Altered consciousness induced through movement in modern industrialized cultures:

 A Phenomenological Study

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Dedications

 This dissertation is dedicated to my children, my husband, and my family. To my children I only hope that my hard work someday helps you to understand how much I love you, how much I want you to follow your dreams, and how much I am willing to do in order to give you the future you deserve. To my husband whose dedication, love, and support made the completion of this dissertation and degree possible, I want to say I love you more than could ever be expressed and I’m honored and blessed to have such a strong supporter willing to travel through life with me. I only hope that my reciprocal love and support for you is known within this lifetime.

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Abstract

Qualitative interviews of 16 white participants (8 female, 8 male) were conducted in order to ascertain the essence of trance dancing from a phenomenological perspective. Participants varied according to age ranging from 24 to 62 years with the mean age of 41 years. All participants had some level of college education with the least amount of education at 2 years. Experience with dance varied across participants from less than 1 year to over 50 years, with the mean of 17 years of total dance experience, not simply experience with trance dancing. Interviews were transcribed and analyzed within the Moustakas’ Transcendental Phenomenological Model. A peer reviewer monitored the research process for researcher bias within interviews and data analysis. Data was independently analyzed by the researcher, peer reviewer, and through comparison with literature regarding trance. The data yielded the concept of super-consciousness as the essence of trance dancing and was also analyzed to produce a descriptive model of trance dancing that equated components to mathematical constructs. The resulting descriptive mathematical model was expressed as aX+bY=Z where Ʃ (z1-z∞)=1. Theories from the fields of psychology, neuroscience, dance, anthropology, and religion were incorporated into the mathematical model in order to provide an interdisciplinary explanation of trance.

Key Words: Trance, Dance, Qualitative, Phenomenological, Moustakas’ Transcendental Phenomenological Model

Altered consciousness induced through movement in modern industrialized cultures:

 A Phenomenological Study

Trance dancing is an experience that is recorded in historical accounts of civilizations (Boddy, 1994; El Guindy & Schmais, 1994; Jennings, 1985; Lewis-Williams, 1980; Lewis-Williams, 2003; Middleton, 1985; Pratt, 2005; Stoffle, Loendorf, Austin, Halmo, & Bulletts, 2000) and also in modern day industrialized societies (Becker-Blease, 2004; Hutson, 1999; Hutson, 2000; Saldanha, 2005; Wilson, 2002;Woods, 2009; Weir, 2000). It is a phenomenon that despite its lengthy occurrence has not been fully explored or understood (Boddy, 1994; Woods, 2009). Many disciplines have sought to approach the topic from a variety of perspectives including the fields of Psychology, Biology, Neuroscience, Dance, Anthropology, and Religion. However, none of these disciplines have adequately explored the phenomenon sufficiently to understand the essence of the experience and thereby present a unified theory of the process of trance dancing (Boddy, 1994; Woods, 2009).

**Background and Existing Research**

Research within the field of psychology has largely ignored the body and instead has focused on trance from the perspective of cognitive manifestations of the phenomenon found in meditation and hypnosis as indicated by the copious amount of research focusing on cognitive processes within trance (Barber & Calverley, 1963; Coe & Sarbin, 1991; Dennett, 1991; Fourie, 1991; Frankel, 1994; Fromm, 1979; Gravitz, 1991; Hilgard, 1962; Hilgard, 1977; Hilgard, 1991; Kihlstrom & Barnier, 2005; Kirsch, 1991; Kirsch & Lynn, 1995; Kirsch & Lynn, 1998; Ludwig, 1969; Lycan, 1995; Nash, 1991; Sapp, 2000; Sheehan, 1991; Spanos, 1991). Such theories are included within the broader context of State Theories, Role Theories, and Trait Theories.

Contributions from the fields of Biology and Neuroscience tend to focus on physical changes in the brain that contribute to the production of trance states (Lazare et al.,2000; Holroyd, 2003). These “somatic” theories focus on the various biochemical changes that produce a cognitive trance state. These theories like the ones from the field of psychology fail to consider the unique nature of trance that is induced through physical movement and dance and instead focus on how changes in the brain produce altered states. It should be noted that although Ludwig was considered to be a researcher within the field of psychology he did put forth a theory of somatopsychological factors found in trance in 1969. However, his theory again largely looked at biochemical changes in the brain that produced trance as opposed to trance produced through dance and movement. Ludwig’s theory would be viewed today within the context of Neuroscience theories. Again a limitation of studying trance within Neuroscience is a lack of attention to the bodily processes outside of the functioning of the brain. Neuroscience like psychology has been limited to studying altered consciousness within the context of hypnosis and meditation (Cahn & Polich, 2006; Lutz, Dunne, & Davidson, 2006). This researcher is not aware of any specific study in Neuroscience that has expressly studied trance dancing. Some information regarding trance dancing may be gained by looking at the findings in Neuroscience that explore specific processes that are found in trance dancing such as attention, memory, and decision making. However, it is not known if there is a synergistic effect among these specific areas during the process of trance dancing. That is, although there are specific neural substrates associated with attention, memory, decision making, sense of self, theory of mind, language, and emotion it is not known if these systems continue to be activated in the same manner during trance dancing or if there is some other combination of systems that are activated.

The field of dance has largely ignored material from the fields of Psychology, Biology, and Neuroscience and instead has focused on the felt sense of the movement within the body, the artistic qualities of the dance, or the anthropological aspects of dance (H’Doubler, 1998; Thomas, 1995). Within Dance Therapy there has been more of a consideration of the interaction between dance and psychology (Chodorow, 1991) but much of this research has been relegated to Dance Therapy journals and is not well known within the larger disciplines of Psychology, Biology, and Neuroscience. In addition Dance and Movement Therapy has limited research into altered states of consciousness through dance (Woods, 2009). The literature that can be found regarding trance dancing within the field of Dance and Movement Therapy tends to focus on whether or not the experience is pathological (Woods, 2009).

Furthermore, even when the focus is not on pathology, the dance experience is often dissected into components of form, technique, culture, and internal experience. The individual components of dance do not seem to be integrated into a holistic experience within the field of dance. For instance, in regard to the concept of the self, the experience of the dancer in space would be considered to be an “ecological self” within a dance perspective, whereas the perception of the dancer would be considered to be the “interpersonal self” (Fraleigh, 1999). The ecological self is the self in reference to the ecological environment or surroundings (Fraleigh, 1999). The interpersonal self is the internal concept the dancer holds which she/he then conceptualizes in relation to the audience or other dancers (Fraleigh, 1999). The movements themselves can be viewed as independent components or as a portion of a larger sequence (Adler, 2002). In addition, the internal experience of the dancer is also separated from the external experience of an audience or witness to the dance (Adler, 2002) even though the ultimate goal of a performance is to translate an internal concept into an interactive experience between the dancer and the witness (Langer, 1953). In fact, Fraleigh (1999) stated that dance does not occur until there is an intersubjective interaction between the dancer and the witness. My former dance professor, Jan Hyatt, was fond of stating “there is no art when the museum is closed” in order to drive home the importance of the interaction between the dancer and the witness. There seems to be no instance found in the research located by this researcher in which the entire experience of the dance is presented as a whole concept that is able to be related to other disciplines. To further complicate this situation other disciplines may not differentiate between ecological or interpersonal selves, sensory or kinesthetic experiences, and may in fact divide the experience of the dancer from the experience of the witness thereby missing out on a key interactional component due to the lack of visibility of dance research.

Like Dance, the field of Religious Studies takes notice of trance only as an afterthought and not a primary topic of research as evidenced by the lack of research exploring trance found (or rather not found) within the field of Religious Studies. Even if researchers within Religious Studies look at trance they largely consider dancing to achieve trance as an unimportant side note and much of this literature looks at non-western cultures (Alcorta & Sosis, 2005; Bartocci & Dein, 2005; Boddy, 1994; Cox, 2003; Dorahy & Lewis, 2005; El Guindy & Schmais, 1994). A notable exception to this is the research conducted by Huston (1999, 2000) that explores the spiritual aspects of Rave culture. A further difficulty is that much of the Religious Studies research on trance dancing looks to describe the trance aspect as either possession or non-possession trance (Kara, 2011).

Anthropology provides a historical account of trance dancing across a variety of cultures but even within the field of Anthropology, researchers recognize the inability to fully elucidate the phenomenon (Boddy, 1994). Often the field of Anthropology does not address trance dancing directly but instead looks at trance as a unified concept with possession, trance dancing, and other forms (Boddy, 1994). Even more confusing is that the field of Anthropology then further defines the phenomenon of study within the context of other concepts whether religion, communication, or various social constructs such as class, morality, or politics (Boddy, 1994; Fraleigh, 1999). Furthermore, there is often disagreement about the interpretation of the data surrounding the experience of trance dancing. For instance, the interpretation of rock art is believed by some anthropologists to illustrate trance dancing and by others to illustrate mundane daily activities (Lewis-Williams, 2003).

There are a few theories that seem to attempt to integrate certain aspects of movement and consciousness (Ludwig, 1969; Chodorow, 1991). Notably among these are Ludwig’s (1969) theory of somatopsychological factors of altered states of consciousness and Chodorow’s (1991) form of Dance Therapy that includes the Jungian concept of active imagination. Ludwig’s (1969) theory combines biology and psychology but is presented within the psychological theories in this paper for the sake of simplicity. Jung’s active imagination is often used by dance therapists to bridge a connection between the body and the mind (Chodorow, 1991) and as it is used by dance therapists it is presented under the dance theories in this paper. Finally, Woods (2009) completed a thesis that looked at *The Use and Function of Altered States of Consciousness Within Dance/Movement Therapy* as part of her completion of her degree in a Master’s of Arts in Dance/Movement Therapy. Her findings are also presented in regard to elements of trance dancing and then briefly presented as a reminder under the heading of dance theories within this paper.

**Statement of the Problem**

Despite Ludwig’s (1969) and Chodorow’s (1991) theories which attempted to explain mind and body connections there is a gap in knowledge regarding trance dancing that results from a lack of interdisciplinary study. Without a thorough understanding of trance dancing, one cannot fully understand how the mind and body interact to produce trance states. Furthermore, much of the research conducted on trance states, not even trance dancing, fails to take into account the phenomenological experiences of those individuals who are experiencing the trance state. Little research has been done to explore what trance dancing means to those individuals who engage in the activity (Boddy, 1994).

One reason research may not have been completed is that some of the groups of individuals who engage in trance dancing, like Ravers, were considered to use a variety of mind altering substances and often researchers felt that this negated any true value that dancers may gain from the actual dancing. This assumption is without validity for several reasons. Various cultures that have danced and have been deemed suitable for study have used drugs including Native Americans and the San (Lewis-Williams, 2003; Pratt, 2005; Stoffle et al., 2000). Additionally, within the limited research conducted it was found that not every person who attended these events utilized drugs and their reports varied in no significant way from the reports of individuals who did use drugs (Hutson, 1999). Another possible explanation is that individuals who engaged in trance dancing and drug use may simply have been more open to experimenting and that the drug use and the trance dancing was not related beyond this underlying openness to experimentation. At this time this researcher is not aware of any research that specifically looked at personality factors of those individuals who engaged in trance dancing. Finally, many individuals who engaged in trance dancing found drug use counter to the reasons they engaged in the activity. This was particularly true of individuals who engaged in trance dancing for mental health or some forms of spiritual growth. Also, within the rave culture there is a term of “e-tards” which is used to denote individuals who attend events simply to use ecstasy and who do not understand the deeper significance of the culture and trance dancing (personal communication with participants at raves). It is important to note that due to limited research conducted on this phenomenon that any explanation is simply cursory and that further research needed to be conducted to discover if in fact drugs do play a larger role within the experience of trance dancing than what appeared by first impression.

A second reason that trance dancing in modern society had not been studied is that it seemed to occur within closed or underground communities. This often required researchers to be more active in finding participants and researchers may not have had the resources with which to obtain access to the community.

A third reason that research may not have been completed regarding these events is that it is often a misconception that studying non mainstream behavior within our own culture is less authentic than studying that same behavior in more “exotic” cultures (Hutson, 1999; Hutson, 2000). Evidence of this phenomenon was found in the relative acceptance of trance dancing within the culture of the San (Lewis-Williams, 1980), Native Americans (Pratt, 2005; Stoffle et al., 2000), Teminar (Jennings, 1985), and Sufis (Kamin, 2002; Van Der Veer, 1992) as a valuable religious and social occurrence and the subsequent dismissal of apparent trance dancing events within larger mainstream society as being strictly drug induced adolescent rebellion (Weir, 2000; Wilson, 2002). Hutson (2000) described this tendency within the field of anthropology as “celebrating the exotic and disparaging the familiar” (p. 37) and gave the example of metaphors of healing. Hutson (2000) went on to discuss that systems of traditional healing when viewed in exotic cultures were seen as legitimate cultural experiences worthy of study whereas when traditional healing was apparent in western cultures it was dismissed as meaningless jargon and pseudoscience.

Finally trance dancing may not have been studied in full because as one starts to study trance dancing one ultimately must study consciousness. Ognjenovic (1996) asserted that psychologists have sometimes avoided studying consciousness because it is a topic that encompasses multiple disciplines and as such becomes overwhelming, leaving psychologists to simply avoid the topic. It follows then that if one cannot study consciousness in full that related phenomena, such as trance dancing, would also not be studied in full. It seems then that the arguments against studying this phenomenon no longer outweigh the benefits. It is important to find answers to several questions in order to truly understand what the phenomenon of trance dancing really means.

**Purpose of the Study**

 This study was a phenomenological qualitative study that sought to (1) ascertain the essence of trance dancing and through this understanding (2) develop a unified theory of the process of trance dancing. The study also sought to (3) provide an interdisciplinary perspective of trance dancing in order to (4) contribute to the field of psychology in a broader perspective in terms of understanding trance.

**Significance of the Study**

The significance of this study to the field of psychology was related to the third and fourth purposes of this study. That is, to contribute to the field of psychology within an interdisciplinary understanding of trance. This researcher asserts that although there are a variety of reasons ascribing the importance in studying trance dancing, there are currently three primary reasons for the importance of this topic. These reasons are:

1. To better understand the process of consciousness and divided consciousness
2. To improve on the conceptual definition of trance used in psychology
3. To understand the similarities and differences of historical and modern day manifestations of a variety of psychological concepts including, divided attention, consciousness, hypnosis, and trance.

**Contributions of Trance Dancing to the Study of Divided Consciousness**

One manner in which trance dancing provided insight into divided consciousness was in the process of exploring the essence of trance dancing and thereby understanding if the trance created therein is a kind of divided attention. Another way that the study of trance dancing helped provide information regarding divided attention is through an improved understanding of the connection between the mind and body that is inherent within the movement of dancing and the trance. A third way that the study of trance dancing provided insight into divided consciousness was related to an increased understanding of the processes of sensation and perception. It is possible that through further study of trance dancing that one could gain insight into divided consciousness in a variety of ways.

**Contributions of Trance Dancing to the Conceptual Definition of Trance**

A second reason that psychologists needed to study trance dancing was to gain a better idea of an accurate conceptual definition of trance. Frequently our language was nonspecific and researchers and lay persons alike interjected one word for another even if those words were not exactly the same. Hypnosis was often used interchangeably with the word trance. Sapp (2000) reported that Hilgard was the first researcher to use the word trance to describe the subjective experiences of clients under hypnosis. Sarbin (1989) argued however that the original derivation of the word trance came from the literary use of the word “entranced”. Entranced means “to fill with delight or wonder” (Dictionary.com). Sarbin (1989) asserted that this use of language was significant when considering the difference between state and role theories. In terms of state theories, trance is something that occurs within a person as part of mechanistic processes, whereas in role theories, trance is something that the person allows to happen. It is therefore important that our language when discussing phenomena is accurate as language indicates foundational beliefs upon which theories are built.

By studying trance dancing, psychologists may be able to gain a more thorough understanding of trance and thereby gain a more thorough understanding of how trance is similar and dissimilar to other concepts, including hypnosis. Thereby a more clear foundation for theory may be established through utilizing accurate definitions and terminology.

**Contributions of Trance Dancing to the Understanding of Historical and Current Manifestations of Trance**

A third reason why psychologists needed to study trance dancing is to better understand the differences and similarities of historical and modern day manifestations of a variety of psychological concepts including divided attention, consciousness, hypnosis, and trance. This is needed as there is an underlying assumption that these processes manifest today exactly as they were suspected to manifest historically. This assumption needed to be tested as much of the research on hypnosis started with this assumption. Should this assumption prove to be faulty it may in turn cause a substantial shift in the manner in which hypnosis and consciousness are viewed and studied.

**Research Question**

The primary research question of this study was therefore:

1. What is the essence of trance dancing?

In answering this question a theoretical model of the process of trance dancing was constructed. This model can be used to further contribute to the field of psychology in the form of a unified theory of trance dancing that will then contribute to an understanding of divided consciousness, to the concept of trance, and to more accurate theories that either include or do not include historical aspects of trance.

**Research Design**

This was a phenomenological qualitative study that included 16 participants (8 Women, 8 Men) ranging in age from 24 years to 62 years with median age of 41 years. Participants were located throughout the tri-state area of New York, Pennsylvania, and Ohio. Participants were interviewed with a semi-structured interview about their experiences of trance dancing. Demographic information was collected included age, race, education, experience with dance, sexual orientation, and religious orientation. All participants were white. Education varied across participants from two years of college education through terminal master’s degrees and doctorates. All participants had some level of college education. Experience with dance varied for participants from less than one year to greater than 50 years. Dance experience was within the genres of Ballet, Modern dance, Jazz, and Postmodern forms. Three participants also discussed experience with formal training in other movement pursuits such as martial arts, theater, and athletics. All participants had experience with trance dancing as this was the inclusive criteria for the study. Participants reported sexual orientations that included heterosexual, bisexual, homosexual, and pansexual, with the larger portion of the sample reporting heterosexual orientations. Participants reported religious orientations including Roman Catholic, Christian, none, open, spiritual, Buddhist, Pagan, spiritual atheist, possibilitarian, Eastern, and independent.

**Theoretical Framework**

Because this study was an interdisciplinary perspective of trance dancing it drew from seven broad groups of theories that were organized into four larger headings. The first heading, psychological theories included state theories, role theories, and trait theories regarding changes in consciousness. The second heading, somatic theories, included theories from Neuroscience and Dance. A third area included religious theories. The final heading was Anthropological studies of trance dancing

**Psychological Theories**

From the field of Psychology this study utilized State, Role, and Trait theories of trance. The first group of theories espoused that changes in consciousness reflected a distinctive state separate from the usual waking state of consciousness and these theories are collectively known as the “state theories”. The state theories are theories that proposed that altered states of consciousness are created through notable changes in brain activity (Bernstein & Nash, 2008). The State Theories included in this study consisted of: (a) Theory of Altered States of Consciousness as described by Arnold Ludwig (1969), (b) Hypnosis as Psychological Regression by Michael Nash (Nash,1991), (c) the Ego-Psychological theory by Erika Fromm (Fromm, 1979), (d) the Theory of Dissociated Control by Woody and Bowers (Kirsch & Lynn, 1998), (e) theory of Dissociation as described by Pierre Janet (Hilgard, 1977), and (f) the Neodissociation Theory by Ernest Hilgard (Hilgard, 1977).

The second group of theories was collectively known as the role theories. In role theory, it was believed that there are not changes in brain activity that caused the changes in consciousness but instead that individuals behaved within an altered role of behavior that was socially acceptable and encouraged within those particular situations. The perspective of role theorists was that individuals determined appropriate behavior in social situations by reading environmental cues (Bernstein & Nash, 2008). Therefore each environment had a range of behaviors that were appropriate whether that environment was a church sermon, a doctor’s office or a trance situation (Bernstein & Nash, 2008). Role theories of changes in consciousness relied on the premise that the interaction between the hypnotist and the hypnosis subject consisted of a social encounter in which each of them played a socially defined and reciprocal role (Coe & Sarbin, 1991). Therefore, role theories of changes in consciousness purported that hypnosis was created through the hypnotist and hypnotic subject fulfilling their role expectations. Role expectations are the consolidated information that hypnotists and subjects maintain regarding proper behavior while engaging in hypnosis that included personal beliefs, societal beliefs, and environmental cues (Coe & Sarbin, 1991). Most importantly, when hypnosis was viewed within the context of a role theory, hypnotic responses were believed to be voluntary and goal directed as compared to state theories of hypnosis whereby hypnotic responses were viewed as involuntary and hypnotist directed (Kirsch, 1991). Role theories included in this study were (a) Spanos and Coe’s Social Psychological Theory (Spanos, 1991), (b) Kirsch’s Role Expectancy Theory (Kirsch, 1991), (c) Fourie’s Ecosystemic Approach (Fourie, 1991), and (d) Coe & Sarbin’s Dramaturgical and Narrational Perspective of Hypnosis (Coe & Sarbin, 1991).

The third theory of changes in consciousness presented here was one of trait differences. Research supported the idea that hypnotic responsiveness was related to the aptitude of the participant (Kirsch & Lynn, 1995). That is, some people were better able to experience a change in consciousness than others. Kirsch and Lynn (1995) cautioned readers not to confuse trait dynamics with the role-state perceived dichotomy. Individuals could be at any point along a trait continuum regarding ability and could simultaneously be perceived as either acquiring trance through state or role dynamics. That is, trait dynamics were not mutually exclusive from the state-role dichotomy (Kirsch & Lynn, 1995). For purposes here, the issue at hand would be to determine if there are traits of the trance dancers that contribute to their unique experience of trance dancing.

**Somatic Theories**

A second category included theories that based the changes in consciousness on bodily processes. Two large areas of study were discussed in this second category including changes that were induced through the activation of specific neural substrates and changes that were induced through dance or movement. These two areas were not mutually exclusive from one another. Hanna (1979) discussed that dancers or observers of dance often felt a qualitative change that was difficult to explain. It was likely that these qualitative changes were related to specific changes in activation of underlying neural substrates. However, this possibility has not been specifically investigated in regard to trance dancing. Therefore, multiple processes and theories were explained under the heading of Somatic theories. Under the subheading of Neuroscience theories I have included information regarding the processes of attention, emotion, memory, decision making, sense of self, and proprioception. Also in this section was information regarding the function of the thalamus, function of mirror neurons, theories of mind, and the theory of a default brain network. Under the second subheading of Dance theories information is included regarding Dance Therapy, Experiential Movement Psychotherapy, Authentic Movement, and Woods’ (2009) findings.

**Religious Theories**

The next category of theories utilized in this study was one of ascribing a religious cause to the experiences of an altered state of consciousness. Trance Dancing was a phenomenon that occurred repeatedly within cultures and with no link to a specific religion. In fact, some theorists have even suggested that trance dance itself met all the criteria to be deemed a religion within itself (Cox, 2003). Therefore, general characteristics of religion were presented and compared with the description of religious aspects as described by trance dancing participants.

**Anthropology Theories**

Trance dancing occurs within a cultural context. This is true whether trance dancing is seen in historical or modern exotic cultures and if trance dancing is seen within the current modern industrialized culture. Relevant literature from the field of Anthropology was presented within this paper to provide a cultural context for the experience.

**Assumptions, Limitations, Scope**

This study worked under the assumption that participants had achieved an altered state of consciousness through dance. This assumption seemed to be confirmed as the answers given to questions were more similar among participants than different. According to the principle of Occam’s Razor, it would be more likely that all the participants had experienced the same phenomenon (trance dancing) as opposed to having 16 different experiences that they all described in a similar fashion. It could therefore then be assumed that all 16 participants had the same experience but it could not be confirmed that this experience was in fact an altered state of consciousness. This researcher formed the basic questions of this study through a literature review of altered states of consciousness. Therefore, by applying the principle of Occam’s Razor again it seems that the most parsimonious answer is that all 16 participants reported a similar experience and that this experience was in line with altered states of consciousness as reported in previous research.

 This study also worked under the assumption that participants would be truthful in their answers. This was of particular concern as this study asked about drug use which is typically a topic of research that raises concerns about truthfulness of respondents (Harrison, 1997). Harrison (1997) concluded that truthfulness regarding drug use was related to fears of consequence and aspects of social desirability. This researcher hoped to increase truthfulness of answers by ensuring participants of confidentiality and reducing participants’ attempts at social desirability. Confidentiality was ensured through the written participant informed consent whereby the researcher detailed that she would be the only individual with knowledge of whether participants reported drug use or not, that participants would never be identified, that the audiotaped interviews would be destroyed and that at no time would sources of authority be informed of participant responses. Attempts at social desirability were reduced through the researcher’s relationship with participants. This researcher was known within the trance dancing community and is respected as someone who is not judgmental to the various choices that participants may make regarding their day to day habits. In addition, this researcher was introduced to participants who were originally unknown to her through gatekeepers. These gatekeepers were individuals who then vouched for the integrity of the researcher to keep information confidential.

 Potential limitations of this study included the limited sample of participants and the researcher’s potential for bias. This study included 16 participants from the Tri-state area of New York, Pennsylvania, and Ohio. In truth, this is a small sample size from a limited geographical area. However, this sample size was consistent with those seen in qualitative studies due to the work intensive nature of interviewing participants. The participants in this study were evenly distributed by gender with 8 males and 8 females. This was a happy coincidence as participants were recruited according to participation in trance dancing and willingness to be interviewed and gender was not considered prior to the interviews being conducted. Participants varied according to sexual orientation, religious affiliation, and experience with dance. However, all participants were of white race and this would be a limiting condition to the generalizability of this study. Therefore, it seems that the sample size would not be detrimental in regard to the quality of this qualitative study but would limit the ability of the findings to be generalized. The issue of participants being sampled from a limited geographical area may be less of a concern for generalizability of results. Although the participants currently lived in New York, Pennsylvania, or Ohio, many of the participants had experience trance dancing and living throughout the United States and the world at large. They reported no significant differences in their experiences of trance dancing in relation to the location where the dancing took place.

 To reduce researcher bias this researcher employed several techniques consistent with qualitative research. First, this researcher conducted multiple interviews with participants and had participants review the transcripts of interviews to ensure accuracy. Second, this researcher utilized a peer reviewer to review the interview transcripts for bias and to independently analyze the data to assess for any bias in the researcher’s analysis of the data.

 Considering the assumptions and limitations, the scope of this study is one of being able to cautiously generalize the findings to white college-educated individuals who engage in trance dancing. Future studies with a greater number of diverse participants could increase the ability to generalize these findings.

**Definition of Terms and Concepts**

 Because this study aimed at understanding trance dancing from an interdisciplinary perspective it was only natural that terms and concepts would vary across the disciplines. Therefore, it was necessary that terms be defined clearly. For this study consciousness, divided consciousness, dance, and trance dancing were defined here. Other terms were defined as they were used within this paper.

**Definition of Consciousness**

Feldman’s (2008) definition of consciousness included considerations of cognitions, emotions, and sensory information within the descriptively poor time frame of “a given moment” (p. 139). It is clear within the development of this definition that discontinuity was not deemed a characteristic feature. Lycan’s (1995) definition of consciousness was slightly more specific in that Lycan considered the role of attention in perceiving psychological states. These psychological states were not defined. Therefore within Lycan’s (1995) definition, one is left to presume these psychological states were the same states included in Feldman’s definition: cognitions, emotions, and sensory information. Considered in this manner, consciousness is therefore a psychological process based on attention to, and awareness of, other psychological processes in a manner that then organizes those other processes into a coherent and functional system. However, even in Lycan’s (1995) definition there was no acknowledgment of the possibility of, or importance of, discontinuity of consciousness.

**Definition of Divided Consciousness**

One may wonder then, if the nature of consciousness as existing in a divided manner would be better delineated through a definition of divided consciousness. However, there was no clear, explicitly stated, definition of divided consciousness even in extensive works specifically stated to explore the concept such as Hilgard’s *Divided Consciousness: Multiple Controls in Human Thought and Action* (1977). Major theorists would define consciousness and then imply that divided consciousness occurred when the processes of consciousness did not occur in a singular manner (Dennet, 1991; Feldman, 2008; Hilgard, 1977; Kihlstrom, 2005; Lycan, 1995). It seemed that the present day working assumption was that consciousness was not singular and this assumption was so widely accepted and understood that theorists no longer saw a need to define divided consciousness. For the purpose of this research, divided consciousness was defined as the ability to perceive, attend to, manipulate or work with, multiple sensations, thoughts, and feelings, some of which may be outside of one’s awareness, simultaneously through the allocation of attention, executive functioning, motor movement, memory, and other internal resources and in such complete several tasks at once.

**Definition of Dance**

Dance is a concept that was difficult to define because it consists of physical behavior, cultural behavior, social behavior, psychological, economic behavior, political behavior, and communication (Hanna, 1979). Although all of these aspects are important in regard to dance, the focus of this study necessitated a simple definition of dance as this study explored trance dancing from a broad perspective. Therefore, for purposes of this study, dance was defined as organized physical activity that was inseparable from the dancer and thereby afforded the dancer a creative outward expression of his/her internal experience.

**Definition of Trance Dancing**

For purposes of this research, trance dancing was defined as any change in consciousness that were distinctive from routine or normal consciousness which were produced through movement. A change in consciousness was defined as a period of time where ordinarily familiar information, emotion, body awareness, or other mental functions were not maintained within the routine conscious experience of the individual. A routine conscious experience was defined as the baseline consciousness of an individual on a day to day basis as described by each individual. Tart (1969) stated that a routine consciousness for an individual could be determined through the consideration of the amount of time that an individual spent in that state. That is, the larger amount of the day would be spent in routine consciousness (Tart, 1969).This routine consciousness would include the experiences of an individual when they felt as if they were fully aware of their surroundings and interacting with their surroundings in a style that was usual for them. The perception of routine and how this differs from the perception of a changed consciousness within the context of movement, was the topic of this phenomenological study. There were similarities among participants with regard to the perception of a changed consciousness. These similarities were viewed by the researcher as a beginning to the understanding of the essence of trance dancing. There were a variety of similar elements reported in records of historical trance dancing.

**Summary/Description of Dissertation Chapters**

 Chapter 1 of this dissertation provided an introduction to the topic of this study. Chapter 2 included a literature review of research regarding altered consciousness and dance through the fields of Psychology, Neuroscience, Dance, Religion, and Anthropology. Chapter 3 explained the methods behind this study. In Chapter 4 the findings of this study were reported and in Chapter 5 these findings were discussed in regard to how they fit into the theories discussed in Chapter 2.

Chapter 2: Literature Review

This chapter includes a review of the relevant literature across the fields of Psychology, Neuroscience, Dance, Religion, and Anthropology. Information regarding the history and conceptualization of trance dancing was provided. In addition pertinent information about trance in general was provided. As the field of Psychology is sparse in regard to the actual phenomenon of trance dancing, information about trance largely through hypnosis was provided as a relevant comparison. Also included is a section that describes the procedures of the literature review in how the material was collected and organized.

**Procedures for the Literature Review**

Articles and books were located using the search engines Google Scholar and APA Psycharticles. An assortment of search terms were used across the search engines including the terms “trance dancing”, “trance”, “dance”, “altered consciousness”, and “altered states of consciousness”. The terms were also paired with terms such as “religion”, “spiritual” and “history” in order to cross reference for articles within the fields of Religious Studies and Anthropology. In addition to locate articles relevant for Neuroscience terms such as “memory”, “consciousness”, “attention”, “decision making”, “sense of self”, “theories of mind” and “mirror neurons” , “altered consciousness” were used. Articles located in this manner were then used to locate other relevant articles by reviewing the references for those articles and then locating the referenced articles. This process was ongoing until this researcher began to get duplications of articles and books that this researcher considered to be a saturation of the data.

**Historical Context of Trance**

One civilization where dance has been prominent for centuries is the civilization of the San (Lewis-Williams, 1980; Platvoet, 1999). The San are a group of people who have lived as nomadic food gatherers for at least 11,000 years primarily between Zambesi and the Cape of Africa (Platvoet, 1999). Due to numerous political changes in Africa and various encounters with other civilizations the San people have become greatly dispersed and their numbers have dropped from 300,000 in the 17th century to 40,000 by 1960 (Platvoet, 1999). Currently the remaining groups of people that consider themselves San live in and around the Kalahari (Platvoet, 1999). Although the San have faced numerous challenges over the years that have redefined them as a group, they have maintained their connection with dance (Platvoet, 1999). Much of what is known about the historical San has come from talking to the current day San and from cave paintings completed by the San from the past (Lewis-Williams, 2003; Platvoet, 1999).

 San paintings dating back as far as 26,000 years ago depicted curing dances which some researchers have interpreted as an indication that the San dances witnessed today have been an enduring practice within the San culture (Platvoet, 1999). San paintings seemed to depict dance in five categories of shamanistic ritual activity: healing, game control, out of body traveling, rainmaking, and shamanistic dreaming (Lewis-Williams, 1980; Platvoet, 1999).

Many other cultures practice aspects of trance dancing including the Native American Ghost Dance (Pratt, 2005; Stoffle et al.,2000), Sufi Dancing (Kamin, 2002; Van Der Veer, 1992), and the Teminar of Malaysia (Jennings, 1985; Spencer, 1985). Each culture used trance dancing to fit their needs.

The Native Americans were believed to have used the Ghost Dance as a means of fortifying their community beliefs and holding on to their traditions when faced with an outside threat (Pratt, 2005). The Native American Ghost Dance had periods of time, 1870 and 1889-1890, where it was practiced by a greater number of people. The dance was believed to have been an offshoot of the Northwest Coast Prophet Dances that started in the 1800s (Thorton,1986; Stoffle et al., 2000). The dance originated as a means of dealing with the stresses of encroachment by Euro-Americans on Native holy lands (Stoffle et al., 2000). The second Ghost Dance movement began in 1889 following a vision by Wovoka, whose English name was Jack Wilson (Thorton, 1986; Stoffle et al., 2000). Both periods of interest in the Ghost Dance had some common themes (Thorton, 1986). The foremost theme was one of a return of the deceased ancestors and a return of wildlife (Thorton, 1986). The dances varied in specifics but always included circles and participants experienced altered states in which they received visions (Thorton, 1986).

A marginalized branch of Islam called Sufism also includes dancing as part of their religious beliefs (Van Der Veer, 1992). Sufis use trance dancing as a method to reach enlightened states of mind and to connect with the divine (Kamin, 2002). Across cultures, dance is often used as a means of outwardly expressing one’s feelings of a spiritual experience (Hanna, 1979).

Dance has a variety of uses across cultures (Spencer, 1985). The Teminar are a people who live in the states of Perak and Kelantan on the Malay Peninsula. They use trance dancing to maintain social order, to relieve tension, and to allow participants an outlet for frustrations and aggression (Jennings, 1985). In Afro-Brazilian spiritualist sects, trance dancing is used as a means of achieving an emotional abreaction, as well as producing clarity within the individual so that he or she can face difficulties with a better psychic and psychosomatic balance (Akstein, 1973). Tunisian Jews use a trance dance called Stambali as a means of communal coping, as an expressive outlet, and for prophylactic and healing purposes (Somer & Saadon, 2000). The Zar cult, which consists exclusively of women, uses trance dancing as a means of gaining social power and lessening the stigma of mental health (El Guindy & Schmais, 1994). In the Zar, individuals are given continuous group support as opportunities for trance dancing are offered on a regular basis and the members of the cult feel obligated to provide help to those members who are struggling (El Guindy & Schmais, 1994). However Boddy (1994) questioned whether this outside interpretation of the Zar is accurate to the way that the women who dance it feel regarding the purpose of the Zar. Boddy (1994) made the point that no one has asked the woman themselves about their experiences. Likewise, this researcher wonders if the portrayal of the Ghost Dance as a reaction to white encroachment is an accurate understanding of what the dance meant to the Native Americans who danced it.

Trance dancing is not strictly a phenomenon found in historical or indigenous cultures. Trance dancing is also found in a variety of modern subcultures including raves found in North America and Europe (Becker-Blease, 2004; Hutson, 2000), Goa parties in Israel (Saldanha, 2005) and Neo Pagan festivals around the world (Farley, 2010). It can also be found as a part of more mainstream events aimed at self-actualization, mental health, or a cultural/artistic experience. These mainstream events are advertised in a variety of ways including internet magazines and marketing materials from facilities where events take place. One such magazine is *Conscious Dancer*. An example of an organization that facilitates mainstream trance dances would be *Trance Dance International* who can be reached through Facebook or a website entitled *trancedance.com* or Journey to the Heart who can be reached at [*www.journey2theheart.com*](http://www.journey2theheart.com).

**Modern Expressions of Trance Dance**

In the past few decades music festivals have included changes in consciousness as part of dancing or ingesting drugs and have become popular with youth. Most recently Raves, all night dancing events centered around electronic music, have become a part of the experiences of some youth (Hutson, 1999; Hutson, 2000; Wilson, 2002). What appears to be trance dancing also occurs at weekend long music festivals and at heavy metal concerts that include moshing (Stuckey, n.d.). Moshing is an aggressive form of dance that includes rapid movements, posturing, and colliding one’s body with others (Stuckey, n.d.). This large variety of events all seem to include a central element, which may be trance dancing.

What is not known is the role that dance in these varied venues plays for the youth. Wilson (2002) argued that dance provided superficial benefits to youth including entertainment, sensory stimulation, and adolescent rebellion. Wilson (2002) did not view raves as affording any of the traditional benefits ascribed to dance in other cultures. However, dancers’ self reports tended to support the opposite; that is, that dance at raves served an important purpose beyond superficial gains (Hutson, 2000). The words dancers used to describe their experiences at these events often sounded similar to how individuals in traditional societies which utilize trance dancing would describe their experiences of trance (Hutson, 2000). For instance, one participant at a rave stated:

it is through dance that I have found transcendence. Music has taught me to fly using wings I never knew I had, It is through music and dance that my soul is free to soar amongst the heavens…allowing a clearer vision of the world I am creating (Hutson, 2000, p 39).

This expression of trance dancing as a means of spiritual transcendence seemed to contain similar elements to the use of trance dancing found in other cultures. This quote would seem to provide support for the necessity of studying trance dancing more in depth and resisting the urge to simply dismiss the process because it occurs within modern culture.

 Trance dancing is not simply a phenomenon of youth. Trance dancing occurs in a variety of adult environments as well. Some of the adult trance dancing occurs within the context of a religious experience (Becker-Blease, 2004; Dorahy & Lewis, 2005; Platvoet, 1999). Some examples would include whirling dervish dances of the Sufi’s (Kamin, 2002; Van Der Veer, 1992), the trance dancing of the San bushmen (Lewis-Williams, 1980), and the Stambali, a ritual trance-dance used by Tunisian Jews as a way of exorcising demons thought to be the origin of mental illness (Somer & Saadon, 2000).

There are also instances of trance dancing within adult culture that are not within the context of a religious experience (El Guindy & Schmais, 1994; Saldanha, 2005). Cultures that utilize trance dancing within secular activities include the Zar (El Guindy & Schmais, 1994) and GOA trance parties in Israel (Saldanha, 2005). The Zar is a dance performed by female participants in a healing cult in Egypt, the Sudan, and Ethiopia (El Guindy & Schmais, 1994). The Zar is not restricted to one religion and is practiced by Moslems, Christians, and Jews (El Guindy & Schmais, 1994). GOA trance parties in Israel are popular among soldiers and are used as an escape from the trauma of military service (Saldanha, 2005).

Trance dancing is also slowly finding a voice in the modern mainstream culture as an experience in self-actualization. This process of self-actualization can be presented as a spiritual experience, a component of mental health or part of an artistic or cultural experience. Journey to the Heart is an organization that offers modern trance dancing classes. They view modern trance dancing as a process of both a spiritual experience and a component of mental clarity. Journey to the heart discussed the experience of trance dancing as a process designed to support spiritual awakening, clear thinking, and physical and emotional well-being. They utilize a variety of techniques to create these processes including music and rhythm, breathing techniques, and blindfolds. The quintessential goal of journey to the heart is to help participants participate in an internalized shamanic journey whereby participants experience a change in their normal perceptions of space and time (www.journey2theheart.com).

Trance Dancing is sometimes presented as an artistic or cultural experience as evidenced by a trance dancing event that was held at the Erie Art Museum in Erie, Pennsylvania during February 2009. In addition there are regular “authentic movement” experiences held in the dance department at Allegheny College. Authentic movement is a dance experience whereby individuals move in any fashion that they desire based on internal thoughts and emotions (Payne, 2003). Authentic movement experiences can produce altered states of consciousness (Woods, 2009) and therefore these cultural experiences may be another example of individuals in a mainstream pursuit engaging in trance experiences.

Sometimes differentiating between trance dancing that occurs in a secular context from a religious context is not simple. Although majority culture in America and Europe may consider raves to be a secular arena of trance dancing, many ravers consider the events to be meaningful spiritual experiences (Hutson, 2000). Therefore, raves exemplify one kind of trance experience that is difficult to classify as strictly secular or religious. Historically, the Greek culture also included trance dancing that was simultaneously secular and religious (Becker-Blease, 2004). The Greek’s suggested that people suffering from mental illness cure the illness by engaging in ritual trance designed to bring the individual back into alignment with the cosmos (Becker-Blease, 2004).

It is largely assumed that trance and trance dance has existed for thousands of years within various cultural contexts. Trance dancing exists in modern culture but it has not been thoroughly analyzed to determine if this is indeed the same process that has been hypothesized to occur historically. This is similar to assumptions that trance itself has a lengthy historical context (Gravitz, 1991; Ludwig, 1969; Spanos & Chaves, 1991). That is, often researchers assume that trance is invariable throughout history (Spanos & Chaves, 1991). Spanos and Chaves (1991) cautioned readers that assuming hypnosis has remained a consistent phenomenon throughout history is perhaps faulty. Spanos and Chaves (1991) discussed the importance of understanding the historical cultural context. If one does not understand historical context, one may inadvertently create researcher bias when examining reports of historical experiences. This in turn leads to the mistaken conclusion that an experience occurring in history is equivalent to modern day experiences.

**Distinctions Between Historical and Modern Experiences of Trance: Implications for Theory**

This distinction between historical and modern manifestations of a phenomenon is relevant to the development of theory. The assumption of a continuous experience of trance works well within state theories of changes of consciousness. State theorists would assert that if historical participants could enter trance as well as modern participants, regardless of the social context of the time, then trance appears to be a unique state of humans. However, this premise is based on an assumption that has not thoroughly been investigated. Historical examples cited as trance often include elements of dance, ritual, spirituality, and healing. Modern trance dancing is believed by some to include elements of ritual, spirituality, and healing. Therefore, through the study of trance dancing psychologists may be able to gain important insight into the historical examples of trance as well.

**Continuity Through San Trance Dancing**

 Study of the trance dancing of the San people may provide an example of a continuation of an experience from antiquity to modern day (Platvoet, 1999). This assumption is based on the idea that the San have existed from antiquity to the modern day. However, even this example must be carefully considered given that what is known about San trance dancing historically, through cave paintings, is based on the interpretation of researchers. Furthermore, it is not possible to interview the historical San individuals who created the paintings to determine their perspectives (Lewis-Williams, 1980; Lewis-Williams, 2003). It is evident then that historical accounts are often inaccurate and incomplete.

