diet as we traditionally view diets Dietas means

abstaining from foods that stagnate the digestive system, primarily by abstaining from greasy foods, salt, sugar, spicy foods, fats, and meats. This was supported by four of my informants. Andres and Lucas each specified that diets vary according to the illness in question, but for the most part follow the same prescribed food abstinences.

With this said, as much as nutrition implies a corporal manipulation of health, in Peruvian curanderismo, nutrition occupies both the material realm and spiritual realm, wherein a malady corresponding to improper nutrition is seen as being an imbalance in the spirit and the environment around the patient. This corresponds strongly with the idea that vegetales, plants, occupy the spiritual dimension in the trajectory of Peruvian shamanism and curanderismo.

Purging.

Another way to attain health is through purging. Sessions of purging occur both before the event of an ayahuasca ceremony and during the ceremony. The sacred plants ayahuasca and ajosacha are used to induce vomiting or diarrhea, often both. I believe that this is one of the reasons why these plants are so sacred in Peruvian curanderismo. It is believed that in purging, one is expelling all of the *toxicidades* and *flemosidades*, toxicities and phlegm, from the body, and is thereby working towards reaching a state of harmony. Flemosidades and toxicidades present themselves as obstructions in the body.

Juan described these toxicities and phlegm as *entorpecimientos*, or obstructions, in the body that do not allow for a full body healing when present in the body. He specifically said when an obstruction is present in the digestive system it is poisoning the body and weakening the body's defenses. Therefore, expelling these obstructions calls for an intervention that involves purging wherein one rids the body of toxicities that

might interfere with healing. These obstructions are not always visible to the naked eye, and they do not have to be for healers to treat.

Obstructions that manifest themselves in the digestive system can be caused from spiritual imbalances pointing at emotional distresses. In this case, the spirit implies the emotional component of the patient and it can mean that a patient is not paying enough attention to his or her body's needs.

Lucas described an example of this type of spiritual sickness causation that directly involved depression and its treatment. For depression, he reports, the patient needs a session of purging because depression begins with an obstruction in the stomach, therefore leading to imbalances of the psyche and spirit.

To induce purge with an intention to heal spiritual imbalances, sacred plants are used, namely the ayahuasca medicine mixture (*B. caapi and P. viridis*) and ajosacha (*Mansoa alliaceae*). Ayahuasca is held in high esteem both for its purging qualities and hallucinogenic properties. It is generally believed amongst my informants that the ayahuasca medicine helps eliminate these obstructions that manifest themselves in the body precisely by inducing purge.

Juan, Pedro, and Lucas all incorporate ayahuasca into their healing practices.

Andres, on the other hand, does not give ayahuasca to his patients. To purge, Andres uses ajosacha (*Mansoa alliaceae*). Ajosacha also has purging qualitites, though my informants were not as explicit as to how this plant induces purge. Both Jose and Pedro reported using this sacred plant in their practices as well.

Concept of Abierto versus Cerrado: Closed versus Open.

Another common element that I found among my informants was the idea of *abierto* versus *cerrado*, open versus closed, with respect to achieving health. To be abierto, or open, means that one's body is receptive to being healed. To be abierto is to let your body be harmonized with the help of an experienced healer. On the other hand, to be closed, or cerrado, means to have spiritual and corporal imbalance, wherein an appropriate measure for 'opening' up the body has to happen. When the body is 'closed', the person cannot be adequately treated, and therefore cannot be healed.

Pedro shared with me that issues of the heart could be an indication of a 'closed' body. He shared with me an example of a patient who came to him with issues of love that were leading to feelings of sickness. Pedro felt that the patient had a case of a 'closed' heart, *corazon cerrado*, and therefore could not reach an understanding of love, how to have peace, or how to be calm. As a remedy, he prescribed the patient *chiric sanango* (*Brunfelsia grandiflora*), a common plant that Pedro reported helps open up the heart. This plant allows the patient to reach a harmonious balance in love and overall health.

Diagnosis.

The diagnosis process as reported and experienced during my fieldwork happens in the initial ayahuasca ceremony. The only informant that reported otherwise was Andres. He does not use the ayahuasca medicine to heal his patients because he does not feel comfortable with the risks that can occur when a patient takes the medicine mixture. Instead, he uses his hands and communicates with the spirit realm by singing to *la madre de las plantas*, mother of the plants. The mother of the plants is also the spirit of the plant. The mother just refers more specifically to the healing powers of the plant's spirit.

The mother of the plants lets healers know what is wrong with the patient and how to effectively treat the patient using their [the plants] powers and strengths—*la fuerza de los vegetales*.

Drinking the ayahuasca medicine opens up the channel healers need to connect with the spirit realm and to communicate with the mothers of the plants. My informants also reported communicating with other spiritual entities in the course of diagnosis, namely the spirits of deceased healers and animals. This process, however, does not require the patient to drink the ayahuasca medicine. Only healers need to drink the medicine to diagnose and treat the patient using the spirits of the plants. For the patient, drinking ayahuasca is more of a transformative experience where they envision their past, present, and future. It also serves as a way to expel toxicities from the body through purging.

Drinking the ayahuasca medicine itself is not a pleasant experience. Juan explained that even the smell of the medicine makes some of his patients' throw up, let alone drinking the medicine. The trance can also be an undesirable experience. A friend of mine told me that she personally did not like drinking the ayahuasca medicine because the trance experience can be very intense. However, she drinks the medicine to have transformative and introspecting experiences.

All of my informants, excluding Dora, reported communicating with the mother of the plants to diagnose their patients.

Etiology of Sickness.

"Illness is a broad concept, which may include somatic and psychic disturbances, emotional and economic problems. Not being loved, difficulties in relation with other people, bad luck in business, laziness, sexual excesses, alcoholism may all be considered illnesses, and therefore subject to the healing action of a vegetalista." (Luna, 1986, p. 122).

In reference to illness and disease, I will adopt the term 'sickness'. Sickness refers to a condition of the self that is unwanted by its bearer (Beyer, 2009). I feel this term best represents my informants' explanations of illness and disease because of the term's inclusion of the social, corporal, spiritual, and psychological manifestations of distress.

Sickness is borne from an imbalance in the spiritual, corporeal and psychological dimensions of the organism. My informants precisely characterized sickness as surfacing from spiritual imbalances that can be caused by one's own doing or by another person; but at other moments, when pathological obstructions are present, sickness is portrayed according to the cultural understanding of the disease. For example, in conversation one of my informants described AIDS as a disease imposed on the body by the devil. Therefore, to treat this pathology healers give patients cleansing baths to purify their soul before continuing with any other treatments.

Many spiritual imbalances begin with inadequate nutrition. Obstructions presented in the body as digestive issues are interpreted as the result of spiritual imbalances that led to the corporal imbalances felt by the patient.

Concepts of sickness are also explained as arising from bad luck (saladera) and envy (envidias) that relate to issues of love or business. Señora Dora explained that envidias affects both the person who is envious and the person being envied. Feelings of envy lead to bad decision-making, ill thoughts, and a disruption in societal balance.

Perfumes made with certain plants, *pusangas*, are prepared to treat the person affected by these situations.

Additionally, my informants introduced me to the concept of illnesses that are caused by people through dark magic. In this context, to *hacer daño*—to do harm—indicates that witchcraft is being used against somebody to promote soul-loss and/or to send negative energies to the affected person.

Juan described this same phenomenon as *cutipar*, which means *contagiar*, to spread, in Spanish. In the context of brujeria and majias oscuras, to cutipar someone is to spread negativity to them with the intention of causing harm. Juan reported most of this information to me because of his past experiences growing up around witchcraft and dark magic.

In Juan's practice, *espiritus infernales*, or infernal spirits, are always lurking in the peripheries and he has to work towards keeping those spirits away from his healing practices with patients. Practices of brujería are not common in any of my informants' practices. All of them explicitly said that they do not practice with negative work and only implement positive work with patients. Negative work follows them around and finds a way to cause harm in their lives later.

III. 5 Treatments

According to my informations, the treatments employed to heal in Peruvian curanderismo follow the same principles as their individual and collective concepts of health, sickness, and the body. Treatments are specific to the individual. There is no standard type of treatment for any single cause of sickness. Treatment depends on the individual's

personal experience with the sickness at hand and the healer's interpretations of the sickness. Healers interpret sickness by communicating with the spirit realm while in altered states of consciousness. This involves interacting with the spirit realm and contacting the mother of the plants—the spirit of the plant.

To use the spirit of the plant to heal is to use the strength and power of the plant, la fuerza de la planta. The spirit of the plant helps the healer see what is wrong with the patient and how to treat them. With this knowledge, the healer then knows what plants are necessary to heal the patient. If he knows the magic song of the plant, the icaro, then he does not need the actual plant to transmit the healing powers of the plant to the patient.

III. 5. A Madre Versus Planta Directa: Mother Of The Plant Versus Actual Plant
In a healing event, differences exist between using the actual plant and using the mother of the plant. Healing plants occupy both the material world and the spirit world. Using the actual plant involves directly ingesting the plant and letting the plant have its course throughout the body, healing specific maladies that are present in the body. Using the mother of the plant involves the guidance of a healer, be it a shaman or curandero. They know how to use la fuerza, the strength, of the plant's mother.

To use the spirits of the plant is to use la madre de la planta. In order to use the mother of the plant, one has to undergo an intimate process of learning the plants, el aprendizaje, or the apprenticeship. El aprendizaje is by a family member, friend, or close relative that has knowledge and experience with the traditions of Peruvian curanderismo. Señora Dora, Juan, and Pedro shared that a family member guided their aprendizaje and taught them how to communicate with the spirits of the plants. Andres and Lucas,

however, shared that the spirits themselves called them into this tradition and guided them through the apprenticeship.

El aprendizaje entails dietando, eating, the plant and by way of doing this, learning the plant's specific song, icaro, and spirit, madre. This is how the concept of plants as teachers applies. The healer, shaman or curandero, is granted la fuerza, the power, to heal with the mother of the plant. Therefore, the shaman or curandero becomes the conduit between the spirit realm and the material realm.

Using the actual plant to heal involves a different, less procedural, application. The actual plant is used when there are noticeable corporeal disturbances in a patient, like in the case of open wounds, cancer, AIDS, etc. In this way, Señora Dora provided me with the most information on the use of actual plants given her role in this tradition. She sells medicinal plants and tinctures, but does not practice curanderismo. She knows what each plant is used for, how they work, and how to use it, but not how to use la fuerza de la madre, the strength (power) of the mother. Both Juan and Andres provided me with information on the difference between using the actual plant versus using the mother of the plant. *Sabia*, the sap that comes from the roots of plants, is an example of using actual extractions from healing plants to heal maladies present on or in the body.



Image 1. *Sabia*—sap from plants

They both explained that sabia is used to dislodge *calculos*, abscesses, and tumors, in the body. Juan said, "*Ya la sabia directa estas aplicando, ya la medicina vegetal en directo*", translated as, "now you are directly applying the sabia, now the plant medicine is being directly used." This, however, is but a very small aspect of their healing abilities. Juan reported that when he heals his patients using the actual plant, he tells his patients that it is the [direct] medicinal plant that is being applied that is going to heal you, not the mother of the plant.

While shamans and curanderos use the actual plant to heal when necessary, their main role Peruvian curanderismo, as I have it understood, involves the direct manipulation of the spirit realm to heal. Not anyone has the ability to do this, and to do so one has to undergo a ritualized learning process-- el aprendizaje, the apprenticeship.

Esoteric Treatments.

Two kinds of esoteric treatments were presented to me by my informants: baños esotericos (esoteric baths) and pusangas (love perfumes). A baño esoterico involves

creating a flower bath using healing plants that tailor alleviating a specific ailment. Generally in a baño esoterico, a small bowl containing boiling water and healing plants are placed under an open-holed seat. The patient sits on the seat and absorbs the fumes and odors that evaporate from the bowl. After sitting above the boiling water of plants, the healer will pick up the small bowl containing the water and plants, now cooled off, and bathe the patient with the remaining contents. Juan says that following this bath he starts to smoke tobacco (*Nicotiana tabacum*), or mapacho, and blows the smoke over the patient's body with the intention to transmit the healing energy of the plants in the form of smoke. By smelling and inhaling the mapacho smoke, the patient absorbs the healer's intentions and is healed accordingly.

Other types of esoteric baths include the purification of corporeal imbalances (e.g. purification of the blood) and the purification of the spirit (e.g., purification from *daño*, harm, or *amor*, love). Juan and Andres were the two informants who expressed explicit use of this type of treatment in their practices. When Juan explained baños esotericos to me, he clarified that the esoteric component of the bath does not come from the healing plants. Rather, the esoterism is directed and evoked by the healer. Precisely, the intention for the bath is embodied through the healer's powers and the intention becomes the resultant healing response.

Pusangas are another form of esoteric treatment. Pusanga perfumes involve directly treating social distresses, such as issues of love and business. Therefore, these perfumes are created with a specific intention in mind. A man asking for a pusanga perfume to win the love of one woman is an example of the type of esoteric work Juan and Dora perform.

III. 6 Religion

Religion was not a focus topic in my research but I quickly found that religion, specifically Catholicism, was a foundational element within a couple of my informants' healing practices. Luna (1986) also notes in his ethnographic account of Peruvian curanderismo that he knew he was dealing with a religious phenomenon that was not explicitly mentioned by his informants. Instead, he found that vegetalistas [curanderos] were especially articulate when describing religious phenonema (1986).

Juan and Andres are the two informants who noticeably followed a Catholic belief system and made references to catholic iconography during my experience talking to them. The culture in the city of Iquitos is strongly tied to a catholic belief system, so it is plausible that many shamans and curanderos in the area incorporate their religious beliefs into their healing practices. I did not direct any of my interview questions towards gaining an understanding of the religiosity of my informant's practices. Instead, I gathered information about religion from the dialog of my interviews and from seeing the religious memorabilia in Juan and Andres' place of practice.