**Clarity Through Understanding the Essence of Trance Dancing**

There is also no clear understanding of what is actually happening during the modern experience of trance dancing. In order to better determine if there is continuity between historical and modern manifestations of trance dancing one must first look for the essence of trance dancing. Then one may be better able to determine if this essence is consistent throughout modern trance dancing and also trance dancing in antiquity.

**How to Discover The Essence of Trance Dancing**

In order to determine the essence of trance dancing, it is not enough to simply observe the phenomenon. Trance dancing viewed from the outside may be misperceived. Viewing it from the outside may lead researchers to dismiss it as a simple enactment of the role expected of participants within certain subcultures. Another risk of viewing trance dancing from the outside is that it may then simply be perceived as consisting of part of religious experiences. A third view of trance dancing from the outside may lead researchers to view it as a method by which to induce dissociation. Trance dancing may indeed be consistent with some or all of these views but one could not determine this until one had thoroughly investigated the phenomenon through discussions with participants in trance dancing.

It is through this investigation of the essence of trance dancing that one will be able to contribute to the literature on trance dancing and thereby contribute to the psychological literature as well. In researching the essence of trance dancing one will have to explore consciousness and divided consciousness from a distinctive viewpoint and thereby may also gain a deeper understanding of those processes as well. This is consistent with the psychological tradition of studying hypnosis, meditation, and other processes to in turn study consciousness and divided consciousness. Also understanding the essence of trance dancing may contribute to the foundation of theory within psychology in regard to studying consciousness and trance as based on an improved conceptual definition of trance. Finally understanding the essence of trance dancing may contribute to the foundation of theory within psychology through elucidating the similarities and differences of historical and modern manifestations of trance and in turn other psychological concepts such as divided attention and hypnosis.

**Elements of Trance Dancing Found in Literature**

Various civilizations have found dance useful as a means of bonding community together through the incorporation of symbols common to the community myths, beliefs, and norms (Akstein, 1973; Bartocci & Dein, 2005; Becker-Blease, 2004; El Guindy & Schmais, 1994; Hutson, 2000; Ng, 2000; Skultans, 1987; Somer & Saadon, 2000). Dance has also been used as a staple of rituals including those of a rite of passage into adulthood, as a way to manage conflict, and for healing purposes (Spencer, 1985). Often dance provided a means of connection with spirit (Middleton, 1985). For purposes of this paper, connection with spirit was defined as forming a bond with or communicating with a force outside of or beyond oneself. This force would vary according to the culture of the dancer. Some dancers may understand connection with spirit as a connection with a deity (Hanna, 1979). Others may view connection with spirit as connection with an ancestor or spirit (Middleton, 1985). Some dances were created to help individuals connect with and appease or drive out malevolent spirits (Hanna, 1979). Finally some dancers used dance to connect with transcendental aspects of themselves (Hanna, 1979).

Trance dancing varied slightly within each cultural expression. However, there were some aspects found in the review of literature that seemed to be common to most forms of trance dancing. First, trance dancing was defined by the ability of participants to experience a change of consciousness that was distinct from routine consciousness through dance (Akstein 1973; Bartocci & Dein, 2005; Becker-Blease, 2004; El Guindy & Schmais, 1994; Hutson, 2000; Ng, 2000; Skultans, 1987; Somer and Saadon, 2000). It appeared that attaining this change of consciousness was achieved by prolonged dancing usually done at night or in some other setting with decreased light levels (such as a cave) (Hutson, 2000; Platvoet, 1999). Another important aspect of trance dancing found in literature was rhythmic music or chanting, whereby the rhythm helped to induce another element within the change of consciousness (Akstein, 1973; El Guindy &Schmais,1994; Hutson, 2000; Somer & Saadon, 2000). Within the literature, participants in trance dancing frequently reported a distorted sense of time, where they felt like less time has passed than was accurate (Akstein, 1973; Hutson, 2000). Some participants in trance dancing literature reported amnesia (Bartocci & Dein, 2005; Ng, 2000) however, other participants reported no amnesia and actually endorsed an enhanced memory for details (Becker- Blease, 2004; Hutson, 2000; Skultans, 1987). Another reported element of trance dancing was ego transcendence (Becker-Blease, 2004). This ego transcendence allowed participants to transcend their everyday view of self and allowed participants to experience alternative possibilities (Becker-Blease, 2004; Hutson, 2000; Ng, 2000). Many participants of trance dancing in literature reviewed reported an emotional abreaction resulting from the experience (Akstein 1973; El Guindy & Schmais, 1994; Hutson, 2000; Ng, 2000; Skultans, 1987; Somer & Saadon, 2000). Finally, an important element of trance dancing found in the literature was a guide of some sort (Cox, 2003; Jennings, 1985; Platvoet, 1999). This guide could take many forms but the role of the guide was to help participants reach a trance in a carefully orchestrated manner and to ensure safety for the participants and community (Cox, 2003; Jennings, 1985; Platvoet, 1999).

The style of movement did not seem to impact the ability of an individual to achieve a trance with dancing. Some forms of trance dancing followed a prescribed set of movements (Akstein 1973; Ng, 2000) while others had no prescribed movements and instead participants engage in authentic movement (Becker-Blease, 2004; Hutson, 2000; Somer & Saadon, 2000). Authentic movement is movement that resulted from an increased awareness of internal cues both physical and emotional (Chodorow, 1991). The dancer then moved his/her body as he/she felt based on these cues (Chodorow, 1991). It is important to note that many cultures also ingested a variety of drugs in order to enhance the trance dancing experience (Smith, 1964). However, it is believed that many other cultures did not use drugs as part of their trance dancing. Ingestion of drugs would therefore be a matter of choice and not a necessary component of trance dancing.

Based on a review of the literature, I had organized the potential elements of trance dancing into eleven categories: 1)participant experience, 2)behavior, 3)cognitive elements, 4)memory, 5)attention, 6)sense of self, 7)sense of body, 8)emotion, 9) spiritual sense, 10)environmental factors, and 11) sense of community. The first category, participant experience, referred to the reflections of participants regarding how they understood the experience of trance dancing which included a subjective feeling of a change in consciousness. The second category, behavior, referred to those behaviors that would indicate that someone was within the process of trance dancing and included concepts like volition. Cognitive elements included any changes in or experiences of thought patterns during trance dancing. Also included in this category were thoughts as they related to motivation and attitude toward trance dancing. Memory referred to any changes in memory that trance dancers experienced. Attention referred to shifts in the object of trance dancers’ focus. Category six, sense of self, referred to how trance dancers viewed themselves as a result of the experience of trance dancing. Sense of body referred to how trance dancers perceived their body to be functioning as related to trance dancing. Emotional factors were the ways dancers believed that trance dancing impacted their emotions. A spiritual sense referenced how trance dancers thought about connection with spirit as a result of trance dancing. Environmental factors included any factors from the environment that impacted trance dancing such as low light levels, rhythmic music, or drugs. Finally, a sense of community involved how the trance dancing impacted the participants’ views regarding their connection with the world. At later points in this paper I revisited these categories in an attempt to understand how each of the theories of changes in consciousness addressed these elements. It is important to remember that these categories are presented only as a means of organization the literature that was reviewed prior to completion of this study. These elements were discussed again in regard to the findings of this study in Chapter 5.

In a thesis that explored Altered States of Consciousness in Dance Therapy, Woods (2009) described 11 themes most often found in her literature review and research. These themes included 1)community and group, 2) healing potential, 3) spirituality and religion, 4) ritual, 5)rhythm, 6) experience of the self, 7)body action and rapid motion, 8) catharsis and abreaction, 9)energy and revitalization, 10) recovery of play and creativity, 11) focus, attention and absorption (p. ix). Again, the 11 themes that Woods (2009) found in her literature review were discussed in regard to the findings of this study in Chapter 5.

Woods’ (2009) theme of community and group was similar to this researcher’s literature review element of a sense of community. Woods’ (2009) theme of spirituality and religion was consistent with the element of a spiritual sense found in this researcher’s literature review. This researcher’s literature review element of attention was similar to Woods’ (2009) theme of focus, attention, and absorption. Woods’ experience of self was similar to this study’s element of a sense of self. The element of a sense of body was similar to Woods’ (2009) theme of body action and rapid movement. The literature review conducted for this study found and element of trance dancing that is labeled emotion. This was similar to Woods’ (2009) theme of catharsis and abreaction. Woods’ (2009) theme of ritual seemed to fit within the element of environmental factors in this study. It should be noted that environmental factors was a broader category in which a specific kind of environmental factor of ritual fit within. Healing potential is a unique category that Woods (2009) found and although it does not fit perfectly within the categories found in this literature review it could fit within the category of participant experience as a sense of healing is often a part of participant’s experiences of trance dancing. However, the fact that Woods (2009) specified a category of healing potential is in line with the purpose of her study which was to understand how altered states of consciousness could be used within a therapeutic realm. Woods (2009) found a theme of rhythm in her review of the literature. This theme would be considered to be an environmental factor within the literature review of the current study. Energy and revitalization, a theme found by Woods (2009), was similar to healing potential in that it would be subsumed within the context of participant experience in the categorization of themes found in the current literature review. Woods’ (2009) theme of recovery of play and creativity is one of finding new insights to problems and a freedom of movement. As such, this theme would fit within both cognitive elements in regard to insight and behavior in regard to freedom when compared to categorization of themes found in this literature review. Woods (2009) did not specifically find an element that would be consistent with the category of memory found in this literature review. Table 1 provides a comparison between those themes found during a literature review by Woods (2009) and those themes found in a literature review by the current researcher.

Table 1 Comparison of Themes from Woods’ (2009) Literature Review and the Current Review

|  |  |
| --- | --- |
| Woods’ Literature Review | Current Literature Review  |
| Community and Group | Sense of Community |
| Spirituality and Religion | Spiritual Sense |
| Focus, Attention and Absorption | Attention |
| Experience of self | Sense of Self |
| Body Action and rapid movement | Sense of body |
| Catharsis and abreaction | Emotion |
| Ritual | Environmental factors |
| Healing potential | (Participant Experience) |
| Rhythm | (Environmental factor) |
| Energy and revitalization | (Participant Experience) |
| Recovery of play and creativity | (cognitive elements) |
|  | memory |
|  | Participant Experience |
|  | behavior |
|  | Cognitive elements |
| Items in parentheses indicate that themes do not overlap precisely |

**Proposed Benefits of Trance Dancing**

There are a number of community and individual benefits of trance dancing (Akstein, 1973; Becker-Blease, 2004; El Guindy & Schmais, 1994; Skultans, 1987; Somer & Saadon, 2000). Trance dancing provides the communal benefits of creating a sense of community, provides a recognized coping strategy for the community, social support, and a community identity that is resistant to outside influences, as well as a form of social protest (Akstein, 1973; Becker-Blease, 1994; El Guindy & Schmais, 1994; Reed, 1998; Skultans, 1987; Somer & Saadon, 2000).

Trance dancing helps to create a sense of community through producing fusion and a sense of oneness through ego transcendence and ego identity among its participants (Akstein, 1973; Becker-Blease, 1994; El Guindy & Schmais, 1994; Hutson, 2000; Somer and Saadon, 2000). For the purposes of this research, I defined fusion as a process whereby an individual turns his/her attention toward the external world in an attempt to find similarities among all aspects of the external world. The individual experiencing fusion also viewed him/herself as being inseparable from the external world. Ego transcendence is thus defined as the ability to incorporate aspects of one’s self in a new way that is more inclusive than the previous view of self. Ego Identity is the taking on of a community identity as the representation of the self. An example of Ego identity would be when the members of the community accept specific rules for behavior when they believe that it is in the best interest of the community and thus themselves. This ego identity allows members to overlook issues like social class and neutralizes social barriers (El Guindy & Schmais, 1994; Hutson, 2000). For example, ravers would show peace, love, unity, and respect to all other ravers, even if these ravers would never speak to one another outside of the rave due to living within different social classes within the world at large (Wilson, 2002).

Trance dancing also provides a communal set of transactional symbols that serve to unify the community and allow each individual to transact his or her individual emotions into an agreed upon meaning (Akstein, 1973; Becker-Blease, 2004; El Guindy & Schmais, 1994; Hutson, 2000; Somer & Saadon, 2000). For example, the Teminar use dancing to provide community members with an outlet for frustration and anger (Jennings, 1985).Trance dancing produces communal coping by providing a public forum that allows for all members of a community to cope with individual and community stressors (Jennings, 1985; Skultans, 1987). One example of this is found within the trances of Indian women who travel to the Mahanubhav temple (Skultans, 1987). These women come to the temple after they feel exhausted from the constant care they provide to loved ones who exhibit psychopathology (Skultans, 1987). At the temple the women engage in trance dancing while others at the temple look after them to ensure their safety during the dance, provide nourishment through prepared meals, and companionship to the women while they stay at the temple (Skultans, 1987). When the women feel thoroughly rested from their stay at the temple they return home to again care from those in their charge (Skultans, 1987). The women often leave the temple feeling recharged, validated for the care they give to others, and with more sympathy for the individuals (usually family members) in their charge who display psychopathology (Skultans, 1987).

Trance dancing also serves to provide social support and decrease isolation among its members. The Zar cult ensures that women with mental illness can ask for and receive help at any time and the cult actually makes asking for help socially valued (El Guindy & Schmais, 1994). According to this cultural belief, dance participants are socially obligated, to provide emotional support to their fellow dancers. Providing this support helps solidify social unity and asking for support further integrates members into the cult (El Guindy & Schmais, 1994).

Another benefit of trance dancing is the building of a community identity that is resistant to outsiders (Pratt, 2005; Stoffle et al., 2000). A historical example of this can be found in the Ghost Dance of the Native Americans. Native Americans are believed to have used the dance to solidify their values in the face of pressures to integrate within the white European culture (Pratt, 2005; Stoffle et al., 2000). A modern example of this resistance may be found in present day raves, as participants strive to create a world free of the dualities and discrimination of mainstream culture (Becker-Blease, 2004; Hutson, 2000).

 Individual benefits of trance dancing include a means of empowerment and social power, an emotional abreaction and catharsis, and a form of preventative care and healing (Bartocci & Dein, 2005; Becker-Blease, 2004; El Guindy & Schmais, 1994; Hutson, 2000; Ng, 2000; Somer & Saadon, 2000). In some cultures trance dancing serves to help members achieve social power or privileges (El Guindy & Schmais, 1994; Ng, 2000; Somer & Saadon, 2000). Empowerment found in trance dancing is exemplified by the Zar cult, whereby women as members of the cult have to be noticed even within a patriarchal society because of their behaviors within the dance (El Guindy & Schmais, 1994). Additionally, many trance dancers experience an emotional abreaction or catharsis during trance (Akstein, 1973; El Guindy & Schmais, 19994; Somer & Saadon, 2000). Trance dancing is also used for preventative care as it allows individuals an opportunity to obtain support or care prior to becoming problematic or symptomatic (El Guindy &Schmais, 1994; Somer & Saadon, 2000). Finally, trance dancing provides the individual with opportunity of healing in a variety of ways. Trance dancing can heal by participant’s use of trance as a coping skill or as a means to escape trauma (Bartocci & Dein, 2005; Becker-Blease, 2004). Trance dancing also helps to destigmatize mental health (El Guindy & Schmais, 1994) and sets limits on the behaviors presented within the illness (Ng, 2000). Trance dancing serves to destigmatize mental health by allowing the individual to establish non self attribution of the negative components of the illness (Becker-Blease, 2004; Somer & Saadon, 2000). Trance dancing also provides transactional symbols which help the participant make sense of and understand his/her illness (Becker-Blease, 2004; El Guindy & Schmais, 1994; Hutson, 2000).

**Trance Theories**

Although there are a myriad of possible explanations for processes within trance, this researcher chose those theories that seemed to be most heavily represented in the literature. Seven distinct possibilities to explain the processes within trance dancing will be presented in this paper. Those seven possible explanations include 1) State theories of trance, 2) Role theories of trance, 3) Trait theories 4) Theories from Neuroscience/Biology, 5) Dance theories 6) Theories from Anthropology and 7) Religious explanations of trance.

In order to study the essence of trance dancing one must first have a thorough understanding of what the literature currently espouses in regard to trance dancing so as to form appropriate questions for study. However, the literature was sparse in regard to trance dancing. Therefore, one must review the research on trance in order to hypothesize potential processes within trance dancing. These hypothesized processes can then be researched within trance dancing through carefully crafted questions. Much of the work on changes in consciousness has been done using hypnosis as the subject. Therefore, much of the discussion that follows has also relied on findings resulting from hypnosis studies. As there was limited information on trance dancing at the time, this author was unsure if the findings within hypnosis would translate to trance dancing. Therefore, this information was used in order to elucidate the theories of changes in consciousness as they are known at the time of the literature review. These findings were then used to analyze the data of the present study.

It is reasonable to believe that there are parallels between elements of trance dancing and elements in other theories regarding changes in consciousness. It should be noted that there is controversy over exactly how changes in consciousness are produced (Fromm, 1979; Hilgard, 1977; Hilgard 1991; Kirsch & Lynn, 1995; Ludwig, 1969; Sapp, 2000). This controversy has led to multiple theories (and seven broad categories) suggesting how changes in consciousness are created. Again, those six broad categories are: (1) State theories, (2) Role theories, (3) Trait theories, (4) Neuroscience theories, (5) Dance theories (6) Religious theories and (7) Anthropology theories.

**State Theories**

Included in this section are theories that purport an actual changed mental state that constitutes altered consciousness. This section included Ludwig’s theory of altered states of consciousness (Ludwig, 1969). Under Ludwig’s theory are sections that address the five methods by which Ludwig proposed altered states can be induced including reducing extereoceptive stimulation, increasing exteroceptive stimulation, increasing alertness, decreasing alertness, and somatopsychological factors (Ludwig, 1969). Also in this section are discussed the theory of Hypnosis of Psychological Regression by Michael Nash (Nash, 1991), the theory of Ego-Psychological theory by Erika Fromm (Fromm, 1979), the theory of Dissociated Control by Woody and Bowers (Kirsch & Lynn, 1998), and Janet’s theory of dissociation (Hilgard, 1977).

 Under Janet’s theory of dissociation is a broad discussion of dissociation. The spectrum of dissociation from adaptive to maladaptive, the societal impact on pathology, the context of dissociation in regard to pathology, and trauma’s impact on the pathology of dissociation are discussed. Information is also provided regarding dissociation as a non-linear spectrum of degrees. The characteristics of dissociation are discussed including ego transcendence, depersonalization, detachment, absorption, ego identity, increased body awareness, reconnection, and fusion. A discussion of induction of dissociation and the ways it is similar to inducing trance dancing can be found in this section.

Finally, the Neodissociation Theory by Hilgard (Hilgard, 1977) is discussed as well as aspects of divided consciousness and trance dancing.

**Ludwig’s theory of altered states of consciousness.** In the theory of Altered States of Consciousness as described by Ludwig (1969), he reported that altered states of consciousness are any mental state(s) that are experienced as different from the day to day consciousness of an individual. He further stated that these altered states are induced in a variety of ways including by physiological, psychological, or chemical means (Ludwig, 1969). Therefore, Ludwig viewed altered states of consciousness as being unique states that can be created by employing a number of methods. Furthermore, each of Ludwig’s (1969) five methods of inducing altered states of consciousness would all be considered to fit within the state theory of altered states of consciousness. Ludwig (1969) discussed five methods by which altered states of consciousness can be produced and also provided examples for each of the five methods. The five methods of producing altered states of consciousness described by Ludwig include:

1) Reduction of extereoceptive stimulation and/or motor activity,

2) Increase of extereoceptive stimulation and/or motor activity and/or emotion,

3) Increased alertness or mental involvement,

4) Decreased alertness or relaxation of critical faculties, and

5) Presence of somatopsychological factors.

Extereoceptive stimulation is the stimulation of an individual’s sense organs (Ludwig, 1969). For example the stimulation of one’s retina by visual stimuli such as light. Therefore an example of a reduction of exteroceptive stimulation may include the reduced stimulation of one’s retina due to having lower levels of light. Somatopsychological factors are those agents that alter body chemistry or neurophysiology (Ludwig, 1969).

***Reduction of exteroceptive stimulation.*** The first method of producing altered states of consciousness proposed by Ludwig (1969) is through the reduction of exteroceptive stimulation and/or motor activity. Ludwig (1969) asserted that this was possible to accomplish in two ways, by reducing the stimuli that acted upon an individual’s sense organs, or by reducing motor activity. There are several ways to accomplish the reduction of exteroceptive stimulation by reducing the overall sensory input to which a person is exposed (Ludwig, 1969). Sensory input could be reduced by changing the manner in which the sense organs detect stimuli (Ludwig, 1969). One way of altering the detection of stimuli by sense organs is through the process of habituation (Feldman, 2008). Habituation is a reduced response to stimuli that prior to repeated exposure would have produced a response (Feldman, 2008). If stimuli that is repetitive and monotonous is presented it is likely that the sense organs will cease detecting it and will thereby result in reduced exteroceptive stimulation.

Also included within this first method of producing altered states of consciousness is the drastic reduction of motor activity. Examples of altered states of consciousness that may be produced in this manner may include altered states that are associated with solitary confinement, or by prolonged social and stimulus deprivation while at sea, in the artic, or in the desert (Ludwig, 1969). Altered states of consciousness may also be produced through this mechanism during medical procedures such as following bilateral cataract operations or profound immobilization in a body cast or by traction (Ludwig, 1969). It is also reported that the early Egyptians and Greeks may have produced the altered states they referred to as “incubation” or “temple sleep” by reducing exteroceptive stimulation (Ludwig, 1969).

***Increasing exteroceptive stimulation.*** The second method of producing altered states of consciousness described by Ludwig (1969) was by increasing exteroceptive stimulation and/or motor activity and/or emotion. That is, it consisted of the exact opposite mechanism than the first process by which altered states of consciousness were believed to be produced. This second process also is proposed to be able to be created through an increase in emotion (Ludwig, 1969).

 Altered states of consciousness produced by increasing exteroceptive stimulation and/or motor activity and/or emotion are likely to be produced by creating excitatory mental states through overloading or bombarding the senses, and through strenuous physical activity or exertion (Ludwig, 1969). It is believed that a key component in producing altered states in this manner is that there must also be a component of fatigue, either mental or physical (Ludwig, 1969). Examples of altered states that may be produced in this manner could include suggestible mental states produced by prolonged interrogation or “brainwashing” tactics, trance states produced by excessive movement, and an emotional component that could be encountered in group or mob settings, religious conversion, and healing trance experiences during revivalist meetings, shamanistic and prophetic trance states during tribal ceremonies, or ecstatic trance such as experienced by the “howling” or “whirling” dervishes during their famous Derv dance (Ludwig, 1969). Altered States of Consciousness can also be produced in this manner during emotional turbulence or conflict that is secondary to external conditions of emotional arousal. Examples like these would include fugues, amnesias, depersonalizations, panic states, or states of acute psychosis (Ludwig, 1969).

***Increased alertness.*** The third manner in which Ludwig (1969) believed that altered states of consciousness could be produced was through increased alertness or mental involvement. Altered states of consciousness produced in this manner were created by focused or selective hyperalertness, or increased alertness and increased sensitivity, to a central stimulus. Also, there must be hypoalertness, or reduced alertness and sensitivity, to peripheral stimuli. This combination of hyperalertness to central stimuli and hypoalertness to peripheral stimuli must occur over a sustained period of time. Some examples of altered states of consciousness that may be produced in this manner include states of consciousness resulting from prolonged vigilance during sentry duty or while watching a radar screen, fervent praying, intense mental absorption in a task like reading or writing, total mental involvement in listening to a dynamic speaker or while attending to the sounds of one’s own breath, or prolonged watching of a revolving drum or metronome (Ludwig, 1969). Fromm (1979) also stated that with some altered states of consciousness that there is increased alertness in combination with an increased ability to work with preconscious and unconscious processes which in turn allows the individual to fit together information in new ways. Fromm (1979) describes this process as a passive process of the pieces falling into place in an insightful manner in order to create a new understanding.

***Decreased alertness.*** The fourth manner to produce an altered state of consciousness that Ludwig (1969) described was producing altered states of consciousness through decreased alertness or relaxation of critical faculties. To accomplish this, an individual was in a passive state of mind where he/she had minimal goal directed thinking (Ludwig, 1969). Fromm (1979) would call this passive state of mind ego receptivity. In ego receptivity there was less judgment, reality was a more flexible idea that consisted of conscious, unconscious, and preconscious material, and thinking was not actively directed toward a specific outcome. Exemplifying this method of producing altered states of consciousness included mystical or transcendental states sometimes called “nirvana” or “cosmic-consciousness” attained through passive meditation (Fromm, 1979; Ludwig, 1969). Also included in this category were daydreaming, insightful or creative states, and free association states during psychoanalysis (Fromm, 1979; Ludwig, 1969). Creative states are those states of consciousness whereby individuals were passively receptive to new patterns of thought or stimuli organization and which therefore led to new ways of thinking about a problem or object (Fromm, 1979).

***Somatopsychological factors.*** The fifth manner in which to produce altered states of consciousness that Ludwig (1969) described was with the presence of somatopsychological factors. Somatopsychological factors are those agents that alter body chemistry or neurophysiology (Ludwig, 1969). It is not important whether these alterations are deliberately induced or result from a situation over which the individual has little control (Ludwig, 1969). Altered states of consciousness resulting from somatopsychological factors may include altered states caused by hypoglycemia, dehydration, sleep deprivation, hyperventilation, narcolepsy, temporal lobe seizures, or aura’s preceding migraines or epileptic seizures (Ludwig, 1969). These altered states may also occur as a result of ingesting toxic agents or the use or withdrawal from certain drugs including anesthetics, psychedelics, narcotics, sedatives or stimulants. (Ludwig, 1969).

**Nash’s theory of hypnosis as psychological regression.** Trance as Psychological Regression is a psychoanalytic theory of trance (Nash, 1991). In this view, trance was accomplished as a result of a topographic regression (Nash, 1991). Nash defined topographic regression as neural excitation from regions of thought-structures to regions of sensory perceptions. That is, thoughts were transformed into images and specifically visual imagery (Nash, 1991). Also within the idea of topographic regression is a regression from secondary processing to primary processing (Nash, 1991). Secondary processing is processing that is orderly, rational, and reality based (Hilgard, 1962). Primary processing is considered to be more primitive processing and consists of illogical and impulsive thinking (Hilgard, 1962). Fromm (1979) stated that primary processing occurred in pictures whereas there was no imagery in secondary processing but instead the thinking was accomplished through concepts. This idea of topographic regression was created by Freud based on his observations about free association, dreams, and hypnosis (Nash, 1991). Once this topographic regression occurred the result was that the individual experienced a change in his/her experience of self and other (Nash, 1991). This change allowed greater ego receptivity, increased availability of affect which included more vivid and intense emotions, distortions in the sense of the body, and an increased sense of involuntary actions (Nash, 1991). This concept of ego receptivity as described in the regression theory is the same concept of ego receptivity described by Fromm (1979). The theory of ego receptivity was conceptualized by Fromm (1979) who maintained a psychoanalytic theoretical framework. So while Fromm (1979) maintained a view that trance involved an altered state of consciousness, much of her concepts are included within the theory of trance as psychological regression although this theory does not explicitly subscribe to the view that this regression constitutes an altered state of consciousness (Fromm, 1979; Nash, 1991).

**Fromm’s ego-psychological theory.** Fromm (1979) stated that there were numerous states of consciousness ranging on a continuum from the waking state thorough altered states of consciousness and ending with the deepest stages of sleep. Included among these altered states of consciousness were examples such as daydreaming, sensory deprivation states, states of creativity, states of concentrative and mindful meditation, states of mystical rapture and shamanistic ecstasy, and states of dissociation (Fromm, 1979).

 **Woody and Bower’s** **theory of dissociated control.** Within the theory of Dissociated Control as described by Woody and Bowers, what is proposed to be dissociated is the cognitive and behavioral subsystems from executive control (Kirsch & Lynn, 1998). This differs from the viewpoint of Hilgard (1991) that there is a dissociation within the executive control (Kirsch & Lynn, 1998).This distinction of where the dissociation occurs was important in that Hilgard (1991) viewed the dissociation as a voluntary act whereas Woody and Bowers viewed the dissociation in their theory as occurring involuntarily and outside of the participant’s awareness (Kirsch & Lynn, 1998). At this time, the theory of Dissociated Control seems to be a theory of hypnosis and it is unclear what other applications are appropriate for this theory. Therefore, this theory may not be appropriate for the purposes here of understanding trance dancing. However, if after further review this theory becomes relevant to this study it will be important to note where the dissociation is theorized to occur as this has an impact on the view of behavior of the participant.

**Janet’s theory of dissociation.** The concept of dissociation is largely attributed to Pierre Janet (Hilgard, 1977). Dissociation can be defined as a period of time when one is in an altered state of consciousness, such that ordinarily familiar information, emotion, or other mental functions are not maintained within the conscious experience of the individual (Maxmen & Ward, 1994; Dorahy & Lewis, 2005). Dissociation occurs along a continuum of adaptive behaviors and maladaptive behaviors, sometimes called psychopathology (Edge, 2004). Dissociation is considered a part of the human experience (Edge, 2004). That is, everyone has the potential too, and at some point in time may, experience dissociation.

***Spectrum of dissociation from adaptive to maladaptive.*** At the adaptive end of the spectrum of dissociation one sees behaviors such as daydreaming, and also sees dissociation as a part of meditation, hypnosis, and relaxation (Bartocci & Dein, 2005; Dorahy & Lewis, 2005; Grosso, 1998). The DSM-IV-TR considers maladaptive dissociation as occurring when a disturbance in the normal integrative functions of consciousness, identity, or memory lead to distress or impairment in social, occupational, or other important areas of functioning (American Psychiatric Association [DSM-IV-TR], 2000) . According to the American Psychiatric Association (DSM-IV-TR, 2000) there are five distinct dissociative disorders: Dissociative Amnesia, Dissociative Fugue, Dissociative Identity Disorder, Depersonalization Disorder, and Dissociative Disorder NOS. The identifying symptom of Dissociative Amnesia is one or more episodes of an inability to recall important personal information, usually of a traumatic or stressful nature (DSM-IV-TR, 2000). Dissociative Fugue is characterized by a sudden unexpected travel away from home, an inability to recall one’s past, confusion about personal identity or assumption of a new identity (DSM-IV-TR, 2000). The distinguishing feature of Dissociative Identity Disorder is the presence of two or more distinct identities each with its own relatively enduring pattern of perceiving, relating to, and thinking about the environment and self (DSM-IV-TR, 2000). These identities recurrently take control of an individual’s behavior (DSM-IV-TR, 2000). Depersonalization Disorder is distinguished by a persistent or recurrent experience of feeling detached from one’s mental processes or body (DSM-IV-TR, 2000). The diagnostic label of Dissociative Disorder NOS is used for dissociative experiences that are considered pathological but that do not fit within the previous categories (DSM-IV-TR, 2000).

***Societal impact on pathology.*** Despite the categorization found in the DSM-IV-TR (2000), dissociation cannot be viewed as neatly fitting into a single diagnostic category. Furthermore, dissociation is not easy to label as either pathological or nonpathological. Some of what determines pathology is culturally based (Al-Issa, 1977; American Psychiatric Association [DSM-IV-TR], 2000; Maxmen & Ward, 1995; Somer, 2006). Furthermore, in some cultures some experiences of dissociation would be viewed as pathological but other experiences of dissociation would be viewed as acceptable methods of providing psychological distance between the individual and a stressor (Somer, 2006). The way in which a culture views the concept of a continuous self and it’s interaction with spiritual concepts such as soul in order to create a unified view of reality largely determines whether or not a culture will view the dissociation as pathological or nonpathological (Somer, 2006). The disorders listed in the DSM-IV-TR (2000) represent an agreed upon cultural statement that pathology occurs within the individual rather than in a society at large. However, the presentation of the individual within the disorder of Dissociative Identity Disorder can be viewed as external protest against the abuse of women and children (Bartocci & Dein, 2005). That is, often those individuals who present with Dissociative Identity Disorder have a significant history of trauma and because the symptoms of Dissociative Identity Disorder are publically visible, the disorder can serve as a reminder to the public of what the consequences of abuse are to the victims (Bartocci & Dein, 2005). That is, the behavioral pattern of individuals with the diagnosis of Dissociative Identity Disorder, are actually a public demonstration of the hurt and pain that was inflicted upon the individuals at the hands of abusers and thereby the behaviors serve as a way for an individual who felt powerless as a victim to assert some power within society by way of drawing attention to their plight. In essence then this behavior may be considered to have a societal component to it and despite the usual belief that psychopathology occurs within the individual, Dissociative Identity Disorder is still considered pathological despite this societal component.

***Context of dissociation in regard to pathology*.** Additionally, within a single dissociative occurrence one may find elements considered to be both indicative of pathology and nonpathology (Bartocci & Dein, 2005; Becker-Blease, 2004; Somer, 2006). Bartocci and Dein (2005) explained this counterintuitive concept in terms of shared content between mystical experiences and psychosis. In both mystical experiences and psychosis, one may experience voices and visions (Bartocci & Dein, 2005). The context of the dissociation, as well as the context of the elements found in the dissociative experience, largely determine whether the experience is considered to be pathological or not (Bartocci & Dein, 2005; Ng, 2000; Somer, 2006). That is, in some religious experiences it may be acceptable and encouraged for a believer to dissociate and begin speaking in tongues. As such, this experience would be considered an example of nonpathological dissociation. However, the same experience of speaking in tongues would not be considered to be appropriate at work; therefore, dissociation of this manner occurring in the workplace would be considered pathological. Meanwhile, the common experience of daydreaming would be considered a normal and perhaps expected form of dissociation that could frequently occur in the workplace.

***Meaning of dissociation in regard to pathology.*** In addition to the cultural context and meaning, the meaning that the person who is dissociating places on the experience also helps to determine whether the experience is labeled pathological or nonpathological as a consideration of pathology is distress ([DSM-IV-TR], 2000). For instance, if a person views the experience as unwanted, problematic, or frightening it would likely be considered as a pathological dissociation. However, if the person saw the experience as meaningful to their life in a spiritual or secular manner then the dissociative experience would be considered to be nonpathological. This experience would continue to be seen as nonpathological as long as the individual remained able to interact appropriately within the physical world following the occurrence of the dissociation. The consideration of maintaining an ability to connect with the physical world is important as this is often used as the singular distinction between pathological dissociation and nonpathological dissociation.

***Trauma’s impact on the pathology of dissociation.*** Although it is often the goal of dissociation to transcend the self, an inability to reconnect with self within the world is considered pathological (Bartocci & Dein, 2005). Determining whether dissociation is pathological or nonpathological becomes even more complicated when considered in the context of trauma. Convicts have been shown to have high levels of dissociation and also are likely to have a history of trauma, in addition to the possible trauma caused by being incarcerated (Becker-Blease, 2004). In recent years it has become popular for convicts to request headphones and trance music (Becker-Blease, 2004). Convicts may use this music to dissociate in an attempt to escape from the trauma of being incarcerated. This is an example of non-pathological dissociation overlapping with pathological dissociation (Becker-Blease, 2004). Because of the difficulty in making clear distinctions between pathological and nonpathological dissociation, it is often more helpful and accurate to think of dissociation as occurring along a nonlinear continuum. More recent research into dissociation has begun to value this non-linear continuum of dissociation and therefore several researchers have developed models of dissociation that incorporate this aspect (Edge, 2004; Grosso, 1998).

***Non-Linear spectrum of dissociation.*** Edge (2004) provides a model of a spectrum of dissociation that identifies 5 areas of dissociation: (a) Pathological Dissociation, (b) Typical Dissociation, (c) Purposeful Dissociation, (d) Directed Dissociation, and (e) Association. Pathological Dissociation is considered to consist of a rigid compartmentalization of aspects that make up an individual’s self-concept (Edge, 2004). Edge (2004) stated that a result of this compartmentalization is that an individual experiences shifts in their self-concept. The moments of dissociation that exist as part of a pathological dissociation are involuntary and often unwanted (Edge, 2004). It follows then that if the individual were able to incorporate a more holistic view of what created their self-concept that they would not experience or at least would not be distressed by these shifts and this kind of dissociation would no longer be pathological. In many ways this is the process that is used to treat Dissociative Identity Disorder by trying to reintegrate the various personalities or by helping the individual create a more holistic view of their self-concept (Kluft, 1993). Typical Dissociation consists of natural but involuntary moments of dissociation that serve to facilitate an individual’s ability to focus on a task at hand, by distracting the individual from disturbing or threatening material (Edge, 2004). Typical Dissociation also includes those moments where one may feel like they are on auto-pilot or when one feels like they are standing beside of themselves in awe of nature (Edge, 2004). Purposeful Dissociation consists of experiences that are a result of perfecting techniques specifically for the purpose of moving awareness beyond the mind-body unit (Edge, 2004). For purposes of this research the definition of the mind-body unit as defined by Price and Thompson (2007) was utilized. That is, Price and Thompson (2007) defined the mind-body unit as the interconnected unit of the soma and psyche (p.945). Examples of mind-body techniques include yoga, meditation, and sensory deprivation among others. Directed Dissociation takes those activities of Purposeful Dissociation to an interactive level whereby an individual purposely seeks out dissociation and uses the experience to gain specific insight, awareness, or some further knowledge (Edge, 2004). Association, Edge’s (2004) fifth area of dissociation, is the process by which an individual can simultaneous exist in an altered state of consciousness and can interact in the physical world simultaneously. This state of Association is often seen as a culminating experience of enlightenment or self-actualization. However, it is not an all or nothing phenomenon and degrees of association can be experienced prior to a culmination in enlightenment or self-actualization (Edge, 2004). Other authors have also labeled this process of using dissociation to reach higher levels of human potential as “creative dissociation” (Grosso, 1998), or even simply “self-actualization” (Edge, 2004). Creative dissociation is defined by Grosso (1998) as an evolved ability of the mind to transcend what is seen as limitations of reality through processes of escape or transformation.

***Spectrum of degrees.*** In addition to appearing along a continuum of pathology and nonpathology, dissociation also falls along a continuum of degrees (Dorahy& Lewis, 2005). That is, the frequency, and intensity of dissociation also varies. Some researchers believed that generally, this variation occurs in a predictable manner (Dorahy & Lewis, 2005). As individuals aged, their natural ability to dissociate decreased (Dorahy & Lewis, 2005). These researchers also believed that the normative decline could be preempted with practice however, as individuals who actively engaged in dissociation actually showed an increase in an ability to dissociate (Dorahy & Lewis; Edge, 2004). Additionally, individuals who practiced dissociation generally saw a progression of dissociation from the spontaneous or involuntary experiences of dissociation to the voluntary and sought experiences of dissociation (Edge, 2004; Grosso, 1998). Dissociation also appeared to become more elaborate and in depth with practice. What started off as involuntary day dreaming became voluntarily induced guided meditation or even voluntary attempts at connecting with a spiritual realm in order to obtain wisdom (Edge, 2004; Grosso, 1998)

***Characteristics of dissociation.*** Dissociation occurs across cultures and is used for a variety of reasons (Akstein, 1973; Dorahy & Lewis, 2005; El Guindy & Schmais, 1994; Somer & Saadon, 2000). Some believed uses of dissociation are general, such as providing a break or mental vacation, during a time of stress or tedious mental activity. Other uses of dissociation may be specific to a culture. Despite the differences in the presentation and meaning of dissociation across cultures there appeared to be some characteristic similarities. Becker-Blease (2004) described dissociation as sometimes consisting of characteristics such as ego transcendence, depersonalization, detachment, and absorption. However, this phenomenon has also been described as consisting of the mirror opposites of the above mentioned characteristics (Bartocci & Dein, 2005; Edge, 2004; El Guindy & Schmais, 1994; Hutson, 2005). The characteristics described by Becker-Blease (2004) and their mirrors are: ego transcendence (opposite characteristic is called ego identity), depersonalization (increased bodily awareness), detachment (reconnection), and absorption (fusion).

*Ego transcendence.* Ego transcendence is described as the ability to incorporate aspects of the self into a self-schema in a manner that was not possible without the dissociative experience (Bartocci & Dein, 2005; Grosso, 1998; Hutson, 2000; El Guindy and Schmais, 1994). For instance, the newly incorporated material may have previously been viewed as a threat to the integrity of the self or the material was viewed as being outside the realm of potential for the individual (Bartocci & Dein, 2005; Grosso, 1998; Hutson, 2000; El Guindy and Schmais, 1994). An example of this may be an observation of an individual regarding a specific similarity that he/she shares with an individual of another race and upon acknowledging the similarity; the individual thereby gives up a previously held belief regarding differences between races which is now seen as a discriminatory belief.

 In order to see this belief as discriminatory, the individual must transcend his/her ego which maintains vigilance in deciding what is like and not like the self of the individual. In transcending the ego the individual can now see a belief that was previously considered to be “unlike self” as “like self”. This transcendence however is not a simple process of substituting information from one category into another but instead seems to allow the individual’s mind to temporarily become more flexible.

In this more flexible state the individual questions if his/her belief was previously “unlike self” and is now “like self” is it possible that there are more beliefs that are also encoded incorrectly or is it even possible that there are no “unlike self” truths and in fact everything in the world is “like self”. A further transcendence of ego may include considerations such as “is there a self at all”. That is, ego transcendence is the ability of an individual to overcome the critical voice of the ego found in waking consciousness and instead to imagine the possibilities without censor. Therefore, an individual’s sense of self becomes more complex and includes aspects that previously were viewed as belonging to the individual’s concept of other but not to their concept of self.

*Ego transcendence versus the hidden observer.* Ego transcendence is different from the hidden observer as described by Hilgard (1977). The hidden observer is an observing part of consciousness that is not usually in an individual’s awareness and that continues to observe sensory input in the usual manner even during times of divided consciousness (Hilgard, 1977). Ego transcendence is not a part of consciousness but instead is an ability to temporarily suspend the critical voice or censor that determines which data is needed in our waking consciousness (Bartocci & Dein, 2005). Simply stated the hidden observer simply records data whereas ego does not record but instead judges the value of the data. To transcend the ego then is to overcome the urge to censor the data and thus increase the possibility of gaining access to the hidden observer.

 Fromm (1979) differentiates these processes in the following way. Fromm (1979) states that in altered states of consciousness that there is a dissociation of the observing ego function and the experiencing ego functions. Hilgard’s (1977, 1991) hidden observer would be a part of Fromm’s (1979) observing ego function whereas the ego transcendence discussed above would be a process of transcending the experiencing ego and would be accomplished through ego receptivity as discussed by Fromm (1979).

*Depersonalization.* Depersonalization is the process by which an individual feels distant from his/her body (Maxmen & Ward, 1994). The individual may feel either disconnected from their body or may sense they are viewing their body from the outside instead of residing inside of their body (Becker-Blease, 2004; Price & Thompson, 2007). An example of depersonalization may include an experience some people describe during moments of high stress where they might watch themselves responding to a crisis as if they were standing across the room and seeing another person entirely responding to the crisis. Depersonalization would constitute a viewpoint of the trance dancing element of sense of body.

*Detachment.* Detachment is the process of feeling less of a pull from the external world (Edge, 2004). This detachment could take the form of having less emotional reactivity to the external world or even having less desire to interface with the external world (Edge, 2004).Statements made by individuals under hypnosis or during meditation that they could perceive the stimulus of the external world but felt no desire to respond to the stimulus are examples of detachment.