Juan, my main informant, talked about religion and God in the context of life and death. He explained that he, as a shaman and curandero, does not give life or take life away—it is the man above [God] who can grant life or take life away. In the same vein, in talking about health—what health means to him—he responded by saying that for him health is the most important thing that God has granted us. Implicit in the trajectory of his healing practice exists his religious beliefs.

I noticed in the ayahuasca mesa I participated in that Juan had two bibles and a cross that lay on his table. Unfortunately, I did not ask him what the significance of his

religious memorabilia was, but I inferred that it could have something to do with him keeping God's presence and energy in the room. Juan believes that God has granted us [people] the gift of sleep, life, and health, making Him the ultimate judge of us all. Juan's healing practice is strongly founded in his catholic beliefs.

I noticed Andres' religious relationship when he showed me the altar in his healing room.



Image 2. Andres' healing altar

On his altar, Catholic memorabilia are displayed, including figures of Jesus Christ, Mother Mary, and spirit figurines that Andres addressed importance to in reference to healing. Alongside this memorabilia are his various tobacco pipes, including his main pipe 'El Papa', the father, which he stressed was the most important of his pipes.



Image 3. 'El Papa' tobacco pipe

Throughout our interview, Andres made mentions of the importance of prayer during his healing sessions. He explained that in his first experience healing a woman, at the age of 7, the plant spirits called to him, telling him to help this woman. The spirits told him to say seven Our Father's in order to awaken to power of the healing spirits and allow them to enter the woman's body to heal her. Andres concluded this by saying, "My God is up there", gesturing towards the sky with his fingers, "He helps me heal my people". In his case, I report that Andres' religious affiliation is foundational to his healing practices.

As for my other informants (Pedro, Lucas, and Señora Dora) their religious affiliation was more difficult to decipher. None of them mentioned their religious connection, but this does not mean that they do not have a religious affiliation.

IV Discussion

IV. 1 Ritual, Healing, and Medicine

In healing and medicine, a great many rituals exist. Good (1993) and Brody (2011) both point to two specific rituals that stand out the most in a hospital: the physical examinations performed by the physician, and the "rounds" during which the examining physician presents to the other physicians all the findings that have been gleaned for that patient. Good (1993) then argues that in the latter "rounds" ritual, apprentice physicians learn how to construct its "objects"—bodies, illness and disease. Learning medicine, and healing traditions for that matter, are grounded precisely in establishing a medical knowledge where apprentice healers develop a unique way of seeing and treating the body in the face of sickness.

Studying and understanding how people learn offers insights into some of the formative practices (e.g., ayahuasca ceremony, clinical procedures) through which medicine, and healing, constructs that world (Good, 1993). I propose that learning processes in Peruvian *curanderismo*, as reported by my informants, is reflective of healers' perspectives on health, sickness and the body, and thus indicates the formative practices healers apply to heal.

Theoretically, Good (1993) and Brody's (2011) report of the two rituals present in Western hospitals resonate with the two ritual processes I found in conversing with my informants. I found that the process of *becoming* a healer—a curandero, shaman—involves an intimate learning process referred to as *el aprendizaje*, the apprenticeship. My experience participating in an ayahuasca ceremony presented me with another account of ritual in this healing tradition. The two processes, which I have named

according to the language of my informants are el aprendizaje and *la [ayahuasca] mesa*, the learning apprenticeship and the ayahuasca ceremony, respectively.

Csordas and Lewton (1998) introduce the idea of 'religious healing', with religion understood as any cultural form that highlights the symbolic, sacred, or spiritual elements of therapy. Peruvian curanderismo and shamanistic practices presented in this thesis represent a form of religious healing that involves the manipulation of the supernatural world. This supernatural world is the foundational component of this healing system.

In many ways, biomedical clinical encounters are a form of religious healing in the way that their therapeutic efficacy is grounded in the belief of a healing system (Western evidence-based biomedicine) that involves a series of therapies and interventions—surgeries, injections, pills, and physical examinations—that are believed to result in therapeutic relief.

IV. 2 Ritual Theory

Rituals involve a set of repetitive prescribed formal behaviors (Kaptchuk, 2011) that are conscious, intentional, and often involve repetitive bodily actions that attempt to impose meaning on one or another aspect of the world (Brody, 2010). Rituals involve the manipulation of the material world in a way that invokes meaning onto otherwise arbitrary objects, places and ideas. Invariably, symbols are the smallest component of ritual that still retain specific properties of the ritual, and symbols always repeat the message of the entire ritual (Kaptchuk, 2011; Turner, 1967).

For healing rituals, this involves the manipulation and transformation of the material world into a created mythos world that is often dictated by what is

socioculturally believed to be "right and fitting to do in the context of a given situation" (Brody, 2010). The created mythos often involves an understanding and interpretation of the spirit realm as it corresponds with the particular ritual at hand. Generally, the performative nature of ritual is typically more important than its denotative nature (Seligman, 2008) and this is precisely what I argue in this thesis.

Rituals generally take place in a sacred space and follow a set of prescribed behaviors that are accepted for the situation and context. The sacridity of the place is imposed by the actors of the ritual—the healer and patients. Together, they establish the sacred parameters of the place deeming it an appropriate space to carry out the ritual. Ritual creates a liminal space, a time between before and after where the transformation occurs and alternate realms are visited. This sacred space is not limited to just one place and the place is not what makes the ritual sacred most of the time. The ritual space can be in different places as long as it adheres to the elemental components of the necessary ritual at hand.

In Peruvian curanderismo, it is preferable for the ayahuasca ceremony to take place in the jungle because the ritual generally attributes the elements of the jungle into the created space and transformation. I saw this with three of my informants. However, given the healer's background and position in society it can take place anywhere including a residential home. This was the case in my experience participating in an ayahuasca ceremony. The ayahuasca ceremony was held in the home of Juan's friend, who lives in the city of Iquitos.

Ritual healing usually requires the guidance of a healer with technical expertise and charisma to make the universal mythic world accurately converge, penetrate and

elicit changes in the idiosyncratic biographic world of the patient (Kaptchuk, 2011). The patient comes with an intention for transformation, the transformation generally being one from a state of disharmony—illness, sickness—to a state of harmony. Coming to the healer, the patient trusts and believes that the healer has an understanding of the nature of their sickness and therefore follows the guidance of the healer with the hopes of restoring health and harmony.

In essence, healing rituals are surrounded with belief and uncertainty, positive expectancy and worry, anxiety and fear (Kaptchuk, 2011) and this is reflected in a healers mannerisms and behaviors in the event of the ritual. A relationship between the healer and the patient is established during the process of the healing ritual and together they place meaning onto objects that are represented as fluid symbols in the transformation of the patient. In this way, healing rituals are inherently *transformational*, for the ritual itself, the healer, and the patient.

IV. 2. A. Ritual and Placebo

Placebo research shows that the degree of transformation a patient experiences in the event of a clinical trial, namely the experience of analgesia, is dependent on the degree of expectation generated (e.g., high expectancy versus low expectancy) and the type of treatment ritual that is performed (e.g., placebo acupuncture versus placebo pill). Placebo acupuncture studies have contributed valuable findings for understanding how variations in the therapeutic ritual (e.g., augmented patient-practitioner interaction versus limited patient-practitioner interaction) produce varying placebo responses in the event of a placebo treatment ritual (Kaptchuk et al., 2008; Kelley et al., 2009). Given this, it is appropriate for placebo studies to individually control for the different components

known to influence placebo effects: (i) patient's response to observation and assessment, (ii) the patient's response to the patient-practitioner interaction, and (iii) the patient's response to the administration of a therapeutic ritual (Kaptchuk et al., 2008; Paterson and Dieppe, 2005).

The study of the placebo effect is essentially the analysis of the relationship between the complex psychosocial context surrounding the patient. This constitutes the ritual of the therapeutic act and its effects on the patient's brain (Benedetti, 2012).

The components known to influence placebo effects in biomedical clinical trials do not exist only within this paradigm. In conversation with my informants, I found three themes that resonated most with placebo theory.

These themes are *guia*, guide; *intenciones*, intentions; *soplando*, blowing. These themes adhere to the components of placebo effects that are individually isolated in clinical trials. One theme, the theme of *sensibilidad*, did not resonate with placebo theory nor with the components known to influence placebo effects. However, this theme was present throughout my research and is important to emphasize. I argue that sensibilidad, receptiveness to the spirit world, can be best related to medical knowledge. Receptivity with the spirit world is the foundation of medical knowledge in Peruvian curanderismo, just as biomedicine is the foundation of Western medicine.

Placebo studies provide the best model from which to study how rituals alter physiology and brain responsiveness. I argue that placebo studies provide one avenue to connect the biology of healing with a social science of ritual (Kaptchuk, 2011). By addressing the main ritual of an ayahuasca ceremony I participated in during my fieldwork and addressing the ritual aspects of biomedical clinical trials, a discursive

bridge is created, expanding both the field of ethnomedicine and placebo studies. Both placebo and ritual effects are examples of how environmental cues and learning processes activate psychobiological mechanisms of healing (Kaptchuk, 2011: p. 1856).

IV. 3 Themes

The themes I found in my research have mutual interrelationships. They relate to each other linguistically and in practice. This section serves as a guide and a tool through the Spanish-English translations of these themes, and likewise, it serves as a tool of translatability with placebo theory as I see applies.

Guia: Healing Guides

In talking with my informants, I often found that they referred to themselves and to plants as guides, guias. This idea of a guide corresponds to the learning apprenticeship healers experience prior to becoming a healer.

To become a curandero, or shaman, one has to undergo strict ritual processes to learn the way of the plants, understand their healing potentials, and then finally to learn how to use the plants in healing. In learning how to use the plants to heal, healers themselves become guides in the practice of Peruvian curanderismo. As evidenced by my informants' accounts of their experiences in apprenticeship, this learning process is accomplished with the guidance of an experienced healer familiar with this healing tradition. This apprenticeship is also accomplished with the guidance of spirits, usually the plant spirits. Interestingly, Andres shared with me that he was once referred to as "El guia de los espiritus y los vegetales", the guide of the spirits and the plants.

In conversation, my informants often referred to the plants and their spirits as *maestros*, teachers, and doctores, doctors. Doctors and teachers guide people towards achieving certain outcomes—they are guides in peoples' lives who *teach* and *guide* a learning process. This is no different in reference to plants and their spirits. How shamans and curanderos in my research conceptualize these spirit entities alludes to the development of deep relationship wherein the plants spirit entities guide and teach apprentice healers. Plants teach shamans and curanderos how to identify sickness and, in turn, how to heal sickness using their [plants] healing powers.

After being granted the ability to use the power of the plants, la fuerza de las plantas, the healer is considered a guide him/herself. After acquiring the knowledge and strength of the healing plants, the healer can then guide people's healing experiences in ritual ceremonies. Healers then become guides for patients and navigate between the material world and spirit world. As a guide in ritual, the healer becomes the direct conduit between the people in the material world and the spirit beings in the spirit world. Guidance is an inherent feature of Peruvian curanderismo.

A guide, guia, is involved in all aspects of Peruvian curanderismo and this does not differ in Western biomedicine. The idea of the patient-healer relationship in biomedical literature, and precisely in placebo theory, relates to this common theme of a guia I found in talking with my informants. Placebo theory, and placebo research for that matter, demonstrates the importance effective guidance has on the overall therapeutic experience of a patient. This is referred to as the 'patient-healer relationship' and Benedetti (2011) emphasizes in his review that this relationship marks the most important

aspect of the psychosocial healing context of a patient, supporting it with neurobiological placebo studies.

Practitioner guidance in the event of a clinical trial is best illustrated in placebo trials that measure the difference in therapeutic responses between a limited patient-practitioner interaction versus an augmented patient-practitioner interaction. Kaptchuk et al. (2008) found that an augmented patient-practitioner interaction during a placebo acupuncture treatment for participants suffering from irritable bowel syndrome (IBS) resulted in a more robust placebo effect compared to a limited interaction paired with placebo acupuncture. Likewise, the limited interaction group reported an improvement in subjective symptoms compared to the group of participants who remained on the waiting list for treatment, which was devoid of any interaction with a practitioner.

As a guide, the practitioner in the augmented interaction condition asks the patient a series of questions concerning his or her symptoms, how irritable bowel syndrome related to relationships and lifestyle, possible non-gastrointestinal symptoms, and how the patient understood the "cause" and "meaning" of his or her condition (Kaptchuk et al., 2008). The practitioner also communicated confidence and positive expectation to the patient by saying "I have had much positive experience treating IBS and look forward to demonstrating that acupuncture is a valuable treatment in this trial" (2008). This study suggested that a supportive interaction with a practitioner is the most potent component for invoking positive placebo responses.

Although this was demonstrated in a controlled setting, I found that many of the questions addressed in this placebo study resonated with the information my informants shared with me about their practice. Andres told me that the most important aspect of

developing a relationship with his patients is to treat them like family primarily by creating a sense of trust and familiarity with the patient.

I also observed this type of patient-healer interaction in the ayahuasca ceremony in which I participated. One of the comments that stood out most to me was when Juan said that in order to properly and effectively heal someone, he has to get down to the patient's level of thought and understanding. Juan has to become to the patient's equal in the healing event. Without this empathic relationship, the patient will not believe that he can be healed, and therefore the ceremony will not be as therapeutically beneficial for the patient.

Intenciones – Healing Intention.

Intenciones is directly translated as intentions—the intention for doing, the intention for being. Pedro introduced me to this theme of intentions in his description of the intention behind smoking and blowing mapacho (*N. tabacum*) smoke, which is to augment the channel between the spirit world and the material world. Intentions are transmitted in ritual to the patient by the healer using a channel, or a conduit. A plant's spirit can embody this channel, in which the intention of the plant's spirit—the plant's healing power, is projected into the patient.