*Absorption.* Absorption is described as the process of turning one’s attention inward and in temporarily disregarding the external world (Becker-Blease, 2004). Through absorption individuals are enveloped by their internal experience and would therefore direct very few or none of the processes of attention toward stimuli that occurred outside of their immediate internal experience.

*Ego identity.* The mirror opposite of ego transcendence is Ego Identity. Ego identity is a process where ordinary sensory-intellectual consciousness is superseded with an undifferentiated unity. Conscious awareness normally includes a sense of separation, or dual sense. This dual sense consists of the individual as separate from the outside world. That is, they view a self that is separate from the outside world. Superseding this duality, through Ego Identity, results in a sense of “one.” This “one” varies according to each culture’s values and beliefs. Therefore the individual sees him/herself as encompassing and belonging to all of existence, there is no longer a self, separate from the outside world. Ego Identity relies on the process of Ego Transcendence in order to come to fruition. As without first overcoming concepts of differentness an individual would not understand merging into sameness.

*Increased body awareness.* Sometimes during dissociation individuals feel an increased bodily awareness as compared to depersonalization. Increased awareness may include an awareness of involuntary processes of the body (heart rate, tension in muscles, breath). Furthermore, some people may use dissociation to “listen to their bodies” in order to ascertain sources of illness or imbalance (Price &Thompson, 2007).

*Reconnection.* The mirror opposite of detachment is reconnection with the physical world in a new way (Grosso, 1998). Most importantly, it is believed that this reconnection could not have been achieved without the detachment in the first place (Grosso, 1998). The detachment allowed the individual an opportunity to view the world objectively, which in turn facilitated a reconnection with the world in a new way and with a new understanding (Grosso, 1998).

*Fusion.* Rather than turning ones attention inward as with absorption, often people also experience a sense of fusion with all of existence (El Guindy & Schmais, 1994; Edge, 2004; Bartocci & Dein, 2005; Hutson, 2000) That is, their attention is directed toward the outside world and in particular toward the similarities among elements (people, objects, experiences, etc.) in the external world (Bartocci & Dein, 2005). Individuals have used this concept of fusion as a method to overcome mainstream cultural differences (Hutson, 2000) and build a sense of community among trance dance participants. Fusion on the surface appears similar to ego transcendence but ego transcendence addresses an individual’s self-concept whereas fusion addresses an individual’s focus of attention (Hutson, 2000; Bartocci & Dein, 2005; Edge, 2004; El Guindy & Schmais, 1994). Using the example of ego transcendence from earlier we can describe the following scenario. An individual would use ego transcendence to come to the conclusion that “there is no self”. That individual could further conclude “In the absence of having a self (and therefore an identity), I should create an identity as part of a community and as such will turn my attention toward that community”. This taking on of the community identity is ego identification whereas the act of turning ones attention to the community and as such accepting and internalizing the values of that community as one’s own is fusion. In short, the diminishing of a self-concept is ego transcendence. Replacing a self-concept with a community concept is ego identification. Accepting and internalizing the values of a community is fusion. Fusion would need to take place in order for an individual to demonstrate moral development from the level of simply following rules to avoid punishment to understanding the rules as an integral part of him/her. This feeling of fusion has given rise to the philosophy of PLUR as espoused by the “rave” community. The rave community is an unofficial title given to those individuals who attend raves and while at raves engage in trance dancing. Raves are dance parties that generally take place at night and which play electronic music (Wilson, 2002). The PLUR philosophy stands for Peace, Love, Unity, and Respect and this is the motto of attendees at raves and a statement of expected behavior (Wilson, 2002). Ravers are expected to forget about differences that they may have with other dancers in their outside experiences (non- trance day to day experiences) and to focus of treating everyone within the values of PLUR (Wilson, 2002). It is possible that trance dancing in other situations than Raves may also take on a communal feeling.

Dissociation may consist of all of these elements and the experience sometimes requires that both components of the mirror opposites exist side by side in order for the experience to have a context (Bartocci & Dein, 2005; Edge, 2004). It is similar to needing the experience of sadness to truly understand what it feels like to be happy. Because of this need of both elements in a dyad to make sense of the dissociation, dissociation can therefore be thought of having a dual nature.

***Universal nature of dissociation.*** Dissociation has been shown to occur across cultures and seems to be used for a variety of reasons (Akstein, 1973; Becker-Blease, 2004; Dorahy & Lewis, 2005; El Guindy & Schmais, 1994; Somer & Saadon, 2000). In a worldwide sample of 488 societies surveyed, 90% utilized aspects of trance and dissociation (Akstein, 1973). Anthropological evidence suggests that people have been able to dissociate for thousands of years (Bartocci & Dein, 2005) and many of the elements of dissociation seen in historical societies seem to be reflected in modern day practices of dissociation (Becker-Blease, 2004). This seems to suggest that dissociation is a basic feature of human beings and may be reflective of a deeper human need (Becker-Blease, 2004; Grosso, 1998). Psychoanalytic theorists even discussed a detachment phenomenon as being reflected in the childhood game of peek-a-boo and the “being gone” fantasies of children (Bartocci & Dein, 2005).

There may be a number of human needs that dissociation may satisfy. Some authors have suggested that dissociation is an endogenous attempt to heal the psyche, as well as a buffer against death anxiety (Bartocci & Dein, 2005). Dissociation is also sometimes considered to be essential for continued mental health as it allows individuals to interpret reality in such a way as to fit within their existing cultural and personal schemas (Dorahy & Lewis, 2005). Dissociation across cultures also serves the human need to transcend, the need to find meaning in our own existence, and the need to cope with the stress of living (Edge, 2004; Bartocci & Dein, 2005: Grosso, 1998).

The meaning that each culture places on dissociation may play a large role in how a particular culture’s members engage in dissociation. Cultures that endorsed dissociation as a way to find meaning in existence and as a way to transcend the self tend to present dissociation as a religious activity (Bartocci & Dein, 2005; Becker-Blease, 2004; Dorahy & Lewis, 2005). Those cultures that endorsed dissociation as a way to cope with stress tend to present dissociation as a secular activity (Becker-Blease, 2004). However, like the characteristics of dissociation that cannot be categorized as only one aspect of a number of dualities, the meaning of dissociation cannot be easily categorized as either secular or religious. In some cultures some experiences of dissociation are seen as occurring within religious activities while other experiences of dissociation are seen as occurring within secular activities (Bartocci & Dein, 2005; Becker-Blease, 2004; Dorahy & Lewis, 2005). Additionally, some experiences of dissociation are viewed as occurring in both secular and religious contexts (Hutson, 1999; Hutson, 2000). Furthermore, in some cultures one’s experience of dissociation may be viewed by some as religious while others within that culture view it as secular (Hutson, 1999; Hutson, 2000). Trance dancing as a purposed experience of dissociation may also occur within religious or secular experiences.

***Ways to induce dissociation.*** Because there is debate regarding whether changes in consciousness are altered states as described in the dissociation theories, social roles, bodily induced changes, or through some combination of processes, we cannot assume that dissociation is induced in the same way as altered states of consciousness. It is therefore necessary to discuss theories regarding ways of inducing dissociation. It is believed that there are two ways of inducing dissociation: apophatic and kataphatic (Bartocci & Dein, 2005).

 In apophatic dissociation, dissociation is induced by reducing sensory stimuli. Apophatic dissociation can be induced by fasting, meditation, sleep deprivation, slowing of breathing and utilizing other means of reducing the external stimuli (Bartocci & Dein, 2005).

Kataphatic dissociation is reaching dissociation by increasing extraneous sensations. Some means of inducing kataphatic dissociation include, chanting, ecstatic dance, and ritual activities (Bartocci & Dein, 2005). Although some believe that modern cultures prefer apophatic dissociation (Bartocci & Dein, 2005) this theory does not appear to consider the various worldwide cultures and subcultures that utilize trance dancing.

***Similarities/differences between inducing dissociation and inducing altered states of consciousness.*** Apophatic induced dissociation seems similar to Ludwig’s (1969) method of induced altered states of consciousness through reducing exteroceptive stimulation or reducing motor activity. However, Ludwig (1969) included the examples of sleep deprivation and fasting under somatopsychological factors to induce an altered state of consciousness. It is possible that Apophatic methods of inducing dissociation are simply a broader term for the processes that Ludwig (1969) divided into more specific categories based on reducing stimuli and stimuli that is reduced as per bodily functions. That is, fasting is reducing the stimuli of sugar in the blood stream in a very broad or “apophatic” sense but it is more specifically, a somatopsychological change. Kataphatic dissociation is similar to Ludwig’s (1969) increase in exteroceptive stimulation and both categories list similar activities of chanting, ecstatic trance, and ritual ceremonies as examples (Bartocci & Dein, 2005; Ludwig, 1969).

**Hilgard’s neodissociation theory.** The original term of dissociation was used by Pierre Janet in 1889 (Hilgard, 1977). At that time dissociation was meant to include a complete split in consciousness into separate parts. These parts were to be able to function independently on one another and the belief was that there would be no interference between the tasks (Hilgard, 1977). However, it was soon discovered that there was interference and the theory of dissociation soon faded away. Hilgard (1977) then revised the concept of dissociation at a later date with the ideas that dissociation could be partial not complete dissociation and he further proposed that interference between two dissociated tasks would be greater than the interference seen for each task individually as there was some effort exerted in order to maintain the dissociation (Hilgard 1977; Hilgard 1991). Hilgard (1991) used a broad definition of dissociation which simply stated that dissociation is some interference that divides usual associative processes. Hilgard (1977, 1991) conducted experiments to test his Neodissociative Theory and some of the most important experiments he conducted included the “hidden observer” experiments. The basic assumptions of Hilgard’s (1991) Neodissociative Theory included that there is an executive ego which is a control structure in the mind. This structure generally gives orders and maintains the input and output that is received by subordinate cognitive control structures (Hilgard, 1991). When there are constraints placed on the executive ego, which could include hypnosis or other factors that would promote dissociation, then an amnestic barrier can be placed within the executive ego (Hilgard, 1991). Functionally, this means that the executive ego is no longer aware of every action of the subordinate cognitive controls (Hilgard, 1991). In Hilgard’s (1977) experiments, he became aware of a function which he called the “hidden observer”. This hidden observer was able to be aware of all the processes that were occurring despite having an amnestic barrier (Hilgard, 1977). Therefore, in experiments whereby hypnotized individuals would report no pain after having submerged their hand into ice water, the hidden observer was able to report pain at levels that would be expected (Hilgard, 1977). The hidden observer was aware of the hypnosis and how the individual was reporting having no pain but also aware that the individual was on some level aware of the pain (Hilgard, 1977).

***Awareness of the process of divided consciousness.*** This process of divided consciousness may occur within one’s awareness (Hilgard, 1977). An example of this may include listening to what a friend is saying in conversation and simultaneously planning a reply (Hilgard, 1977). The process of divided consciousness can also occur to a lesser extent without one’s full awareness (Hilgard, 1977). An example of this would be mindlessly doodling on paper while talking to a friend on the phone. Finally, the process of divided consciousness may not occur within the awareness of the individual at all (Hilgard, 1977). Frankel (1994) explained that although one may not be aware of thoughts, experiences, and memories that one could continue to be influenced by these thoughts, experiences, and memories to the extent that one could alter his/her further thoughts or actions. Divided consciousness thus is the manner in which these disconnected experiences or memories were processed even though they were not within waking conscious awareness (Frankel, 1994). Examples of this kind of divided consciousness are proposed by Hilgard (1977) as occurring within the context of hypnosis and exemplified by his hidden observer experiments.

***How to study divided consciousness.*** It seems, then, that the question is not whether consciousness is divided but instead how to study and describe divided consciousness. Psychologists throughout history have advocated for the use of a variety of mental phenomena to study the process of divided consciousness from hypnosis and meditation to empirical tests of memory and sensory perception (Dennett, 1991; Fromm, 1979; Hilgard, 1977). Hilgard (1977) wrote that investigations studying hypnosis could provide insight into how consciousness is divided. Specifically, Hilgard (1977) discussed that by studying hypnosis that one could better understand whether consciousness is made of shifts of attention whereby the focus is directed in one area with intensity or whether consciousness is made up of several things occurring simultaneously. In a similar manner as hypnosis the study of divided consciousness could be enhanced through an understanding of trace dancing. There are a number of manners in which an understanding of trance dancing may in fact lead to an increased understanding of the process of divided attention.

***Contributions of trance dancing to the study of divided consciousness.*** One manner in which trance dancing may provide insight into divided consciousness may be in the process of exploring the essence of trance dancing and thereby understanding if the trance created therein is a kind of divided attention. Another way that trance dancing may help provide information regarding divided attention is through an improved understanding of the connection between the mind and body that is inherent within the movement of dancing and the trance. A third way that trance dancing may provide insight into divided consciousness may be related to an increased understanding of the processes of sensation and perception. It is possible that by studying trance dancing that one could gain insight into divided consciousness in a variety of ways. However, it is difficult to propose the specific manner in which trance dancing would most impact the current understanding of divided consciousness without first thoroughly investigating trance dancing.

**Role Theories**

Even though the ideas of dissociation and divided attention are fascinating and provide a possible explanation for experiences within trance dancing, it is important not to forget that there are other theories within psychology that could also explain processes within trance dancing. Specifically, Role and Trait theories of altered consciousness are two additional theories to consider. In this section information will be provided regarding four theories within the category of Role theories. The four theories presented here include the Social Psychological Theory of Hypnosis by Spanos and Coe (Spanos, 1991), the Response Expectancy Theory by Kirsch (Kirsch, 1991), the Ecosystemic Approach by Fourie (Fourie, 1991), and the Dramaturgical and Narrational Perspective by Coe and Sarbin (Coe & Sarbin, 1991). Prior to exploring the specific theories however there are concepts that make up the core of Role theories. Some of the main concepts used to explain processes within role theories consist of role enactment, attitudes toward hypnosis, motivation, and interpretation of demands, it is important at this time to explain each of these.

**Role enactment.** Role enactment simply is the participating in the role that is viewed as fitting within that social context (Coe and Sarbin, 1991). That is, individuals would perceive of how they are expected to behave in a particular situation and would then act according to these expectations, thereby bringing the role to life.

**Attitudes toward hypnosis.** Several researchers have found that a subject’s attitude toward hypnosis can influence how that subject responds to hypnosis (Spanos, 1991; Coe & Sarbin, 1991; Barber & Calverley, 1963). Spanos (1991) found that subjects’ scores of hypnotizability were correlated with subjects’ attitudes regarding hypnosis. That is individuals who thought negatively about hypnosis scored low on hypnotizability scales (Spanos, 1991). Also when individuals began to think more positively about hypnosis their scores on hypnotizability scales increased (Spanos, 1991).

**Motivation.** Barber and Calverley (1963) also demonstrated that motivation impacted a subject’s response to suggestion. Subjects that were given 60 seconds of instructions designed to increase their motivation demonstrated higher responsiveness to suggestions thereby demonstrating how motivation can influence the experience of altered consciousness (Barber & Calverley, 1963).

**Interpretation of demands.** Spanos (1991) also discussed that the interpretation of demands impacts the hypnotic responsiveness. Subjects who interpreted suggestions as meaning that they should wait passively for events to take place showed lower responsiveness (Spanos, 1991). For instance, if the hypnotist stated “your arm will begin to rise” and the subject simply waited passively for this to occur, this subject would fail this suggestion. Meanwhile, an individual who heard the same prompt and initiated the raising of the arm would be viewed as more hypnotically responsive (Spanos, 1991).

**Spanos and Coe’s social psychological theory of hypnosis.** Spanos and Coe’s Social Psychological theory of hypnosis is an example of a role theory of changes in consciousness (Spanos, 1991). Spanos (1991) asserted that hypnotic behaviors are actually ordinary behaviors performed by individuals who are adept at reading situational cues. While altered state theories explain hypnotic events such as amnesia, pain reduction, and the hidden observer in terms of specific processes, usually dissociation, the role theories explain these events in terms of role enactment, attitudes toward hypnosis, motivation, and interpretation of test demands.

***Social psychological theory and the hidden observer.*** Specifically, the Social Psychological theory of hypnosis explains the hidden observer phenomenon in terms of the instructions given during the hypnosis process (Spanos, 1991). That is, individuals who demonstrate a hidden observer are believed to do so in response to the instructions given that imply that although subjects would experience decreased pain while under hypnosis that a hidden part of them would be able to continue to feel the pain during hypnosis (Spanos, 1991). Therefore within role theories, the hidden observer is seen as an experimental creation and not a unique characteristic of hypnosis (Kihlstrom & Barnier, 2005). Kirsch and Lynn (1998) stated that the hidden observer seemed to be simply one possible suggested response of hypnosis, rather than being a unique occurrence that is part of the essence of hypnosis.

**Kirsch’s response expectancy theory**. Another specific role theory is the response expectancy theory as described by Kirsch (1991). Simply stated one’s expectations for many behaviors are often self-confirming and this kind of expectation fulfillment can be used as an explanation for processes that occur within hypnosis (Kirsch, 1991). Response expectancy theory differs slightly from Social Psychological theories in a subtle manner. In Social Psychological theories hypnotic responses are seen as voluntary and goal directed actions. While in the Response Expectancy Theory hypnotic responses are seen as the goals the actions are directed toward (Kirsch, 1991). That is, in Social Psychological Theory hypnotic responses are the actions but in Response expectancy Theory hypnotic responses are the goals.

**Fourie’s ecosystemic approach**. Fourie (1991) may take issue with his theory being called a role theory in that he hopes to provide a more broad and inclusive theory of hypnosis as opposed to a reductionist and dichotomous theory. This is a fair objection and therefore, his theory is included here within the section of role theories simply for the sake of simplicity. The Ecosystemic Approach would not dispute that the subject is enacting a role while engaged in hypnosis (Fourie, 1991). However, the main point of Fourie’s (1991) theory is that of interactions of systems. The Ecosystemic Approach would view hypnosis from the perspective of the subject enacting a role interacting with the hypnotist enacting his/her role and both of them interacting with any observers that in combination make up the ecosystem of interest (Fourie, 1991). Therefore from the viewpoint of the Ecosystemic Approach, roles are simply the beginning of an understanding of hypnosis (Fourie, 1991). An example of a more complex understanding of the Ecosystemic Approach could be explained through my personal experiences with trance dancing. When I have danced at raves, I have not felt a particular connection with the DJ and still I experienced what I would consider to be a change in my consciousness. However, when at other raves, where I have felt a strong connection with the music and the DJ, I have also experienced a change of my consciousness. Therefore there seemed to be different factors in the production of my altered states of consciousness. These experiences would support the Ecosystemic Approach to the extent that these factors were environmental factors.

**Coe and Sarbin’s dramaturgical and Narrational perspective.** Coe and Sarbin’s (1991) theory is foremost a role theory in that it subscribes to the belief that behaviors of participants in trance or hypnosis are volitional. What makes this theory unique from other role theories is that it also includes a Narrational principle (Coe & Sarbin, 1991). Within this Narrational principle it is viewed that human actions are storied in that the roles are enacted within a context (Coe & Sarbin, 1991). This aspect of a Narrational principle is important in that Coe and Sarbin (1991) discussed the element of participant’s understanding of experiencing a change in consciousness. Specifically, Coe and Sarbin (1991) found that when individuals report their experiences of hypnosis that these experiences are embedded in a wider world-view of the individuals.

**Trait Theories**

Trait theories of hypnosis largely assert that there are individual differences among people that impact how readily they can be hypnotized or experience a change in consciousness (Braffman & Kirsch, 1999). Research in this field has struggled to find specific personality factors that influence suggestibility in a routine manner (Braffman & Kirsch, 1999). One personality factor that seemed to influence suggestibility includes nonhypnotic imaginative suggestibility, or the ability to engage in imagination and become suggestible without the process of hypnosis (Braffman & Kirsch, 1999).

**Somatic Theories**

 Within the larger heading of Somatic Theories of altered consciousness are two broad areas, theories from Neuroscience and Biology, and theories from Dance. What these theories share in common is that they view the body as the source that produced altered states. Where they differ is that Neuroscience views the brain as the area of the body that produced the changes whereas Dance takes a broader view of the changes as occurring throughout the body.

 **Neuroscience theories.** This author has no knowledge of Neuroscience studies that specifically studied trance dancing. Therefore, literature from the field of neuroscience was reviewed according to two principles. Literature that was relevant to particular mental processes that may be a component of trance dancing such as attention, emotion, sense of self, and interpersonal interaction was reviewed. In addition literature that was relevant to altered states of consciousness was also reviewed. Reviewing the Neuroscience literature in this manner gave rise to 11 main themes: attention, emotion, decision making, somatic marker hypothesis, memory, sense of self, theories of mind, mirror neurons, proprioception, default mode network, and thalamus. Prior to presenting the Neuroscience theories it may be helpful to discuss basic anatomy of the brain for clarification.

 ***Basic anatomy*.** The following are specific neural structures that are discussed in the theories that follow. As a point of reminder the reader is oriented to the fact that the brain is divided into four lobes, the frontal, parietal, temporal, and occipital lobes (Carlson, 2007). These areas are further divided into regions based on location and function. In general there are several directional labels that help an individual to locate these regions. Dorsal/superior orients a person toward the upper surface of the brain (Carlson, 2007). Ventral/inferior orients a person toward the lower surface of the brain (Carlson, 2007). Lateral orients a person toward the side of the brain either right lateral or left lateral (Carlson, 2007). Medial orients a person toward the midline of the brain (Carlson, 2007). Rostral/anterior orients the person toward the front of the brain (Carlson, 2007). Caudal/posterior orients the person toward the rear of the brain (Carlson, 2007).

***Frontal lobe.*** The frontal lobe is largely considered to be the area of the brain that is in front of or anterior to the central sulcus (Wheeler, Stuss, & Tulving, 2007). Wheeler, Stuss, and Tulving (2007) divide the frontal lobe into three levels dependent on functioning. The first level of frontal lobe consists primarily of the lateral regions of the frontal lobe, as well as medial frontal structures that impact drive and motivation (Wheeler, Stuss, & Tulving, 2007). The unifying feature of the first level of the frontal lobe is that this area affects posterior cortical and subcortical domains directly (Wheeler, Stuss, & Tulving, 2007). That is, areas of the frontal lobe thought of consisting of the first level of functioning impact other functions of the brain through directly interacting with other regions of the brain. The second level of functioning of the frontal lobe contains all the functions that are broadly thought of as executive functions which affect conscious control for all brain operations and thereby integrates the brain as one unit (Wheeler, Stuss, & Tulving, 2007). These functions are reciprocally negotiated by limbic, posterior, and multimodal structures (Wheeler, Stuss, & Tulving, 2007). The third level of functioning of the frontal lobe includes the functions of self-awareness or the ability to understand how an individual reciprocally influences a social environment and the corresponding ability to be aware of one’s own thoughts (Wheeler, Stuss, & Tulving, 2007).

***Prefrontal cortex*.** The prefrontal cortex is the area of the brain that is rostral of the premotor cortex (also known as the motor association cortex) and motor cortex (Wheeler, Stuss & Tulving, 2007). The prefrontal cortex is involved in attention (Short et al., 2007), planning and strategies (Carlson, 2007), memory (Henson, Shallice, & Dolan, 1999; Wheeler, Stuss, & Tulving, 1997), as well as emotional regulation (Gusnard et al., 2001, Simpson et al., 2001), and language categorization (Gabrieli, Poldrack, & Desmond, 1998).

***Left prefrontal cortex.*** The left prefrontal cortex is the area of the prefrontal cortex found on the left side of the brain. Some studies have shown that the left prefrontal cortex is activated in the semantic categorization of language (Gabrieli, Poldrack, & Desmond, 1998). In addition the left prefrontal cortex has been shown to be active during processes of encoding episodic memory (Wheeler, Stuss, & Tulving, 1997). Gabrieli, Poldrack and Desmond (1998) suggest that this is the result of the use of semantic language in encoding memories. Ultimately the left prefrontal cortex seems to be activated in attempts to supply meaning to language and memory (Gabrieli, Poldrack & Desmond, 1998).

***Right prefrontal cortex.*** The right prefrontal cortex is the area of the prefrontal cortex on the right side of the brain (Carlson, 2007). It is associated with the retrieval of episodic memory (Henson, Shallice, & Dolan, 1999; Wheeler, Stuss, & Tulving, 1997).

***Dorsolateral prefrontal cortex.*** The dorsolateral prefrontal cortex is the region of the prefrontal cortex that is the most dorsal (or upper) and most outside (lateral) as opposed to the midline of the cortex. A function of the dorsolateral prefrontal cortex is in maintaining attention (Short et al., 2007).

***Dorsal medial prefrontal cortex*.** The dorsal medial prefrontal cortex is the region of the prefrontal cortex that is most dorsal (or upper) and most toward the midline of the cortex. The dorsal medial prefrontal cortex plays a role in monitoring of the self and monitoring of emotion (Gusnard et al., 2001; Simpson et al., 2001). Morgan and LeDoux (1995) discussed that that medial regions of the prefrontal cortex are involved in emotional processing, particularly in regard to fear processing. The medial prefrontal cortex contains the anterior cingulate cortex and is connected to the amygdala (Shin, Rauch, & Pitman, 2006).

***Left lateral prefrontal cortex.*** The left lateral prefrontal cortex is the left side of the prefrontal cortex that is closest to the outside of the brain. The left lateral prefrontal cortex participates in working memory and cognitive control (Knight et al., 1999; Smith & Jonides, 1999).

***Left rostral medial prefrontal cortex*.** The left rostral medial prefrontal cortex is the region of the prefrontal cortex that is along the left side of the brain toward the front of the brain and closest to the midline of the brain. The left rostral medial prefrontal cortex is believed to help to generate words in regard to emotional scenarios (Ochsner et al., 2004).

***Ventromedial prefrontal cortex.*** The ventromedial prefrontal cortex is the region of the prefrontal cortex that is on the lower side of the prefrontal cortex and closest to the midline of the brain. The ventromedial prefrontal cortex has been found to play a role in the acquisition and extinction of emotional reactions during fear reactions (Morgan & LeDoux, 1995).

***Orbitofrontal cortex*.** The orbitofrontal cortex, which is also called the right lateral prefrontal cortex, is a region of the prefrontal cortex that sits on top of the bony socket that protects the eye balls called the orbit (Cavada & Schultz, 2000). This region is involved in drive, responsibility, mood regulation, and social adjustment (Cavada & Schultz, 2000). It is also a component of other brain systems involved in memory, decision-making, and reward (Cavada & Schultz, 2000). The orbitofrontal cortex is activated to inhibit behavior (Altshuler et al., 2005; Ochsner, et al., 2004).

***Premotor cortex.*** The premotor cortex is a region of the brain that is in front of the motor cortex and along the side or lateral region of the brain (Carlson, 2007). The function of the premotor cortex is to execute complex movements that are a response to sensory information (Carlson, 2007). Blanke (2012) also suggested that the premotor cortex was involved in the processes of self-identification.

***Limbic structures.*** The limbic system includes the anterior thalamic nuclei, amygdala, hippocampus, limbic cortex, parts of the hypothalamus, mammillary bodies, and the interconnecting fiber bundles between these components including the fornix (Carlson, 2007). The limbic system has several functions. The hippocampus and the surrounding limbic cortex seem to be involved in learning and memory (Carlson, 2007). The amygdala and parts of the limbic cortex seem to be involved in feelings, expressions of emotions, emotional memories, and recognition of the signs of emotions in other people (Carlson, 2007).

***Thalamus.*** The thalamus consists of an area situated near the middle of the cerebral hemispheres located above the hypothalamus (Carlson, 2007). The thalamus has a number of nuclei that are specialized in processing and routing sensory information (Carlson, 2007).

***Anterior thalamic nuclei.*** The anterior thalamic nuclei are a group of nerve cells at the rostral end of the dorsal thalamus (Carlson, 2007). Taube (1995) found that a function of anterior thalamic nuclei is that they discharge in relation to the direction of an animal’s head through a study using rats. Although Vann and Aggelton (2004) reported that the nuclei for head direction are found in the mammillary bodies. Warburton, Baird, Morgan, Muir, and Aggleton (2001) found that an integration between the anterior thalamic nuclei and the hippocampus impact spatial memory. Carlson (2007) reported that the thalamus is divided into several nuclei each with a specific sensory role. The lateral geniculate nucleus receives input from the eye and provides output to the primary visual cortex (Carlson, 2007). The medial geniculate nucleus receives input from the inner ear and provides output to the primary auditory cortex (Carlson, 2007). The ventrolateral nucleus receives input from the cerebellum and provides output to the primary motor cortex (Carlson, 2007).

***Amygdala.*** The amygdala is a structure found in the rostral portion of the interior temporal lobe (Carlson, 2007). The amygdala is active in regard to emotional processing (Shin, Rauch, & Pitman, 2006). In particular, the amygdala is activated during a threatening situation such that an individual processes the stimuli associated with the dangerous situation and thereby produces an appropriate fear response (Shin, Rauch, & Pitman, 2006).

***Hippocampus.*** The hippocampus is a structure found in the forebrain of the temporal lobe (Carlson, 2007). The hippocampus is involved in explicit memory processes (Shin, Rauch, & Pitman, 2006). The hippocampus also interacts with the amygdala to encode emotional memories and participate in producing a conditioned response to fear (Shin, Rauch, & Pitman, 2006).

***Limbic cortex.*** The limbic cortex is located on the medial surface of each of the cerebral hemispheres (Carlson, 2007). The limbic cortex is involved in feelings, emotional expression, affective memories, and the ability to recognize others emotional states (Carlson, 2007).

***Hypothalamus.*** The hypothalamus is a group of nuclei at the base of the brain below the thalamus (Carlson, 2007). The hypothalamus is active in the regulation of the pituitary glands and the autonomic nervous system (Carlson, 2007).

 ***Mammillary bodies.*** The mammillary bodies are a group of hypothalamic nuclei that protrude from the bottom of the posterior end of the hypothalamus (Carlson, 2007). The mammillary bodies are largely regarded as an important component in episodic memory (Vann & Aggleton, 2004) particularly in regard to memory recall (Tsivilis et al., 2008).

***Fornix.*** The fornix is a bundle of axons that connects the hippocampus with other sections of the brain (Carlson, 2007). It seems to be an important component for the process of long term memory (Tsivilis et al., 2008).

***Orientation association area.*** The orientation association area is a region in the parietal lobe that provides a concept of a boundary between one’s physical self and others (Saad, 2005).

***Cingulate cortex.*** The cingulate cortex is an area in the middle of the cortex surrounding the corpus callosum that is usually considered to be part of the limbic system (Bush, Luu, & Posner, 2000). In particular the cingulate cortex includes areas that are active in processing sensory, emotional, motor, and cognitive information (Bush, Luu, & Posner, 2000). The cingulate cortex is believed to play a role in motivation, in evaluation of errors in thinking, in monitoring performance, and in modulating cognitive, motor, endocrine, and visceral responses through the interaction of the cingulate cortex with other brain regions (Bush, Luu, and Posner, 2000). Each of the functions of the cingulate cortex seems to be localized within specific areas of the cingulate cortex (Bush, Luu, & Posner, 2000). The anterior region of the cingulate cortex tends to cooperate with the prefrontal cortex, parietal cortex, premotor, and supplementary motor areas in execution of an executive function role, as well as in processing cognitive and emotional information (Bush, Luu, & Posner, 2000). The anterior cingulate cortex is divided according to function and location into dorsal and ventral areas (Bush, Luu, & Posner, 2000). The dorsal anterior cingulate is the region of the cingulate cortex that is the most forward and upper region of the cingulate cortex. Short et al. (2007) reported that the dorsal anterior cingulate is active in monitoring performance. The dorsal region of the anterior cingulate cortex is also active in cognitive processing whereas the ventral area of the anterior cingulate cortex is active in emotional processing (Bush, Luu, & Posner, 2000). The ventral area of the anterior cingulate cortex is connected to the amygdala, periaqueductal gray, nucleus accumbens, hypothalamus, anterior insula, hippocampus, and orbitofrontal cortex (Bush, Luu, & Posner, 2000). The posterior cingulate cortex is the region of the cingulate cortex that is nearest the rear of the brain. It seems to be activated in response to emotional words (Ochsner et al., 2004).

***Periaqueductal gray.*** The periaqueductal gray matter is organized along vertical bands along the cerebral aqueduct (Bittencourt, Carobrez, Zamprogno, Tufik & Schenberg, 2004). The cerebral aqueduct is a narrow tube that is filled with cerebrospinal fluid that connects other hollow spaces within the brain called ventricles (Carlson, 2007). Bittencourt et al. (2004) found that stimulation of the lateral and dorsal columns of periaqueductal gray matter in rats initiated a set of behavioral actions referred to as the defense reaction, or fight or flight reaction, which included muscle tension, immobility, and widened eyes.

***Nucleus accumbens.*** The nucleus accumbens is a nucleus near the septum at the basal forebrain that is believed to be involved in attention and reinforcement (Carlson, 2007). Knutson, Adams, Fong, and Hommer (2001) found that the Nucleus accumbens becomes activated in response to anticipating rewards. In addition Pontieri, Tanda, and DiChiara (1995) reported that the medioventral portion of the nucleus accumbens plays a role in emotion and motivation whereas the laterodorsal part of the nucleus accumbens is involved in somatomotor functions.

***Anterior insular cortex*.** The insular cortex is a sunken area of the cerebral cortex covered by the rostral temporal lobe and the caudal frontal lobe that is involved in processing sensory information regarding taste (Carlson, 2007).

***Parietal cortex.*** The parietal cortex is the region of the cerebral cortex caudal to the frontal lobe and dorsal to the temporal lobe of the brain directly behind the central sulcus (Carlson, 2007). The parietal cortex is involved in visual perception, spatial location, and the integration of somatosensory, vestibular, and auditory information with visual information (Carlson, 2007).

***Premotor area.*** The premotor cortex is an area of the cortex found on the lateral frontal lobe that is directly rostral to the primary motor cortex that is involved in planning of movements (Carlson, 2007). The premotor cortex executes movement through connections with the primary motor cortex (Carlson, 2007).

***Supplementary motor area.*** The supplementary motor area is an area of the cortex found on the frontal lobe that is directly rostral to the primary motor cortex and dorsal to the premotor cortex (Carlson, 2007). The supplementary motor area receives information from the association areas of parietal and temporal cortex to assist in the planning of movement (Carlson, 2007).

***Intraparietal sulcus.*** The intraparietal sulcus is a groove located along the lateral surface of the parietal lobe (Carlson, 2007) that helps to coordinate perceptual and motor information in order to allow individuals to grasp targets and manipulate objects (Grefkes & Fink, 2005).

***Extrastriate body area.*** An area located in the lateral occipitotemporal cortex that is active in the perception of the human body parts other than the face (Carlson, 2007).

***Putamen.*** The putamen is an input nuclei of the basal ganglia, an important component of the motor pathway (Carlson, 2007).

***Angular gyrus.*** The angular gyrus is the raised ridge of the cerebral cortex of the parietal lobe found adjacent to Wernicke’s area and the supramarginal gyrus (Carlson, 2007). It is found near the superior edge of the temporal lobe (Carlson, 2007).

 **Attention*.*** Saad (2005) reported that during a study of meditation conducted by Newberg and D’Aquili (2008) in *Why God won’t go away: Brain Science and the biology of belief*. SPECT images showed increased blood flow to the prefrontal cortex and decreased blood to the orientation association area. SPECT images stand for single photon emission computed tomography (Newberg & D’Aquili, 2008). These images are created by a specific imaging tool that detects radioactive emissions in the brain as directed by the radioactive markers injected into an individual (Newberg & D’Aquili, 2008). The increase in blood flow to the prefrontal cortex was believed to represent an increase in attention (Saad, 2005). Short et al. (2007) also found that neurological structures related to maintaining attention, specifically the dorsolateral prefrontal cortex and the anterior cingulate cortex, were also more active than control conditions in individuals with a history of practicing meditation. Short et al. (2007) suggest that meditation may increase the activity of the dorsolateral prefrontal cortex resulting in increased ability to maintain attention whereas increased activating in the anterior cingulate cortex produces increased ability to monitor performance. Short et al. (2007) reported that more practiced (meditation experience greater than 10 years) participants reported more similar phenomenological experiences including a progression of focus and a quieting of the other aspects of the mind. Short et al. (2007) found that with the less practiced participants, they still reported increased focus during meditation compared to focus during day to day activities but, that the timing of when they reported being most focused during meditation varied for the beginning, middle, and end of the trial period. Interestingly, the activity of the anterior cingulate cortex varied along these lines as well. More practiced individuals showed a sustained activation of the anterior cingulate cortex whereas less practiced individuals showed an increased activation of the anterior cingulate cortex over time (Short et al., 2007). This finding is explained when one considers the role of the anterior cingulate cortex as one of monitoring performance. Consequently as individuals become better able to maintain attention there is less need to monitor performance and therefore one would not see an increase in the activity of the anterior cingulate cortex over time but with novice meditators the need to monitor performance in order to maintain focus would increase over time (Short et al., 2007).

 **Emotion*.*** Ochsner et al. (2004) explored the underlying neuroanatomical structures that were responsible for the reduction or enhancement of negative emotion. In Ochsner et al.’s (2004) study participants were instructed to increase or decrease their level of negative emotion related to a picture of a situation within two conditions. In the first condition, the “self condition”, individuals were instructed to view themselves in one of two ways either as part of the negative condition or to view the condition in a detached and impersonal manner (Ochsner et al., 2004). In the second condition, the “situation focused condition”, individuals were asked to imagine the situation in one of two ways either as getting worse or getting better (Ochsner et al., 2004). In general these two strategies were considered to be reappraisal strategies (Ochsner et al., 2004).

 Ochsner et al. (2004) found that in both increasing and decreasing the negative emotion that the left lateral prefrontal cortex, regions of the dorsal anterior cingulate, and regions of the dorsal medial prefrontal cortex were activated. In addition the activation of the left amygdala was either decreased in conditions where emotion was decreased or increased in conditions where emotion was increased (Ochsner et al., 2004).

A function of the left amygdala may be that it is involved in processing emotional verbal stimuli and in memory for those stimuli, whereas the right amygdala may be involved in processing and memory of nonverbal emotional stimuli (Ochsner, et al., 2004). Therefore it appears that in both conditions of increasing or decreasing emotions that the participants were monitoring their performance in being able to complete the task assigned to them, were consolidating the information provided to them, and may have used verbal strategies to encode the affective material (Ochsner et al., 2004).

 In conditions of increased emotion the left rostral medial prefrontal cortex and posterior cingulate cortex was activated (Ochsner et al., 2004). The left rostral medial prefrontal cortex is believed to help to generate words in regard to emotional scenarios (Ochsner et al., 2004). Maddock et al, (2003) also found that the posterior cingulate cortex is activated in response to emotional words. It is therefore theorized that participants were able to increase the negative emotions they felt by generating and responding to verbal representations of the negative emotion (Ochsner et al., 2004).

 In conditions of decreased emotion the right lateral prefrontal cortex, also called the right orbitofrontal cortex was activated (Ochsner et al., 2004). The right lateral prefrontal cortex is believed to be involved in the inhibition of behavior (Altshuler et al., 2005; Ochsner, et al., 2004). Therefore participants who were asked to inhibit the experience of an emotion seemed to be employing the use of the right lateral prefrontal cortex in order to inhibit the aversive meanings of a negative stimulus through using reappraisal (Ochsner et al., 2004). In fact the ability to change the impact of a negative stimulus on an individual may involve changing the representation of the event through the modulation of the amygdala and right lateral prefrontal cortex (Ochsner et al., 2004).

 **Decision making.** Making a decision is a complex neurological process (Bokhara, 2004). It was largely known that risk played a role in decision making (Hsu et al., 2005). Hsu et al. (2005) explored the neurological processes underlying decisions that also involved ambiguity. Results of their study showed that the orbitofrontal cortex, amygdala, and dorsal medial prefrontal cortex were activated during tasks where ambiguity, or lack of information, was a factor in the decision process (Hsu et al., 2005). Areas which are traditionally associated with the inhibition of behavior and negative emotion, the processing of emotion, and monitoring of the self and emotions respectively (Oschner et al., 2004). Heekeren et al. (2004) found that the left dorsolateral prefrontal cortex was more activated during easy decisions than during more difficult decisions. There is also a somatic feedback system that is important to decision making (Bechara et al., 1999). This feedback system is largely referred to as the somatic marker hypothesis (Bechara et al., 1999).

**Somatic marker hypothesis.** The somatic marker hypothesis is a decision making model that purports that there is a somatic aspect to decision making (Bechara et al., 1999). The use of the term somatic is due to the way that emotions are often, but not always, visible to observers, or externally represented, through bodily indicators and in the fact that emotions are internally represented anatomically in the brain through the activation of somatosensory structures (Bechara et al., 2000). The theory rests on four assumptions (Bechara et al, 2000). The first assumption is that there are conscious and unconscious neural operations and when these operations are conscious and therefore overtly cognitive that the operations rest on the activation of sensory cortices (Bechara et al., 2000). The second assumption is that cognitive processes require support from processes involved in attention, working memory, and emotion (Bechara et al., 2000). The third assumption is that the information available regarding the possible outcomes and specifics of the situation influences the process of decision making (Bechara et al, 2000). The fourth assumption is that knowledge is classified in four ways (Bechara et. al, 2000). One form of knowledge is the knowledge from the body in the form of specific body states, actions, and processes that are regulated by body cues that provide feedback (Bechara et al., 2000). This form of knowledge is sometimes explicitly perceived as an emotion (Bechara et al., 2000). The second form of knowledge is made explicit through images and contains facts, rules, and actions (Bechara et al., 2000). The third form of knowledge contains an individual’s experience in connecting emotions and images (Bechara et al., 2000). The final category of knowledge includes the subsequent knowledge acquired from categorizing emotional knowledge, image based knowledge, and the interaction between emotional and image based knowledge (Bechara et al., 2000).

To understand how emotion and somatic indicators were related to decision making, Bechara and colleagues (1999, 2000) utilized a procedure referred to as “the gambling task” to assess various aspects of decision making. The gambling task involves participants choosing from 4 decks of cards labeled A through D (Bechara et al, 2000). Participants start with a “loan” of play money and the object of the game is to increase their money (Bechara et al., 2000). Each of the decks of cards has a set schedule of reward and punishment associated with them (Bechara et al., 2000). Decks A and B have a reward of $100 and decks C and D have a reward of $50 (Bechara et al., 2000). However the overall loss of decks A and B is $250 every 10 cards and although there are losses within decks C and D there is an overall gain of $250 for every 10 cards (Bechara et al., 2000). Therefore, decks A and B are disadvantageous whereas decks C and D are advantageous (Bechara et al., 2000).