Every plant carries its own intention for healing that is synonymous with the known healing qualities ascribed to each plant. The plant's intention can be, and is, embodied by its icaro, and the healer works this intention by way of singing the icaro. For example, ayahuasca medicine is recognized for its cleansing properties and reharmonizing powers, thus ayahuasca's intention for healing is to reestablish health and harmony. Tobacco, or mapacho, in this same way has an intention for healing. Its

intention is to expel negative energies and to augment the spiritual trajectory. The manner that it is smoked and the place where it is smoked has an intention and a purpose that varies context to context.

The healer and the patient also create intentions, and the intention is informed by the reason for the meeting. This is resonating of language used in placebo research and theory. Expectations created in a clinical encounter, and precisely in placebo studies, are demonstrated as having a direct influence on a patient's physiological response. In this way, the physician's intention for healing manifests itself in the expectations he/she transmits to patients in the course of a clinical encounter. Frenkel (2008) proposes that accessing expectancy puts the placebo response in the realm of an intentional act.

Therefore, we can appropriately label any expectancies associated with placebo response as an intentional act (2008). Intentions create expectations, and expectations create intentions.

Colloca et al.'s (2004) study measuring the difference in placebo effects between open and hidden administration of placebo treatments shows how the patient's interpretation of the physician's intention for entering the room affects the patient's response in analgesia. Open administration of a painkiller is more effective than the hidden administration, and this is largely due to the doctor-patient interaction. It appears that the patient's knowledge about a therapy is fundamental to the production of optimum therapeutic effects (Colloca et al., 2004). Researchers concluded that the awareness of treatment, the presence of the therapist, and the expectation of the outcome are important in eliciting placebo analgesic effects (2004).

The intentionality of the mapacho smoke, which is created by the healer and then transmitted to the patient, becomes a directly embodied experience for the patient primarily because cognitive appraisal cannot be separated from affective top-down responses. This top-down mechanism is implicated in the activation of certain brain regions, like the rostral anterior cingulate cortex (rACC), that mediate the descending inhibitory pathways associated with placebo analgesia (Benedetti and Armanzio, 2011). The rACC's role in the mediation of expected placebo-induced responses suggests that this pain-responsive region may serve as part of the network of cognitive control (Wager et al., 2004).

Soplando – The Healing Breath and Blowing Tobacco Smoke.

Soplando is directly translated as blowing. When talking about soplando in curanderismo I am generally talking about blowing smoke, and this applies specifically to tobacco, mapacho, smoke. Soplando is a way of transmitting an intention to a patient, *soplando una intencion en la persona*. The different place on the person's body that mapacho smoke is blown on carries a specific significance that corresponds with the intention for the healing.

In a similar way, blowing mapacho smoke onto the ayahuasca medicine is to call the mother of the ayahuasca medicine and wake her up. The mapacho smoke therefore augments the communication between the material world and the spirit world.

I found no direct linguistic translatability of soplando in placebo theory, but I found analogous behaviors. For example, to create an expectation is to transmit a message into a patient, and a healer at times, which in turn heightens the possibility of therapeutic relief by inducing physiological responses. To expand on this, blowing smoke

becomes a sensory cue for patients that can be manifested physiologically by directly invoking endogenous processes and activating brain regions that respond to sensory affect and cognitive appraisal, namely through opioid and dopaminergic neural pathways that relay information to the limbic regions of the brain.

The ceremonial use of mapacho in ayahuasca ceremonies resonates with the component of placebo methodology that aims to measure the patient's response to the administration of a therapeutic ritual (Kaptchuk et al., 2008). Kaptchuk (2006) illustrates this affective placebo response with the ritual administration of a placebo acupuncture treatment versus the patient's placebo response to an inert pill over time. It was demonstrated that a validated sham acupuncture device has a greater placebo effect on subjective outcomes that oral placebo pills (Kaptchuk et al., 2006). Subsequently, Kong et al. (2006) demonstrated that participants who were treated with the placebo acupuncture device demonstrated activation of rostral anterior cingulate cortex (rACC), which is involved in emotion modulations (Kaptchuk, 2011). A marked activation in the right anterior insula was also evident, which is involved with bridging sensations to emotions (Kaptchuk, 2011; Kong et al., 2006).

These findings suggest that cognitive appraisal and emotional affect catalyze the activation of the descending pain control system known as the "pain-matrix", which sheds light to the power of ritual in creating a therapeutic experience for patients.

Perception of healing leads to the physiological manifestation of healing. This is both true for subjective reports of therapeutic experience and objective reports, as demonstrated by the neurobiological studies of the placebo effect.

Additionally, a study (Harris et al., 2009) using positron emission tomography (PET) and a radioactive tracer to measure endorphins demonstrated that placebo acupuncture increased endorphin release (Kaptchuk, 2011). Therefore, it was found that endogenous opioid release is implicated in the ritual application of placebo acupuncture and supports the idea that the ceremonial use of mapacho could elicit such endogenous healing responses in participants of an ayahuasca ceremony. Representations of motor intentional activities, such as the ceremonial use of mapacho, cannot be separated from bodily reactivity (Frenkel, 2008), and can therefore account for the embodiment of healing intentionality.

Sensibilidad – To Become Sensitive To Healing.

Sensbilidad is best translated in this context as relating to the senses. Sensibilidad means to be sensible or sensitive to the surrounding environment. Lucas introduced this theme to me so I use his explanation of this theme to situate sensibilidad into the larger picture.

Lucas explains, "to use the plants to heal, you have to ask the plants to heal to use the plants to heal requires being *sensible*, and when you are *sensible* you can connect with the spirit world... in that moment you use that guide... and that is when the spiritual component starts to work."

By this statement he explains what it means to be a healer: to have the clarity and understanding of the supernatural world that becomes the precise healing tool in practice. Lucas refers to this knowledge acquirement and transformation as *sensibilisarse*, or to become sensible. Becoming sensible requires training that is learned under the guidance of the plants and spirit beings. The healer, then, is sensitive to the messages and energies of the spirits and gains the ability to manipulate the spirit world for healing purposes.

Conceptually, the idea of sensibilidad is related to the idea of *despertarse*, or to awaken. When my informants used this term in conversation it was generally in reference to becoming awakened into the tradition and practice of vegetalismo—learning how to use the spirit of the plants directly from the plants themselves.

Throughout my fieldwork, my informants generally ascribed this idea of awakening and sensibility to the ayahuasca medicine. Communicating with the spirit of the ayahuasca plant is considered the most awakening experience in terms of becoming sensible to her healing powers. I found no direct translatability of this theme with the language of placebo theory.

The theme of sensibilidad is precisely a concept derived from the language of my informants. I propose that sensibilidad represents the continuous accumulation of medical knowledge, which is related to the paradigm of biomedicine.

IV. 4 Ritual As Process, Ritual in Practice: "Del Aprendizaje a la Mesa de Ayahuasca"

Two principal ritual processes stood out to me most in my research: el aprendizaje and la ayahuasca mesa. The first, el aprendizaje, involves a series of ritualized processes that mark the apprentice healers initiation into this tradition of healing. Without this learning process, a healer is not a healer in the way the tradition deems it. The second process, the ayahuasca *mesa*, the ceremony, involves a series of prescribed behaviors that bring together all of the elements of healing learned in aprendizaje—icaros, plants and dieting. Both of these processes are fundamental to healing in my informants' worldviews and practices.