 During the gambling task participants are monitored for skin conductance responses within three aspects (Bechara et al., 1999; Bechara et al., 2000). The aspects include responses following a reward, responses following a punishment, and responses that occur prior to turning over the next card or anticipatory responses (Bechara et al., 1999; Bechara et al., 2000). Studies show that normal participants and participants with ventromedial prefrontal cortex lesions experience skin conductance responses to both rewards and punishment (Bechara et al, 1999; Bechara et al., 2000). However, normal participants then start to exhibit anticipatory responses prior to turning over the next card but participants with ventromedial prefrontal cortex lesions do not exhibit anticipatory responses (Bechara et al., 1999, 2000). Therefore individuals with ventromedial prefrontal cortex lesions are unable to sufficiently activate the body-loop or as-if body loop and thereby make more advantageous choices within future scenarios (Bechara et al., 2000). The body-loop is actual physical changes that occur as a result of reactivation of higher-order association cortices which in turn activates ventromedial prefrontal linkages and emotional disposition apparatus in response to exposure to previously experienced factual knowledge and emotions (Bechara et al., 2000). In addition to the body loop there is also an as-if body loop which is the same reactivation pattern as is found in the body loop but the as-if body loop occurs without the activation of the body (Bechara et al, 2000).

In general, individuals general demonstrate skin conductance responses prior to making a risky decision through a process whereby the ventromedial prefrontal cortex is activated by stimuli related to the decision and in turn activates the amygdala (Bechara et al, 2000). The amygdala then integrates somatic information regarding reward or punishment to produce a skin conductance response which then serves to signal further decision making. In an attempt to better understand this process, Bechara et al. (1999) also looked at the role of the amygdala in risky decision making. Bechara et al. (1999) found that participants with amygdala damage did not produce skin conductance responses in response to the gambling task and therefore theorized that damage to the amygdala does not allow an individual to make sense of the emotional consequences (either positive or negative) following a decision and therefore does not produce a skin conductance response. Bechara et al. (1999) found that participants with ventromedial prefrontal cortex damage did produce skin conductance responses but were nonetheless able to make more advantageous decisions in the gambling task. Bechara et al. (1999) therefore theorized that damage to the ventromedial prefrontal cortex impairs an individual’s ability to integrate all somatic information regarding reward or punishment, including information from the brain stem nuclei and hypothalamus and emotional information from the amygdala and this would therefore cause participants to produce a skin conductance response whether they won or lost. Therefore, individuals with damage to their ventromedial prefrontal cortex were not impaired in the ability to experience a somatic response to the stimuli as the amygdala damaged participants were but they still were unable to use this information sufficiently to improve their choice of cards (Bechara et al, 1999). Bechara et al. (2000) also found that individuals with ventromedial prefrontal cortex damage were unable to re-experience an emotion from a previously emotional situation and therefore they experienced a weakened reaction. This again could be viewed as a failure to integrate emotional information into a specific reaction to the emotional material.

**Memory.** Memory is a complex information processing system (Nevid, 2009) and as such it is important to examine the process of memory in regard to how it may be impacted by trance dancing. It should be noted that memory is a multifaceted concept that would be too large of a concept to fully explore here. Therefore, only a cursory explanation of the neurological underpinnings of declarative memory and the function of autonoetic consciousness will be offered. Autonoetic consciousness is the ability to have awareness of representations of personal experiences in the past, present, or future (Wheeler, Stuss, & Tulving, 2007). It is believed by this researcher that these facets of memory (declarative memory and autonoetic consciousness) would be most represented in the descriptive changes that occur within trance dancing as trance dancing is primarily a personal experience within the context of a group.

Declarative memory which is sometimes called explicit memory because it requires conscious effort for retrieval of material, includes the long term memory of facts and personal information (Nevid, 2009). Declarative memory consists of episodic and semantic memory (Wheeler, Stuss, & Tulving, 2007). Episodic memory is the remembering of factual events from one’s life (Nevid, 2009). Semantic memory is the memory of factual information that is not directed related to one’s autobiography (Nevid, 2009). Episodic memory seems to have a feeling of self truth or veridicality attached to it as well as a content of happening in the past whereas semantic memory seems to lack these qualities and is simply a concept (Wheeler, Stuss, & Tulving, 2007).

There are two neurological procedures necessary in order to remember the past: the ability to mentally create the scene and the ability to self-project into that scene (Spreng, Mar, & Kim, 2008). Self-projection is the ability to shift from a present situation to alternative possibilities (Buckner & Carroll, 2006). Self-projection allows individuals to engage in social interactions with others in a knowledgeable manner through anticipating how others will react in the situation (Buckner & Carroll, 2006). This skill of self-projection gives rise to an autonoetic consciousness. Autonoetic consciousness is a necessary component for the retrieval of episodic memory (Wheeler, Stuss, & Tulving, 1997). Autonoetic consciousness and episodic memory is a function of the frontal lobe (Wheeler, Stuss, & Tulving, 1997). Specifically, the left prefrontal cortex is associated with the encoding of episodic memory and the right prefrontal cortex is associated with the retrieval of episodic memory (Wheeler, Stuss, & Tulving, 1997).

In regard to neurological structures relevant to episodic memory, the frontal lobes are important in organizing the processes of encoding and retrieval, and in using mnemonic strategies, through the second level brain function of executive functioning (Wheeler, Stuss, & Tulving, 1997). The function of the frontal lobe is sometimes explained as consisting of three supervisory levels which monitor, maintain, and regulate overall brain functioning (Wheeler, Stuss, & Tulving, 1997). The three levels include the first level which organizes information into meaningful units through the use of the posterior functional domains of the brain, the second level which consists of executive functioning roles, and the third level which gives rise to autonoetic consciousness (Wheeler, Stuss, & Tulving, 1997). Executive functioning includes the consciously directed components of selecting a goal, planning, monitoring and inhibiting a behavior and feedback channels.

Despite the importance of the second level of functioning of the frontal lobes in regard to episodic memory, Wheeler, Stuss, and Tulving (1997) are careful to point out that the second level functioning of the frontal lobes are not sufficient to explain episodic memory alone. Semantic memory has been shown to support episodic memory and semantic memory relies somewhat on the autonoetic functioning (Wheeler, Stuss, & Tulving, 1997). Autonoetic functioning is considered to be a third level of functioning in the frontal lobe and therefore episodic memory would rely on the second level of functioning of the frontal lobes and indirectly rely on the third level of functioning of the frontal lobes through the influence of autonoetic functioning and semantic memory support (Wheeler, Stuss, & Tulving, 1997).

**Sense of self.** With regard to altered states of consciousness the sense of self is a complex idea. It involves a somatic concept of wholeness to the body and the body’s location in space, and also includes a concept of self-awareness, that is a concept of “I am”. This concept of “I am” is sometimes referred to as autonoetic consciousness (Wheeler, Stuss, & Tulving, 1997). Wheeler, Stuss, & Tulving (1997) predicted that the most anterior region of the frontal lobe may be responsible for autonoetic consciousness.

 Information from the field of Neuroscience is often contradictory in its findings regarding the self (Blanke, 2012). Saad (2005) reported that participants in studies of meditation reported a phenomenological experience of a change in the self, either the self disappearing into infinity or the self merging with God consciousness. Saad’s (2005) study did not operationally define if the self discussed was a somatic concept or one of self-awareness but discussed that the orientation association area provides a sense of self to the individual separate from the outside world by providing physical limits to the self and orienting that self in time and space (Saad, 2005). It seems then that it would be a somatic concept of self that was being studied. Therefore, a decrease blood flow to the orientation association area would presumably produce a feeling of an endless self that is part of everything else (Saad, 2005).

Blanke (2012) reviewed several studies regarding the self and divided the studies into three self concepts 1) self-identification or owning the body, 2) self-location, 3) first person perspective or the view the individual has regarding their vantage of the rest of the world outside of themself (p.556). First person perspective allows us to perceive of a three dimensional world using our concept of where our body is in space and how we therefore locate other objects in space (Blanke, 2012). Self-identification includes our concept of being in or owning our body. Self-location is our ability to locate our body within the environment (Blanke, 2012).

 In regard to a review of literature regarding self-identification Blanke (2012) proposed six areas that may be related including the intraparietal sulcus, premotor cortex, sensorimotor cortex, extrastriate body area, the temporoparietal cortex and the putamen. The putamen is a subcortical structure while the other five are cortical regions (Blanke, 2012). The intraparietal sulcus helps to coordinate perceptual and motor information (Grefkes & Fink, 2005). The premotor cortex executes movement through connections with the primary motor cortex (Carlson, 2007). The sensorimotor cortex provides the basis for kinesthetic movement (Luria, 1973). The extrastriate body area produces the perception parts of the human body (Carlson, 2007). The tempoparietal cortex is cortex that covers areas of the temporal and parietal regions of the brain (Carlson, 2007). The five cortical regions integrate body signals from the visual, somatosensory, and vestibular systems (Blanke, 2012). It is believed that this integration is partially accomplished through the use of bimodal or multimodal neurons that are specifically capable of integrating somatosensory and visual signals (Blanke, 2012). Bimodal neurons are neurons that integrate two areas of the brain and multimodal neurons integrate multiple areas of the brain (Carlson, 2007).

The other aspects of self that Blanke (2012) considered included self-location and first person perspective. It seems that these two aspects of self are related to the phenomenological experiences of feeling above one’s body, floating, or flying. These experiences are categorically referred to as out of body experiences. Out of body experiences are reported to be caused by a failure of integration of multiple brain structures but primarily involve the right angular gyrus (Blanke, 2012). Self-location and first person perspective seem to be related to the integration of multisensory and vestibular signals by trimodal visuotactile-vestibular neurons in the tempoparietal cortex (Blanke, 2012).

**Theories of mind.** A theory of mind is a theory of how individuals make sense of information regarding themselves and others. The activity of representing the perceptions, goals, and beliefs of others within a personal theory of mind is referred to as mind-reading (Gallese & Goldman, 1998). Currently there are two primary theories of mind, the ‘theory theory’ and the ‘simulation theory’ (Gallese & Goldman, 1998). The theory theory rests on the belief that individuals accomplish mind reading through common sense rules of causes and effects, whereas in the simulation theory information is gained by individuals adopting another’s perspective (Gallese & Goldman, 1998). In theory-theory individuals observe external stimuli and resting on rules of cause and effect determine that these external stimuli activate internal states of other individuals such as desires or beliefs (Gallese & Goldman, 1998). These internal states are then further theorized to activate other internal states such as decision making which in turn is theorized to activate an external behavior which is expected by the individual (Gallese & Goldman, 1998). In Simulation theory instead of predicting the behavior of others through some set of rules, individuals imagine themselves in the situation of the other person and thereby predict the emotional and behavioral reaction of that person based on understanding how they themselves would feel in that situation (Gallese & Goldman, 1998). Studies from Mirror Neurons seem to support the simulation theory of mind as muscular movements in response to an observed activity in another leads one to believe that individuals are simulating the movement in themselves and thus creating muscular movement (Gallese & Goldman, 1998). No such motor activity would be expected in a strictly theoretical model (Gallese & Goldman, 1998).

**Mirror neurons.** A highly contested topic in neuropsychology is mirror neurons (Agnew, 2007; Iacoboni et al., 2005; Keysers et al, 2003; Kohler et al, 2002; Rizzolatti, 2005). Mirror neurons are specific neurons that are activated in response to observing the actions of others (Gallese & Goldman, 1998; Rizzolatti, 2005). Specifically they are the neurons that would be activated had an individual performed the action him/herself that are then activated when the individual observes the action in others (Gallese & Goldman, 1998; Lahav, Saltzman, & Schlaug, 2007). Specifically mirror neurons allow an individual to observe and carry out a goal directed motor activity (Gallese &Goldman, 1998). In addition although little has been definitively determined in humans at this time, there is research that seems to indicate that mirror neurons respond to both audio and visual cues (Keysers et al., 2003; Kohler et al., 2002; Lahav et al., 2007) and are also connected to the motor system (Kohler et al., 2002; Rizzolatti, 2005; Lahav et al., 2007). In addition Kohler et al., (2002) and Keysers et al. (2003) have found evidence to indicate that there may be a neural system that crosses modalities in order to orchestrate the entire process of “listening for actions” through visual, auditory, and motor cues. Therefore, mirror neurons are hypothesized to participate in a number of functions including understanding of the mechanics of the actions of others and understanding the intention of the actions of others (Iacoboni et al., 2005; Rizzolatti, 2005) which can then contribute to imitation, empathy (Rizzolatti, 2005) and socialization (Calvo-Merino et al., 2005) through various theories of mind (Gallese & Goldman, 1998). In addition, it has been hypothesized that mirror neurons play a role in the development of language (Lahav et al., 2007; Rizzolatti, 2005). As trance dancing is clearly a motor activity that involves the interaction of groups of people and a variety of auditory and visual cues, mirror neurons may be involved in trance dancing.

**Proprioception.** Proprioception is the processes in the brain that allow an individual to be aware of movement of one’s body and the spatial position of that body (Dictionary.com). The premotor cortex is an area that is involved in a number of aspects of proprioception including being the site of corresponding visual, tactile, and proprioceptive feedback, and controlling the movement of the mouth, head, and arms (Graziano, 1999). In addition the somatosensory and motor cortex, as well as the spinal cord, are involved in movement (Dietz, 2002).

 **Default mode network.** Buckner and Carroll (2007) proposed a network in the brain that is the impetus for a variety of core functions including memory, navigation, theory of mind, and self-projection. This network has come to be called the default mode network. The default mode network is a network of areas in the brain that become activated when individuals must engage in tasks that require introspection or self-reflection (Buckner, Andrews-Hanna, & Schacter, 2008; Sheline et al., 2008) and when an individual is not engaged in a task that requires a high demand for focus on goal directed tasks (Ostby et al., 2012). Another way that this process is described is that the default mode network includes the areas of the brain that are activated when the brain is “at rest” in regard to goal-directed tasks (Gusnard et al., 2001) or not involved in the tasks of processing sensory or motor events (Raichle & Snyder, 2007). The default mode network includes the medial prefrontal cortex, the anterior cingulate, the lateral parietal cortex, and the lateral temporal cortex (Sheline et al., 2008) The location of the default mode network overlaps with the core brain network (Ostby et al., 2012). Functions of the default mode network include allowing the individual to take on the perspective of others, in using this perspective taking to plan for future events, and to remember past autobiographical events (Sheline et al., 2008). Ostby et al. (2012) corroborated the findings that the default mode network is involved in memory and imagination for future events. Gusnard et al. (2001) theorized that the default mode network participated in self-referential activity and emotional processing and that the functioning of the default mode network is highly related to the way an individual processes concepts of the self.

**Thalamus.** Another brain area of interest in regard to altered states of consciousness may be the Thalamus. Newberg and D’Aquili (2008) found that thalamus of people who had substantial spiritual practices was asymmetrical and that it differed in this way from the Thalamus of nonreligious individuals (Saad, 2005). The thalamus is a limbic system structure that serves to connect areas of the brain response for sensory perception and movement, as well as regulates sleep and wakefulness (Carlson, 2007) Therefore as the Thalamus is active in regular activities of consciousness such as wakefulness and sleep, it would make sense that it would be a participant in altered consciousness as well. Boveroux et al., (2008) asserted that vigilance depends largely on the reticulo-thalamic activating system which manifests its influence on the cortex through the thalamus. The reticulo-thalamic activating system maintains the necessary conditions for consciousness through the management of choline, adrenalin, histamine, serotonin, and dopamine (Boveroux et al., 2008).

Table 2 is a cross reference between the putamen and the Neuroscience theory, Sense of Self that includes an activation of the Putamen. Table 3 presents a summary of the regions of the occipital/temporal lobe of the brain that are active within the Neuroscience theories of Sense of Self and Default Mode Network. Table 4 presents the regions of the Limbic system that are pertinent to Neuroscience theories reviewed in this study. Table 5 compares regions of the Parietal Lobe of the brain with Neuroscience theories reviewed herein. Table 6 is a representation of the Thalamic Nuclei that are active in various Neuroscience theories. The frontal lobe regions and pertinent neuroscience theories are presented in Table 7. Table 8 organizes regions of the cingulate cortex in comparison to Neuroscience theories in this study.

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| **Table 2 Internal Brain Anatomy/Function and Neuroscience Theories** |
| **Brain Region/Function** | **Neuroscience Theories** |
| **Putamen**: (b)motor pathway | **Sense of Self:** (a) Self-identification |
| (a)Blanke, 2012; (b) Carlson, 2007 |  |

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| **Table 3 Occipital/Temporal Brain Anatomy/ Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **Extrastriate Body Area:** (b)perception of body parts | **Sense of Self:** (a)self-identification **Default Mode:** (c)Lateral Temporal Cortex |
| (a)Blanke, 2012; (b)Carlson, 2007;(c) Sheline et al., 2008 |

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| **Table 4 Limbic System Brain Anatomy/Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **Hippocampus (and surrounding Limbic cortex):**(a)memory, learning  |  |
| **Amygdala (and surrounding Limbic cortex):** (a)expression of emotions, (a)emotional memories, (a)recognition of emotions in others, (c)fear response  | **Emotion: Left Amygdala:** (b)increases with increased emotion, (b)decreases with decreased emotion, (b)processing of emotional verbal stimuli and memory for that stimuli**Emotion: Right Amygdala:** (b)processing and memory of nonverbal emotional stimuli **Decision Making:** (b)processing of emotions  |
| **Mammillary Bodies:** (e)head direction, (e)episodic memory, (d)memory recall |  |
| **Hippocampus:** (c)explicit memory processes, (c)interacts with amygdala to encode emotional memories and produce conditioned fear response  |  |
| **Limbic Cortex:** (a)feelings, (a)emotional expression, (a)affective memories, (a)recognition of other’s emotions  |  |
| **Hypothalamus:** (a)regulation of pituitary glands and autonomic nervous system |  |
| **Fornix:**(d)long term memory  |  |
| (a)Carlson, 2007; (b)Ochsner et al., 2004; (c)Shin et al., 2006;(d)Tsivilis et al., 2008; (e)Vann &Aggelton, 2004 |

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| **Table 5 Parietal Lobe Brain Anatomy/ Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **Orientation Association Area:** (g)provides boundary between physical self and others  | **Attention:** (g)decreased blood flow **Sense of Self:** (g)decreased blood flow produces feelings of endless self  |
| **Parietal Cortex:** (c) visual perception, (c) spatial location, (c) integration of somatosensory, vestibular, and auditory info.  | (h)**Default Mode** |
| **Intraparietal sulcus:** (d)coordinates perceptual and motor information, (d)grasping and manipulating objects | **Sense of Self:** (b)self-identification |
| **Periaqueductal gray:** (a)fight or flight response  |  |
| **Nucleus Accumbens:** (c)attention, (c) reinforcement, (e)anticipating rewards  |  |
| **Medioventral Nucleus Accumbens:** (f)emotion, (f)motivation  |  |
| **Laterodorsal Nucleus Accumbens:** (f)somatomotor functions  |  |
| **Anterior Insular:** (c)processing of sensory information (taste)  |  |
| (a)Bittencourt et al., 2004; (b) Blanke, 2012; (c)Carlson, 2007; (d)Grefkes & Fink, 2005; (e)Knutson et al., 2001;  (f)Pontieri et al., 1995; (g)Saad, 2005; (h)Sheline et al., 2008 |

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| **Table 6 Thalamic Nuclei Brain Anatomy/Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **Anterior Thalamic Nuclei:** (b)head direction, (c)spatial memory through connection with hippocampus  |  |
| **Lateral geniculate nucleus:** (a)input from the eye, output to primary visual cortex  |  |
| **Medial geniculate nucleus:** (a)input from the inner ear, output to primary auditory cortex  |  |
| **Ventrolateral nucleus:** (a)input from cerebellum, output to primary motor cortex  |  |
| (a)Carlson, 2007; (b)Taube, 1995; (c)Warburton et al., 2001 |

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| **Table 7 Frontal Lobe Brain Anatomy/ Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **1st Level Function of Frontal Lobe:** drive, motivation, interacts with posterior cortical and subcortical regions (p) |  |
| **2nd Level Function of Frontal Lobe:** executive functioning, conscious control (p) |  |
| **3rd Level Function of Frontal Lobe:** self-awareness, awareness of social environment, aware of one’s own thoughts, autonoetic consciousness (p) | **Memory/ Autonoetic Consciousness** (p) |
| **Prefrontal Cortex:**(m)attention, (d)planning, (h)memory, (g) (n) emotion regulation,(f) language categorization | **Attention:**(l)increased blood flow (p)**Sense of Self**  |
| **Left Prefrontal Cortex:**(f)semantic (f)categorization of language,(p) encoding episodic memory | **Memory:**(p)encoding episodic memory  |
| **Right Prefrontal Cortex:** (h) retrieval of episodic memory  | **Memory:**(p)retrieval of episodic memory |
| **Dorsolateral Prefrontal Cortex:**(n)maintains attention | **Attention:**(m)increased activity |
| **Dorsal medial Prefrontal Cortex:** (g)(n)Monitoring of self, (g)(n) monitoring of emotion  | **Emotion:**(k)increased activity **Decision making:**(k)increased activity  |
| **Left Lateral Prefrontal Cortex:**(i)memory , (o)cognitive control | **Emotion:**(k)increased activity |
| **Left Rostral Prefrontal Cortex:**(k)generates words in response to emotional scenarios | **Emotion:**(k)increased activity |
| **Ventromedial Prefrontal Cortex:** (j)acquisition & extinction of emotional reactions during fear | **Somatic Marker Hypothesis:**(b)anticipatory body responses to risk |
| **Orbitofrontal Cortex:**(e)drive, (e)responsibility, (e)mood regulation, (e)social adjustment, (a)inhibits behavior , (k)component of memory, (k)decision making, and (k)reward  | **Emotion:**(a) (k)inhibits emotion, (k) inhibition of neg. thoughts **Decision Making:**(k)increased activity, (k)inhibits negative emotions  |
| **Premotor Cortex:** (d)execute complex movements in response to sensory info., (c)self-identification  | **Sense of Self:**(c)self-identification  |
| **Supplementary Motor Area :**( c) receives info. from association areas of parietal and temporal cortex to plan movement  |  |
| (a)Altshuler et al., 2005; (b)Bechara et al., 1999; (c)Blanke, 2012;(d) Carlson, 2007;(e) Cavada &Schultz, 2000;(f) Gabrieli et al., 1998;(g) Gusnard et al., 2001;(h) Henson et al., 1999; (i) Knight et al., 1999; (j) Morgan & LeDoux, 1995;(k) Ochsner et al., 2004;(l) Saad, 2005;(m) Short et al., 2007; (n)Simpson et al., 2001;(o) Smith & Jonides, 1999;(p) Wheeler et al., 2007 |

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| **Table 8 Cingulate Cortex Brain Anatomy/ Function and Neuroscience Theories** |
| **Region/Function** | **Neuroscience Theories** |
| **Cingulate Cortex:** (a)Processing emotion, (a) sensory, motor, and cognitive info., (a) motivation, (a)evaluation of errors in thinking,(a) monitors performance, (a)modulates cognitive, endocrine, motor, and visceral responses  |  |
| **Anterior Region Cingulate Cortex:**(a)cooperates with prefrontal cortex, parietal cortex, premotor, and supplementary motor areas, executive functioning, processing of emotional and cognitive info. | **Attention:**(d)monitoring performance (c)**Default Mode** |
| **Dorsal Anterior Region Cingulate Cortex:** (d)monitors performance, (a)cognitive processing  | **Emotion:**(b)increased activity |
| **Ventral Area Cingulate Cortex:** (a)emotional processing, (a)connected to amygdala, periaqueductal gray, nucleus accumbens, hypothalamus, anterior insula, hippocampus, and orbitofrontal cortex  |  |
| **Posterior Cingulate Cortex:**(b)emotional words | **Emotion:**(b)increased activity |
| (a)Bush et al., 2000; (b)Ochsner et al., 2004; (c)Sheline et al., 2008; (d)Short et al., 2007 |

**Dance therapy.** Dance cannot be considered to be a single thing. In actually it is a variety of things that seem to at the core contain some kind of movement and awareness of this movement (Fraleigh, 1999). Furthermore, defining dance is even more difficult due to the fact that it is an ever changing discipline (Fraleigh, 1999). Because dance itself is difficult to define, Dance therapy or the use of dance for therapeutic purposes is also a complex concept. Fraleigh (1999) illuminated the following components of dance: 1) it is a creative pursuit, 2) it has aesthetic value, 3) context is relevant and gives meaning to the dance 4) dance has a style, 5) it is both art and entertainment, 6) it is used for education, 7) it is used for healing, 8) it is a source of development and self-actualization, 9) it intersects with religion. Fraleigh (1999) asserted that dance’s healing properties come from an inherent pleasure in movement and the ability of movement to elicit emotions. In general dance therapists consider the entire aspect of movement for an individual to be the dance of an individual (Fraleigh, 1999). Several of the larger concepts within the field of dance are explored below including Experiential Movement, Authentic Movement, and Active Imagination. Finally, a discussion of the findings of Woods (2009) within her master’s thesis regarding how altered consciousness in dance can be used therapeutic is presented.

**Experiential movement psychotherapy.** Experiential Movement Psychotherapy is a process that encourages participants to move freely in a dance space in order to bring awareness to and subsequently process the emotions of the experience through the use of imagery and cognitions (Dosmantes-Alperson & Merrill, 1980). A primary premise of this therapy is that individuals must be able to understand their felt body sense in order to understand what their psychological needs are in the present moment (Dosmantes-Alperson, 1981). Although Experiential Movement Psychotherapy does not directly address altered states of consciousness, some of the elements of Experiential Movement Psychotherapy may be relevant to aspects of trance dancing. There are many psychological and physical effects noted within the therapy including an increased awareness of bodily sensations by participants, an increased ease of movement, increased energy, and a decrease in mental control functions (Dosamantes-Alperson & Merrill, 1980). However, much of the evidence espousing these benefits has been anecdotal (Dosamantes-Alperson & Merrill, 1980) with limited controlled studies. One controlled study was conducted by Dosmantes-Alperson and Merrill (1980) whereby they compared the level of self-direction, reactivity to feelings, self-acceptance and relationship to others of participants engaged in experiential movement to those of participants in a ballet class and also to those of participants in a wait list condition. Dosmantes-Alperson and Merrill (1980) found that individuals in the experiential movement group showed increased inner directedness, sensitivity to and expression of feelings, self-acceptance, flexibility of values, and willingness to engage in relationship with others than those of individuals in both the ballet class and the wait list.

 Dosmantes-Alperson (1981) delineated 5 principles that are active in the processing of imagery through movement. These principles include 1) a receptive state, 2) increased focus, 3) physical qualities of the movement are used to create an image, 4) the image is further explored with more movement, and 5) the experience is verbalized (Dosmantes-Alperson, 1981). A receptive state meant that the individual had an attitude of openness such that they were able to participate in the experience without preconceived ideas about how they should move or feel. Increased focus entailed placing one’s awareness on one’s actions and feelings. Physical qualities are used to create an image. For example swaying back and forth may create the image of a person swaying on a boat for one person or may create an image of a person swinging on a swing as a child for another person. The movement that created the image is then repeated as the individual focuses on defining the image more. Finally individuals discuss their experience with another individual. Experiential movement sometimes is directed by the group leader such that the leader sets the focus or movement exercises for that day. For example, the leader may state, today we will be working on swaying back and forth. Experiential movement also sometimes contains aspects of authentic movement.

 **Authentic movement.** A component of many dance therapy styles is authentic movement which is movement that is internally directed by the felt sense of the individual (Payne, 2003). Authentic movement is a movement that is initiated from an internal feeling (Payne, 2003). This feeling can be a physical or emotional feeling. Essentially, an individual focuses on this feeling until there is no option but to move. There are no defined parameters regarding form for this movement and the individual is free to move as they choose (Chodorow, 1991). The internal impulse which leads to movement, or stillness, in the participant allows the individual to overcome their ego and engage their imagination (Payne, 2003). It should be noted that experienced dancers view stillness as a form of movement in that there continue to be subtle internal movements or gentle muscular adjustments even when the organism is outwardly still and therefore in dance literature stillness is often treated as movement. Payne (2003) equated the process of authentic movement as kinetic meditation with the dynamic interplay between the experience and the person experiencing similarly to lucid dreaming. For purposes of this study, authentic movement is first and foremost a form of dance. Therefore, borrowing from the definition of dance for this study authentic movement will be defined as free form organized physical activity that is inseparable from the dancer and thereby affords the dancer a creative outward expression of his/her internal experience. It should be noted that free form indicates that there is no predetermined form that the movement is to follow. Organized in this sense entails that there is some central principle that keeps the movement from being a series of random convulsions. While it may seem inconsistent that the concepts of free form and organized occur within the same definition, it is not. In the case of authentic movement the movement is free form in that it is not predetermined but organized around the feeling that was the impetus for the movement itself.

 Authentic movement is an experience that resulted from the combination of dance therapy and Jungian analysis (Payne, 2003). Authentic movement is purported to help with improving the individual’s body awareness and in developing a connection between mind, body, and spirit and also connecting the individual to a larger universal self (Payne, 2003). During experiences of authentic movement the focus is on the experience of the dancer in the here and now (Payne, 2003).A unique component of authentic movement is the internal witness. This witness is the result of a developed ability to witness oneself in context with others in a nonjudgmental manner. It also includes an ability to integrate other’s perspectives into one’s own self-image in a nonthreatening manner (Payne, 2003).

**Authentic movement and experiential movement*.*** Experiential movement begins with authentic movement but once an individual finds an image or movement within the experience they halt the progression of authentic movement and repetitively focus on the movement image. Conversely with authentic movement the individual does not stop and focus on a single movement but instead flows through the experience from one movement to another.

 **Active imagination.** Active imagination is the method that Jung used to engage in his therapeutic practice of depth psychology (Chodorow, 1991). In active imagination an individual engages in the imagery of their unconscious through the use of a variety of methods in order to give form to the unconscious (Chodorow, 1991). Dance is one of the ways that Jung found that individuals can make use of active imagination (Chodorow, 1991). Dance Therapists use the concept of the Active Imagination to help them make sense of the way that the body and mind interact through the vehicle of the emotions within the work that they do with their clients (Chodorow, 1991). Jung viewed active imagination as a communication channel between the ego and the manifestations of the unconscious. Within Jung’s theory, the psyche is the total of the human mind, conscious and unconscious and includes the ego and the self (Chodorow, 1991). The ego is the conscious aspect of the psyche. The self is the ordering and centering process of the psyche. Within the context of active imagination there is considered to be a primal self and a realized self (Chodorow, 1991). The primal self is an innate expression of self that through the use of active imagination can develop into the realized self, a higher functioning more integrated self (Chodorow, 1991). The self is envisioned as a center with four components surrounding this center (Chodorow, 1991). Chodorow (1991) reported that these four components were originally conceptualized by Stewart (1987) to consist of the four emotions that he considered to be the primal emotions: sadness, fear, anger, and contempt/shame. Each of these emotions has a corresponding ego function and expressive behavior (Chodorow, 1991). With sadness the ego function is sensation and the expressive behavior is rhythmic harmony (Chodorow, 1991). One only need think of the rhythmic motions of soothing a child to understand how rhythm becomes the behavior of sadness. Fear has the ego function of intuition and the behavior of repetitive action (Chodorow, 1991) as can be seen in the rituals of those with Obsessive Compulsive Disorder or the intrusive thoughts and re-experiencing of individuals with PTSD. That is, repetitive action is used to stop anxiety/fear. However in Jungian theory of depth psychology, the image associated with fear is the abyss and a corresponding behavior could therefore be one of falling into the abyss (Chodorow, 1991). The third emotion, anger includes the ego function of thinking and the expressive behavior of reason, where we “attack” a problem (Chodorow, 1991). Finally, contempt/shame includes the ego function of feeling and the behavior of being in relationship either with others or with oneself (Chodorow, 1991).

 **Woods’ findings.** Woods (2009) completed a literature based study that explored relevant articles from the fields of dance therapy, anthropology, and psychology in regard to altered states of consciousness. Using Grounded Theory Woods (2009) then coded the various themes she found in the literature. Ultimately Woods (2009) found eleven themes in her search. Her eleven themes included: “community and group, healing potential, spirituality and religion, ritual, rhythm, experience of the self, body action and rapid motion, catharsis and abreaction, energy and revitalization, recovery of play and creativity, and focus, attention and absorption” (Woods, 2009, p. 64). Community and group referred to the joining together of individuals for the purpose of engaging in experiences of altered states of consciousness and also encompassed the concept that the group cohesion was further strengthened as a result of the experience (Woods, 2009). Healing potential included any aspects that contributed to improved psychological, physiological, or spiritual well-being (Woods, 2009). Woods’ (2009) analysis of research illuminated spirituality and religion as an inherent component of altered states of consciousness. Woods (2009) discussed that ritual was an integral component of inducing altered states of consciousness and included aspects of music and drumming within her theme of ritual. Through providing an organizing function, rhythm was also considered to be a necessary component of altered states of consciousness (Woods, 2009). The self as experienced in altered states of consciousness as illuminated by Woods (2009) includes increased self-acceptance and self-awareness. Woods (2009) discussed that altered states of consciousness resulted from movement and rapid action which further produced aspects of transcendence, catharsis, more free access to unconscious material, and a feeling of being revitalized. Woods (2009) also illuminated a theme of catharsis and abreaction that included a release of energy for prophylactic purposes. Energy and revitalization was a theme found by Woods (2009) that was the result of rhythm, a shared group experience, repetition, or emotional release. A tenth theme found by Woods (2009) was recovery of play and creativity. This theme was described by Woods (2009) as a means of using insight to find new and creative solutions to problems. Woods (2009) discussed that focus, attention, and absorption were necessary to the production of altered states of consciousness, could be internal or external, and produced transformation and an ability to manage pain.

**Religious Theories**

As previously stated Cox (2003) suggested that trance dancing itself could be considered to be a religion onto itself. The criteria that Cox (2003) used to identify a religion consisted of three stipulations. Those stipulations included 1) a belief in a reality separate from the day to day reality that is dependent on unexplained forces that are 2) controlled through rituals and symbols and 3) a mediator between the two realities such that the religious community is able to maintain harmony (Cox, 2003).

Religion has been shown to have a variety of benefits (Alcorta & Sosis, 2005). Those benefits include increased immune system functioning, social connectedness, reduction of stress, and adaptive processes (Alcorta & Sosis, 2005). Trance dancing is believed by various cultures to have benefits beyond those ascribed to religion above (Jennings, 1985). Various civilizations have found dance useful as a means of community bonding through the incorporation of common symbols (Spencer, 1985). These symbols help to solidify the community myths, beliefs, and norms (Spencer, 1985). Dance has also been used as a staple of rituals including rite of passage into adulthood, as a way to exorcise evil, and for healing purposes (Hanna, 1979; Spencer, 1985). In Afro-Brazilian and Afro-Caribbean cultures, created from the fusion of Catholicism and African religions, dance is used to help participants overcome daily stressors and release tension (Somer, 2006).

Often dance has provided a means of connecting with spirit and has frequently contained aspects that seem similar to some aspects of dissociation (Kara, 2011; Somer, 2006). Recall that here connecting with spirit is being defined as forming a bond with or communicating with a force outside of or beyond oneself. Somer (2006) discussed several religious/spiritual practices that included movement including practices within Judaism, Christianity, Islam, Yoruba, Southeast and Pacific Rim religions, and African religions. Kara (2011) described trance dancing of Muslim Kirghiz shamans from Xinjiangban (China). Somer (2006) points to the rocking movements, chants, and dance that are purported to cultivate increased focus, feelings of depersonalization and ecstasy such that individuals can become more aware of a continuous presence of God within Judaism, Charismatic Christianity, and Pentecostal Christianity. Another feature of these processes is that the day to day perceived boundaries of the self are changed to allow one to then experience God in a new way (Somer, 2006). Within Sufism, a branch of Islam, the practice of chanting and movement is focused on creating a more present and conscious self that moves into relationship with the Divine (Somer, 2006). During a dance performed at the Thaipusam festival in Southeast Asia, participants dissociate in order to endure the pain of impalement as a presentation of the power of their connection with the divine (Somer, 2006).

Dance has been used by Shamans to induced altered states of consciousness (Achterberg, 1985). Shamanism is considered to be a healing system that largely relies on using altered states of consciousness that can be entered into, and out of, at will of the shaman to interpret images and thereby enact a curative factor for the individual or the community (Achterberg, 1985). Western thinkers have largely stated that the effectiveness of Shamanism rest in the expectations of individuals to feel better through emotional relief and community support (Acheterberg, 1985). Although this is a reductionist view of Shamanism, even the benefits of emotional relief and community support should not be overlooked as they seem to be important concepts in regard to the practice of trance dancing in modern cultures. Shamanism cannot be separated from a spiritual purpose and in fact the primary goal of Shamanism is to preserve the soul even at the cost of the death of the physical body (Achterberg, 1985). Often during rites of initiation of Shamans that involve prolonged dancing, initiates report that they feel as if they are floating off of the ground, a power like electricity inside of them, and a deep concentration on the music of the ceremony (Achterberg, 1985).

**Anthropology**

 Within the field of Anthropology trance dancing is often referred to as kinetically induced dissociation (Somer, 2006). Usually, Anthropology considers trance dancing within the context of the phenomenon of spirit possession (Boddy, 1994) and dance itself as a cultural ritual (Spencer, 1985). Anthropology of trance dancing focuses on indigenous or exotic cultures and rarely looks at trance dancing in modern industrialized culture (El Guindy & Schmais, 1994; Lewis-Williams, 1980; Lewis-Williams, 2003; Platvoet, 1999; Pratt, 2005; Skultans, 1987; Somer & Saadon, 2000; Stoffle et al., 2000). One notable exception is the work done by Hutson (1999, 2000) exploring trance dancing within the rave scene that is found within Anthropology journals.

 The field of Dance Studies sometimes explores dance from an Anthropological perspective (Jennings, 1985; Middleton, 1985, Hanna, 1979; Reed, 1998). However, trance dancing is often overlooked and the dance forms that are studied tend to be more formalized experiences such as Ballet, Modern Dance, or Jazz (Hanna, 1979; Reed, 1998). Furthermore, these explorations tend to look at dance from a larger cultural perspective instead of from the viewpoint of the experiences of the dancers (Hanna, 1979; Reed, 1998: Thomas, 1995).

Chapter 3

This study is one of discovering the essence of trance dancing. By discovering the essence of trance dancing it is hoped that contributions toward an understanding of consciousness and divided consciousness and a more thorough understanding of trance can be attained. Finally understanding the essence of current day experiences of trance dancing may also provide information as to the continuity or discontinuity of trance dancing from antiquity.

**Why This Study is Suited to a Qualitative Design**

These questions seemed to be best answered through developing a complete understanding of the experience from the dancers’ perspective. It is only through really listening to the dancers’ descriptions of their experiences that the researcher was able to obtain some meaning of the phenomenon and come to understand the larger picture of trance dancing in modern industrialized nations and the purpose it serves. Failure to take this first step of understanding the phenomenological aspects of trance dancing would have put the researcher at risk of building a study on bias. Just as the western view of Shamanism is biased in the belief that the benefits gained by participants are due to the placebo effects of their expectations, research of trance dancing would be biased by uninformed opinions of what the experience meant without careful qualitative research. Qualitative methods allowed the researcher enough freedom to gain this deeper understanding and to develop some rudimentary answers to the above questions. There is limited knowledge surrounding the experience of trance dancing, particularly in the context of modern industrialized societies. It is therefore common practice to conduct qualitative research to gain a rudimentary understanding of a phenomenon which to date lacks scientific research (Patton, 2002). This is even more important when the research of similar potentially related phenomenon such as altered consciousness is also incomplete.

Boddy (1994) discussed that research within the field of Anthropology regarding possession trance has a limitation of being incomplete and biased toward the researchers’ own cultural beliefs and interpretations when the proper phenomenological studies are not completed in order to ascertain the participants perspective of the experience. Without the proper qualitative study aspects of the phenomenon are reduced to dichotomous categories instead of gaining the rich contextual aspects of interaction among the categories (Boddy, 1994). It seems that research exploring trance dancing would also face a similar limitation and therefore a phenomenological qualitative study of trance dancing was hoped to improve the understanding of trance dancing by beginning to reduce limitations of the research of the experience.

**Paradigms Underpinning the Research**

This study utilized a constructivist paradigm. A constructivist paradigm rests on the principle that meaning is not readily apparent and will become clear through reflection (Ponterotto, 2005). In constructivism, reality is seen as the multiple realities that are constructed in the minds of individuals as opposed to a single reality. The goal of a qualitative study based in a constructivist paradigm is to understand the realities constructed by participants in the study. Specifically, this study aimed to understand the phenomenological reality of participants’ experiences of trance dancing.

Therefore this study was one of a phenomenological constructivist paradigm, as the central question of this study was to understand the essence of trance dancing by individuals in modern industrialized nations. In understanding the essence of trance dancing it was important to identify what it was about trance dancing that was important to know. Because I chose to use a constructivist phenomenological paradigm, it followed that what people experienced and how they interpreted the world was the appropriate axiology. That is, the philosophical viewpoint of this study was one of learning how people interpreted their world. In particular understanding how participants incorporated trance dancing into their larger world view helped to simultaneously anchor trance dancing into a context and also provided valuable insight into the phenomenon. The epistemology, or scope, of phenomenology is that one can only know what one has experienced and that the life-world of an individual is made up of the synthesis of those experiences into a worldview. A life-world is a phenomenological concept that consists of the subjective experience of the world by participants. For example, if someone believed that they would always be a victim, this belief would inform their life-world in that they would experience the world as threatening, condemning, and dangerous. Furthermore, they would then compile their life-world experiences of being a victim or of being in a threatening situation into a worldview which confirmed that the world itself was unsafe. By understanding the life-world of this individual one could then understand their worldview with more complexity and clarity and in this understand the meaning of their worldview. This understanding of participants’ life-world was accomplished in this study by asking questions regarding participants’ philosophical viewpoints about what it means to be human, about religion and spiritual beliefs and about their physical, emotional, and mental experiences.

Therefore we cannot understand the meaning of trance dancing without first ascertaining the dancer’s life-world perspective, and then determine how trance dancing impacts this life-world. This is the reason that multiple interviews were needed with participants so that a deeper understanding of their life-world can be ascertained.

 Trance dancing appeared to be an important experience in the creation of the individuals’ life-worlds in cultures such as the San, Native Americans, Teminar, and Sufis as evidenced by the attention given to trance dancing by individuals in these cultures through ritual, art, religion, and daily living (Kamin, 2002; Platvoet, 1999; Pratt, 2005; Spencer, 1985; Jennings, 1985). It seems that trance dancing by individuals in modern industrialized nations also contributes to individuals’ life-worlds as indicated by the self-reports of participants in trance dancing events (Hutson, 2000). Furthermore, trance dancing is a combination of physical and psychological elements. Phenomenology recognizes the importance of this combination of the physical and psychological factors as it is believed that sensory information and behavioral experiences are a key factor in establishing meaning through enacting the life-world into the production of the worldview (Wertz, 2005). Therefore, a phenomenological constructivist paradigm seems to best match the intent of this study to develop an understanding of the essence of trance dancing from the perspective of those who have experienced the phenomenon.