In explaining the rituals present in Peruvian curanderismo, I will illustrate the principles of healing that Kaptchuk (2011) highlights on in his analysis of Navajo ceremonies, acupuncture, and biomedical pharmaceuticals and procedures. His argument proposes ethnographic research be incorporated into placebo ritual theory in order to mutually expand discourses, ritual theory and placebo studies. Just as traditional forms of healing found in older healing traditions have prescribed ritualized processes that constitute the healing practice and grant its efficacy, Western biomedicine has its own set of ritualized processes that contribute to its therapeutic efficacy.

Placebo studies illuminate the benefits of the healing rituals found in biomedical clinical procedures and I propose that these same benefits can exist across different cultures' healing rituals. In this case, the cultural groups are the people of Iquitos who use curanderismo practices in their lives and the healing ritual is the ayahuasca ceremony.

IV. 4. A. El Aprendizaje: The Apprenticeship

El aprendizaje marks the beginning of a healer's journey towards learning the ways of the plants and their spirits. El aprendizaje is best translated as 'learning journey' or apprenticeship and it precisely refers to the guided journey apprentice healers follow in order to learn from the plants and gain an understanding of them.

Most healers, like Pedro and Juan, apprenticed with the guidance of a close relative or an experienced curandero or ayahuasquero. Others, like Lucas and Andres, are called into this tradition by spirit beings—animals, plants, or old relatives. Regardless of the initial introduction into the tradition, healers undergo an intimate learning process in which they create a relationship with the plants of the rainforest by taking them into the body, listening to them speak in the language of plants, and receiving their gifts of power

and song (Beyer, 2009). Healers are generally as experienced as their personal pharmacopeia. For the plants to reveal their powers to apprentices, healers have to have dieted the plant in past experiences.

The restricted and prescribed diet is the key to creating a relationship with the plants. *La dieta*, the diet, is a more comprehensive term than its English equivalent. La dieta encompasses certain food restrictions, sexual abstinence, social isolation, and dwelling (Beyer, 2009). In conversation Juan explained:

"Solo, dietar solo, no tener contacto con mujer, ni personas que me vean, por durante muchos meses. No son dias, se dietan, se toma varias veces, entonces llega a perfeccionar los sentidos que estan extendidos del maestro para poder tenerle canal de como communicarse con la madre de las plantas"

He explained that certain abstinences need to be followed and accomplished in order to develop the channel from which to communicate with the mother of the plants, la madre de las plantas. Apprentice healers have to diet on their own, abstain from sexual encounters, and remain in social isolation for several months in order to perfect their senses and keep them open, sensibilisarse.

Learning from the healing plants never ends. Aprendizaje is a continuous process that marks the shaman and curanderos expertise.

Juan shared: "Voy trabajando y cada dia que voy trabajando es un aprendizaje mas para mi. Trato de buscar la perfeccion, aunque no lo pueda lograr", translated reads: I go working, and every day that I go working is another learning experience for me. I try for perfection even if I can't reach it."

A similar process happens in biomedical apprenticeship with residents and doctors. Healing procedures involve a continuous learning process that Brody (2011) and Good (1993) report happens in hospital settings.

During la dieta, apprentice healers learn the plants spirits by dieting with them, ingesting them, and studying and learning their effects (Beyer, 2009). It is precisely in this process that the plant's spirits appear in the visions of the apprentice healer revealing their magic songs and their uses to the apprentice. Without following this restricted diet with the plants, apprentice healers do not learn from the plants. The plant spirits reveal themselves, their uses, and their icaros, only to those who follow la dieta.

The plant spirit's healing powers are known as la fuerza de la madre, the strength of the mother, and it is this strength that healers learn in aprendizaje. To learn the plants is to master the plants, *dominar la planta*.

Learning the ways of the ayahuasca medicine—*Banisteriosis caapi and Psychotria virdis*—is common in Peruvian curanderismo. Most of my informants are ayahuasqueros or shamans and view ayahuasca medicine with great esteem for her teaching qualities and healing abilities. Ayahuasca's spirit, her mother, is referred to as la doctora, the doctor, because through her trances sickness is explained, causes are unveiled, and treatments are revealed. Ayahuasca medicine is used as a guide to learn new information. The medicine opens up the necessary medium from which to communicate with the spirit realm and sense the powers of the spirit beings.

Lucas shared this quote," *No sabia lo que era espiritualidad pero agradesco*mucho a la planta y a la ayahuasca por que nos ayuda a sensibilisarnos y

identificarnos". Earlier, he did not know what spirituality meant-- he did not understand.

His experiences with plants and, most importantly, his experiences with the ayahuasca medicine helped him understand what spirituality meant to him. In dieting and learning the plants, he became sensitized to perceiving and communicating with the spirit realm, eventually transforming him into the healer he is today.

As I encountered, though, not all healers who learn to use ayahuasca medicine use it to heal their patients. Andres shared with me that he learned how to use the ayahuasca medicine in his experiences with curanderismo and occasionally drinks it when he feels like he needs it. He has even conducted ayahuasca ceremonies, but he prefers not to use the ayahuasca medicine to heal his patients on a regular basis because of the risks involved with taking ayahuasca.

IV. 4. B. Ritual In Practice: The Ayahuasca Mesa

Before constructing an ayahuasca mesa, a series of preparatory steps are followed. Preparing the ayahuasca medicine (*B. Caapi and P. Viridis*) involves a series of intentional steps that renders the efficacy of the resulting medicine tincture. I watched Juan prepare his ayahuasca medicine on a Tuesday afternoon, the day before his second ayahuasca mesa of the week. Juan drinks the ayahuasca medicine every Monday, Wednesday, and Friday, with close friends and relatives.

Unlike Lucas and Pedro, Juan keeps his ayahuasca ceremonies between close friends and relatives and he seems to be uncomfortable with the idea of opening up his practice to foreigners, as Lucas and Pedro exclusively do. Catering to foreigners' results in a restructuring of the healing ceremony that Fotiou (2012) identified was pertinent in her experience with *mestizo* shamans in Iquitos. Also, Juan generally performs his ayahuasca ceremonies in peoples' homes or in camps in the jungle, *campos o albergues*.

The ayahuasca ceremony that Juan invited me to attend was at his close friend's house. Most of Juan's ayahuasca ceremonies are held at this house, but he will hold a ceremony in other places if his patients ask him to.

Juan prepared the ayahuasca medicine at his family friend's house most times and it is the same house where I attended the ayahuasca ceremony. He follows a structured temporal process for the preparation of the medicine. The preparation process generally takes Juan a full 12 hours. The length of time taken to prepare the medicine is indicative of the medicine's strength. The preparation involves extracting the essence of the chacruna (*P.viridis*) leaves and of the ayahuasca (*B. caapi*) bark, a process that takes 12 hours. I did not stay long enough in the preparation to report on the exact method of preparation, but I was able to take pictures.