**Modifications to the Methodology**

The methodological approach of this research was one of Heuristic phenomenology. Heuristics is a specific branch of phenomenological research that includes the personal experiences of the researcher as part of the data set (Patton, 2002). Because I have personal experience with trance dancing, I used that experience in combination with the detailed descriptions of others experiences with trance dancing to help me find the essence of trance dancing. Specifically, Heuristic principles were considered to help maintain bias in interviewing participants and data analysis. The researcher’s personal data regarding trance dancing was considered within Heuristic principles also but as it was determined that it provided no additional depth to the study and therefore it was removed from the data population and the remaining participant data was analyzed according to the Moustaka’s Transcendental Phenomenological Model that is described further with the data analysis section of this paper. At this time, a further description of Heuristic Inquiry is discussed as this helped to inform the methodology of the study. Heuristic inquiry rests on four major principles (Patton, 2002).

**Four Principles of Heuristics**

First, heuristics emphasizes connectedness and relationship (Patton, 2002). Second, heuristics helps the researcher find essential meanings and understand how these meanings have an intricate connection between the researcher’s personal viewpoint and the desire to know more about a phenomenon (Patton, 2002). Third, heuristics concludes with a creative synthesis that includes the researcher’s intuition and tacit understandings of the phenomenon (Patton, 2002). Finally, in heuristics, the research participants remain visible in the examination of the data and continue to be portrayed as whole persons (Patton, 2002). It follows then that the paradigm underpinning both the research philosophy and methodology was phenomenology, while the more specific methods of Heuristic inquiry were used to inform the actual methods.

**Self-Reflective Quality of Research**

It is important for psychologists to understand how people make meaning of their world and to recognize the importance of individual’s experiences. Qualitative researchers frequently explore phenomenon in order to better understand it and to contribute knowledge that they feel is important. It therefore seems that qualitative research is the appropriate format for understanding how individuals make meaning of trance dancing within modern industrialized nations.

The connection between mind, body, and spirit is an area of psychology that I feel needs more study. I believed that exploring trance dancing could provide a wealth of information in this area. Additionally, dance, spirituality, and dissociation are of particular interest to me. I chose this topic of study because of the strong influence that dance has played in my life as well as my strong interest in spirituality and dissociation.

**The Researcher’s Experience with Trance Dancing**

I have had numerous experiences with dance in a variety of formats. Firstly, I have a minor in dance where I studied the techniques of Martha Graham and Eric Hawkins. Graham and Hawkins are considered to be the foremost pioneers in the genre of Modern Dance. I have danced professionally under the choreography of Joan Meggitt, a known choreographer from Cleveland, Ohio. I have studied dance in an academic setting that explored how societies make meaning using myths, rituals, and dance. I have taught dance to children. Additionally, I have been a part of music festivals and raves where I have danced. In both my professional and recreational dancing, I have had experiences that I would call a trance. These experiences have truly made studying trance dance a passion of mine. While this experience was useful and helped to fuel my interest in the topic, it also provided several biases of which I needed to be aware.

**Researcher’s Initial Assumptions of the Research**

First, I needed to understand that it is an assumption that I have, that all individuals can achieve trance through dance. I needed to be open to the idea that perhaps some individuals achieve trance during dance as a result of something outside of the dance itself. Perhaps some individuals are just more able to move into trances regardless of activities. Also, some individuals may not be able to achieve a trance at all. Next, all of my trance experiences have been accomplished without the aid of drugs and I therefore needed to be aware that others do in fact use drugs to achieve this change in consciousness. I needed to be careful not to negate the impact that drugs play, which may have been larger than I anticipated. It was interesting that the findings of this study demonstrated that although a little over half the participants have utilized drugs to induce trance, that only three of them ultimately saw substances as an equivalent method of achieving trance and the other substance experienced participants saw drugs as less effective/desirable than other methods of inducing trance. Another bias I had was the belief that individuals are actually in a trance when they report their experiences. I therefore needed to be careful to hear what the participants were saying and not assume what they were talking about was a trance.

**Researcher’s Management of Bias**

In order to manage these biases, I took several steps. Firstly, I used a self-reflective journal in order to better understand my responses to interviews to be able to differentiate between what was truly happening and my biases. This journal was carried with me so that I was able to write immediately after an interview and when I had additional thoughts about the research. This journal was shared with a peer who was not directly involved with my research, so that she could help me differentiate between the actual phenomenon and my biases. Sharing the journal with a peer helped to verify that the journaling was completed. Additionally, I met regularly with this peer in order to help me categorize the data and refine the interview method to avoid contaminating either with my biases. It was important that I had a peer examine my interview format so that I did not lead individuals with questions in a way that I inadvertently caused findings I expected. Expressing my biases upfront to my peer reviewer about what I expect to find was helpful in allowing me to keep those biases in check.

**Peer Reviewer**

The peer reviewer was a woman who had a BS in Neuroscience and a MA in Biological Sciences from Columbia University. She had no direct experience with dance or trance dancing. The peer reviewer’s research included a thesis entitled *Mapping the Receptive Fields of Piriform [Primary Olfactory] Cortex Neurons.* She was a friend of the researcher’s from their experience as students at the same undergraduate college. Therefore, she felt comfortable in being able to dispute the researcher when needed throughout the process.

**Sample Population**

This was a phenomenological qualitative study that included 16 participants (8 Men, 8 Women) ranging in age from 24 years to 62 years with average age of 41 years. Participants were located throughout the tri-state area of New York, Pennsylvania, and Ohio. Demographic information was collected included age, race, education of participants, participants’ experience with dance, sexual orientation, and religious orientation. All participants were white. Education varied across participants from two years of college education through terminal master’s degrees and doctorates. All participants had some level of college education. Experience with dance varied for participants from less than one year to greater than 50 years. Dance experience was total dance experience and not simply trance dancing. Five participants had formal training in dance. Three participants had formal training in other movement pursuits such as marital arts, theater, or athletics. Eight participants had no formal training in dance or any other movement pursuit. Participants reported sexual orientations that included heterosexual, bisexual, homosexual, and pansexual, with the larger portion of the sample reporting heterosexual orientations. Participants reported religious orientations including Roman Catholic, Christian, none, open, spiritual, Buddhist, Pagan, spiritual atheist, possibilitarian, Eastern, and independent. Participants were purposively chosen based on the criteria that they had engaged in trance dancing.

**Selection Procedures**

 Patton (2002) explained that the focus on qualitative research is one of describing, understanding, and clarifying human experiences. Patton (2002) asserted that participants in qualitative research are chosen because they can provide substantial contributions to developing an understanding of the experience under investigation. This method was one of purposeful sampling based upon the criterion of the study under investigation and was the method of selecting participants for qualitative research (Patton, 2002). In this study participants were selected purposefully based upon the criterion that they have had trance experiences while engaging in dance. Specifically, a combination of purposeful sampling procedures was used. Criterion sampling was used in order to identify participants who have had a trance experience while dancing. Snowball sampling was also used as participants recommended other participants that they knew who have had similar experiences. Additionally opportunistic sampling was used as I followed new leads as they emerged during the fieldwork. These leads included my telling non-participants about my research and they recommended local community people who participated in trance dancing. I then spoke to these community individuals about their experiences.

**Recruitment/Research Role**

 I used several methods of recruitment and data collection. Participants were recruited at venues where I participated in trance dancing including a one-time trance event in Pennsylvania, and an ongoing dancing venue in Ohio. At these events this researcher made an announcement about her study and asked individuals who were interested in participating to leave contact information with the researcher so that she could arrange to conduct the interviews. Participants were also recruited through this researcher making phone calls or email messages to potential participants based on this researcher’s knowledge of these individuals from former dance experiences or based on referrals from other participants or non-participants. Of the list of potential participants, this researcher was able to successfully schedule interviews with the 16 participants who made up the sample for this study. Participants who agreed to participate in the study were provided with an informed consent document which can be found in Appendix C.

**Use of Technology for Recruitment and Interviews**

As stated previously this researcher made use of email and the telephone to recruit individuals. Participants were offered the opportunity to participate in the interview in person, over the phone, through Skype, or over email. Twelve participants chose to participate in interviews in person and dates were arranged to complete these. One participant wanted to be interviewed in person but a mutually acceptable date/time could not be arranged between the interviewer and participant when travel time was introduced. Therefore, this interview was conducted over the phone. Three of the 16 participants chose to be interviewed through email. Participants had no interest in being interviewed through Skype and many expressed that they were unfamiliar with the technology. Follow-up interviews were conducted in person, over the phone, and through email as was convenient for participants.

 Matthews and Cramer (2008) discussed the advantages and disadvantages of using technological methods for interviewing within qualitative research. Matthews and Cramer (2008) reported that the most often used argument against using technological methods for interviewing is a fear of losing non-verbal communication from participants however with the recent developments in web cameras there may not be a contextual loss. In this study of the three interviews that were conducted through email, two did not provide the level of detail of experiences that were found during in person interviews and therefore there did appear to be some contextual loss. The information that email participants provided was consistent with the information that in person interviews participants provided but the answers through email were much briefer and did not offer additional information. The additional information that was offered by in person interview participants was often used to develop future questions that were asked during follow-up interviews. Of the three email participants, none of them responded to requests for follow-up interviews. Of the 13 in person interviews, 8 responded to and completed follow-up interviews. The follow-up interviews yielded no further themes than were found in the original interviews but they served to confirm the similarities of themes that were found across interviews.

 Matthews and Cramer (2008) also reported that the use of technological methods of interviewing often gives researchers the ability to interview participants who are at large geographical distances from the researcher. This was somewhat true for one participant in this study. Although the geographical distance between this interviewer and the participant was not substantial, the use of the phone to complete the interview assisted in being able to get the interview completed within the deadlines of the study whereas this would not have been possible if the interviewer had to travel to meet with this participant.

Matthews and Cramer (2008) also reported that using technological interviewing methods allows marginalized or hidden populations to participate in the research. Trance dancing is seen more as a subculture experience but the individuals who participate in trance dancing are not as a group marginalized from society. Therefore, this did not seem to be a relevant factor in this study. The benefit of using technology to recruit participants was minimal in this study.

 A third benefit of using technological interviewing is that the researcher can engage participants throughout the research process and there is opportunity for increased participant feedback (Matthews & Cramer, 2008). This aspect of technology was very helpful to this study. The researcher utilized email to send informed consents to participants prior to interviews in order to allow participants time to review the material and ask questions. The transcribed interviews were sent to participants through email so they could review them and make any changes they felt were necessary. Follow-up interviews were emailed to participants and they had the choice of having an interview in person, completing a phone interview, or responding through email for the follow-up interviews.

Although Matthews and Cramer (2008) presented a largely favorable view of using technology for interviews within qualitative research, they did make several suggestions of caution in the use of technology. The first pitfall of using technology as explained by Matthews and Cramer (2008) was that the researcher and the participants have to be comfortable with using the technology. As stated previously, participants in this study did not feel comfortable using Skype and therefore no interviews were conducted in this manner. Participants expressed no concerns about using email or the telephone.

 Another concern raised by Matthew’s and Cramer (2008) was in the accidental disclosure of information regarding the interview. They cited individual’s using public computers as a potential hazard to confidentiality. In order to address this within my study, I made sure to provide potential participants with information regarding safety concerns and breaches of confidentiality as part of my informed consent to participate in the research.

**Use of Researcher’s Personal Experience**

Prior to starting this study, I assumed that my being a familiar individual at venues where I would be recruiting individuals would play a role in my ability to recruit participants. This actually played a smaller role than I anticipated. Due to the timing of procedures in completing the dissertation, I was not able to recruit individuals directly from the venues where I regularly participate. Instead I recruited individuals from a one- time venue where I had not previously danced with the individuals who attended this event. I also recruited participants from another venue that holds dances regularly but was unfamiliar to me. Where my familiarity was helpful for this study was in my ability to recruit participants in the local community who had trance dancing experiences and that I knew from previous dance experiences that were not directly trance dancing experiences.

Even though I was not familiar to people in venues where I recruited participants, I found that individuals at these venues were very accepting, open, and willing to participate in my study. Individuals wanted to participate in the study and wanted the researcher to participate in the dancing. Because I actively participated in the dancing at the venues I am considered to be a participant-observer, which is appropriate within my heuristic research design. It was also my belief, based on my past experiences that part of the essence of trance dancing exists in the interaction of the dancers themselves during the experience. This hunch seems to have been confirmed with the theme of community that was found within the data analysis. It was therefore, important that I participated in some of these events in order to fully understand the essence of the experience. This aspect of participation is a norm of the trance dancing community and my familiarity with these norms was important in my being able to recruit participants. In a further discussion of group norms, I explained to the peer reviewer that at one dance event I was asked to give some of my water to a gentleman who had none and that I had to say yes within the norms of the group. To have refused water to this gentleman would have been considered highly inappropriate as one of the norms of the groups seems to be sharing everything you have with others regardless of how little you yourself have. Because of my understanding of these group norms I was seen as an insider by participants but I needed to be keenly aware of how my personal experiences left me open to bias. As mentioned earlier, I employed several methods in order to prevent personal bias from clouding the research including consultation with a peer reviewer and confirmation checks with participants at various stages of the research.

**Social Desirability**

 To address the possibility of social desirability of participants impacting their answers, I utilized three qualitative research strategies. First, I explained to participants that I was not searching for a specific answer to my questions but instead I simply wanted to understand their experiences as they understood them. This was also outlined within the informed consent document. Next, I utilized questions that were not leading. This was verified by the review conducted by the peer reviewer who read all transcripts and searched for biased language. Third, I reviewed each individual’s personal transcript and the group summary of data with the participants in order to give them another opportunity to provide a nonbiased report of their experiences. This summary is provided in Appendix D.

**Gate Keepers**

At each of the venues where I recruited participants, I utilized the facilitators of the groups as gate keepers. I introduced myself to the facilitators and they then provided time for me to explain my study to the individuals who attended these events and to ask for participation in my study. Participants themselves became gatekeepers when they provided the researcher with names of other potential participants. In a similar fashion, non-participants who recommended participants were also acting as gate keepers.

**Taking Leave**

 The method of my taking leave from my participants was important. Some of my participants were already familiar with me as they have seen me at various venues (both trance and non-trance) previously. Other participants planned to see me at future venues following their experience of participating in this study. Therefore, in order to be respectful to all individuals involved I offered to send my research to anyone involved. The entire dissertation will be posted on my website (www.ShannonDeetsCounseling.com) so that participants can access it at their leisure. I also sent thank you notes to participants following final interviews with each participant. It was an interesting occurrence that bartering with participants was an expected behavior. Participants agreed to be interviewed for this study if this researcher agreed to participate in their podcasts, share a meal with them, or support them in their artistic pursuits. This system of bartering is readily apparent at festivals where trance dancing takes place and it seems that it continues in the lives of participants outside of the festival environment.

**Data Collection Methods**

Data collection methods included recruiting and in person interviews at venues where I participated in the dancing, recruiting and in person interviews at venues where I did not participate in the dancing, phone interviews of individuals who are not geographically close, and email interviews for those individuals who were unable to participate in person or by phone. Care was taken to make interview methods as similar as possible by utilizing a semi-structured interview. Some difference in interview methodology is acceptable within qualitative study as it is quite common, and often desirable, to use a variety of methods of gathering data in order to achieve a triangulation of the data (Patton, 2002).

 Individuals were interviewed using a semi-structured interview guide approach. This approach follows that the topics and issues to be covered are specified in advance. The researcher decides the sequence and wording of questions in the course of the interview (Patton, 2002). The structured interview guide complete with questions is found in appendix A. Use of a semi-structured interview guide is helping in that with it the researcher strives to be thorough and systematic for each participant (Patton, 2002). A weakness of this method of data collection is that important topics could be missed. In order to reduce the likelihood that important topics were missed, participants were asked to participate in follow-up interviews.

During initial interviews further questions were added in order to clarify answers of those individuals who participated through in person interviews or phone interviews. Due to the nature of email, emergent questions were not able to be incorporated immediately into interviews. These emergent questions were presented to email participants in the form of follow-up interviews but as stated above, email participants did not complete follow-up interviews. After all 16 initial interviews were completed, the interviews were reviewed for emergent questions and these questions then constituted the questions for the follow-up interviews. Follow-up interviews were personalized for each participant to ensure that all participants answered all questions. The emergent questions are listed in Appendix B. The follow-up guide was less structured than the original interview guide and included questions that the researcher determined were not fully answered in the original interview, as well as questions that seemed important so as to gain a deeper understanding of those elements that seemed to be emerging within the data at that point. This style of interviewing that includes follow-up interviews of emergent questions is consistent with qualitative study (Patton, 2002).

 Another component of follow-up interviews was the participant checks. Participants were asked to review their transcripts for accuracy and completeness. Following the analysis of the interviews and follow-up interviews, the data of the study was also provided to participants for feedback. Specifically, the participants were asked to review the 21 themes, mathematical model, and essence of trance dancing and to provide input into the accuracy and completeness of these findings. The purpose of these participant checks was to enhance the validity of the data and to reduce researcher bias. The information provided to participants as a review can be found in Appendix D.

**Participant-Observation**

This study included a Heuristic design element in that I have had trance dance experiences personally. Therefore, another way of achieving data triangulation was in using a variety of participant-observation methods. One method was that I kept a self-reflective journal about my experiences with trance dancing as I researched trance dancing. This journal included any insights I had into trance dancing as a result of doing the research. Additionally, I made various observations of others dancing and recorded these observations as field notes. All of this was a part of the triangulation of data. Proper triangulation of data will ultimately minimize weaknesses in using different data collection strategies and will provide an overall more complete understanding of the essence of trance dancing.

**Data Management**

Data consisted of interviews and field notes. In person and phone interviews were audiotaped (with participant’s knowledge and permission). Interviews were then transcribed by this researcher to ensure accuracy of content and meaning of the interviews. Email computer interviews did not need to be transcribed as a print out of the email correspondence was available. Again individuals interviewed via email were notified of the researcher’s intent to print out and keep the email correspondences. Field notes were written following each interview to capture the interviewer’s impressions surrounding the interviews. Field notes were also written following each observation by the researcher of individuals engaged in dancing activities. All information from interviews and field notes was compiled into one unit of data collection. When data was being bracketed as part of the analysis procedure, material from the transcripts were cut and placed onto poster boards as appropriate groupings become understood. Four copies of each set of data were created. Two copies were given to this researcher and two copies were given to the peer reviewer. Throughout the analysis process, data was managed utilizing cutting and pasting. That is, both the peer reviewer and the researcher read the transcripts, and cut out the sections of the transcripts that they believed fit within the categories that they saw emerging. The peer reviewer and researcher were given two copies of each transcript so that if material in the transcript consisted of two categories of data within close proximity to each other that this material could be placed into these two categories without being impeded by the physical restraints of width of the scissors or paper. That is the physical act of cutting the paper could reduce the ability to place material into more than one category if information in the interviews were in close proximity. By providing two copies of the transcripts this limitation could be avoided. The peer reviewer utilized her own poster boards with her own groupings separate from the poster boards and groupings of this researcher. The peer reviewer then was able to see all of her poster boards and data at one time allowing for intuitive inspiration. The researcher likewise grouped the data on poster boards as she saw fit and was able to view all of her boards simultaneously. Utilizing intuition is considered to be an appropriate aspect of phenomenological data analysis (Patton, 2002). Upon independent review of the data, the researcher and peer reviewer then discussed the data. It was evident in this discussion that the peer reviewer and researcher found many of the same major themes within the data but conceptualized the data in two individual manners. The researcher listed themes categorically but the peer reviewer organized the data into processes. Working together the peer reviewer and researcher were able to flush out a mathematical model that was representative of both the themes and processes.

Within the data analysis process the researcher and peer reviewer had a variety of thoughts and insights about the deeper meaning of the data. These insights were added to the poster boards as appropriate in order to illuminate the thought process of the researcher and peer reviewer and further refine the essence of trance dancing. As data was understood more deeply it was moved throughout the poster boards until it was decided by the researcher (or peer reviewer) that a synthesized meaning from the data could be understood thoroughly. These synthesized meanings yielded 21 themes for the researcher and 6 processes for the peer reviewer. The peer reviewer and the researcher then discussed their synthesized meanings and from these were able to understand a mathematical model that explained the data.

**Data Analysis/ Heuristic Inquiry**

Data was analyzed using Heuristic inquiry and the Moustaka’s transcendental phenomenological model. This study included the trance dance experiences of the researcher and therefore this set of data was most appropriately analyzed using Heuristic inquiry.

Heuristic Inquiry included four steps: Immersion, incubation, illumination, and explication (Patton, 2002). During immersion, the researcher tried to fully appreciate the experience by engaging her full presence in savoring, smelling, touching, tasting, feeling, and knowing the experience without a concrete goal or purpose. Incubation is the time of quiet contemplation where the researcher allows space for awareness, intuition, and insights to form (Patton, 2002). Critical textures and structures were revealed during illumination as a result of an expanded awareness of the deeper meaning of the experience. It is important to note that these early stages of Heuristic inquiry were focused on internal processing. As such, it allowed for a more in depth understanding based upon the observed elements at hand. In addition, the absence of a null hypothesis helped minimize the possibility of skewed or selective information gathering. The next step of Heuristic inquiry was the explication phase. In this phase other dimensions of meaning were added as further exploration of universal elements and primary themes of the experience were explored and delineated (Patton, 2002). In the creative synthesis the data was put back together so that relationships and patterns were clear and the data thereby has a context (Patton, 2002).

The Heuristic aspects of the study occurred at three points in the study. These points will be referred to as Time A, Time B, and Time C. First of all, the study questions were informed by the researcher’s experiences (Time A). Next the researcher recorded her own thoughts about her personal experiences with trance dancing in her journal following these experiences (Time B). Finally, this researcher used these journal entries to answer the study questions and transcribed an interview (Time C). This interview was provided to the peer reviewer to analyze as if it were a participant interview. The peer reviewer was blind to the fact that this interview belonged to the researcher. Ultimately, the interview of the researcher did not differ in terms of data from the interviews of the participants and therefore it was not included in the final data set for this study. However, reviewing the researcher’s interview according to the principles of Heuristic inquiry allowed the researcher and peer reviewer to assess for bias in the study.

**Time A**

At Time A, the researcher had previous experiences of trance dancing prior to formulating this study. The immersion process of Time A occurred when the researcher engaged in trance dancing without any predetermined goals other than to dance. The second step of Heuristic inquiry of incubation then occurred at Time A when the researcher considered the meaning of her experiences. The third step of Heuristic Inquiry, illumination, occurred when the researcher considered the themes or structures of her experiences. The next step of Heuristic Inquiry, explication occurred within the literature review for this study. That is, the researcher was able to find universal elements of her experience within the literature regarding trance dancing. Using creative synthesis, the final stage of Heuristic Inquiry, the researcher formed her 15 original study questions.

**Time B**

At Time B, the researcher immersed herself in the process of trance dancing at venues where she recruited participants. A key component of immersion is to have no preconceived biases or goals with the experience. Therefore, the researcher made sure to simply engage fully in trance dancing without considering the recruitment of participants. This was accomplished by waiting until the end of the experience to announce the study to individuals at these events. This was also accomplished in part because of the vast experience of the researcher in achieving trance through dancing. That is, one of the aspects of trance dancing that was found in this study and found by the researcher personally to be important is the ability to have intense focus on the experience without the chattering or distracted mind. Therefore, the researcher’s previous experiences taught her how to immerse herself fully in the experience without thoughts of the study and the proof of this was the ability to achieve trance for the researcher. Furthermore, had the researcher not had a genuine experience of trance dancing, this would have been evident to participants and they may have been less willing to participate with a researcher who “didn’t get the scene”. Therefore, the researcher’s own experience and the behavior of the participants at the venues served as indicators of the researcher’s ability to be immersed in the experience. The researcher took time for journaling after each experience to enter into the incubation stage of Heuristic inquiry. This journaling was completed approximately 10 minutes prior to the end of the dancing and also throughout the weeks following the dancing as the researcher had new insights. The researcher did not entered into illumination, explication, or creative synthesis at Time B so as not to bias the interviews that she was conducting with participants. Therefore, the journal entries were written but then simply closed away in the journal until Time C.

**Time C**

After the interviews of the other participants had been completed and transcribed and the final list of questions for the study (original interviews and follow-ups) had been completed, the researcher immersed herself in her journal entries. She then contemplated the meanings of her journals during the incubation stage of Heuristic Inquiry. During illumination the researcher used her journal entries to answer the questions of the study and typed an interview. She provided this interview to the peer reviewer and told the reviewer that another individual had agreed to participate and asked the peer reviewer to review the interview for its themes. The peer reviewer reported that this interview differed from none of the other interviews. This process by the reviewer constitutes the explication phase of the Heuristic inquiry in that the reviewer herself provided other dimensions of meaning through her analysis of the interview. Therefore, the peer reviewer and researcher decided not to include this interview in the data set. In this case, not including the data was the creative synthesis of Heuristic Inquiry.

**Data Analysis/ Moustaka’s Transcendental Phenomenological Model**

Prior to time C of using the Heuristic inquiry method, the researcher and peer reviewer engaged in the Moustaka’s Transcendental Phenomenological Model to analyze the data of the participant interviews. The Moustaka’s model contains 4 steps: epoche, phenomenological reduction, imaginative variation, and synthesis of texture and structure. Patton (2002) explains epoche as a Greek word meaning to refrain from judgment. Therefore, a researcher in the epoche phase of data analysis must strive to become aware of and eliminate personal bias and involvement with the subject matter. This may seem like a contradiction to try to eliminate personal involvement with the subject matter while also using Heuristic inquiry, which is designed to illuminate the individual’s process of knowing. However, it seems appropriate that in the process of expanding my knowledge of my own experience of trance dancing that I would move further away from a subjective knowledge of the experience to an objective knowledge of the experience. That is, to gain a deeper understanding of the phenomenon by finding connections between the reports of the participants with the removal or limitation of personal bias. One way this researcher sought to eliminate personal bias was that she approached each interview with an attitude of openness. That is, the researcher was open to hearing what participants wanted to tell her about trance dancing without leading participants. To accomplish this, the researcher started each interview with the simple question of “tell me about your experiences of trance dancing”. The researcher then listened to the participant for as long as the participant wanted to speak. For some participants this was a few minutes while for other participants this took as long as 15 minutes. Following the participant’s response, the interviewer then asked questions to clarify the participant’s answer prior to moving on to the next question in the semi-structured interview. These clarifying questions became the source of the emergent questions that were used in follow-up interviews for the other participants. The epoche perspective was also accomplished during the data analysis when the researcher and the peer reviewer immersed themselves in the data. This was done quite literally at times when the researcher or peer reviewer could be seen surrounded in stacks of interviews, poster boards, or cut pieces of transcripts.

 The next step in the Moustakas’ model is phenomenological reduction. In this step the researcher brackets out the world and presuppositions in an attempt to identify the data that exists uncontaminated by extraneous intrusions. The process of bracketing data consists of 5 intermediate steps. In the first intermediate step the researcher locates key phrases or statements that directly speak to the phenomenon of interest. The researcher and peer reviewer accomplished this intermediate step by reading the transcribed interviews (original and follow-up) of participants and cutting these statements out of the interviews.

In the second intermediate step of the phenomenological reduction of the Moustakas’ model, the researcher interprets the meanings of these phrases through the researcher’s informed position. This was accomplished by the peer reviewer and researcher placing the cut out statements from the interviews on poster boards according to the themes that each of them saw. After all the interviews were completed and placed on the themes, the researcher and peer reviewer discussed their findings with each other. As stated previously the researcher had divided the interviews into 21 themes whereas the peer reviewer had divided the interviews into 6 units that can be largely described as processes. The peer reviewer and researcher discussed that a combination of their findings produced a descriptive mathematical model to explain the process of trance dancing.

The third intermediate step of the phenomenological reduction of the Moustakas’ model involves obtaining the participants’ interpretations of these phrases. This third intermediate step was conducted by sending the participants a summary of the themes, processes, and mathematic model and asking for their review. This summary can be found in Appendix D.

The fourth intermediate step of the phenomenological reduction of the Moustakas’ model involves the researcher inspecting the confirmed meanings of phrases for what they reveal about the essential recurring feature of trance dancing. This step was accomplished by reviewing the feedback from participants regarding the themes, processes, and mathematical model.

The final step of the phenomenological reduction of the Moustakas’ model involves the researcher offering a tentative definition of the recurrent features of the phenomenon (Patton, 2002). This was accomplished simultaneously with the third and fourth steps of the phenomenological reduction of the Moustaka’s model as the essence of trance dancing as viewed by the researcher was provided to participants in their summary.

The third part of Moustakas’ model is imaginative variation. In imaginative variation the researcher looks at the recurrent features from all angles and attempts to develop expanded versions of the recurrent features. With these expanded features the researcher then develops a textural portrayal and a structural portrayal of each feature. A textural portrayal is a description of the recurrent feature that doesn’t contain the experience (Patton, 2002). The structural portrayal of each feature consists of a way of understanding *how* the participants as a group experience *what* they experience. The textural and structural portrayal of each feature was accomplished in this study by placing each of the themes and processes in the context of a variety of theories including psychological, somatic, religious, and anthropological.

The final part of Moustakas’ model is the synthesis of texture and structure. In this step, the composite textual and composite structural descriptions are synthesized into the meanings and essences of the experience (Patton, 2002). The synthesis part of the Moustakas’ model also corresponds with the final step of Heuristic inquiry which is creative synthesis. The researcher had previously planned to synthesize the Heuristic data with the data of the other participants but as there was nothing to be gained by the Heuristic data this was eliminated. Therefore, in the final stage of the Moustakas’ model, the data from the participants were synthesized into the essence of the experience. This essence was confirmed with participants through their feedback.

Although this researcher’s Heuristic data was not ultimately used in this study it was an important and necessary process to complete. First, it was important in that it informed the original questions of the study and as stated previously, studies that do not consider the experience of individuals who engage in these phenomena are at risk of viewing the phenomena from a biased outsider view. Therefore by using my own experiences to help to inform questions, the questions themselves would be less biased than ones formed from a mere review of the literature. This is obviously an advantage, but it comes with a risk of introducing bias from the inside out instead of the outside in. To control for this insider bias, the researcher processed the data within the model of Heuristic inquiry and employed the use of a peer reviewer. It should be noted that all studies involving humans are subject to bias from either the researcher having personal experience with the phenomenon (insider bias) or having no experience with the phenomenon (outsider bias). However, quantitative studies rarely take steps to specifically address these biases and instead proceed as if the bias is not present. In fact, qualitative research is often unfairly attacked as a biased study but in fact, qualitative research employs methods for addressing the bias present in all studies and does not simply ignore the source of bias of the researcher’s own experiences.

**Verification of Interpretation**

 The information in this study was verified by participants at multiple points. First emergent questions for the study were produced from the participants own descriptions of the experience. Next, participants verified the transcribed interviews and had the option of adding material to the transcript to further clarify their experiences. Third, participants verified the themes and processes found by the researcher and peer reviewer. Finally, participants verified the proposed essence of trance dancing.

**Trustworthiness**

Trustworthiness, or the ability to demonstrate credible results that are able to be generalized within a specific population is important in qualitative research in order to demonstrate the usefulness and validity of the study. This study attempted to ensure rigor and validity in several ways. The primary goal of qualitative research is to ensure reliability and validity a thorough understanding of the topic of study. It is therefore commonplace for qualitative researchers to use a variety of sampling and data collection methods in order to gain the depth and thoroughness of material (Patton, 2002). This practice of purposeful combining of sampling and data collection methods is called triangulation (Patton, 2002). In this study triangulation and saturation of data was accomplished through using a variety of purposive sampling methods as described earlier including criterion sampling, snowball sampling, and opportunistic sampling. Triangulation was also achieved by using multiple sources of data as well. The sources of data used in this study included individual interviews (in person, phone interviews, and email interviews), follow up interviews with participants (phone interviews, and email interviews), and participant observation sources of data including field notes. Further rigor was ensured by peer review of the self-reflective journal and peer reviewer independent data analysis, as well as a synthesized view of the data by the researcher and reviewer. During data analysis validity and rigor was also assured through the specific processes of data analysis. Within Moustakas model of data analysis the step of epoche reinforces rigor with a “phenomenological attitude shift” (Patton, p 485). Additionally, in the bracketed portion of data analysis validity of meaning of the data is assured by obtaining the participants’ interpretations of the meaning phrases.

**Ethics**

This study adhered to IRB accepted procedures and American Psychological Association ethical guidelines. In the spirit of doing no harm, the researcher considered issues of dual relationships, obtained informed consent, and maintained confidentiality.

Because the researcher participated as a participant observer in this research study the researcher was very careful about the possibility of dual relationships. When considering dual relationships it was important to consider how participants viewed my role. The researcher considered that individuals may disclose information to a psychology doctoral student that would differ greatly than the information they would disclose to someone else. That is, participants may misinterpret the researcher’s role as one of a therapist. In addition because it was not known how large of an impact that drug use played in the phenomenon of trance dancing, it was likely that the researcher might have come into contact with individuals who had substance abuse difficulties. Because the researcher was identified as a psychology student, there may have been an expectation that the researcher would be able to provide some assistance to these individuals. The researcher clarified her role at the beginning of the interview process as one of a researcher and not as a clinician and provided referral sheets with the informed consent. A similar ethical dilemma existed with mental health concerns. As trance dancing is sometimes viewed as ameliorative in the cases of mental health, the researcher may have come across individuals with mental health concerns. The researcher addressed this in the same manner as drug and alcohol problems in that she clarified her role at the outset and also provided referral sheets.

Informed consent was another important aspect of ethics to consider. Trance dancing is a phenomenon that occurs across youth and adults. The focus of this study viewed the phenomenon as it appeared in adults and only included those individuals who were 18 years or older. In fact, in this study the youngest participant was 24 years old. This meant that there was no need to obtain parental permission for participation in the study. However, for the adult participants, the researcher made sure that participants were given enough information at the outset of the process so they could make an informed decision to participate or decline to participate. The informed consent document is included in Appendix C. It contains information regarding of what the process of interviewing consisted, the fact that the interviews would be audiotaped, and the process of qualitative research whereby participant confidentiality could be stretched as a result of utilizing direct quotes.

To safe guard individual’s confidentiality, the researcher informed participants that she might change some aspects of their demographics or their experience which did not impact the overall meaning of the experience in order to better disguise their identity. The researcher also informed participants that because of the possibility of interviewing participants within a closed community (the events) the researcher may not be able to fully assure participants that someone else who participated at the event and also participated in the study would not be able to identify them, although the researcher took every precaution to try to limit this occurrence.

There were no other ethical concerns that became apparent during the course of this study. The researcher had planned to handle any ethical concerns through using several strategies. First, the researcher maintained a vigilance of being aware of potential ethical considerations. Second, the researcher maintained behavior throughout the research that subscribed to virtue ethics. That is, the researcher attempted to continually act in a virtuous manner in order to further develop a virtuous character. Finally, if an ethical dilemma had become apparent, the researcher planned to resolve ethical dilemmas by utilizing a ethical decision making model such as the Canadian Code of Ethics for Psychologist’s model as well as consultation with the peer reviewer, or dissertation committee. As stated previously there were no ethical concerns with this study and therefore this final step of utilizing an ethical model or consultation was not necessary.

Chapter 4-Results

 Analysis of the data by this researcher revealed 21 major themes as reported by participants. The peer reviewer viewed the data within the framework of processes that occur within trance dancing. Analysis of the data by the peer reviewer yielded 6 processes. The themes and processes could then be placed into a working model and theoretical mathematical equation of the experience of trance dancing consisting of 6 components. The essence of trance dancing was elucidated through two sources of knowing. The essence was understood first through a review of participants’ transcripts and was discovered to be a component discussed by all 16 participants. It was also emphasized as a critical component of trance dancing by all 16 participants. The essence was also understood upon review of the model of trance dancing as it was the critical stage in the model, the sum in the mathematical equation, and without the essence no trance would occur. The essence of trance dancing based on the experiences of the 16 participants in this study is a concept of super-consciousness. This concept will be explained below as part of an explanation of the major themes of the study.

The 21 themes of this study found by the researcher included 1) a belief that the experience was available to everyone, 2) a belief that movement is an efficient route to the altered state, 3) a discussion of the impact of chemical substances on the experience, 4) a component of the person actively observing the process, 5) the importance of focus, 6) a belief in universal connectedness, 7) a concept of a super-consciousness, 8) a concept of energy, 9) transcending the ego, 10) increased self attributes, 11)increased acceptance, 12) transformation of the concept of self, 13) feeling of elevation, 14) feeling of freedom, 15) benefits of well-being, 16) a concept of the act as a spiritual experience, 17) a search for Truth or Reality, 18) a changed relationship to one’s body, 19) ecstatic emotional experience, 20) an aspect of community, and 21) the experience constituting a language.

**Twenty-one Themes**

**Belief That the Experience is Available to Everyone**

 All 16 participants discussed that they believed that the experience of trance though dancing was available to anyone who would desire such an experience. The participants in this study varied in dance experience from less than one year to over 50 years and the descriptions across participants of the experience were more similar than different. Participants did state that participants had to be open to the experience in order to experience trance but that if they were open to it that achieving trance required no special training. “It is just all whether they are open minded enough to try something that’s out of the norm, to try something that might be different than what they are normally used to” (Participant). Many participants discussed that they actually encouraged others to participant in trance dancing. “I think the whole fricken world should just trance dance and then dance around a big ass fire and then maybe we wouldn’t have so many problems. I mean honestly. You know, because you really connect with people” (Participant).

**Belief That Movement is an Efficient Route to the Altered State**

 Ten of the participants (3 female, 7 male) (4 with formal dance training, 3 with formal movement training, 3 with no formal training) discussed a belief that movement was an efficient route to use to produce an altered state of consciousness. Participants discussed that through experiencing altered states of consciousness that result from moving the body that individuals can then train their bodies to reproduce these altered states more easily. For some participants movement seemed to allow them to access trance instantaneously as one participant stated “with dancing it just happens, just automatically…your brain just goes there”. For other participants they theorized that dancing helped them become more efficient at recognizing the internal cues of “upwelling of movement” (Participant) and thereby responding to them appropriately. One participant stated that

if I’m sitting and observing my breath and this kind of Buddhist mind thing or even when I did…yoga…and I would chant and things like that; none of those experiences got me as immediately connected to my body and to the moment and out of my thinking mind as the movement experience.

It should be noted that all 16 participants in this study used dance to achieve altered states and acknowledged the value of using dancing to induce trance. Ten of these participants viewed movement as being superior to other forms of inducing trance such as seated meditation, drugs, chanting or other non-movement methods in regard to efficiency of inducing the trance. The other six participants in the study viewed movement inclusive methods as equally efficient in inducing trance as the non-movement methods. Zero participants in this study viewed movement as a less efficient method of inducing trance than non-movement method. Two participants did indicate that they felt that trance that was induced through stationary practices was somewhat different from movement induced practices in that stationary practices seemed to “have more of a focus of where you are going and what you are trying to do” while movement induced trances involved open(ing) yourself up and see(ing) what comes” (Participant). One of these participants said that the experiences of stationary induced trance and movement induced trance was “the difference between black and white” (Participant) and that the experiences were “on opposite ends of the spectrum” (Participant). One of these participants had formal dance training while the other participant had formal training in a non-dance movement practice.

**Impact of Chemical Substances**

Ten out of 16 participants (3 female, 7 male) (2 with formal dance training, 3 with formal movement training, 5 with no formal training) discussed drugs as a tool to induce trance. Of these 10 participants 7 (2 female, 5 male) (1 with formal dance training, 3 with formal movement training, 3 with no formal training) stated that drugs were a less desired tool than others for a variety of reasons. Two participants (both female with no formal training) discussed they felt more inhibited and danced less when they ingested substances. Other participants discussed that substances helped them to be uninhibited but that they felt out of control whereas during experiences of trance without substances they felt able to give up control without feeling out of control. “I would say if there’s alcohol kind of affecting me and I’m moving my body dancing um I feel uninhibited. I feel free, but I also feel a lack of control which I don’t feel when I’m doing the dance” (Participant). In regard to substance use, the 7 participants who reported that substances were a less desired tool, all 7 of them stated that they are using substances less or not at all to induce trance currently. Four participants stated that when drugs were used to induce trance that the experience was less clear. Participants used the terms “dirty” or “cloudy” to describe the experience of trance when it was induced through drug use. The other 3 participants (1 female, 2 male) (1 with formal dance training, 2 with no formal training) who reported using drugs to induce trance reported that drugs were an equivalent tool to other tools in producing trance. Participants discussed that the main benefit of using substances was to overcome the day to day thinking mind and that once they learned how to do this they no longer needed to use substances to induce trance. None of the participants who discussed using drugs to induce trance saw drugs as a superior tool for inducing trance as compared to other tools.

**Active Observer**

Seven participants (4 female, 3 male) (4 with formal dance training, 1 with formal movement training, 2 with no formal training) discussed an active part of their consciousness observing the experience of trance dancing. Participants were careful to distinguish this active observer from a judging observer. “It’s not about how I am perceived by other people, it’s about how I can assess my own limitations and feel the needle hitting the red. It’s getting dangerous, like your heart’s gonna explode if you don’t sit down and have a drink of water” (Participant).

 Four participants (2 female, 2 male) (2 had formal dance training, 1 formal movement training, 1 no training) discussed the active observer as functioning within providing safety for participants. This aspect of the observer functioning to ensure the participants safety during trance is interesting within the context of drug use. Prior to conducting this study, the researcher attended raves where the drug ecstasy was frequently used by rave participants. Rave participants would be sure to warn one another that they needed to take breaks and drink water throughout the evening as rave lure held the belief that individuals had died as a result of taking ecstasy, dehydrating, and overheating. It seems then that in these ecstasy situations, that the active observer that was seen in the trance dancing experiences within this study did not function properly. Although the properties of ecstasy are outside the realm of this study, the connection between ecstasy and the active observer would seem to be an appropriate future study.

Three participants (2 female, 1 male) (1 with formal dance training, 1 with movement training, 1 with no training) discussed the active observer serving a tracking function. “There’s always this, my mind witnessing what’s happening and allowing this space to have everything just be what it is” (Participant). When the active observer tracked the experience for participants they felt a richness in the experience in that participants were able to remember and relive pivotal moments in the trance.

**Focus**

 All 16 participants emphasized the role of focus in trance dancing. Participants discussed that how the focus was achieved was not important but that focus was achieved was key. “The mandala isn’t really the important thing. The most important thing is giving the mind something to focus on that’s not your constant babble of thoughts” (Participants). This focus often led to a feeling of heightened awareness for participants. “You can get really into a deep state and your super aware” (Participant). One participant discussed “it’s concentration on the pulse in a complete way that leads to the door and then if somebody can concentrate long enough, the door swings open, there’s a trance.” Some participants described an internal focus (5 participants) but more often participants discussed a simultaneous focus (8 participants) that included internal and external stimuli. One participant who experienced an internal focus discussed “sometimes I close my eyes and I’m not even sure what I see, I can feel me moving to the music.”

**Universal connectedness**

 Ten participants (5 female, 5 male) (3 with formal dance training, 3 with formal movement training, 4 with no formal training) discussed a feeling of universal connectedness as an aspect of trance dancing. One participant stated “for me it kind of happens to be that I think we’re all one. Like to me, God is not something else to me. God is everything around us. The world, like that’s God.” Another participant stated “you feel more like part of the whole and that uh that you’re not alone.” Yet another participant stated “you feel like you’re part of something even as simple as the blades of grass that you’re walking on or the air that you breath, the sky you’re under. You feel in touch with nature and your surroundings and you feel, you feel a part of something.”

**Super-consciousness/Mindful Presence**

A key theme, and in fact the essence of trance dancing, was found to be what this researcher is terming as super-consciousness. This was a phrase used by a participant in the study and this researcher felt it was an appropriate description of the experiences of the other participants. The participant stated:

(you) get out of the ego state and become super conscious in a way, I don’t know how to describe it but it felt like, it wasn’t like an altered state necessarily in that this reality feels sort of distorted, it actually felt like a hyper reality kind of like I was aware of everything around me and aware of the smallest things and the largest things and feeling kind of connected to it all and nothing I could do was ever wrong, that it was all just kind of a response to what was happening moment to moment.

This super-consciousness was an experience of a heightened awareness of internal and external stimuli that were perceived in a simultaneous fashion. It was dependent upon mindful presence. Mindful presence includes a here and now focus of participants such that they devote all of their attention to the present moment. Essential to this mindful presence was a quieting of the day to day chatter of the mind such that participants felt that their thoughts, as well as their attention, were solely directed toward the present moment.

 Participants described the dependence of the super-consciousness on mindful awareness in a variety of ways. One participant stated “you start being internally and externally aware… and you have to engage truthfully in the moment. So you become aware… and everything seems more important.” Other participants discussed the connection between super-consciousness and mindful awareness in the following ways:

 heightened awareness is just about turning off the clutter. That’s the exercise, can you

 turn off the clutter and be present with what is? That’s how you get awareness, yeah, I

think that’s the main exercise. I mean it’s all happening at the same moment but to the

degree that you can let the clutter fall away, you are more able to be responding to the

given, rather than being caught by the given.

Another participant stated:

one of the most wonderful things about being in a trance and dancing is that you don’t

think about anything else. I mean that’s one of the reasons to do it is that everything else

is gone and you’re just in this state of ecstasy…because it’s so big, it’s so expanded and I

would have to say that in a really ecstatic state that I do believe that your consciousness is

 not just inside of your body. I do believe it is expanded outside.

Yet another participant stated:

It’s like a double awareness. You have your awareness of what’s going on internally and

then you have your awareness of everything in the space, everything that is actually

happening in the moment and you never lose that awareness…you’re hyper aware, you

 remember everything. But then it’s also when you’re actually doing it like everything

slows down. It becomes more vivid, colors, sights, tastes, smells, the feelings.

 Super-consciousness is the phenomenological essence of trance dancing as found in this study. It was identified by all 16 participants as the quintessential experience of trance dancing. It was further identified as the essence in the theoretical mathematical model of trance dancing as is explained later.

**Energy**

 All 16 participants discussed energy within experiences of trance dancing. Participants discussed that this energy could sustain them through the physical demands of prolonged dancing. One participant stated:

 Oh the energy. The energy from the band. The energy from the people. It’s just this big

 giant bubble of amazing energy and even if you’re so tired and have danced so hard with

 all the people that are standing there next to you, you get arm in arm in that circle and

you breath for a couple of seconds and the music kicks back up and everybody gets

 recharged and can dance out the rest of the show. I get goosebumps and can dance out

the rest of the show and it’s a beautiful thing and just like when you think you’re totally

 freaking spent, you gather all the energy of the people that you’ve had this experience

with you and you bring it all together and you get that one last burst. It’s the best high

 ever. Like it’s just the feeling of community and of everybody feeling the same thing at

the same time. I love it. I love it.

Four participants discussed that this energy drove them to participate in the immediate experience and also to crave future experiences.

 Energy unites you with the inner spirit, with that twitch that makes you dance when the

 music starts. It makes you crave the music and the dance. Like it unites not just the

 people you’re dancing with and the musicians who are playing but it unites you with

 yourself. It’s unity.

Five participants also discussed that energy spread from one person to another. “You know that whole energy is like not one person creates it. It might stem from one person but everybody encompasses it and it’s a whole crowd feel” (Participant).

Ten participants (4 female, 6 male) (3 with formal dance training, 3 with formal movement training, and 4 with no formal training) reported that energy helped to connect them with others. “It’s an energy. Everybody has their own internal energy. Sometimes I think through dance it gets intermingled and that’s how you would get to know somebody” (Participant).

Five participants (1 female, 4 male) (3 with dance training, 2 with movement training) reported that movement itself was energy. “Energy for me it’s a feeling of movement. Even as I’m sitting here still, there’s movement. There’s organic movement in my being and that movement I call energetic” (Participant). Another participant stated “when I talk energetically I’m thinking specific physical energy.”

Nine participants (5 female, 4 male) (4 with dance training, 1 with movement training, 4 with no training) reported that the energy related to spiritual aspects. A participant stated “spiritual practices are designed so we can hold, energetically hold, the experience of the infinite.” Another participant discussed that God energy is the energy of the trance. “You don’t plug into God energy unless it’s altered. It’s always an altered state of consciousness.”

Two participants (1 female, 1 male) (both had formal dance training) discussed that energy was necessary to the trance experience.

You feel it moving up through your body. Up and it’s shot out, um, out through your body, through your head, through your arms, through your, you know, all of your limbs. Um, the energy is kind of like taking over your body and your brain shuts off. It’s almost like, it’s giving your brain a break.”

Another participant discussed that “people who are energetically activated are more able to be present.”

Two participants (both male) (1 with formal dance training, 1 with formal movement training) equated the energy with love. “What happens there’s, every time that I’ve experienced it is that the heart is found and when the heart is found when love is connected to it, then the truth starts to flow.”

**Transcending the Ego**

 Transcending the ego was another strong theme found in this study with 14 participants (7 female, 7 male) (5 with formal dance training, 3 with formal movement training, 6 with no training) describing this experience. The two participants in the study who did not report a process of transcending the ego were participants who completed their interview through email and did not complete follow-up interviews. It is therefore unclear if these two individuals also experienced transcending the ego as part of their experiences but failed to report it or if transcending the ego was not a part of their experiences of trance dancing. Transcending the ego was described by participants as including the processes of overcoming the tendency to make judgments, giving up a sense of external control, and allowing oneself to feel vulnerable enough to proceed into the state of super-consciousness and thus the trance.

They’ll be moments where I’m like I don’t know, is it good? Is this bad? I don’t really

 understand what this is. But that’s a problem, right there, that I don’t understand what

this is. If we’re trying to label it, oh I’m happy, I’m sad, I’m having a negative emotion or

 a positive emotion. You should never because that starts to put you in your judgmental

mind. You should never be in that mind. So it’s better to just experience it without trying

 to categorize what it is and just let it be.

Another participant stated:

Well that’s what we have to work with all the time. We are judging machines. You know

 we are judging our performance in just walking down the street. We are judging our

every interaction. You know how that went, that could have been better, I didn’t say that

 right. We’re, I mean that’s pretty standard human behavior. The judger. So that is one

 thing you have to totally suspend. You can’t even consider that there’s any evaluative,

 something judging you. So that has to go. You can’t even think about it. You can’t think

 about what it looks like. You can’t think about you know where it’s going. Just go with it.

Another participant stated “I think the experience can happen for anybody I really do. I’m

confident in that. It has to be, it’s also a frame of mind that the person has to be in. It has to be

 accepting of what they’re gonna do”. Yet another participant described it in this manner:

there has to be a willingness to be vulnerable. It’s that you have to like open yourself up

in order to really do this work well. You have to move anything, any sort of story that

you’re telling yourself about the world or about yourself and to allow yourself to become

 available to what is and that’s very scary to people. It’s not for the faint of heart…but I

think when people are willing to go there they have an absolutely transformational

experience. When you’re able to go through the darkness, you find the light at the other

 end of the tunnel, but some people don’t want to go through the tunnel.

Several participants discussed the lasting effects of transcending the ego even after the experience of trance ended. “I think it teaches you to try to be open minded and it definitely, if you take part in it, no matter what your outlook is when you start you’re gonna come out a more open minded person from that” (Participant). “I’ll dance all day long. I’ll sit there and jam out. I’m a weirdo. I don’t care what people think because it doesn’t really affect how I look at them, Yeah, I’m just you know, I’ll be myself” (Participant).

**Increased self-attributes**

Eight participants (4 female, 4 male) (3 had formal dance training, 2 had formal movement training, 3 had no formal training) discussed that trance dancing helped them to increase their feelings of self-worth, confidence, and self-esteem. One participant stated that trance dancing “eases the way for me socially. It reduces my self-consciousness and discomfort.” Another participant stated that trance dancing “makes you sexy. It makes you good at something. You can be confident.” One participant stated that knowing him/herself better helped him/her to know the world better. “For me maybe just to know myself better is to know my understanding of the world better.” Another participant discussed that the goal of trance dancing was “in getting to know yourself, um, physically with you’re, what you’re capable of, how your body works. Um, your spatial awareness. Your, all that kind of stuff, to know yourself internally and deeper and higher levels of consciousness and really opening yourself up to the world.”

**Increased acceptance**

Thirteen participants (7female, 6 male) (4 had formal dance training, 3 had formal movement training, 6 had no training) discussed feeling increased acceptance as a result of their experiences with trance dancing. One of these participants was new to dance in general and trance dancing specifically. This participant discussed an aspect of the community in which he/she dances is that people are accepting to new ideas “meeting strangers and accepting them for whoever they are”. Another participant experienced altered states of consciousness through a specific dance form where the goal was not one of achieving altered states of consciousness. This participant discussed a “complete acceptance…of the other people and their energy and I’m not identifying them and defining them in any way”. This participant also discussed that this lack of defining or categorization extended to all aspects of his/her experience and not simply people as he/she stated “I’m in a total state of acceptance…it’s a holistic way of understanding the world and being able to have some kind of perspective on some things and acceptance of things”. Another participant stated:

I definitely became more accepting of others. Um, I guess when I realized like you know, cause it kinda all clicked at one point I guess. It doesn’t matter what anybody else looks like, or who they are, or what they are. You know and it also doesn’t matter what I look like, or who I am to anybody else. You know, it’s just one of those things. It happens almost instantaneously. It just, once that happens, you know, there is no turning back. You realize that’s what it is.

**Transformation of the self**

 Nine participants (3 female, 6 male) (4 had formal dance training, 3 had formal movement training, 2 had no formal training). Participants discussed that the trance experience allowed “our true selves to shine through” through removing restraints. Some participants also discussed that in trance they felt bigger than themselves. “I feel larger than me, or at least my previous estimation of what me was.” Another way that participants felt transformed was in their ability to connect with others and the universe. “Connecting with yourself immediately connects you with the universe.” Finally participants felt that trance dancing “activated (their) being”. Another participant stated that trance dancing allowed them to activate “something deeper, more intrinsic about the very nature of my being that I couldn’t have experienced otherwise.”

**Elevation**

 Six participants (1 female, 5 male) (2 had formal dance training, 3 had formal movement training, 1 had no formal training) reported a feeling of elevation that occurred during trance dancing. One participant stated:

I can feel that my body is more than what I think of it in reality. It can do more than I

 perceive that it can and when I’m elevated especially during heavy dancing, I can, I can

 access this part of my soul and this part of my physical being that is light. That is so

capable. That I am performing actions that I have never performed before and I am

performing feats that I previously thought not possible for myself.

Another participant stated “when I start to become lifted, I feel a sense of lightness overcome me and I feel surges of energy.” One participant discussed that it was like “floating above your own consciousness.”

**Freedom**

 Six participants (3 female, 3 male) (1 with formal dance training, 2 with formal movement training, 3 with no training) discussed they found a feeling of freedom through trance dancing. This feeling of freedom seemed to be related to overcoming the judging mind and restrictions of life. “I feel freer, I absolutely feel freer and I think it’s a direct result of the way the music makes me feel and the way I’m moving.”

**Well-being**

Fourteen participants (7 female, 7 male) (4 had dance training, 3 had movement training, 7 had no training) discussed that trance dancing improved their well-being. Well-being was enhanced mentally, physically, by helping participants to maintain balance in their life, and by reducing stress. Five participants (1 female, 4 male) (2 had formal dance training, 2 had formal movement training, 1 had no training) discussed that trance dancing assisted in their mental well-being. One participant (male, no training) in particular discussed that trance dancing improved their mental well-being by helping them to have a positive outlook. “(With trance dancing) my entire appreciation, my entire way I look at everybody and life is better.” Two participants (both female with formal dance training) also discussed that trance dancing improved their physical well-being. “I move my body in dance to feel emotionally and physically healthy. There’s just no other way to say it. Um, so, um yeah it helps me feel physically and emotionally healthy to dance.” One participant (female with formal dance training) in particular discussed that trance dancing improve her symptoms of a chronic pain condition. Five participants (2 female, 3 male) (2 had formal dance training, 2 had formal movement training, 1 had no training) discussed that trance dancing helped them maintain a balance in their lives. “I feel like it’s a maintainer for my way of seeing the world. It’s just a maintenance of my being. It’s almost a functional thing. I function better when I do that regularly.” Nine participants (5 female, 4 male) (2 had formal dance training, 1 had formal movement training, and 6 had no training) discussed that trance dancing helped them to reduce stress. One participant discussed that trance dancing helped them to relax by having “focused time away from stress of the everyday”

**Spiritual**

 All 16 participants saw trance dancing as a spiritual exercise or an experience that at least contained spiritual aspects. As stated previously nine participants saw that the spiritual aspects of trance dancing were related to energy. “To activate your energy and be present with that certainly has a spiritual aspect.”

Eight participants (2 female, 6 male) (3 had formal dance training, 2 had formal movement training, 3 had no training) discussed that trance dancing has changed their views on religion or spirituality. One participant (male with no formal training) discussed that trance dancing allows him to “plug into God energy”. Another participant (male with formal movement training) stated:

I was raised Presbyterian and I went to church every Sunday when I was growing up and that’s supposed to be a spiritual experience but it didn’t strike me as much as dancing did. I think It’s (trance dancing) more, I think it would be more what God would want.

Another participant (male with no formal training) stated “I’ve seen God dancing. I really shouldn’t say I’ve seen him, but I felt like you know I realized how much of a part of him I was.” Often this changed view of religion and spirituality included a changed connection with God or the Divine.

Eight participants (5 female, 3 male) (2 had formal dance training, 2 had formal movement training, 4 had no training) discussed spiritual growth as a result of trance dancing. “Doing this it sort of opened my mind and myself to that spiritual realm. Without that (trance dancing) I would have probably never gotten to meditation. I probably would have never started to explore Zen. I probably would never um started to explore the yoga stuff.” Another participant discussed that spiritual aspects of trance dancing were not apparent until later.

 At that point in my life I was not aware of what kind of a journey I was on whereas later

I started becoming aware of the fact that this was truly a spiritual journey that I was on

 and that I wanted to seek these kinds of experiences in order to further that.

One participant discussed that the spiritual aspects of trance dancing included “honoring aspects that are neglected.”

Five participants (4 female, 1 male) (2 had formal dance training, 2 had formal movement training, 1 had no formal training) discussed that trance was an integral part of spirituality. One participant stated:

 I think spirituality really does lend itself to trance but it doesn’t matter the spirituality. I

 mean you’ve got um lots of accounts of ah Pentecostal, what is it Pentecostal Christians

who do the speaking in tongues in trance and that’s kind of like trancing to me. What I

would perceive of it and what I know of Hasidic Jews do the same type of thing.

Muslims, when they are doing their prayers it is almost as if I mean they are trancing out.

Even watching Mother Angelica going through the rosary but listening to them chanting,

I think some of them are trancing out as they’re doing it. And it’s the same type of

 activity in Paganism. So it’s not specific to any religion I think all different types of

 religion have some.

**Search for Truth/Reality**

 Eight participants (3 female, 5 male) (3 had formal dance training, 2 had formal movement training, 3 had no formal training) discussed that a search for truth was an element of trance dancing. One participant stated that a variety of experiences including trance dancing, yoga, and meditation “are striving for the same thing. In the end they all seem to be about achieving the same things. They have different words for it. They have different beliefs about what it may be but in the end it’s like, you’re just all trying to find the truth.”

**Changed Relationship to One’s Body**

 All 16 participants in this study discussed that they experienced a changed relationship with their body as a component of trance dancing. Six participants (3 females, 3 male) (3 had formal dance training, 2 had formal movement training, 1 had no formal training) discussed that the experiences of trance dancing helped them to find new found abilities in the movement of their body. Two participants (both female with no formal training) discussed that they felt more energetically connected to their body through trance dancing. One of these participants stated “first of all I have unbelievable amounts of energy just like never get tired, could do it for hours until my muscles give out.” Six participants (1 female, 5 male) (2 had formal dance training, 3 had formal movement training, 1 had no formal training) discussed that their changed relationship to their body included a feeling of elevation or lightness. One participant discussed a belief that the body chemistry is actually changed during trance dancing. Another participant discussed that the body was a tool for inducing trance as “movement is a vehicle for getting to that place.”

**Ecstatic emotional experience**

Fourteen participants (6 female, 8 male) (4 had formal dance training, 3 had formal movement training, and 7 had no formal training) discussed experiencing ecstatic emotions such as joy, love, and happiness during trance dancing experiences. One participant discussed that being present was the sense of this joy. “I guess that must be central to all of this is that it brings me joy and that’s why if feels so good to be in that state, yeah, just to be fully exerting and be present that’s a joyful activity”. Another participant stated:

it’s just pure joy it really is, um, it is giddiness, you giggle, um sometimes you feel 10, 20

 years younger. You feel very childlike, not childish but childlike. You are less inhibited.

 You talk to people. You hug people you wouldn’t just walk up on the street and hug.

 You share thoughts and feelings with them. You share food with them. It’s just bringing

together this community of giddiness and it really is joyful.

Another participant discussed how this joy is both for the participant and for others dancing around him/her. This participant stated “when you’re dancing you’re enjoying yourself so it’s a gift you give yourself but yet at the same time you’re spreading that joy to people around you.”

**Community**

 The researcher analyzed the interviews and found that six participants (2 female, 4 male) (2 had formal dance training, 2 had formal movement training, 1 had no formal training) discussed how they experienced a sense of community with the other dancers while engaged in trance dancing. Generally this sense of community helped participants to feel safe enough to be vulnerable. “That’s my safe place. You know everybody should find a way to do that whether it’s through dancing or what. You know, find something, you know but you gotta let go.” Another participant stated “I had done it and experienced it myself and with others around me doing it as well, it was very liberating, it was you know, a very liberating free feeling taking part.” Another participant stated:

the dance community is very open, kind of an open arms community, if you want to

dance and want to be a part of the experience, you are generally not turned down by the

dance community if you want to take part. Everybody is there for free expression of

oneself.

Participants also discussed that they themselves were welcoming and wanted others to participate in trance dancing. One participant stated “I’m trying to make converts of people, trying to pull them in…it’s more like hey come do this.”

**Language**

 Three participants (1 female, 2 male) (0 had formal dance training, 2 had formal movement training, 1 had no formal training) in this study expressed a belief that trance dancing felt like a language to them. A participant stated “I think it’s almost bonding on a nonverbal level you know. It’s maybe, I wouldn’t say more primal or anything like that but I don’t know possibly it’s getting to know somebody in a different way other than speaking.” Another participant stated “dance is a universal language. You could dance with somebody and not even speak their language and they couldn’t speak yours but you could be communicating through dance”.

 Table 9 found below describes the 21 themes found by the researcher in regard to the relative strength of the theme. Strong themes included 14-16 participants. Moderate themes included 9-13 participants. Weak themes included 8 or lower participants endorsing the theme.

|  |
| --- |
| **Table 9 Researcher Themes and Relative Strength of Themes** |
| **Strong Themes** | **Moderate Themes** | **Weak Themes** |
| **Exp. Open to everyone (N=16)** | **Impact of substances (N=10)** | **Active Observer (N=7)** |
| **Transcending the ego (N=14)** | **Movement as efficient (N=10)** | **Language (N=3)** |
| **Super-consciousness (N=16)** | **Universal Connect. (N=10)** | **Increased Self attributes (N=8)** |
| **Focus (N=16)** | **Increased acceptance (N=13)** | **Transformation of self (N=9)** |
| **Super-consciousness (N=16)** |  | **Elevation (N=6)** |
| **Energy (N=16)** |  | **Freedom (N=6)** |
| **Well-being (N=14)** |  | **Search for truth (N=8)** |
| **Spiritual (N=16)** |  | **Community (N=6)** |
| **Changed rlsp to body (N=16)** |  | **Language (N=3)** |
| **Ecstatic emot. Exp. (N=14)** |  |  |

**Peer Review Processes**

The peer reviewer analyzed the transcripts from interviews with participants and delineated six areas of interest. These areas included tools, direction of focus, process, connectedness, internal outcomes, and long term outcomes. Tools included agents that participants utilized to induce trance. Direction of focus entailed whether participants used an internal or external focal point to initiate trance. Process referred to whether participants used active or passive means of inducing trance. Connectedness illuminated how participants interacted with themselves and with others. Internal outcomes included immediate effects that participants felt during the trance experience. Long term outcomes were those effects of trance dancing that lasted beyond the duration of the actual trance experience.

**Tools**

Tools were defined in a broad manner in this study as any specific act, environmental aspect, or agent that could aid in the production of a trance state. Participants described tools as working by “opening doors” that allowed them into the experience of trance. This term of opening doors is one that is often used to describe trance experiences and was popularized by the book The Doors of Perception by Aldous Huxley.

Analysis by the peer reviewer concluded that 13 Participants (7 female, 6 male) (4 had formal dance training, 3 had formal movement training, 6 had no formal training) reported community as a tool. That is, participants found that the existence of a dance community that shared the value and expectation of trance dancing helped them to achieve trance themselves. One participant stated “I would find it very hard to get into a trance state by myself.” Seeing others participate in trance dancing helped participants to feel more open, to feel freer, and to feel more connected to their emotions. One participant stated “seeing for the first time people who were really free in their dancing allowed me to be even more free in my dancing”. Another participant discussed that finding a community of people who shared his/her experiences help him/her to find a language to understand his/her experiences. Yet another participant discussed using the dance community as a reminder of his/her life affirmations and that by dancing in the community that he/she was able to solidify his/her beliefs more.

Ten out of 16 participants (3 female, 7 male) (2 had formal dance training, 3 had formal movement training, 5 had no formal training) discussed drugs as a tool to induce trance. Drugs were stated to be helpful in inducing trance because of the way that they would cut out outside distractions. One participant described the impact of drugs as

psychotrophics were a great way to cut out distraction so that one pointed focus became

 very refined and then the attention stays there and with psychotropics it was very easy to

 make just the breath attractive or a simple movement. The moving of the body became

 like a one kind of stream, one kind of road of consciousness.

 Two participants also stated that drugs were a short cut in that using the drugs helped move the participants into a level of trance that otherwise they would have to work to achieve. Of these 10 participants 7 (2 female, 5 male) (1 had formal dance training, 3 had formal movement training, 3 had no formal training) stated that drugs were a less desired tool than others for a variety of reasons. One participant stated that drugs were less desirable because he/she had less free will in the experience. This participant stated “yeah, these drugs help but in the end it’s like dragging my heels rather than walking through it freely”. In regard to drug use the 7 participants who reported that drugs were a less desired tool all 7 of them stated that they are using drugs less or not at all to induce trance currently. It seemed that drugs were used as an initial introduction to trance but that ultimately participants found it to be a less desirable method of inducing trance. 4 participants stated that when drugs were used to induce trance that the experience was less clear. Participants used the terms “dirty” or “cloudy” to describe the experience of trance when it was induced through drug use. The other 3 participants (1 female, 2 male) (1 with formal dance training, 2 with no formal training) who reported using drugs to induce trance reported that drugs were an equivalent tool to other tools in producing trance. These participants stated that drugs were a way to introduce someone to the idea of trance but that once an individual learned to achieve trance that drugs were no longer needed to produce the experience. None of the participants who discussed using drugs to induce trance saw drugs as a superior tool for inducing trance as compared to other tools.

Eight participants (5 female, 3 male) (4 had formal dance training, 2 had formal movement training, 2 had no formal training) discussed the role of a leader, mentor, or guru as a tool for inducing trance. Guides tended to serve 5 roles. Guides helped to introduce participants to the idea of trance dancing, helped to establish parameters for the experience, orchestrated the experience providing for a beginning, middle, and end, provided safety for participants, or helped participants to make sense of their experiences. In regard to introduction, participants discussed that guides acted in formalized manners teaching new participants how to achieve trance. Parameters were established by guides by modeling and discussing expected behavior at trance dancing events. One participant discussed a guide orchestrating the event as the guide “knows the mood in the room”. Other participants who have acted as guides discussed acting in different capacities during the beginning, middle, and end of the experience. A participant discussed one aspect of safety was that guides ensured that participants did not get too close to the bonfire during the experience. Finally, participants discussed that guides helped them understand their experiences within a larger meaning or framework.

Eleven participants (5 female, 6 male) (2 had formal dance training, 3 had formal movement training, 6 had no training) named music as a tool to induce trance. Music seemed to induce trance through a number of tasks. Participants discussed that the repetitive rhythm of the music helped to change their consciousness. Other participants discussed that music helped to provide the right environment or atmosphere to the experience. Music was also used a point of focus to help participants transition into trance. Participants discussed that music made the achievement of trance easier but that they were able to achieve trance without music if necessary. Some participants discussed that music was a vibration that was ultimately energy and discussed that the essence of trance was an energetic vibration. Participants also discussed that when the music was “right” that they felt an involuntary urge to move. Finally participants discussed that music facilitated an inner journey and elicited emotion. Of interest several participants discussed that throughout the trance that the music itself changed and they became aware of other dimensions of the music.

 Five participants (2 female, 3 male) (2 had formal dance training, 1 had formal movement training, and 2 had no formal training) also discussed drumming as a means of inducing trance. In this study drumming was separated from music as participants discussed both the musical qualities of drumming and the movement aspects associated with drumming. Drumming was discussed as inducing trance due to the rhythm of the drumming, due to its ability to organize the group to work in unison, and as a means of creating a focal point for individuals. Some participants discussed drumming as a means of connecting to a primal energy or a reminder of past life experiences.

All 16 participants discussed previous experience with trance in any capacity (meditation, drug use outside of dancing, chanting, former trance dancing experiences, etc.) helped induce trance through trance dancing. Largely this was believed to help induce trance because individuals became practiced at initiating the experience and were better able to do so and also because these experiences helped individuals navigate within the trance experience without getting lost. One participant explained it as “a good set of practices that helped me calm down and breath and that has to be done otherwise things become way over the top, you know, they become confused”.

All 16 participants discussed movement as a means of inducing trance. Movement served to induce trance through all the means that other tools induced trance. Participants discussed that movement could be used as formalized steps or free form in order to induce trance, although only four of the participants had formal dance training. Movement was viewed as inducing trance due to the creation of rhythm externally or by aligning with the inner rhythm or pulse of the body. Participants discussed that movement connected them to their breath and also gave them a focus. Movement helped participants to be in the moment and felt a sense of freedom. Participants discussed that movement helped their thoughts to subside, provided a physical release, and facilitated feelings of vulnerability. Participants discussed that movement helped them to be present, to initiate flow, and to feel connected to the earth. Movement also helped participants connect with emotions. Finally participants discussed that movement helped them open up spiritually and connect with the divine. One participant stated:

The basic way that I relate to the divine is through the image of movement and stillness,

 Shiva and Shakti. Shiva is the one who is sitting, experiencing. Shakti is the one who is

moving, creating an experience. Shiva and Shakti are one in the same being. So if I have

 any religious, spiritual thoughts on the nature, the whole paradigm of movement and

 stillness is behind how I understand what is, everything. You know how we used to say,

dance is a metaphor for existence. Everything, I mean, it, it, it, I don’t know how I could

be conceptual and not have that be the base of it, you know, the depth of my heart of

understanding.

Six participants (4 female, 2 male) (3 had formal dance training, 1 had formal movement training, 2 had no formal training) discussed verbal methods such as chanting, singing, or humming as a means of inducing trance during trance dancing. These verbal methods were discussed as a form of music, as an energy exchange, and as rhythm. Some participants described it as movement in that they saw the vibrational energy that underlies movement and verbal methods. Chanting was also seen as a method of directing the experience as chanting could be accelerated or slowed as needed to help participants initiate, maintain, or separate from the trance experience. Two individuals saw chanting as a spiritual practice that helps them to connect with the divine. One individual discussed that they came to the experience of chanting after they had experienced trance dancing initiated through movement. Another participant discussed that they found chanting to be less effective at producing trance than the use of movement to produce trance. This participant stated:

If I’m sitting and observing my breath and this kind of Buddhist mind thing or even when

 I did my yoga teacher training and I would chant and things like that. None of those

experiences got me as immediately connected to my body and to the moment and out of

my thinking mind as the movement experiences.

Five participants (2 female, 3 male) (3 had formal training in dance, 2 had formal movement training) discussed training in artistic pursuits as tools that assisted in trance dancing. Artistic pursuits discussed in this study included training in Modern Dance, training in Postmodern Dance, training in theater, poetry, or scripture writing. These individuals discussed this artistic training in two capacities. It either helped them achieve trance during trance dancing more easily due to practice effects of exercises completed during their artistic training or they found that they spontaneously experienced trance during their artistic training.

Eight participants (4 female, 4 male) (4 had formal dance training, 3 had formal movement training, 1 had no formal training) discussed religious rituals as a means of inducing trance. These participants discussed experiencing trance being induced through Pagan religious rituals, Buddhist rituals, Christian, and Native American rituals. Although only 8 participants discussed utilizing specific religious rituals to induce trance, all 16 participants discussed that trance dancing felt spiritual to them or that their spiritual beliefs increased as a result of trance dancing.

Seven participants (3 female, 4 male) (3 had formal dance training, 3 had formal movement training, 1 had no training) discussed meditation as a means of inducing trance. Some participants even considered trance dancing to be an experience of moving meditation and in such considered meditation and trance dancing to be one in the same. One participant stated:

It’s all interconnected. Meditation, trance dance… these activities allow us to tap into the

 vital source and to see the Universe more clearly, as it is. Instead of viewing the river

from the bank, you are now swimming within the river

Two participants discussed having experiences with meditation prior to being exposed to trance dancing. Seven participants discussed developing on going meditation practices following experiences with trance dancing.

Darkness was discussed by 1 (female with formal dance training) participant as a tool to induce trance. Darkness was accomplished through natural darkness, dancing in a darkened room, or using a veil. This participant stated:

I think it really helps put you into that trance like state. You know we think of trancing

 we think of um mystery. Mystery comes in dark or dusk. When things are bright then

 you see all the little details, the fine details that can interrupt what it is that you are trying

 to do. When they’re shaded over, when they’re darker then a lot of things go away.

Detail goes away. Judgment goes away.

Two participants (both female, 1 had formal dance training, 1 had no formal training) stated that darkness had no impact on producing trance and one participant (male with formal movement training) stated that darkness was not necessary to produce trance but that it didn’t impede the process. The other 12 participants did not discuss darkness within their interviews or follow-up interviews.

It should be noted that often participants utilized more than one tool simultaneously during trance dancing experiences. For this study individuals were only included if they used movement with or without other tools to induce trance. Even though the tools used by participants to induce trance during trance dancing differed, participants reported that that actual experience of trance dancing remained the same regardless of the tools used. This was verified by participants who had used multiple tools across experiences and also through the unchanging descriptions of trance dancing experiences across participants regardless of the tools they used.

 Participants often discussed a set of rules around using tools. Some of these rules were specific to the tool and others tended to apply to the experience of trance in general. These rules will be more specifically discussed under the heading of Process.

**Direction of Focus (Internal/External)**

 During the experience of trance dancing, the participants focus could either be directed internally or externally. An external focus would include focusing on one’s body in space or some aspect in the environment. None of the participants reported a strictly external focus during trance dancing. An internal focus would include focusing on one’s emotions or inner feelings as well as focusing on breath or the inner physical components of the body such as bones or organs. Five participants (3 female, 2 male) (1 had formal dance training, 4 had no formal training) discussed solely an internal focus during trance dancing. Five participants (1 female, 4 male) (2 had formal movement training, 3 had no formal training) discussed a shifting of their focus sometimes from the outside to an internal focus or from an internal focus to an external focus. Eight participants (3 female, 5 male) (4 had formal dance training, 3 had formal movement training, 1 had no formal training) discussed that the focus relaxed and expanded to include the inside and outside simultaneously. Two of the participants (both male with formal movement training) who discussed a simultaneous focus also discussed times when their focus would shift back and forth between internal, external, and simultaneous focus.

**Process (Active/Passive)**

 Participants described a multitude of processes aimed at entering into trance. Some of these processes involved actively proceeding in some manner to initiate trance. Active processes would include moving one’s body, using some technique such as controlled breathing or specific steps or movements, or even drumming. As this study is one of trance dancing all 16 participants have utilized an active method of inducing trance, that is, they used dance. Processes involved with becoming passive could be either physical or mental in order to initiate trance. Passive processes would include seated meditation, decreased day to day thinking of the mind, and an attitude of openness to the experience. By nature of the quieting of day to day thinking being an aspect critical to trance dancing it therefore follows that all 16 participants experienced a quieting of their day to day thinking and therefore also discussed passive methods of achieving trance in trance dancing. Similarly, as focus could be internal and external simultaneously, participants behave in an active and passive manner simultaneously. For instance a participant may be actively dancing but have a mindset of passive acceptance of the experience. One participant stated “there might be physical things that you’re doing but in the end it’s always about going deeper inside of yourself”.

**Connectedness (Self/Others)**

 Another component of trance dancing illuminated by the peer reviewer included an aspect of connectedness. Participants could feel connected to themselves or to others. One participant (female with no formal training) experienced only a deeper connection to herself during trance dancing. One participant (male with formal movement training) experienced only a connection to others during trance dancing. Seven participants (3 female, 4 male) (4 had formal dance training, 2 had formal movement training, 1 had no formal training) discussed a simultaneous connection to themselves and to others. Seven participants (4 female, 3 male) (1 had formal dance training, 6 had no formal training) discussed feeling a deeper connection to themselves at one point in the trance and a deeper connection to others at another time during the trance. For a participant who felt connected to others, she/he discussed that “community is so key to it all”. For a participant who felt a strong connection to herself during the experience she/he stated “when I lose myself in the dance nothing else matters to me”. As with the other processes, participants could also be simultaneously connected to themselves and to others. This would seem to give rise to a feeling of a universal connectedness, whereby the individual saw/felt themselves to be a part of everything else in the universe.

**Outcomes**

 The peer reviewer illuminated a category within trance dancing that encompassed the outcomes that individuals described following their trance dancing experiences. The researcher also found outcomes in trance dancing but divided the outcomes into individual themes such as “Well-Being”, “Increased Self-Attributes”, and “Transformation of the Self”, rather than consolidating them into one category. The complete list of themes of the researcher that would fit within the larger heading of outcomes include increased self-attributes, increased acceptance, transformation of the concept of self, feeling of elevation, feeling of freedom, benefits of well-being, spiritual, search for truth/reality, changed relationship to one’s body, ecstatic emotional experience, language, and community. As this was a considerable component found by both the researcher and peer reviewer in a review of the data and it made sense within the mathematical model, it was included in the model as well. There are two levels of outcomes described here. The first level is an outcome that manifests within the experience of trance dancing as a moderator variable. The second level of outcomes, include long term outcomes that manifest at the conclusion of the trance experience or as a result of multiple trance experiences. Of note with the long term outcomes is that they can serve as a feedback loop whereby they become tools or methods for future experiences and thereby accelerate the participants’ transition through the decision gate.

**Internal outcomes.** One immediate outcome of trance dancing for nine participants (5 female, 4 male) (2 had formal dance training, 1 had formal movement training, 6 had no formal training) included the ability to find stress relief from day to day worries. “I have definitely used dance to try to escape the daily world. Sometimes when I’m having a bad day I know I can go to a place and dance and that all falls away and suddenly I’m much more at peace with everything.”

 Another immediate outcome of trance dancing included a change in body for all 16 participants. Four participants (3 female, 1 male) (2 had formal dance training, 2 had no formal training) discussed that they felt decreased pain while dancing. “When I start moving it’s stiff and sore at first then after a while the pain goes way. I don’t feel the pain”. Five participants (2 female, 3 male) (2 had formal dance training, 2 had formal movement training, 1 had no formal training) discussed that they had new found movement abilities while in trance. “I start to feel freer and suddenly I find myself jumping through the air. I find myself rolling on the ground and moving in ways that I’ve never moved before. I’m moving into the brand new and exciting and when I’m in that state, I really do feel lifted.” Six participants (5 female, 1 male) (3 had formal dance training, 3 had no formal training) discussed an increased awareness of their body. One participant stated

In one sense you become very aware of your body. You know, you become very aware of you know where your arms end. Whereas before, you know, you just, this is where my arms are, you know it’s like, you almost feel like your arms are longer. Um, a lot of times your neck and your head become much more relaxed, because your head is down as your trancing usually.

Three participants (1 female, 2 male) (1 had formal dance training, 1 had formal movement training, 1 had not formal training) discussed decreased awareness of their body during trance dancing. Five participants (1 female, 4 male) (1 had formal dance training, 1 had formal movement training, 3 had no formal training) discussed that they felt like their bodies were being directed while not consciously directing them. Six participants (1 female, 5 male) (2 had formal dance training, 3 had formal movement training, 1 had no formal training) discussed an increased sense of lightness or elevation of their body during trance and one participant (female with dance training) discussed feeling more grounded during trance dancing.

 Eleven participants (4 females, 7 males) (4 had formal dance training, 3 had formal movement training, 4 had no formal training) discussed an emotional release as an outcome that occurred within trance dancing. One participant stated “sometimes when I’m dancing there will be these moments when all of a sudden all this energy I have becomes released and in different ways”. Another participant stated “I let a lot of happiness out”. One participant described the process of emotional release during trance in a very complex manner. This participant stated that experiences with trance dancing have helped him/her to experience the development of a philosophical distinction between emotions and feelings and therefore described how trance dancing helped to process emotions until they were in the realm of feelings.

ok, um emotion is mind based. It’s um anger or fear or jealousy or what have you and it has to do with creating a scenario in my mind and feeling an energetic impact against that scenario. The life force impacts against the scenario, gets intertwined with it, and then all of sudden there’s drama. There’s this emotion, ok. Um, for me the only way out of that is to untie the knot of the drama. I’m thinking about it. How am I thinking about it? You know what old programming is it connecting to, right. Old decisions I’ve made, experiences I’ve had, lots of other stuff and it’s just untying and then the energy starts to flow again and then it’s more toward the realm of feeling. For me feeling is a vague, it’s hard to put into words, that’s where artfulness comes in, poetry, what not, but it has to do with the flow of vitality.

**Long term outcomes.** Long term outcomes included the following themes found by the researcher: universal connectedness, increased self-attributes, increased acceptance, transformation of the self, changed relationship to one’s body, elevation, freedom, well-being, search for truth, and ecstatic emotional experience. The peer reviewer also reviewed the data and found long term outcomes.

 Long term outcomes found by the peer reviewer’s review of the data included an aspect that nine participants (4 female, 5 male) (5 had formal dance training, 2 had formal movement training, 2 had no formal training) described as a transcendent view of the self. One participant stated that through trance dancing “I feel like I am who we truly are” and then stated “it’s given me a whole sense of self. It’s helped me to know who I am, to understand who I am, and to find conviction within my heart. This all has meaning”.

Outcomes of the trance experience also influenced how participants transitioned from the trance experience to day to day life. The level of difficulty with transition seemed to be directly related to the depth and frequency of experience with trance dancing. That is, there were three kinds of that participants found little difficulty in transitioning back from trance experiences. These groups included new dancers who did not discuss the depth of trance achieved as those with more experience in trance dancing, those dancers who did not trance dance frequently, and those dancers who had a tremendous amount of experience dancing. It seems that the newer dancers and less frequent dancers were able to transition back from trance more easily because they appeared to have less depth to the experiences. These dancers also seemed to have to work harder to initiate the trance. Once dancers started to increase their depth and frequency of the experiences they found it more difficult to transition between trance and day to day life until they learned to manage this aspect. One participant stated

it would be like dancing in the lap of the gods and then the next minute sitting in a

restaurant eating dinner and having a drink and it got to be kind whoa! It got to be very

challenging to kind of stay centered. It took a couple of years just to really learn how to

 go from these altered states to an ordinary state of trying to have a conversation with

someone.

Then as dancers gained enough experience they found it easier to transition back from trance and also easier to initiate trance. These experienced dancers discussed being able to initiate and end trance in a willful manner at any moment. “I got to a point where I could kind of step back and forth across those boundaries without feeling like I became dissociated from reality”. One extreme example of this ability was described by a participant as a skill that his/her teachers held over even willful initiation/termination of life itself. The participant described it in the following manner “I’ve had teachers who were the 19th reincarnation, who were sitting there smiling and they’re like oh you get to the point where you make the transition consciously and you choose to come back and you come back consciously”. Specific numbers of participants were not provided in regard to transitioning as these numbers would be misleading in regard to the fact that all the experienced dancers were at some point in time novices and would thus be counted in both categories. To further complicate the situation both novices and experienced dancers would vary according to the frequency with which they engaged in trance dancing regardless of the length of experience. That is, novice dancers may have frequent opportunities to trance dance and may also participate in a daily mindfulness practice such as meditation and would thereby behave more like an experienced trance dancer in regard to transitioning in and out of trance. Because this concept is too complex to be described within this study accurately, it is likely that classification of participants as novices or more experienced in regard to this concept would be inaccurate and incomplete.

 Participants also described community as an outcome. As an outcome, community was seen in the way that seven participants (3 female, 4 male) (2 had formal dance training, 2 had formal movement training, 3 had no formal training) maintained connection with others outside of trance dancing, with the way that thirteen participants (5 female, 8 male) (4 had formal dance training, 3 had formal movement training, 6 had no training) adopted the norms of the trance community and lived according to these norms outside of the trance dancing experiences, and in the way that eight participants (3 female, 5 male) (3 had formal dance training, 2 had formal movement training, 3 had no formal training) viewed others being on the same path as themselves. “There was an acknowledgment of a community of people who wanted to know the truth”. Another participant stated:

because I would be so open in my dance other people would be willing to come and share

 either their dance with me and I would make a connection or even share something with

 me very intimate and that made me feel wow there’s this giant connection, this giant

relationship or this web of people who are connected through dance and through

 openness. Now because I’m willing to give my dance as a gift or really be in the

 moment, following my flow, then I’m connected to this entire web of people. Which is

 how you know you (the researcher) and I (participant) are here right now talking.

Maintaining community was also a mental/emotional experience as well as a physical reality. That is, one individual in particular stated that “Yeah,that sense of community comes with. It would be a much more depressing society if that’s something that wasn’t an option that you could go do that. Things wouldn’t be as fun.” This participant was thereby describing that the mental/emotional experience of community stayed with them and they were able to cope with life experiences outside of trance because of the knowledge that this community experience was available to them.