Image 4. Ayahuasca (B. caapi) bark after boiled in water



Image 5. Charcruna (P. virdis) leaves after boiled in water



Image 6. Ayahuasca (B. caapi) barks boiling

La Mesa.

At the beginning of the ceremony, I noticed a small table altar placed to the left of Juan's seat.



Image 7. *La Mesa* in the Ceremony. Not pictured: *La Piedra Peternal* and the two bibles

On the table were two bibles, one cross and one rainbow colored ribbon, a bottle of 'agua florida' (cologne), two rocks, a bottle of ayahuasca, and packs of cigarettes. I found it interesting that he used conventional cigarettes during his ceremony and not rolled tobacco cigarettes, mapacho. Convenience could have been the determining factor. Each item on the altar served a specific intention in the ceremony and Juan shared with me the significance of each.

In my interview with Juan I asked him what each item on his table signifies. First and foremost, he has a cross on his table. The first book he has on his table is to keep an open dialogue with the knowledge of negative spirits, *los espiritus infernales*, black and red magic, *majias negras y rojas*. Having this book on the ceremonial table is vital for

Juan because he feels enslaved by his past and it is important that he never forgets the harm he caused in his past traditions and the possibilities of negative entities entering his ceremonies.

The second book on his table that he always uses is *la cruz de caravaca*, which is a book that has divine prayers that are used to locate the bad, *el mal*, so that it never comes back *into* him, neither in form the of desires nor paths unwanted. A rainbow colored ribbon, with seven colored ribbons making up the colors of the rainbow lay hung on the back of the chair.

The number seven comes to represent a lot in this context: the seven colors of the rainbow, seven days of the week, and the seven infernal demons that overcome people and cause harm. Juan explained that the number seven is a merit, it is both positive and negative, cold and hot—it represents the oppositions of life. In divinity exist the seven archangels—an angel of high rank— of God who take custody over the seven skies that hold the divine. This representation of the ribbon is primarily used to counter negative work and energies.

Juan also had two small bottles filled with perfume. One was a perfume containing aromatic plants called '*la chimolina*', the other was agua florida perfume. He prepared the former perfume himself with specific aromatic plants. These types of perfumes are called pusangas, or charm and love perfumes. Juan passes this perfume around the room as a charm to please people and rid them of any negative love spells residing in their spirit. He explained that la chimolina helps clean the body of toxicities that infiltrate the body with malignance. For Juan, agua florida is like the penicillin

equivalent to his healing tradition—this perfume helps people fight infections and any negative brujerias, witchcraft that may have been placed on them.

The ayahuasca medicine bottle that he has on his table symbolizes the doctor—the ayahuasca medicine is called la doctora—and she is present during every healing ceremony at all times. La doctora allows one to extend their senses, *la doctora te ayuda sensibilitarte*, become hypersensitive, and become receptive to the energies of the spirit entities who reside in the room. This sensibility is not only exclusive to receiving positive spirit entities, but also to negative spirit entities, which is why Juan keeps memorabilia on his table that counters negative spirit work.

The one rock that was on the table, *la piedra peternal*, has a variety of meanings in the context of healing, but what I was able to deduce was that la piedra peternal best represents resilience. When it is boiled in water or heat up with a charcoal fire, la piedra peternal does not denature—it remains in one piece unlike other rocks. La piedra peternal represents strength and balance. Bathing in the water that this rock is boiled in will alleviate feelings of sadness, nostalgia, anxieties, and emotional weaknesses. La piedra peternal's powers and strengths will be transmitted to the person using it helping their spirit strengthen and harden.

Juan shared the significances of each of these objects in detail during our interview. The presence of these objects in ceremony, regardless of whether they are physically manipulated or not throughout the ceremony, have specific intentions that, if not present, will lead to an ineffective healing ceremony and cause disharmonies within the worlds and bodies of all the people who are present.

The Ceremony.

Nine people were present at the ceremony, most of whom did not drink the ayahuasca medicine, myself included. In conversation, Juan explained that people in his ceremony do not need to take ayahuasca to feel the effects of the medicine, "puedo tomar yo solo la ayahuasca y les mareo a todos", best translated as, "I can transmit the spiritual energy invoked by my ayahuasca trance to everyone participating in the ceremony". In this setting, Juan was our guide, our guia, who became the channel through which participants of the ceremony communicated with the spirit realm.

Juan began the ceremony by first introducing me and then setting up the intention for the reunion: to reach harmony in all aspects of our lives. Of course, every participant had his or her own individual intention for attending the ceremony but I did not get a chance to talk to them about it. Juan started singing songs, his icaros, and smoking cigarettes. I quickly noticed how important smoke was in this ceremony. Juan walked around the room, smoking cigarettes into every spot in the room, cleansing and detoxifying the room—soplando, blowing, away any negative energy residing in the room. Because of Juan's experiences with black magic, magias oscuras, he focuses on keeping the energy in the room harmonized.

As the ceremony commenced, Juan prepared the ayahuasca medicine for consumption by blowing tobacco smoke on the top of the bottle containing the ayahuasca medicine. This, he said, calls the mother of the ayahuasca medicine, her spirit, to wake up and enter the ceremony. After blowing the top of the bottle, he opened the bottle, blew tobacco smoke into the medicine, closed the bottle, and shook it up. This brings the ayahuasca medicine, la doctora—the doctor—to existence. Four people drank the

ayahuasca medicine. Juan called each person up individually, poured out a reasonable amount of medicine into a small cup, and recited a prayer over the cup before handing it over. The four participants drank their brew, recited a personal prayer, and sat down in their chairs. The lady closest to the light switch flipped it off. Darkness flooded the room and the air was filled with song and prayer. Sounds of people purging and coughing circled the room, smells of tobacco and perfumes saturated the space—the ceremony had begun.

Juan walked around the room, incessantly smoking tobacco and blowing smoke on all of us. One by one, Juan called each of us up to the head of the ceremonial circle to talk to him individually. He gave everyone a personal healing session, each about five minutes long each, wherein he asked each person about his/her experiences and thoughts at the present moment. At this time, Juan was communicating with la doctora, ayahuasca medicine, who was opening up the communicative channel with other plant spirits residing in the room. It was in this moment that Juan started to make his evaluations—his diagnoses.

How the diagnostic process occurs in this setting involves the interpretation of spirit entities, which hold symbolic meanings in sickness interpretation. Every healing plant used in this system of healing has a spirit that represents its healing power, which is the plant's mother, la madre de la planta. The plant's mother has certain qualities for healing that represent the plant's healing intention. The act of classifying an experience of sickness is a form of symbolic treatment through the effects of cognitive, personal, and social mechanisms on emotions (Winkelman, 2010). The spirit concepts that Juan manipulated in the diagnosis process represent cultural symbols that play a variety of

roles in eliciting top-down psychophysiological responses (e.g., endogenous opioid and dopaminergic pathways) that produce healing responses (2010).