 Thirteen participants (5 female, 8 male) (4 had formal dance training, 3 had formal movement training, 6 had no training) discussed adopting the norms of the community within their day to day experiences. These could include adopting philosophical outlooks such as loving others, being a good citizen, or sharing. A participant stated “I feel that people can sense your presence and they know how present and how focused and even how vulnerable you are in any given moment”. These feelings of presence and vulnerability are key to the trance experience and seem to be carried from the trance experience into day to day life as a living example of adopting the norms of the trance community within day to day life. These trance community norms that are carried to everyday life could also be behavioral changes. One participant stated

you start dancing and suddenly you’ll do that and you’ll find oh I can’t go back to that

 place that I used to. It’s just not the same anymore. It’s completely different. I don’t

know if I like this anymore. I don’t know if it makes sense to me because when you start

 experiencing and working with this community that maybe they eat a certain kind of

food and you are experiencing that food and all of a sudden you try to go back to eating

 with your family who eats hamburgers and hot dogs and everything like that and your

just like wait no this isn’t fulfilling me. This isn’t working anymore. I’ve grown, I’ve

developed and in such a way that I can’t do this anymore, it’s just not gonna fulfill me in

the way it used to.

Although this participant discussed food choice as a behavioral change other participants also discussed behaviors not related to food that were no longer fulfilling after the trance dance experiences. Another behavioral change included the diminished desire to use drugs either recreationally or to induce trance. Seven out of the ten participants who discussed drug use to induce trance reported either stopping completely, or reducing their drug use. Twelve participants discussed that a behavioral change included that participants would start to have a regular mindfulness or trance practice to aid in expanding their consciousness or to help them learn how to move through the trance experiences. Four participants discussed that they would apply what they experienced in trance to their performance art experiences.

 As stated previously, 13 participants enacted the norms of the trance experience in their day to day life following trance experiences. One participant stated

you know like our kind of motto is leave no footprints behind. We clean up our garbage. We try to make the world a better place. We plant a tree or feed somebody and their dog. We just try to be good people and I wish everybody could look at it that way. It’s you know, be yourself, be happy, and if you do that everybody around you will be happy.

Five participants (2 female, 3 male) (1 had formal dance training, 2 had formal movement training, 2 had no formal training) discussed having a calmer outlook following trance dancing. “I felt changed after dancing because I think I started to find my own center. I feel there are situations now that the way I handle them are completely different because of what I’ve gone through while dancing and what I’ve experienced during and after”. Another participant stated “I’ve become more patient with people”.

 Nine participants (2 female, 7 male) (3 had formal dance training, 3 had formal movement training, 3 had no formal training) discussed long term changes in their thinking following trance experiences. “When you’re dancing perceptions fall away and you see things more clearly and you start to see patterns and notice what the universe is trying to tell you. In day to day life you start to become more aware, you start trying to check into yourself. So, you say ok what am I missing right now because there are signs in the universe, signs from other people that are helping to clarify your life’s route”. Another participant stated “after a dance the outside world can appear to be a much more loving and joyful place to be”.

 Ten participants (5 female, 5 male) (2 had formal training in dance, 2 had formal movement training, 6 had no formal training) discussed long term changes in the way they viewed their self-attributes. “I feel more in tune with myself which helped me become more confident”. Another participant stated “it made me more aware of myself as a spiritual being and that I shouldn’t be as concerned with outward appearances just for appearances sake”. Yet another participant stated, “I feel I became a more loving and tender person”.

 Another long term change includes an ecstatic emotional experience that was reported by 14 participants (6 female, 8 male) (4 had formal dance training, 3 had formal movement training, 7 had no formal training). Most often this experience was described as joy, love, or happiness. “What I found was a joy in doing it was what I was after time after time after time after time”. Therefore the experiences described within the researcher’s theme of ecstatic emotional experience appeared to be maintained by participants across trance dancing experiences.

 Table 10 represents the researchers’ 21 themes and descriptive themes of the peer reviewer as they would be found within the processes outlined by the peer reviewer. Those themes in parentheses indicate that there may be slight differences in the conceptualization of the theme by the researcher as compared to the reviewer but in general there was more overlap than differences found.

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| **Table 10 Researcher and Reviewer Themes within Peer Reviewer Processes** |
| Tools | Direction of Focus | Process | Connectedness | Outcomes- Internal | Outcomes- Long Term |
| Community (N=13) | Only External (N=0) | Active (N=16) | Only Self (N=1) | Stress Relief (N=9) | Trans. View of self (N=9) |

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| **Table 10 Researcher and Reviewer Themes within Peer Reviewer Processes (Continued)** |
| Tools | Direction of Focus | Process | Connectedness | Outcomes Internal | Outcomes Long Term |
| Drugs (N=10) | Only Internal (N=5) | Passive (N=16) | Only Others (N=1) | Changed rlsp to body (N=16) | Community/ Connectedness (N=7) |
| Guide (N=8) | Shift from External and Internal (N=5) |  | Both Self and Others (N=7) | Body/ Pain (N=4) | Community/ Norms (N=13) |
| Music (N=11) | Simultaneous External and Internal (N=8) |  |  | Body/ new skills (N=5) | Community/ same path (search for truth) (N=8) |
| Drumming (N=5) |  |  |  | Body/ + awareness (N=6) | Calmer Outlook (N=5) |
| Previous Exp. (N=16) |  |  |  | Body/ - awareness (N=3) | Changed thinking (N=9) |
| Movement (N=16) |  |  |  | Emotional release (N=11) | Self-attributes (N=10) |

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| **Table 10 Researcher and Reviewer Themes within Peer Reviewer Processes (continued)** |
| Tools | Direction of Focus | Process | Connectedness | Outcomes Internal | Outcomes Long Term |
| Verbal (N=6) |  |  |  |  | Ecs. Emot. Exp (N=14) |
| Artistic (N=5) |  |  |  |  |  |
| Religious ritual (N=8) |  |  |  |  |  |
| Meditation (N=7) |  |  |  |  |  |
| Darkness (N=1) |  |  |  |  |  |
| Parentheses indicate that there may be a slight difference in how the researcher and peer reviewer conceptualized this theme. |

**Mathematical Model**

The researcher and peer reviewer consolidated and refined their themes into an overall description of the trance dancing experience. This consolidation of data gave rise to a mathematical model of trance dancing.

 The mathematical model of the phenomenon can be expressed as aX+bY=Z where Ʃ (z1-z∞)=1. In this model, x and y are tools that an individual uses to initiate the trance. The + symbol represents the operational method by which the individual uses the tools. The = symbol is a mathematical representation of a decision gate that individuals pass through to enter the trance. The decision gate is important in that if an individual does not consciously consent to the experience there will be no trance. However, it should be noted that the decision gate can actually be a component of some tools. This is particularly true in regard to substance induced trance as the decision to take the substance constitutes the decision to enter into trance. In this example, the tool would be a substance, ingestion of the substance would be the method and the choice to ingest the substance would be the decision gate. Z constitutes the tipping point or fulcrum into the experience of the trance. Z is also the essence of trance dancing. This model also accounts for moderator variables in that there are some aspects of trance dancing that can enhance or detract from the trance experience; these are represented in the mathematical model as “a” or “b”. Finally, within each experience of trance and across each experience of trance there is a building of the experiences into a summation of the totality of trance dancing experience; this is represented mathematically as Ʃ (z1-z∞)=1. In a very rudimentary manner, I refer to this as outcomes in my study.

**Tools**

The tools of the mathematical model included a variety of themes found by the researcher and all the tools illuminated by the peer reviewer. Tools included a belief that the experience is available to everyone, a belief that movement is an efficient route to an altered state, substances, focus, language, community, a guide, music, drumming, previous experience in trance, movement, verbal methods of inducing trance, training in artistic pursuits, religious rituals, meditation, and darkness. The belief in the experience being available to everyone and that movement is an efficient route to an altered state are tools in that the belief primes participants to be open to the experience which is necessary to pass through the decision gate. Focus is a tool in that it helps participants overcome the thinking mind which is necessary as part of the fulcrum. Language works as a tool in that it helps to build the community in the manner that researcher conceptualizes it such that individuals feel more connected to others dancing through their ability to communicate with them and thereby feel safe enough to become vulnerable. As already stated community is a tool to induce trance through the building of safety. A guide acts as a tool in trance dancing in four of the roles of a guide 1) introducing trance dancing to participants, 2) establishing parameters for the experience, 3) orchestrating the experience to have a beginning, middle, and end, and 4) providing safety for the experience. Music, drumming, movement, verbal methods, religious rituals, and meditation are tools in that they assist in participants in overcoming the chattering mind through focusing intention and quieting the mind. Previous experience in trance and training in artistic pursuits act as tools in that the prime participants for the experience. Darkness is a tool in that it helps participants to eliminate external stimuli and thereby increase focus.

**Methods**

 The methods of trance dancing are the manner in which the tools are used and largely consists of 3 components. These components are 1) the direction of the focus, 2) the process of how tools are used either actively or passively, and 3) whether participants are using tools to connect to deeper parts of themselves or with others. In the mathematical model methods are represented by the + symbol. This symbol includes within it the 3 components of methods. Table 11 depicts the manner in which the three components of trance dancing methods can interact with one another.

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| **Table 11 Interaction of 3 Components of Methods of Trance Dancing** |
| Direction of Focus | Process | Connectedness |
| Internal | Active | Self |
| Others |
| Passive | Self |
| Others |
| External | Active | Self |
| Others |
| Passive | Self |
| Others |

**Decision Gate**

 Prior to participants transitioning into trance they experienced a cognitive process that is referred to here as the decision gate. It is a process that includes the participant deciding to be vulnerable and give up control to the trance. This gate also includes the researcher’s element of transcending the judging ego. One participant stated: “ego is another trick, it’s a trick you’ve got to get past. I think it’s one of the most difficult challenges that we face because ego, when you’re in that, trance is not present.”

Some participants discussed that having the experience of crossing through this gate once, helped them to cross this gate more easily at future times. One participant discussed how substances helped them to cross this gate and that at future times they no longer needed this assistance in crossing the gate.

If you’ve allowed yourself to go that far or somehow you got that way chemically, like,

there becomes a point where you realize the chemicals don’t matter, it’s all you. It’s like

you know all they do is allow you to realize your own inner self.

The tools and methods discussed previously seemed to have the action of helping the participants cross through this decision gate. The use of tools and methods seemed to vary according to participant preference.

**Fulcrum**

 The fulcrum is the tipping point at the instant when participants transitioned into trance. This was characterized by participants as consisting of being completely present in the moment and with the quieting of the day to day thinking mind. This gave rise to the super-consciousness whereby participants were simultaneously able to observe the internal and external stimuli and felt that they had heightened awareness. The super-consciousness is another theme elucidated by the researcher. This experience of the fulcrum is the essence of trance dancing. Participants described the fulcrum in the following ways:

I feel everything becomes more vivid, the details. I feel myself moving and I’m not

telling myself ok I’m going to do this now, it’s just happening but I know it’s right. It’s

how it’s supposed to be. I start to become lifted, I feel a sense of lightness overcome me

 and I feel surges of energy and the surges of energy comes from parts of my body at

different times.

Participants described moving through the trance as a process of moving through levels or layers. In particular participants discussed feeling elevated as they fell through layers of further deepness into the trance. This ultimately produced a feeling of simultaneous floating and falling.

I think that because there’s so much to explore and so much detail and depth every time

you reach this new plane and so you’re lifted to it and all of a sudden yeah you

 experience that sensation of wow I keep falling and I’m experiencing more and more and

it’s quite a trip (Participant).

The researcher’s personal experience with trance dancing has informed her that when she experiences this simultaneous feeling of floating and falling she experiences a wave of euphoria. Although participants discussed experiences of floating and falling, as well as feelings of euphoria they did not necessarily tie them together in this way. One participant did describe the following:

It is swirling up, swirling up and as you can start to feel it in your core and you see it, er,

 not see it, you feel it moving up through your body and then it’s shooting out um through

 your body, through you head through your arms, through all of your limbs. The energy is

 kind of like taking over your body and your brain shuts off. It’s almost like it’s giving

 your brain a break. You lose track of time. At the end you have, you actually felt that

you had more energy because the endorphins were really shooting through you and there

 was this pure joy. It is something you want to be engulfed in. It is joy. A lot of times the

energy is just pure joy.

**Moderator variables**

A reoccurring aspect of trance dancing descriptions by participants was that there are levels of depth of experience within a single trance experience and also across trance dancing experiences. Participants discussed that the experience of trance dancing could be amplified or reduced through a variety of moderator variables. Moderator variables seemed to be able to occur at every stage of the process. Examples of tools as moderator variables include all of the tools described in this study as well as other priming experiences such as poetry. A participant discussed “I’m sure that’s why poets are poets, you know, because it primes them for the direct experience.” One tool that was important as a moderator was a regular practice designed to enhance those aspects of trance found in the decision gate and fulcrum such as meditation. One participant stated “anybody who’s really into trance, they’ve got a personal ritual that they do”. It seems that tools can become moderators and moderators can become tools during each and future trance experiences.

Methods also served as moderator variables in that even the methods can amplify the experience. One participant stated “when I’m becoming skillful, I’m learning how to relax with the energy, I’m learning how to direct the energy, I’m learning how to build the energy, I’m learning how to hold the energy, and I’m learning how to let the energy flow.” Another method that served as a moderator variable was having an intent for the experience. Participants that discussed having a clear intention for the experience discussed being able to move through deeper levels of the trance. One participant stated “when I ask myself a question and give myself a focal point I seem to emerge into this imagination, into my imagination, this story-world much quicker and much more clearly and I’m able to explore it. Now it’s like I ‘m diving in every time and it’s just how far, how deep do I swim and the questions help me swim a little bit deeper.” Another participant discussed that simply having the intention of committing to the experience of the trance dance in regard to saying “we’re gonna have a good time and we’re gonna do this. We’re you know. It’s almost like taking it seriously but not taking seriously.”

 A powerful moderator of trance dancing found in the decision gate was in the ability of participants to give up control and feel vulnerable. Community as conceptualized by the researcher is a moderator variable at the level of the decision gate. That is, the researcher conceptualized community as a means whereby participants felt secure enough to engage in the trance experience. This sense of security allows individuals to feel vulnerable and let go of control which are necessary components for passing through the decision gate into trance. Therefore participants who felt an increased sense of community would thereby pass through the decision gate more easily. It should be noted that the peer reviewer’s conceptualization of community continues to be an outcome of trance dancing. As an outcome the peer reviewer’s conceptualization of community could also act as a moderator in that when participants maintained a sense of community after a trance dancing experience they were priming themselves for a future experience of trance dancing.

Aspects of the fulcrum could also moderate trance. One particular potent moderator in the depth of trance found at the fulcrum was the ability of the participant to quiet their thinking mind and maintain this quiet. “You can’t think, it precludes depth exploration”. Another fulcrum moderator is in the ability of participants to maintain their presence in the moment.

 Finally, outcomes both internal and long term could moderate the trance dancing experience. Some participants discussed that learning within one trance experience helped them to move through deeper levels in future trance experiences. Even love was considered by a participant to be a moderator variable. “To find love in the moment…opens the big door if one’s ready to move in that direction”. Examples of outcomes within the trance experience or “internal outcomes” that serve as moderators include increased self-attributes and increased acceptance as these helped participants to move through the decision gate by assisting them in feeling vulnerable and giving up control. Also the active observer moderated how participants moved through the decision gate as it monitored safety and thereby allowed participants to give up control.

Examples of long term outcome moderators include increased self-attributes, increased acceptance, transformation of the self, well-being, and community. Increased self-attributes and increased acceptance served as long term outcome moderator variables in that these outcomes maintained the experiences of the trance after the experience ended and also thereby primed participants to engage in future experiences of trance. Transformation of the self served as a moderator in that this new self actually helped participants move through future trance experiences more easily and more deeply. Feelings of well-being served as a moderator variable in that healthier individuals could sustain the physical demands of trance dancing and the mental experiences of moving through the trance more easily. Community as the peer reviewer conceptualized it served as a long term moderator variable as it maintained the experiences of trance dancing outside of the experience which primed participants for future experiences.

A moderator variable that could intervene at all stages of the experiences was guidance. Guides could be seen in as bringing awareness of participants to the use of tools, in teaching participants how to use methods to achieve trance, in guiding participants through the decision gate, in helping participants to move through the fulcrum, and finally in helping participants to make sense of outcomes and apply these outcomes to future trance experiences. As stated previously guides served five roles in trance dancing. These roles are 1) introduce the participant to the idea of trance dancing, 2) establish parameters for trance dancing, 3) orchestrate the experience, 4) provide safety for participants, and 5) help participants make sense of the experience. In bringing awareness of tools guides played the role of introducing the participant to trance dancing. In teaching participants methods and guiding participants through the decision gate and fulcrum guides were enacting the roles establishing parameters and orchestrating the experience. Finally making sense of outcomes fits with the guide’s role of helping participants make sense of the experience. It seems that from a unified viewpoint that all the roles and functions of guides can be considered to be moderating the experience of trance dancing.

Energy acted as a moderator variable as a tool and also as a component of the decision gate. As a tool, energy moderated participants’ ability to sustain the physical activity used to induce trance. Energy was also a tool moderator in the way it interacts with movement and spirituality. Participants also reported that energy was necessary to the trance experience and as such it can be considered to be a tool moderator. Energy also can be considered to be decision gate moderator in that energy can help to connect individuals and thereby allow them to feel more vulnerable.

**Outcomes**

Physical outcomes for participants included feelings of elevation, feelings of freedom, well-being, and a changed relationship to one’s body. Mental or cognitive outcomes for participants included increased self-attributes, increased acceptance, feelings of freedom, well-being, and ecstatic emotional experiences. Spiritual outcomes for participants included a feeling of universal connectedness, transformation of the self, and a search for truth.

 Immediately following are Tables 12 and 13. Table 12 depicts the themes of the researcher and the processes of the peer reviewer in comparison with one another prior to consensus between the peer reviewer and researcher. Table 13 depicts the manner in which the themes of the researcher and processes of the peer reviewer work within the mathematical model to provide consensus between the researcher and reviewer.

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| **Table 12 Comparison of Processes of Reviewer and Themes of Researcher Prior to Consensus** |
| Item | Peer Reviewer | Researcher |
| Belief exp. Is avail. To everyone | X | Tool |
| Belief move. Is eff. Route | X | Tool |
| Drugs | Tool | Tool/Moderator |
| Active Observer | X | Moderator/Method |
| Focus | Method | Tool/Method |
| Universal Connectedness | X | Outcome |
| Super-consciousness | X | Fulcrum |
| Energy | X | Moderator |
| Transcending the Ego | X | Decision Gate |
| Increased self-attributes | Outcome | Moderator/Outcome |
| Increased acceptance | X | Moderator/Outcome |
| Transformation of the self | Transcendental view of selfOutcome | Moderator/Outcome |
| Elevation/Changed rlsp to body | Changed bodyModerator | Outcome |
| Freedom | X | Outcome |
| Well-being | Stress Relief ModeratorCalmer Outlook Outcome | Outcome |
| Spiritual | X | Moderator as related to Energy |
| Search for truth | Community on Same pathOutcome | Outcome |
| Changed rlsp to one’s body | Changed rlsp to one’s bodyModerator | Outcome |
| Ecstatic emotional experience | Outcome | Outcome |
| Community | Community as ToolCommunity as Outcome | Moderator |
| Language |  | Tool in building community = ModeratorAs Outcome= Outcome |
| Guide | Tool | X |
| Music | Tool | X |
| Previous experience | Tool | X |
| Movement | Tool | X |
| Verbal | Tool | X |
| Artistic pursuits | Tool | X |
| Religious Ritual | Tool | X |
| Meditation | Tool | X |
| Darkness | Tool | X |
| Drumming | Tool | X |
| Process/Active | Method | X |
| **Table 12 Comparison of Processes of Reviewer and Themes of Researcher Prior to Consensus (continued)** |
| Item | Peer Reviewer | Researcher |
| Process/Passive | Method | X |
| Connected/Self | Method | X |
| Connected/Others | Method | X |
| Connected/Both | Method | X |
| Emotional Release | Moderator | X |
| Long term thinking | Outcome | X |

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| **Table 13 Themes and Processes Within Mathematical Model to Provide Consensus** |
| Theme/Process | Mathematical Model |
| Belief exp. Is available to everyone | Tool/Moderator |
| Belief movement is an efficient route | Tool/Moderator |
| Substances | Tool/Moderator |
| Active Observer | Method/Moderator |
| Focus | Tool/Method |
| Universal Connectedness | Outcome |
| Super-consciousness | Fulcrum |
| Energy | Moderator |
| Transcending the ego | Decision Gate |
| Increased Self-attributes | Moderator/Outcome |
| Increased acceptance | Moderator/Outcome |
| Freedom/Vulnerability/Control | Decision Gate/Outcome |
| Spiritual | Tool/Moderator |
| Search for truth/Community same path | Outcome |
| Changed rlsp to one’s body/Elevation/Pain/new skills/Awareness | Moderator/Outcome |
| Ecstatic Emotional Experience | Outcome |
| Language | Tool/Moderator/Outcome |
| Community | Tool/Decision Gate/Moderator |
| Guide | Tool/Method/Moderator/Outcome |
| Music | Tool/Moderator |
| Drumming | Tool/Moderator |
| Previous experience with trance | Tool/Moderator |
| Movement | Tool/Moderator |
| Verbal | Tool/Moderator |
| Artistic pursuits | Tool/Moderator |
| Religious Ritual | Tool/Moderator |
| Meditation | Tool/Moderator |
| Darkness | Tool/Moderator |
| Process/Active | Method |
| Process/Passive | Method |
| **Table 13 Themes and Processes Within Mathematical Model to Provide Consensus (continued)** |
| Theme/Process | Mathematical Model |
| Connected to Self | Method/Outcome |
| Connected to Other | Method/Outcome |
| Connected to Both | Method/Outcome |
| Stress Relief/Calmer Outlook/Well-being | Moderator/Outcome |
| Emotional Release | Moderator/Outcome |
| Community Norms | Tool/Moderator/Outcome |
| Changed thinking | Tool/Moderator/Outcome |

  **The Essence of Trance Dancing**

The question of this study was: 1) What is the essence of trance dancing? A review of the data by this researcher and the peer reviewer both across themes and within the mathematical model comes to the same conclusion that the essence of trance dancing for this population of participants is a feeling of super-consciousness.

Chapter 5-Results Analyzed

Chapter 5 contains an analysis of the mathematical model of trance dancing within the contexts of Psychological theories (State, Role, and Trait), Somatic theories (Neurological/Biological, and Dance), Anthropological, and Religious theories.

**State Psychological Theories**

**Ludwig’s Altered States**

One method that Ludwig (1969) described as a means of inducing altered states was in the reduction of exteroceptive stimulation. Several tools discussed by participants in this study that lead to habituation and reduction of exteroceptive stimulation include darkness, music, drumming, verbal methods, some religious rituals, and meditation. Music, drumming, and verbal methods described by participants included rhythmic and monotone patterns. These patterns would lead to habituation of the brain to these stimuli and thereby induce trance. This theory may help to explain the usefulness of some of the tools in inducing trance but it does not explain the entire process as described by participants.

 Another method that Ludwig (1969) described as a means of inducing altered states was through increased exteroceptive stimuli, increased motor activity, or increased emotion. Trance dancing would seem to fit within this method of inducing trance at first look due to the increased motor activity of dancing and the discussion of participants regard ecstatic emotional experiences. However, Ludwig discussed that there was an element of fatigue in this method of inducing trance. Participants discussed that they never felt fatigued, that they had endless energy, and that trance even increased their energy. In fact, one participant stated that “I mean if you’re totally whooped when you’re going there that would probably hinder it but if you’re tired or something sometimes you can just pick that up and turn that around too.”

 Ludwig’s (1969) third manner of inducing altered states included increased alertness. This method included a hyperalertness to a central stimulus and a hypoalertness to peripheral stimuli over a prolonged period of time. A key component of initiating trance within trance dancing is an intense focus. While five participants discussed an internal focus that seemed to meet these criteria, five participants discussed a shifting focus and eight participants discussed a simultaneous internal and external focus which would directly discount this method. It may be that participants induce trance within trance dancing by utilizing multiple methods but more research into this area would need to be completed. Ludwig’s (1969) methods would not be inconsistent with Neurological theories discussed in this study as there are brain functions underlying each of the processes that Ludwig (1969) described. Therefore, future research that explores the Neurological processes underlying trance dancing could help to clarify this.

 Ludwig (1969) also proposed that decreased alertness could induce altered states. In this method, goal directed thinking is minimized, and judgment is overcome in order to experience a transcendental moment. This description sounds very much like the description that participants in this study gave of moving through the decision gate and of the fulcrum. It does not account for the moderating effects or the deepening layers of the trance that participants described in this study.

 The fifth method that Ludwig (1969) described to induce trance including somapsychological factors. Specifically substances that participants used as tools to induce trance would fit within this method. Dehydration and exhaustion would also be somatopsychological factors that can induce trance. In this study participants frequently discussed stopping to take breaks, drink water, and eat as a result of the active observer providing them with cues to do so. Therefore dehydration and exhaustion do not seem to be somatopsychological factors within this study of trance dancing.

**Nash’s Theory of Hypnosis as Psychological Regression**

 Central to the theory of psychological regression is the transition from secondary thinking to primitive thinking. This transition is characterized by a shift in thinking from thoughts to images and from orderly rational thinking to illogical and impulsive thinking. Nash (1991) discussed that such changes produce ego receptivity, increased affect that includes vivid and intense emotions, distortions in the sense of the body, and an increased sense of involuntary actions. This theory seems to correspond with the processes found in this study that include the decision gate and the fulcrum. However, in this study ego receptivity was termed transcending the ego and was the cause not the result of the change in thinking from secondary to primitive processes. That is, ego receptivity constituted the decision gate whereas the change in thinking constituted the fulcrum. The other outcomes described by Nash (1991) of increased affect, distortions in the sense of the body, and increased sense of involuntary actions was found within this study within the themes of ecstatic emotional experiences, a changed relationship to one’s body, and a specific change in the relationship to one’s body being a feeling of movement without trying to move. Nash’s theory may be useful to explain the =z portion of the mathematical equation if further research could be completed to clarify the direction of transcending the ego and the change in thinking. In this study of trance dancing the ego changes occurred prior to thinking changes. This may not be the case in regard to hypnosis which Nash (1991) used to build his theory and thereby within hypnosis it may well proceed in the order proposed by Nash. Another consideration found in this study is that moderators can intercede at any point in the process with trance dancing. Moderators can easily influence both ego transcendence and changes in thinking and without careful consideration of their impact may lead researchers to believe that one of these processes is more intense or significant than another and thereby cause researchers to identify the other process as an outcome instead of a dynamic component of the process. Therefore, more research must be done to carefully pull apart the role and action of moderators within the decision gate and fulcrum of trance dancing.

**Fromm’s Theory of Ego-Psychological Theory**

 Fromm’s (1979) contribution contained the idea that there is a continuum of states through the process of altered consciousness . Participants in this study also discussed that levels of trance occurred upon a continuum for them. They frequently discussed moving deeper within and across experiences of trance. Fromm’s theory (Fromm, 1979) may help to explain how participants learn to transition in and out of trance as this too seems to occur upon a bidirectional continuum. Further research exploring specifically transitioning in and out of trance dancing would be wise to begin with a thorough analysis of the Ego-psychological theory by Fromm (1979). Fromm’s (1979) theory may help to further explain Ʃ (z1-z∞)=1.

**Woody and Bowers’ Theory of Dissociated Control**

 In the theory of dissociated control the cognitive and behavioral systems become involuntarily dissociated from the executive systems (Kirsch & Lynn, 1998). Whereas in Hilgard’s (1977) theory of dissociation, the dissociation occurs within the executive system under the control of the individual. Participant’s descriptions of the process during trance dancing would seem to support Hilgard’s (1977) theory and refute the theory of Woody and Bowers (Kirsch & Lynn, 1998) as participants discussed moving through a decision gate prior to the fulcrum. This decision gate was clearly described by participants as under their voluntary control as to whether or not they wished to continue into the process of the trance. Of note would be the use of substances to induce trance during trance dancing. Participants discussed that they freely made the decision either to use or not to use substances at the beginning of the experience and thereby conceptualized the decision gate as occurring at the beginning of the experience rather than after an extended use of the tool and methods, as occurred with other tools and methods. This seemed to be the nature of the substance that once you chose to use it there was not going back whereas other tools and methods could be terminated at will. However, even with the use of a substance, participants continued to discuss ways they could moderate, if not control completely, the experience again by activating a decision gate. Participants most often changed their environment in order to moderate the experience while on substances. Some discussed taking a break and going off to a quiet area themselves to reduce some of the stimulation. Another participant discussed using music to ameliorate the impact of substances and thereby transform a “bad trip” into a positive experience.

And I put on some Grateful Dead and some you know, actually Alice Cooper. But no that was the night that I was flooded with every possible emotion you could ever have. Yeah and that was the night that I realized that no matter what the you know everything is gonna be ok. Yeah you gotta accept what you got, you’re gonna wake up, don’t be afraid to be yourself, don’t be afraid to do anything no matter what. You only get one chance to live this life and I’ve never had a bad trip since.

**Janet’s Theory of Dissociation**

 Janet is largely credited with the concept of dissociation (Hilgard, 1977). Within dissociation individuals experience a change in thinking that is different from their day to day processes (Hilgard, 1977). In dissociation there is a division of thinking. Clearly participants in this study discussed that their thinking changed as a result of trance dancing. Most often this change occurred in the form that day to day thoughts were quieted. It did not appear that participants described their phenomenological experience of thinking or mental processing as being divided, instead they saw an expansion of their awareness and a quieting of the day to day chatter in order to help with this. One could suppose that this quieting was a division of the day to day mind from other processes that occurred during trance dancing but this was not consistent with the manner in which participants described the experience.

 Pathology is always discussed in regard to dissociation as frequently the most striking examples of dissociation occur in this culture in the presence of a psychological disorder. However, in this study, participants discussed profound changes in their thinking and behaviors as a result of trance dancing. None of these changes appeared to be pathological, although no formal diagnostic interview was completed with participants as this was not the nature of this study. One important qualification of pathological disorders is that they have to cause the participant distress or interfere in their ability to function within the larger society. None of the participants in trance dancing discussed being distressed as a result of trance dancing and all of them discussed that trance dancing and the subsequent changes actually improved their functioning. When participants were asked about trauma and it’s relation to trance dancing, none of the participants endorsed that they experienced trance dancing as a direct result of trauma. Some of the participants discussed using trance dancing to heal daily stress and the occasional trauma. Most of the participants discussed that the experience of trance dancing made stress and trauma less important to them and that they wanted to maintain the pureness of the experience so they would not choose to reenact trauma within trance dancing. The role of choice in this experience cannot be emphasized enough.

**Non-Linear Spectrum of Dissociation**

 Edge (2004) discussed a spectrum of dissociation. One aspect of this dissociation was referred to as association (Edge, 2004). In association individuals could maintain a simultaneous altered state and react to the physical world (Edge, 2004). This theme was emphasized over and over again by participants in this study. Focus and awareness were often described as occurring simultaneously within this altered state and also in regard to the immediate physical reality. Participants discussed that this felt as if their focus and awareness were expanded beyond their day to day functioning and also discussed that they felt safe in the knowledge that they could respond to any physical reality in order to protect themselves. In fact, none of the participants discussed ever sustaining a major injury from their experiences despite the fact that dancing often took place, at night, in crowds, around a large fire.

**Spectrum of Degrees**

 Participants in this study did discuss that their experiences contained within them a tendency to increase in intensity with practice. Participants also discussed an ability to direct the experiences more with increased practice. Finally participants discussed an ability to maintain the trance outside of the experience with regular habits of practice. Therefore, the experiences of participants in this study seem to confirm the belief of trance as including a spectrum of degrees whereby practice improves intensity and level of directedness in trance.

**Characteristics of dissociation**

 There are eight major characteristics of dissociation found with the literature. Those are 1) ego transcendence, 2) depersonalization, 3) detachment, 4) absorption, 5) ego identity, 6) increased body awareness, 7) reconnection, and 8) fusion. Participants in this study discussed ego transcendence as an important component of their trance dancing experiences. They discussed that overcoming the judging ego was vital in order for the trance to occur. Like the findings within the field of hypnosis, transcending the ego was very different than the hidden observer. In this study the hidden observer was called the active observer by the participants and served a function of tracking the experience and monitoring the space for physical safety. Participants were very adamant in their statements that this active observer was not the judging ego. Participants only discussed depersonalization, or being distant from their body, in regard to pain. Some participants discussed feeling less pain when they engaged in trance dancing than in their day to day experiences. Most participants in this study expressed having increased body awareness or increased body movement and skills. Participants in this study did not express feeling detached from the external world. They largely felt that their consciousness was expanded to include both the external world and inner processes. One way in which participants may have experienced detachment was in that they found their day to day worries or stressors less important when they engaged in trance dancing and thereby could be viewed as detaching from this aspect of the external world. Few participants discussed the process of absorption whereby they forgot about the external world as they were absorbed internally. Most participants discussed a simultaneous awareness of the external and internal. Participants did discussed ego identity in this study as described by the researcher’s theme of universal connectedness. Participants were always able to reconnect to the outside world following trance dancing but they often viewed the world differently. Most participants discussed that they saw the world as a more loving place following their experiences. Some participants did present with a sense of fusion as they enacted community norms of trance dancing into their day to day lives following the experiences.

**Universal Nature of Dissociation**

 Dissociation is believed to have a universal nature to it (Akstein, 1973; Becker-Blease, 2004). That is, it occurs across so many cultures that it is largely believed that it is an aspect of humanity (Becker-Blease, 2004). In this study, participants discussed that they felt that trance dancing was an experience that was open to anyone. However a major limitation of this study was that all the participants were white college educated individuals. Therefore, it is not known if this was simply a result of the sample that was available for interviews or if there is something about being white and college educated that lends itself more to experiencing trance dancing.

 Another aspect of dissociation is that some cultures use it as a religious experience whereas other cultures use it within secular environments (Becker-Blease, 2004). It is proposed that when dissociation is viewed as allowing individuals to transcend the self that it is given a religious connotation and when it is used to cope with stress it is given a secular meaning (Becker-Blease, 2004). In this study participants discussed having a changed view of the self and discussed the experience as spiritual. However, participants also used the experiences to cope with stress. Some of the participants engaged in trance dancing at religious events and some of the participants experienced trance at secular events. The location was not a determining factor in the experience for participants. At secular locations participants continued to discuss transcending the self and at religious events participants discussed coping. Therefore, it seems that it would be too simplistic to label trance dancing as either religious or secular or as including transcending the self or as coping.

**Ways to Induce Dissociation**

 As this study was one of trance dancing. All participants experienced a katophatic induction of the experience. That is, they engaged in more activity than their day to day level in order to induce trance dancing. Participants did discuss however that even though their bodies were active that their minds needed to be receptive and passive in order to initiate the trance.

**Hilgard’s Neodissociation**

Hilgard (1977) reconsidered the theory of dissociation and premised that inside of a complete dissociation that there could be a partial dissociation. Therefore, one could have divided attention and maintain awareness of this divided attention (Hilgard, 1977). This description seems more in line with the experiences of participants in this study as they stated that they were simultaneously aware of all the processes occurring but gave more or less attention to certain processes as they desired. The descriptions of trance dancing by participants in this study also confirmed the existence of a function that Hilgard (1977) refers to as the hidden observer. Participants in this study referred to an active observer that’s function including tracking the experience and monitoring for safety in the physical environment. It should be noted that a common criticism of the hidden observer by role theorists is that it is a factor that is introduced by the hypnotist through suggestion. However, questions regarding the hidden observer were not part of the original questions of this study and they emerged as a result of discussion by participants. Whether or not this component of an active observer was suggested to participants at the time of the experience of trance dancing is not known.

**Role Theories**

 Role theories include the concepts of role enactment, the attitude toward hypnosis of the subject, motivation, and interpretation of demands by the subject. Participants in this study discussed that there were no explicit directions given to them regarding their behavior during trance dancing. However, participants discussed at length the norms of the dancing community. It seems that even though individuals are not explicitly told how to achieve trance dancing they do receive modeling examples of how to behave at the venues. However, some participants may argue that the behaviors at the venues resulted from the experiences of the trance. That is, participants discussed having more peaceful, loving views of the world following trance experiences and this may then change how they interact in their reaction to the world in day to day experiences. Therefore, when novice individuals see this behavior of the more experienced dancers, they learn to enact this behavior themselves yet the original behavior of the experienced dancers was molded as a direct result of the experiences in trance dancing. Ultimately, this consists of circular logic in the same fashion as the classic chicken versus egg debate. In order to ascertain what impact role enactment has trance dancing, one would have to conduct research with novice dancers in sterile settings.

 Research from hypnosis indicates that a more favorable attitude toward hypnosis yields a higher suggestibility score on measures of suggestibility (Spanos, 1991). Likewise, it is possible that a favorable attitude toward trance dancing would also prime individuals for more experiences of trance dancing. Interestingly this priming seems to occur only after someone has actually experienced trance dancing. Participants discussed that they are very excited about the possibility of going back for another experience after they have danced once. However, participants discussed their own surprise and the surprise they see with novice dancers when they come to their first experience expecting it to be some grand event when in reality it’s much simpler. One participant stated “it’s like it’s not really that much of a spectacle”. Another participant discussed that the changes seemed more subtle than he/she was expecting. Therefore, the attitude toward trance dancing seems to be overly grand prior to an experience but once individuals engage in the experience their expectation is more accurate and driven more toward experiencing it again.

 Motivation does not seem to be a factor in trance dancing as individuals only participant as much as they want to. If they don’t want to dance there is no outside request to do so. In actuality participants discussed that once they experienced the dancing they wanted to go back and dance again. However, this statement must be bracketed with the understanding that individuals who were likely to want to participant in a research study about trance dancing were likely to have positive feelings about trance dancing. Therefore, in order to fully test this assumption, future research would need to be conducted that expressly considered including those individuals that do not enjoy trance dancing.

 Within hypnosis studies, it has been found that the way in which participants interpret demands, impacts their experience of hypnosis (Spanos, 1991). That is if participants interpret demands to mean they passively wait for something to happen this event is less likely to happen. In this regard trance dancing is unique in that participants actively dance and actively chose to enter into the trance by passively and receptively opening their minds to the experience. While there are no explicit demands to do this, participants may get cues from others that this is the manner in which to achieve trance. Even still, it seems counterintuitive to tell someone to actively become passive. Participants may learn to do this with experience rather than through the proper interpretation of demands from the experience.

**Spanos and Coe’s Social Psychological Theory of Hypnosis**

 The social psychological theory by Spanos and Coe (Spanos, 1991) contains the quintessential hallmarks of role theories, that being the concepts of role enactment, attitude toward hypnosis, motivation, and interpretation of demands. As discussed above there are no explicit instructions given to most participants in trance dancing. In general, individuals arrive at a location as a result of wanting to attend the other events (workshops, bands, camping, etc.) and they eventually find their way to the evening campfire where individuals are drumming and dancing. They choose either to participate in the dancing or not. Therefore, there is little direction in how the experience “should” occur. Even at events where dancing happens regularly and is the focus of the event, there is usually no explanation given prior to beginning the experience and instead people simply arrive, the music starts, and individuals begin to dance. However, participants are still exposed to the general atmosphere of the events, have talked to other individuals, and are likely friends with other individuals at the events and therefore they could have been indoctrinated into the process through more subtle manners. The only way to understand the impact of role enactment on trance dancing is through laboratory based studies of the phenomenon.

**Kirsch’s Response Expectancy Theory**

 Within the Response Expectancy Theory, participants establish a goal for their behavior based upon their expectations (Kirsch, 1991). This could explain the process of some of the moderators within the mathematical model of trance presented here. Participants in this study spoke of having expectations of future trance events following the first event. Some participants discussed setting the goal of going to the events, having a good time, and trance dancing. While there were clear expectations set by participants, individuals also discussed that it was risky to have to clear or precise expectations as each trance experience was different and participants where likely to be disappointed and even unable to achieve trance at all if they spent too much mental energy on their expectations. Ultimately the goal of trance was to overcome the thinking mind and this meant overcoming the judgment based expectations of even the trance experience itself.

**Fourie’s** **Ecosystemic Approach**

 Within the Ecosystemic Approach by Fourie (1991) it is emphasized that trance is accomplished through the interaction of environmental factors. There are several environmental factors that seem to impact the level of trance within trance dancing. Participants often discussed the atmosphere of the trance environment including a campfire, at night, within a community of people, where the community norms included acceptance and caring. These environmental factors were emphasized by participants as very important. Some participants felt that the community of people was essential to the experience. Others felt that atmosphere created by the fire was important. A study within a careful controlled environment may help to illuminate those environmental factors that are most important in eliciting a trance experience.

**Coe and Sarbin’s Dramaturgical and Narrational perspective**

 The dramaturgical and narrational perspective (Coe & Sarbin, 1991) purported that all trance experiences are embedded within the larger context of participants’ worldviews. This study confirms these assumptions. When asked about their experiences of trance dancing, participants in this study routinely described the experience in the same manner that they provided answers to the questions regarding what it meant to be human and those questions that inquired about their worldview. If a participant made a statement about the importance of caring for nature as part of being human his/her descriptions of trance dancing inherently contained a description of being connected to nature. Furthermore, participants often took what they found in trance dancing and made changes in their day to day lives that were more consistent with their viewpoint of trance dancing. Therefore, it seemed that it was a perpetual cycle of worldview to trance to worldview. Analysis of the transcripts was clear in the findings that participants described trance dancing in a manner consistent with their worldview.

**Trait Theories**

Participants in this study were not analyzed for personality traits as they were related to trance dancing. This study utilized purposeful sampling with the criterion that participants have engaged in trance dancing. In this study all participants were white college educated individuals. Therefore, the researcher must question if this is simply the result of the sample that was available to complete the study or if there is some trait in regard to white college educated individuals that is conducive to trance dancing experiences. Further research with a larger number of participants could help to clarify this question. In addition, a study that utilized personality assessments for the trance dancing participants may also help to bring understanding to the question of whether individuals with certain traits are more likely to engage in trance dancing.

**Somatic Theories**

 Somatic theories include both the neurological theories and dance theories that are explained in chapter two of this study. This study was qualitative in nature and as such did not assess the neurological functioning of participants who were engaged in trance dancing. Therefore, any analysis of the data within the context of neurological theories is strictly theoretical and is intended to point toward future studies of trance dancing. Analysis of data within dance theories served to provide a deeper understanding of the data.

**Somatic Neurological Theories/ Attention**

 In maintaining attention the prefrontal cortex and anterior cingulate cortex seem to be involved (Short et al., 2007). Short et al. (2007) found that in more practiced meditators that there was a progression of focus of the dorsolateral prefrontal cortex and a sustained activity of the anterior cingulate cortex. With novice meditators there was a varied activation of the dorsolateral prefrontal cortex and increased activity of the anterior cingulate cortex over time (Short et al., 2007) They discussed that this change was the result of experienced meditators being able to maintain the focus of the meditation over time and thereby needing to monitor themselves less but that novice meditators required more attention to focus and higher monitoring of focus with extended meditation (Short et al., 2007). In this study it was not determined if experience with trance dancing was related to focus. It may be that individuals who are able to sustain a simultaneous focus of both internal and external stimuli act in the same manner as the experienced meditators. However, data regarding trance dancing experience was not collected within this study. Demographic data regarding overall years of experience with dance was collected but experience with trance dancing varies across participants in regard to experience with dance. Individuals who described little experience with dance and individuals who described extensive experience with dance were found to be included within the participants who reported a simultaneous ability to monitor internal and external stimuli. An area of future study would include monitoring the dorsolateral prefrontal cortex and anterior cingulate cortex of novice and practiced trance dancers. This could be accomplished through the use of ambulatory EEG equipment.