I was the last person called up to the center. I made my way up to the center and sat down in the chair in front of Juan. He asked me how I was doing and what I thought of the ceremony. I told him I found the ceremony interesting and that I liked the experience.

He recited a small prayer and then asked me to repeat my full name three times; "me dices tu nombre completo, con analisarte, como un pequeno chequeo: alma, cuerpo, espiritu, y corporal. primeramente yo para terminar tener la confiabilidad de la persona es ver en la trayectorio de tu naciente hasta la fonda donde te encuentras. que casos resaltantes remarcaron tu vida?"

In reciting my name, I gave Juan the liberty to transcend into my life and see my past, present and future. He evaluated me—mind, body and spirit—and listened for indications in my life that stood out to him. Juan asked me about a fall I could have had. In evaluating me in that moment, he saw me lying on the ground, unconscious, "sentia un poco como si tu vida hubieza querido dejar de tu ser." He felt as though my life tried to escape my body—my being. I told him that I had a bad fall when I was 18 years old and broke my two front teeth. To this day, this moment stands out to me. He followed this with another prayer recitation and blew smoke over me. Juan then asked me about my grandmothers and great grandmothers. Silence fell. He told me that my recently deceased great grandmother was trying to reach out to me in my dreams, and she is now watching over me and keeping me safe. He then started to chant prayers, sing icaros, and poured agua florida on my head, arms and pants three times over. Juan then asked for my hand,

poured agua florida on my right finger, had me rub the perfume into my temples, and then guided my finger along my forehead outlining a sacred cross. The main intention for my participation in the ceremony as he saw it was for academic progress, success. He made that the intention for the tobacco smoke, so he blew tobacco smoke over me and blessed me with good academic progress and achievement. Juan transmitted the energies of the healing plants into my aura, my air—my spirit. He continued to chant prayers and sing icaros while I sat still in the chair. Once he completed my healing session, he asked me to go back to my seat.

After about 3 hours, the ceremony approached an end. Juan walked around the room, singing, praying, and soplando tobacco smoke around the room and over us. The lights were switched on revealing all of our faces. Juan looked over to a lady to my right and asked her to light up the charcoal that was set-aside in a pot. The charcoal burned and the room clouded with smoke. Juan burns charcoal at the end of his ceremonies to ensure that evil spirits, espiritus infernales, leave the room. The smoking charcoal was placed in the center of the room and Juan sat back down in his seat to discuss what one of his patient's experienced during his ayahuasca trance.

It appeared to me that the man was experiencing difficult love and relationship issues. Juan talked with him for some time, sharing with the man what he too saw in his visions.

In our post-ceremony interview, Juan explained to me that his patients appreciate it when he tells them what the ayahuasca medicine, la doctora, tells him in trance about their individual problems, the spirits that he sees and the information they communicate to him. He emphasizes the importance of trust and humility when it comes to treating his

patients. He believes that fluidity in conversation between him and his patient allows them to feel comfortable enough to open up about their lives and introspect on their lives without Juan having to tell them exactly what he thinks is wrong. This is the most important element in his practice.

Juan then walked to the center of the ceremonial circle, picked up the pot of burning charcoal, and emptied a bag of leaves and sticks into the pot, letting them burn and billow in smoke. The sticks are called *palo santo*, sacred wood. I did not get a chance to ask Juan what the significance of burning these sticks and leaves were, but I got a glimpse as to what their significance was in ritual. Juan walked around the room with the sticks and leaves burning in the pot, he circled the burning pot around each of our persons, and said small prayers in walking. He was blessing each of us in passing and crowding our olfactory senses with aromatic smells. To him, aromas are cleansing, healing, and harmonizing. Juan walked over to the doors, opened them, and came back to the center to recite the final prayer of the ceremony—the closing prayer.

With this the ceremony completed and I experienced how this ritual ceremony played out in practice and how it incorporated the elements of healing characteristic of Peruvian curanderismo and shamanism. Of course, I will not understand the true healing properties of the ayahuasca medicine until I experience it for myself.

Conclusion

As a part of biomedicine and a scientific discipline, placebo studies try to deal with the universal and generalizable concepts (Kaptchuk, 2011). Because of this, issues of translatability and reduction surfaced throughout the course of this thesis. This is partly due to the lack of discourse devoted to the mixture between social sciences, ethnographic studies, and neurobiological studies.

An important next step would be expanding mix-method research methodologies that somehow merge the biomedical need for the universal and the anthropological requirement for the particular (Kaptchuk, 2011). Applying ethnographic work with quantitative methodologies is one avenue that could work towards integrating these two disciplines. An emerging discipline in anthropology, neuroanthropology, investigates how humans are shaped by an irreducible relationship among biology, culture and environment (Lynn, Stein, & Bishop, 2014).

In this thesis, I proposed an extension to placebo ritual theory and ethnomedical research with the intent to connect two separate accounts of lived experiences together. Placebo studies demonstrate that rituals in biomedical encounters do in fact have physiological manifestations probably expressed through the endogenous opioid and dopamine neural pathways. Likewise, the manipulation and articulation of spirit entities in ayahuasca ritual ceremonies reflect human needs to make sense of experiences by attributing meaning to familiar bodies of meaning—spirits, plant spirits (Winkelman, 2010). Spirits, in this sense, are cognitive and metaphorical tools that embody a patient's experience of sickness, and are the representations of health and harmony in ritual

ceremony. These symbolic effects, Winkelman (2010) argues, produce physiological responses and elicit endogenous healing processes like placebo effects.

The transformation of the self in the event of a healing ceremony involves the manipulation of a created mythos, which is developed in conversation and in performance. That created mythos is the interpretation of sickness by both the healer and patient. Thus, the interpretation of sickness becomes the path towards achieving self-harmony.

Lyon (2003) shares that the immune system functions as a level of the self, namely because this system has the function of distinguishing the "non-self" at the level of cellular recognition of foreign entities (Winkelman, 2010). The immunological self is not the rational, language-based thinking mind, but rather, a much deeper embodied self of behavior, habits, nonverbal communication, and social and emotional dynamics that are the foundation of our participation in the social world (Winkelman, 2010: p. 211).

Our immune self unconsciously interprets how we interact, respond, and behave in the event of a healing ritual. The immune self and the conscious self work together to create the desired response reflecting the intention of a healing ceremony, as is created by both healer and patient.

The relationship between the placebo phenomenon and the ayahuasca ceremony in which I participated elucidated a broad phenomenological approach to understanding how ritual ceremonies have therapeutic efficacy. Placebo theory provides a theoretical perspective from which to understand how language, culture and metaphors play a role in eliciting a therapeutic response in patients.

I conclude with a brief summation of this thesis. We cannot separate language from culture, culture from self. Self is socially constructed through beliefs that deem an appropriate identity for the cultural and societal group in the presence of sickness, through conscious and unconscious processes. If self is created through social ideals on what it means to *be*, and healers are regarded as the mediator of social and individual interconnection, then healers have the utmost authority on the transformation of self in the presence of sickness. Therefore, how a patient's experience of sickness is approached, interpreted and labeled, and then treated directly affects the patients lived experience.

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