**Somatic Neurological Theories/ Emotion**

 Oschner et al. (2004) researched the neurological process for regulating negative emotions in two conditions when the emotion was directed related to the individual and when the emotion was not related to the individual. They found that the left lateral prefrontal cortex, right lateral prefrontal cortex, dorsal anterior cingulate, dorsal medial prefrontal cortex, and the amygdala were involved in the processing of emotion (Oschner et al., 2004). Specifically the right lateral prefrontal cortex was activated in response to decreasing negative emotions (Oschner et al., 2004). Participants in this study discussed that they found negative emotions to be less interesting and instead overwhelmingly experienced positive emotions. Therefore, the right lateral prefrontal cortex may become activated during trance dancing. Future studies that examine the neurological processes in trance would be able to confirm or dispute this hypothesis. Oschner et al. (2004) also found that the left lateral prefrontal cortex was activated both in increasing and decreasing negative emotions and therefore it may be activated during trance dancing by those individuals who are using trance dancing to reduce day to day stressors and negative emotions. The anterior cingulate cortex is largely believed to be activated in response to monitoring performance (Short et al., 2007) Oschner et al., (2004) found that specifically the dorsal anterior cingulate cortex was activated in response to both increasing and decreasing emotions. Therefore the dorsal anterior cingulate cortex may play a role in participants monitoring of keeping negative thoughts out of the forefront of their mind during trance dancing. Participants in trance dancing often experience a feeling of increased self-attributes and a transformation of the self as well. The dorsal medial prefrontal cortex acts to monitor the self in relation to emotions and the right lateral prefrontal cortex is involved in inhibition of behavior and emotion (Oschner et al., 2004) and as such may help explain the changes in self that trance dancing participants experience as related to the reduction of negative emotions. The left amygdala seems to respond to verbal stimuli (Oschner et al., 2004) and therefore may be more active in trance dancing experiences that include verbal tools for inducing the trance. The right amygdala is responsive to nonverbal stimuli (Oschner et al., 2004) and may therefore may be more active when non-verbal tools such as movement are used within trance dancing. Understanding the neurological process of how emotion is regulated within trance dancing may help to facilitate an understanding of how trance dancing could be used therapeutically for Posttraumatic Stress Disorder. Key components of trance dancing include the reduction of the importance of negative emotion and a transformed view of self and the world in a more positive manner. These components would seem to be helpful in ameliorating the symptoms of Posttraumatic Stress Disorder. Therefore future studies regarding therapeutic uses of trance dancing would seem beneficial.

**Somatic Neurological Theories/Decision Making**

 Decision making is a process that neuroscience has shown is impacted by risk and ambiguity and that relies on feedback from the body through a process referred to as the somatic marker hypothesis (Bechara et al., 1999). Certainly the decision making process is important to trance dancing as described in this study. A key aspect of trance dancing is moving through the decision gate which includes addressing feelings of risk and ambiguity such that the participant is able to give up control, feel vulnerable, and thus become open to the processes of ego transcendence. Also key to trance dancing is the biological processes of movement thereby the somatic marker hypothesis may also be relevant to trance dancing.

**Somatic Neurological Theories/Somatic Marker Hypothesis**

 The Somatic Marker Hypothesis rests on four assumptions which can be explained within the context of trance dancing. The first assumption is that conscious cognitive operations are related to the activation of sensory cortices (Bechara et al., 2000). Trance dancing is an experience that includes stimulation across a variety of senses and therefore it is highly likely that cognitive processes in trance dancing are intimately related to activation of the sensory cortices. The second assumption of the somatic marker hypothesis is that cognitive processes require support from processes involved in attention, working memory, and emotion (Bechara et al., 2000). It is clear from the model of trance dancing here that focus, or attention, is a tool and method that serves to provide support to participants to move through a cognitive component of the model, that is the decision gate. Therefore the second assumption of the somatic marker hypothesis is also relevant in trance dancing. The third assumption of the somatic marker hypothesis is that information that is available regarding the possible outcomes and specifics of the situation influences the process of decision making (Bechara et al., 2000). Participants in this study clearly discussed that previous experience with trance dancing helped them to move through the decision gate more easily during subsequent trance experiences. Therefore, it seems that the decision to move through the gate relied on information regarding previous outcomes and hence expedited the process. The fourth assumption of the somatic marker hypothesis is that knowledge is classified in four ways that include 1) knowledge from the body and body states, 2) facts about rules and actions, 3) knowledge from experience of connecting body knowledge and rules, and 4) knowledge from the categorization the other three types of knowledge (Bechara et al., 2000). Although there is no direct evidence that knowledge within trance dancing is categorized in this manner, indirect evidence suggests that practice effects from previous trance dancing experience, previous experience with other forms of trance, previous experience of movement pursuits, and previous experience with artistic pursuits all contribute to deepening and expediting the initiation into future trance dancing experiences. Therefore, it seems that there was processing and integration of information from experiences that were similar to trance dancing yet not precisely trance dancing. This processing and integration would hint toward a categorization processes in that the essence of a category is to find similarities among separate entities.

 The outcome of all of these assumptions is that there is a process known as the body loop that connects cognitive processes with knowledge obtained from the body in order to allow the organism to make decisions that are beneficial to the organism (Bechara et al, 1999). Those decisions being high yield with minimal risk. The body loop as described by Bechara et al. (1999) consists of activation in the association cortices based on sensory information that then create physical changes in the body. These physical changes in the body then activate the ventromedial prefrontal cortex and then the amygdala in response to previous experience consisting of knowledge regarding facts and emotions (Bechara et al., 1999). This information is processed and a decision is thereby made about how to proceed. Bechara et al. (1999) found that it was the ventromedial prefrontal cortex that was necessary to integrate the somatic and emotional information and thereby lead to skin responses. Trance dancing may regulate the ventromedial prefrontal cortex in such a manner that participants no longer feel the same level of physical reactivity to negative emotions and therefore participants are able to let go of daily stressors as a result of trance dancing. If this process is verified in future studies it may then also be useful to assist individuals who have posttraumatic stress disorder to use trance dancing to down regulate their physical responsiveness to memories of trauma.

**Somatic Neurological Theories/Memory**

 Autonoetic consciousness is the ability to place oneself within events in the past, present, and future (Wheeler, Stuss, & Tulving, 1997). Autonoetic consciousness is needed for the retrieval of episodic memory (Wheeler, Stuss, & Tulving, 1997). Participants in the present study did not provide any information that would indicate that memory processes behaved any differently during trance dancing than in day to day experiences. Participants did discuss that they often reflected on their previous trance dancing experiences. Autonoetic consciousness may allow participants to place themselves within the experience of the trance following the completion of the experience.

**Somatic Neurological Theories/Sense of Self**

 Sense of self also relies on autonoetic consciousness (Saad, 2005). Often participants in this study discussed feeling that their self was larger than their actual body or gave rise to a feeling of universal consciousness whereby they felt like a part of all of existence. Saad (2005) found that decreased blood flow to the orientation association area produced feelings of an endless self which sound like the experiences described by participants in this study. Blanke (2012) discussed three aspects of self including self-location, self-identification, and first person perspective. Floating or being above one’s body is the result of a failure of integration of a variety of brain areas but also particularly the right angular gyrus (Blanke, 2012). Elevation was an experience discussed by 6 participants in this study and may be explained in this manner.

**Somatic Neurological Theories/ Theory of Mind**

 Participants in this study often stated that they felt like everyone was “on the same wavelength”. This ability to predict the beliefs, feelings, and motivations of others is referred to as theory of mind (Gallese & Goldman, 1998). It was not clear within this study if participants used rules to determine how others were feeling also referred to as the theory theory or if participants took on the perspective of others referred to as the simulation theory. If partiicpatns engaged in a simulation theory of mind, then aspects of autonoetic consciousness may also be involved in this ability to feel on the same wavelength as others. Future studies could help to clarify this dilemma with further questioning of participants regarding this procedure. This feeling of being on the same wavelength may also be related to mirror neurons.

**Somatic Neurological Theories/ Mirror Neurons**

 Mirror neurons may also help to explain how participants experience being on the same wavelength as others during trance dancing. Mirror neurons help to connect the audio, visual, motor, and socialization systems (Keysers et al., 2003; Kohler et al.,2002; Lahav, Saltzman, & Schlaug, 2007). This seems consistent with the experiences of trance dancing which incorporates movement, music, and visual stimuli, as well as socialization.

**Somatic Neurological Theories/Proprioception**

 As proprioception is the awareness of one’s body (Dictionary.com) it seems that the study of neurological underpinnings of proprioception would be a primary area of study in regard to neurological studies of trance dancing. Primary areas to be explored would include the premotor cortex, the motor cortex, and the somatosensory cortex.

**Somatic Neurological Theories/Default Mode Network**

 The default mode network is a passive network of the brain that is activated when the mind is not actively focused on goal directed tasks or processing motor or sensory information (Buckner, Andrews-Hanna, & Schacter, 2008; Ostby et al., 2012; Sheline et al., 2008). It seems that the active nature of trance dancing and the importance of motor as well as sensory information would likely rule out a consideration of the default mode network as a neurological component to the process. However, research also suggests that the default mode network is involved in the process of passive introspection and potentially autonoetic aspects of the sense of self (Sheline et al., 2008). These aspects are often seen in trance dancing as a decreased thinking, a passive acceptance of mind leading to transcendence of the ego, and a feeling of a self as reflected in others are described by participants in this study. Therefore, at this time it is not known what impact he default mode network may play in the experience of trance dancing. **Somatic Neurological Theories/Thalamus**

 As the thalamus is a component of the limbic system it is involved in aspects of consciousness as well as sensory perception and movement (Carlson, 2007), it seems that it would be largely involved in many aspects of trance dancing. Newberg and D’Aquili (2008) also found that the thalamus is asymmetrical in people who engage in a regular spiritual practice. Therefore further studies could help to illuminate the function of the thalamus within trance dancing.

**Somatic Dance Theories/ Dance Therapy**

Fraleigh (1999) discussed nine components of dance. First dance is a creative pursuit (Fraleigh, 1999) and likewise trance dancing is a creative activity for many participants. Furthermore artistic pursuits have been shown by participants to help induce and maintain the experience of trance within trance dancing. Second dance has aesthetic value (Fraleigh, 1999). While participants in this study did not directly discuss aesthetic value to their experiences they did discuss that their bodies often gained new abilities including jumping higher and having more flow while trance dancing and these new abilities would enhance the aesthetic components of the dance. The third component of dance is that context is relevant and gives meaning to the dance (Fraleigh, 1999). Trance dancing participants also find deeper meaning in their experiences related to the context that the experience takes place in. The fourth aspect of dance is that it has a style (Fraleigh, 1999). Trance dancing can occur within specific movements but most often occurs within the context of authentic movement which is formless and initiates from a felt sense of the dancer. Fifth, dance is considered to be both art and entertainment (Fraleigh, 1999). This too could be said for trance dancing whereby participants seek out experience largely for entertainment but later return to the experience in order to enhance their lives much as art serves to enhance life. Furthermore, some artists and performers utilize trance dancing to influence their art. Sixth, dance is used for education (Fraleigh, 1999). Trance dancing has been used by some of the participants in this study to inform anthropological studies and give them an interest in learning about other cultures. The seventh aspect of dance is that it is used for healing (Fraleigh, 1999). Participants frequently discussed the healing principles of trance dancing. The eighth component of dance is that it is used as a source of development and self-actualization (Fraliegh, 1999). Participants of trance dancing discuss the transformation of the self as a component of their experiences and also discuss experiencing and learning something new each time they participate in the experience. Finally, Fraleigh (1999) asserts that dance intersects with religion. All 16 participants in this study discussed a spiritual aspect to their experiences of trance dancing.

**Somatic Dance Theories/Experiential Movement**

 Key to experiential movement is that individuals develop an understanding of their emotional needs in the present moment through understanding their felt body sense (Dosmantes-Alperson & Merrill, 1980). Experiential movement is at the essence a process of experiencing movement with increased awareness and a present here and now focus. This seems highly consistent with the experience of trance dancing as participants discussed acting in trance dancing situations with the goal of experiencing movement in the moment. Being able to stay in the present moment was an essential component of the fulcrum of trance dancing. Aspects of experiential movement exercises include increased awareness of body sensations, increased ease of movement, increased energy, and a decrease in mental control functions (Dosmantes-Alperson & Merrill). Sixteen Participants in this study discussed a change in their relationship to their body. Six participants discussed increased awareness of their body which seems to correspond with the aspect of an increased awareness of body sensations found in experiential movement. Five participants discussed being able to move in new ways and four participants discussed reduced pain while moving within trance dancing. These components of trance dancing seem to be consistent with the experiential movement aspect of increased ease of movement. Increased energy is another aspect of experiential movement and was endorsed by all 16 participants in this study. A decrease in mental control functions in experiential movement would be consistent with the experience of participants in this study whereby participants discussed quieting the thinking mind in order for them to remain in the present moment. In this study, participants discussed that this process of quieting the thinking mind so as to remain in the present moment gave rise to a super-consciousness. It was not reported by Dosmantes-Alperson & Merrill (1980) as to whether or not their participants experienced a super-consciousness and so it is unclear at this time if there is something else functioning within trance dancing beyond the systems functioning within experiential movement. Further study that explored the neurological systems underlying experiential movement and trance dancing, as well as qualitative interviewing of individuals regarding their phenomenological experience of experiential movement and trance dancing could help to clarify this question.

 Woods (2009) did explore altered states of consciousness within dance therapy. These findings were reported previously and will be discussed within the context of the findings of the present study in the section under Somatic Dance Theories/Woods’. However, first the outcomes of experiential movement within the context of the findings of this study are discussed.

 Outcomes of experiential movement include increased inner directedness, sensitivity to and expression of feelings, self-acceptance, flexibility of values, and a willingness to engage in relationship with others (Dosmantes-Alperson & Merrill, 1980). As with the aspects of experiential movement the outcomes of experiential movement are similar to outcomes found in this study of trance dancing. Participants in this study did not explicitly state that they felt an increased inner directedness but did discuss some aspects of their movement that felt involuntarily prompted as they discussed a changed relationship to their body. An ecstatic emotional experience was discussed by 14 participants in this study as well as an emotional release discussed by 11 participants as outcomes from trance dancing. These seem to be consistent with the increased sensitivity to and expression of feelings reported by individuals who engaged in experiential movement experiences. Increased self-acceptance was reported as an outcome for individuals who practiced experiential movement and also by 13 participants in this study. Flexibility of values was reported as an outcome of experiential movement (Dosmantes-Alperson, 1981). In the present study participants discussed the need to be open to the experience, the increased acceptance of others, and the likelihood of taking on the community norms of trance dancers following the experience. It seems that an openness to experience, increased acceptance of others and community norms would qualify as flexible values. The final outcome of experiential movement reported was a willingness to engage in relationship with others. Trance dancing participants often discussed the importance of the community aspect to their experiences and also a desire to have others join them in the experiences.

 (Dosmantes-Alperson, 1981) reported that there are five principles active in processing imagery through movement. Those principles are 1) a receptive state, 2) increased focus, 3)physical qualities of the movement are used to create an image, 4)the image is further explored with more movement, and 5)the experience is verbalized (Dosmantes-Alperson, 1981). Experiential movement uses images to process psychological constructs. Nash (1991) discussed the process whereby thoughts underwent psychological regression to become images and thereby produced feelings of ego receptivity, increased affect, distortions in the sense of the body, and increased involuntary actions. As discussed earlier, findings from the present study relied on the premise that ego receptivity occurred prior to changes in thinking instead of after as Nash (1991) found. Experiential movement principles would seem to confirm the findings of this study in that a receptive state is viewed as a necessary component with which to process the images. During the previous discussion of Nash’s (1991) theory I put forth two possible explanations for this inconsistency. One was that in hypnosis as studied by Nash (1991) that ego receptivity may follow changes in thinking. The other was that moderator variables somehow influenced the intensity of markers of ego receptivity and changes in thinking and it was therefore an inaccurate assessment of the data without consideration of the influence of this moderator variable. A third explanation may be that there is something inherent in movement that produces the ego receptivity and changes in thinking seen in psychological regression simultaneously. Then the ego receptivity is likely to be maintained throughout the experience in order to maintain the imagery based emotions of experiential thinking or the super-consciousness of trance dancing. Because Nash (1991) did not explore movement as a means of inducing psychological regression it is possible that either hypnosis does not include a simultaneous initiation of receptivity and thinking changes or his methods were not able to detect this simultaneous nature. Finally a fourth explanation for the difference may be that ego receptivity in the experiential movement and trance dancing may be viewed as a conscious decision whereby in psychological regression it is viewed as an involuntary reaction to changes in thinking. Although it is not explicitly stated that ego receptivity in experiential movement is a conscious decision, it was explicitly stated by participants in this study that they consciously chose to be open to the experience and the subsequent changes. If it is involuntary then it must have an origination source and it seems that Nash (1991) has solved this dilemma by explaining the ego receptivity in terms of being originated through changes in thoughts. Further research regarding how control and awareness of control is managed in altered states of consciousness may help to clarify this dilemma.

 Another principle of processing imagery through movement includes an increased focus. In trance dancing focus is clearly an important component as it is utilized as a method by which to move through the decision gate. It seems that focus allows the elimination of competing thoughts which is in essence the quieting of the thinking mind. Naturally, the mind rebels against attempts to quiet its chatter as anyone who has ever tried to meditate will attest. Therefore, the rebellion is quelled through the choice of ego receptivity which eliminates the judging mind and thereby allows thoughts to quiet. Upon which the individual crosses the fulcrum and experiences super-consciousness within trance dancing. It seems then that through a thorough understanding of the role of focus within trance dancing and the processing of imagery through movement that more support is provided to the concept that ego receptivity and thinking changes occur simultaneously.

A third principle of processing imagery through movement includes that physical qualities of the movement are used to create an image. Within trance dancing participants discussed aspects of the experience that were largely based in images. One participant stated “Um, a lot of the structure goes. A lot of the linear thinking is pushed away. And It’s just. When I trance, um, I don’t, I don’t hear words I see images. So I see a lot of images.” Again this process whereby thoughts become images is consistent with the processes explained within Psychological Regression Theory by Nash (1991).

Finally within experiential movement the image is further explored with more movement and the experience is verbalized. In trance dancing there is no clear predetermined goal as in experiential movement where the goal is deeper understanding of the psychological needs of the individual. Therefore it seems that continued development of the image and verbalization of the experience is necessary to meet the goal of experiential movement but is not necessary as a component of trance dancing. Some participants in the study discussed choosing to continue to work with a particular image or movement within the trance. One participant who utilized psychotropic drugs during trance dancing stated “so that the one pointed focus became very refined and of course any one point of focus that’s attractive right, then the attention stays there and with psychotropics it was very easy to make just the breath attractive or a simple movement.” Other participants in the study discussed moving freely through the experience with no particular focus on a movement or image. Verbalization about the experience by trance dancing participants also seemed to be a matter of choice and not necessary to the experience as it is in experiential movement. One participant discussed the personal choice in regard to verbalization of the experience in regard to his/her experiences with trance as compared to others.

He/She wants to talk about it. And I think talking is a great thing but I’m talking about literally almost right when we’re done. And some people that is how they decompress. They want to talk. They want to get it out. Let’s talk about what we just experienced, what we just saw. Then other people they need space and time. They need, they got to go sit by a stream. They got to go meditate. They have to do something to come down. And so I find I really want to explore that idea of how people decompress because it’s everybody’s so different and I wonder I just wonder if there is any connection by the way you decompress and who you are as a person.

As trance dancing is an experiential activity that includes authentic movement at its center but without the predetermined goal of psychological processing as is found in experiential movement therapy, it is likely that the similarities between experiential movement and trance dancing are directly related to the shared aspect of authentic movement between the two.

**Somatic Dance Theories/Authentic Movement**

 Authentic movement is viewed as kinetic meditation that serves as a tool to overcome the ego (Payne, 2003). This ability to transcend the ego was discussed by 14 participants in the present study. Authentic movement also serves to improve body awareness, connect mind, body, and spirit, and connect the individual to the larger universal self (Payne, 2003). As stated previously, 16 participants of this study discussed a changed relationship with their body and 6 participants in particular discussed increased body awareness. Also, all 16 participants discussed spiritual aspects of trance dancing and 9 participants discussed the transformation of the self to include a larger universal self.

 Another component of authentic movement is the internal witness, a non-judgmental observer of the experience. This internal witness seems consistent with the concept of the active observer discussed by 7 participants in this study. As the active observer was only discussed by 7 participants in this study it was regarded as a weak theme. Practitioners who utilize authentic movement largely subscribe to the belief that the internal witness must be developed through practice (Adler, 2002). Therefore, further study with a larger sample of participants could help to determine if this concept was related to overall experience with trance dancing.

**Somatic Dance Theories/Active Imagination**

Within the theory of active imagination the self is organized into a four sided structure surrounding a center. Each of the sides corresponds to an emotion, an ego function, and a behavior (Chodorow, 1991). It seems several of the themes found in this study correspond to these behaviors. Rhythm, discussed in this study as music and drumming would correspond to the behavior found within the behavioral aspects of sadness described in active imagination. Fear is reported to include the corresponding behavior of repetitive action (Chodorow, 1991) and repetitive action was described by some of the participants. However, I believe that a stronger indication of this aspect of the self would be elevation and the related sense of falling that participants described when we consider the primary image of this component is that of the abyss and that falling into an abyss would certainly engender fear. Anger is reported to give rise to the behavior of attack (Chodorow, 1991). In this study there were no indications of individuals feeling an urge to attack and in fact individuals seemed to discuss an opposite urge that of wanting to become receptive to the experience. However, when one considers that according to Chodorow (1991) that Darwin stated that anger provides energy for our willfulness and strength to our muscles (p.90), it becomes clear that the sense of increased physical energy and prowless that some of the participants reported would fit within the context of anger in this way. Finally contempt/shame drives an individual to behave in the context of relationship with others and self (Chodorow, 1991). This was clearly a theme that was subscribed to by participants in this study. It seems then that the experiences of individuals who engage in trance dancing could be perceived of within the context of active imagination and that this could be the driving force that is moving participants through the process of the trance from the gateway to the outcome.

**Somatic Dance Theories/Woods’ Findings**

One of Woods’ (2009) themes included community. Participants in this study emphasized community in a number of ways. Six participants discussed the experience of community within the trance as providing safety and allowing individuals to be vulnerable. Seen in this manner community was one way that participants could move through the decision gate. 13 participants also discussed community as a more general tool but did not specifically describe how it was used to move through the decision gate. Finally, community was also seen as an outcome in this study through the use of community in providing the outcome of connection (7 participants), in establishing community norms (13 participants), and in viewing others as on the same path (8 participants). Being on the same path, a theme described by the peer reviewer was also described as a search for truth by the researcher in this study. Woods (2009) conceptualized community in two ways. The first manner included a joining together of individuals for a common experience (Woods, 2009) which is consistent with the conceptualization of community in this study as a component of the decision gate or more broadly as a tool. In addition 3 participants in this study discussed that language was a component of trance dancing that helped to join individuals together within a common experience. The second way Woods (2009) conceptualized community was in the increased cohesion of the group following experiences of altered states. This conceptualization is consistent with the outcome aspects of community in this study whereby individuals feel a prolonged sense of connection with one another, maintain community norms outside of the trance, and view others as being on the same path.

Another theme of Woods’ (2009) analysis was healing potential. In the present study 14 participants discussed feelings of well-being, 6 participants discussed feelings of freedom, 8 participants discussed improved self-attributes, 9 participants discussed stress relief, 5 participants discussed having a calmer outlook, and 9 participants discussed long term changes in their thinking as an outcome of trance dancing. All of these outcomes seem to fit within Woods’ theme of healing potential.

All 16 participants in this study endorsed spiritual components of trance dancing and these would seem to confirm Woods’ (2009) theme of spirituality and religion found in analysis of literature of altered states of consciousness.

 Woods (2009) also found a theme of ritual in her analysis of literature. 8 participants in this study endorsed religious rituals as tools for inducing trance. 7 participants discussed meditation as a means of inducing trance. Woods (2009) also included the role of a leader in ritual. In this study 8 participants discussed the role of a guide as a tool for inducing trance dancing. In addition to including drumming in ritual, Woods also included it in rhythm.

 Rhythm was a theme by Woods (2009) that included drumming and movement. In the present study 11 participants discussed music as a tool for inducing trance and 5 participants discussed drumming as a means of inducing trance. 6 participants discussed verbal method of inducing trance including chanting which like drumming and music is rhythmic.

Experience of the self was a theme found by Woods (2009) that included increased acceptance of oneself. Thirteen participants discussed increased acceptance in this study but this acceptance was discussed within the context of accepting the self, accepting others, and accepting the reality of the experience. Therefore, acceptance was seen in a larger framework in the present study and was more restricted within Woods’ (2009) analysis. Nine participants in this study discussed a transformation of their self to include a larger more spiritual view of self. It seems that this aspect of transcendence would have been categorized by Woods (2009) within the theme of body action and rapid movement but participants in the present study did not directly relate the transformation of self with body. Furthermore this study’s theme of universal connectedness would be included within Woods’ (2009) categorization of the self.

 Body action and rapid motion was a theme elucidated by Woods (2009). In the present study 16 participants discussed the role of movement as a tool in creating trance. Ten participants discussed that they felt that movement was an efficient way to induce trance. Participants in this study did not prefer rapid movement to stillness. In fact, several experienced participants discussed that stillness itself was movement. Many of the participants had experience in both active movement induced trance and more seated methods of inducing trance such as meditation. For purposes of inclusion in this study all participants had experience inducing trance through active means yet they did not prefer this method to others. This study also seemed to view body changes in a more specific manner than was found by Woods’ (2009) analysis of the current literature. In this study all 16 participants discussed that their relationship to their body was changed in some manner. Four participants discussed feeling decreased pain while trance dancing. Woods (2009) characterized an ability to tolerate pain under the theme of focus, attention, and absorption. Five participants discussed having new found movement abilities within trance dancing. Six participants discussed having increased awareness and 3 participants discussed having decreased body awareness. Six participants discussed a feeling of elevation. Woods’ (2009) categorization of the body included an element of transcendence that was produced by the body. In this regard the themes of transcending the ego and super-consciousness would therefore be included in this classification of the body.

Woods (2009) also illuminated catharsis and abreaction as a theme in altered states of consciousness through dance. Participants in this study discussed emotion within trance experiences in slightly different terms. Fourteen participants discussed the ecstatic emotional experience of trance dancing. Nine participants discussed stress relief as an outcome of trance dancing and eleven participants discussed an emotional release as an outcome of trance dancing. Woods (2009) discussed verbal expressions in regard to catharsis during altered states of consciousness. However, in regard to the present study verbalizations during trance dancing were more often viewed as chanting which was categorized under Woods’ (2009) theme of rhythm.
 A theme of energy and revitalization was found by Woods (2009). Sixteen participants in this study discussed the concept of energy within trance dancing.

Woods’ (2009) analysis of the literature found a theme of recovery of play and creativity. Themes from the present study that may be categorized within Woods’ (2009) theme include ecstatic emotional experiences and freedom.

 Woods’ (2009) theme of focus, attention and absorption could be viewed to encompass the themes of focus and direction of focus within the present study. Sixteen participants in this study discussed focus as being key to trance dancing. Five participants discussed having solely an internal focus during trance dancing. Five participants discussed having a focus that shifts between internal and external stimuli during trance dancing. Eight participants discussed a simultaneous focus between internal and external stimuli during trance dancing.

The present study included Eight aspects that were not categorized within Woods’ (2009) conceptualization of the current literature. These themes include a belief that trance dancing is an experience that is available to everyone (16 participants), the impact of chemical substances on trance dancing (10 participants), the concept of the active observer (7 participants), previous experience with trance as a moderator tool (16 participants), the moderator tool impact of artistic pursuits (5 participants), and two components of trance dancing methods, active/passive process and connectedness to self/others/both.

The correspondence between Woods’ (2009) categorization of themes found as a result of a literature review of studies of altered states of consciousness and themes found in the current study provides a level of validity to the themes within this study. Those themes of the current study that were not found within Woods’ (2009) review may be the result of qualitative study. That is, it is not known if Woods (2009) reviewed any qualitative studies within her analysis. Aspects such as participants’ beliefs, the use of substances, the impact of previous experience with trance and other artistic activities, and the active observer may not be readily found within a quantitative framework but are easily found through thorough interviews of trance dancing participants. These findings again remind the scientific community of the importance of both qualitative and quantitative analysis of phenomenon.

Immediately following, the reader will find Table 14. This table provides a visual comparison of themes found by the literature review conducted by Woods (2009), the literature review completed by this researcher, and the themes expressed by participants in this study.

|  |
| --- |
| **Table 14 Comparison of Woods’s (2009) Themes, Literature Review Themes, and Participant Themes** |
| Woods’ Literature Review | Current Literature Review  | Current Study |
|  |  | Researcher | Peer Reviewer |
| Community and Group | Sense of Community | Community; (Language) | (Community); (Community connection); (Community norms); (Connected to others) |
| Spirituality and Religion | Spiritual Sense | Spiritual; (Search for Truth) | (Religious Ritual); (Community/same path) |
| Focus, Attention and Absorption | Attention | Focus | Focus |
| Experience of self | Sense of Self | Transformation of self | Transformation of self; (Connected to self) |
| Body Action and rapid movement | Sense of body | Changed Rlsp. To body; (Elevation) | Changed Rlsp. To body |
| Catharsis and abreaction | Emotion | Ecstatic Emotional Experience; (Freedom) | Ecstatic Emotional Experience; Emotional Release |

|  |
| --- |
| **Table 14 Comparison of Woods’s (2009) Themes, Literature Review Themes, and Participant Themes (continued)** |
| Wood’s Literature Review | Current Literature Review | Current Study |
|  |  | Researcher | Peer Reviewer |
| Ritual | Environmental factors | (Movement is efficient route) (drugs) | (Religious Ritual) (meditation); (movement); (guide); (drugs) (passive process) (darkness) |
| Healing potential | (Participant Experience) | Well-being; (Increased self-attributes); (Increased acceptance) | (Stress Relief); (Calmer outlook) (Self-view) |
| Rhythm | (environmental factor) | X | (drumming); (music); (verbal) |
| Energy and revitalization | (Participant Experience) | Energy | (active process) |
| Recovery of play and creativity | (cognitive elements) | (Freedom) | (artistic) |
| X | memory | X | X |
|  | Participant Experience | (Open to everyone); (Active Observer); (Universal connectedness); (Super-consciousness); (Transcending the ego); | (Process); (connected) |
|  | behavior | (Transcending the ego); (super-consciousness) | (Process) |
|  | Cognitive elements | (Transcending the ego); (super-consciousness) | Thinking |

**Anthropology**

The field of anthropology largely views trance within the context of possession and as a cultural ritual. Participants in this study discussed no feelings of possession. While trance dancing is not a ritual of the larger culture it does seem to be a powerful ritual within the community that engages in trance dancing. It is unclear however if the community is a result of the ritual and if it would exist without trance dancing.

**Religious Theories**

Cox (2003) asserted that a religion is built around three assumptions. These assumptions include 1) a belief in an alternate reality than the day to day reality explained through forces that are 2) controlled through rituals and symbols and there is 3) a mediator between the two realities such that the religious community is able to maintain harmony. Trance dancing does seem to meet these criteria. That is, there is an alternate reality, one that is expanded from the day to day experience of reality. This reality, referred to as the super-consciousness by participants in this study is explained through some forces which seem mysterious such as energy and other forces that seem less mysterious such as “choosing to be open”. The mediator between the tool realities is the trance dancing experience itself complete with all the tools and methods used to initiate the trance.

**Overall Mathematical Model**

 A goal of this study was to find a unified manner in which to understand the process of trance across disciplines of psychology, neuroscience/biology, dance, anthropology, and religion. It is believed by this research that the mathematical model of trance dancing described in this study is a good start in this direction. The theories from various disciplines discussed in this paper are presented below as they would fit within the components of the mathematical model of trance.

**Tools**

Within the field of psychology state theories that help to explain some of the tools of inducing trance include two state theories and two role theories. In addition theories of religion and theories of anthropology would consist of tools within the mathematical model.

State theories include Ludwig’s (1969) theories, and broad dissociative manners through which dissociation is induced. Role theories include Fourie’s Ecosytemic Theory (Fourie, 1991) and the Social Psychological Theory (Spanos, 1991). Ludwig’s (1969) theories of increased/decreased extereoceptive stimulation, increased/decreased alertness, and somatopyschological factors can be viewed within the context of tools to initiate trance within trance dancing as these theories describe alertness, sensory input, and somatophyscological agents as tools to induce trance. Apothatic and Katophotic methods of inducing dissociation can also be viewed within the context of tools in within the mathematical model.

Role theories include Fourie’s Ecosystemic Theory (Fourie, 1991) and the Social Psychological Theory (Spanos, 1991). Fourie’s Ecosystemic Theory (Fourie, 1991) would also be included within tools of this study as certain factors of the environment can serve as tools to induce trance. In addition, the Social Psychological Theory (Spanos, 1991) may also explain some of the tools useful in inducing trance that include social concepts much in the manner that the theme of community was seen as a tool with which to induce trance.

Religious theories may help to explain some use of tools as well within the mathematical model. Within Cox’s (2003) assumptions of religions, rituals and symbols used to manage the mysterious forces of the religious experience are in large tools that serve to induce trance within trance dancing.

From the field of Anthropology, it is known that the induction of altered states of consciousness is performed in different manners within different cultures. Therefore, culture of the group and the individual would play some role in the selection of tools to induce trance dancing.

**Methods**

The methods section of the mathematical model includes 3 components, direction of focus, active/passive processes, and connectedness to self/others/both. Information from the psychological state theory of dissociation, from the neuropsychological theory of attention, from the authentic movement theory of dance, and from theories of religion and anthropology help provide support to the methods section of the mathematical model of trance dancing. The psychological state theory of dissociation includes certain characteristics of dissociation. Specific to these characteristics are changes in body awareness and focus. Increased body awareness and focus can be viewed within the context of methods in this study. Neuropsychological theories regarding attention are also a component of the methods section of this theory as attention is a primary component of focus. Authentic movement also includes aspects of increased focus within active movement and a passive mental state of receptivity and as such helps to explain components of the methods section of the mathematical model. Religious theories would view symbols and rituals as methods in addition to being tools with which to induce trance. Also there is a cultural component to the choice of methods used to induce trance and as such Theories of Anthropology would be relevant here to provide clarity to the choices of methods.

**Decision Gate**

The decision gate is the result of transcending the judging ego through willingness to feel vulnerable and thereby give up conscious control of the experience. Included within this section of the mathematical model are 3 theories of psychological states, psychological trait theories of altered states of consciousness, 2 neuropsychological theories, and a discussion of the impact of substances on the gate.

 The 3 theories of psychological states relevant to this section are the Psychological Regression Theory by Nash (1991), the Neodissociative Theory by Hilgard (1977), and characteristics from the theory of dissociation. The theory of psychological regression helps to explain some of the process of transcending the judging ego through ego receptivity. However, as stated previously more work must be completed to understand the direction of process between ego receptivity and thinking changes seen in the fulcrum component of quieting the thinking mind. Furthermore, a characteristic of dissociation in general is ego transcendence and as such this would lend support to the processes occurring with the decision gate of the mathematical model of trance dancing. The Neodissociation Theory of altered states by Hilgard (1977) also addressed the process of transcending the ego and in particular provided support for the hidden observer, described in this study as the active observer by participants.

Trait theories would lend support to the idea expressed by participants in this study that some individuals enter the experience of trance dancing more open to novel experiences than others and as such are able to more easily move through the decision gate. Pre and post testing of personality traits of individuals who trance dance would be prudent future research as participants also discussed that once an individual experiences trance dancing that they become more open to experience throughout their day to day life and also then find it easier to move through the decision gate at subsequent trance experiences.

Neuropsychological theories that contribute to an understanding of the decision gate include the Somatic Marker Hypothesis and the Decision Making Model. Obviously the decision making model of neuropsychology is relevant as the main goal of this section of the model is in making a decision. The Somatic Marker Hypothesis helps to explain how body and mind interaction influences this decision making.

Within religious theories, Cox (2003) discussed that there is a mediator between the experiences of day to day reality and the altered reality of religion. Trance dancing in general, and the decision gate in this model specifically, serve as the mediator found in religion and trance dancing.

Finally, substances interact to influence the decision gate. First they may move the decision gate to the position of simultaneous occurrence with the tool and method of the model. That is, once an individual decides to take the substance which is simultaneous a tool and a method that the other processes of the decision gate are removed artificially. Second there may be two gates whereby the individual passes through one gate by taking the substance but still has to move through the mental and physical aspects of the decision gate in order to truly transcend the ego. How the individual moves through this second gate may determine whether an individual has a “good” or “bad” trip. Further research to clarify this is recommended. The choice of using substances, the specific substances used, the way that substances are used, and the beliefs about the outcomes of using substances are all culturally determined and as such are explained within the context of Anthropological theories.

**Fulcrum**

The psychological state theory of dissociation, the neuropsychological theories of emotion and sense of self, religious theories, and anthropological theories may help explain processes within the fulcrum of the mathematical model. In dissociation individuals experience a difference in the way that they perceive of and relate to day to day experiences. The fulcrum in this model consists of a super-consciousness brought about by mindful presence and a quieting of the thinking mind. Often when dissociation is described it is done through apparently dichotomous processes that occur simultaneously. Participants in this study explained the super-consciousness as a heightened awareness of dichotomous stimuli. That is, participants discussed being aware of internal and external stimuli simultaneously and also discussed a larger self that seemed to be present inside of them but also expanded beyond them while in this experience of super-consciousness.

Edge (2004) described dissociation along a non-linear continuum and described association as the simultaneous experience of the altered state while maintaining connection to day to day reality. It seems that participants in this study described the super-consciousness in a similar manner to association. That is participants were able to be fully present within the heightened awareness of the trance but also maintained an awareness of their physical surroundings such that they never experienced physical risk even with closed eyes dancing around a fire at night.

The neuropsychological theories that seemed relevant in regard to the fulcrum of this model include the theory of emotion and the theory of a sense of self. When participants discussed the moment of moving into the trance, or the fulcrum, they discussed that their day to day worries ceased such that they felt less emotionally pulled by these worries. Clearly a change in the processing of emotions occurs at this moment and therefore understanding the neurological underpinnings of this change are important. Also, as discussed above, participants experience a change in their sense of self at the fulcrum such that the self feels expanded. The neuropsychological theory of sense of self may help to explain this as well as explain the sense of floating or elevation that participants experience.

Within Cox’s (2003) model of religion the first assumption is that there is a different reality from the day to day reality. This different reality within trance dancing is the super-consciousness as described by participants in this study. The way in which this super-consciousness was described by participants was related to their world view and as such conceptualized was largely based on culture. Theories of altered states of consciousness from anthropology may help to explain the conceptualization of the super-consciousness by individuals.

**Moderators/Internal Outcomes**

Participants described a feedback loop within each experience of trance and across experiences of trance whereby tools, methods, outcomes, and other aspects of the trance could either enhance and deepen the trance or could decrease the effectiveness of the trance. Furthermore, these moderators could enhance the trance at one point but decrease the effectiveness at another. An example of this kind of moderator would be substances. Substances could enhance the trance by helping the participants move through the decision gate more easily but then could decrease the effectiveness of the trance through making the individual physically ill. Theories reviewed in this study that seem to explain some of the moderator effects include psychological state theories of altered states and role theories of altered states.

The Ego-Psychological state theory by Fromm (1979) included within it a concept of a continuum of experiences. Clearly this concept of a continuum contributes to the idea of moving through layers of trance found in this study. Furthermore, the theory of dissociation in general provides for a spectrum of degrees of trance. This spectrum of degrees seems to be another manner in which to explain moderators of trance.

The Social Psychological (Spanos, 1991) role theory helps explain how the social elements including the theme of community can help to serve as a moderator for the experience of trance dancing. The Ecosystemic (Fourie, 1991) role theory helps to clarify how the environment of people and aspects of the physical environment serve to moderate the experience of trance. Finally, participants discussed that their expectations helped to moderate the experience as well and therefore the Response Expectancy (Kirsch, 1991) theory would help to explain this moderator within trance experiences.

In much the same manner as the Social Psychological role theory, Ecosystemic role theory, and Response Expectancy theory explain cultural moderators of trance dancing, the field of anthropology may also be relevant to understand how moderators functioning within trance dancing.

**Outcomes**

Long term outcomes of trance dancing were varied among participants and often later served to moderate future trance experiences or prompted the participant to make life style changes. The general state theory of dissociation asserts that there is a universal nature to dissociation. This seems confirmed as one of the outcomes of this study was a belief by individuals that the experience of trance dancing is open to everyone. Again this belief was both an outcome and a moderator variable. The role theory of dramaturgical and narrational (Coe & Sarbin, 1991) experiences help to explain the life style changes made by participants in that this theory asserts that individuals experiences of altered states fits within their larger life-world. Participants in this study would experience trance according to their beliefs. Then their beliefs following trance would be altered to match the experience of the trance. This process continued with further experiences of trance until the individual’s experiences of trance and life world were highly compatible. Neurological theories of mirror neurons and theories of mind may help to explain the communal feeling of participants who engaged in trance dancing as well as the feeling that everyone was “on the same wavelength”. Mirror neurons and the simulation theory of mind help to explain how individuals could understand another’s perspective and even place themselves within the experience of another. Woods’ (2009) analysis of research found that this feeling of group cohesion is strengthened through experiences of trance. Theory of mind and mirror neurons may help to explain the neurological underpinnings of this enhanced cohesion.

Finally anthropological studies may help to explain how participants incorporate aspects of trance dancing into their day to day lives following trance dancing experiences as is relevant to the culture of the individuals. In addition anthropological studies may also be able to help explain the feedback loop between the culture of the individual and trance dancing such that trance dancing changes the culture and the culture changes the trance dancing experience.

**Limitations of the Study**

A primary limitation of this study is that the sample size was small. Again this is common practice within qualitative research so that there can be a depth of knowledge gained that is not able to be completed within quantitative studies of larger sample sizes. This researcher worked diligently to include as many participants as possible to gain depth of experience while meeting deadlines of completion of the study. However, due to the limitation of the sample size, the ability to generalize findings to the larger population must be done cautiously. In particular the sample of this study was biased in that all participants were of the white race and had some level of college education. Therefore, it is highly recommended that future studies aim to include participants of a variety of races and educational completion to consider any potential confounding variables in regard to white college educated individuals and willingness to engage in trance dancing.

A second potential limitation of the study includes the researcher’s history of experience with trance dancing. This study aimed to reduce the bias of the researcher in a variety of manners including the use of consensus methods of participants and the use of a peer reviewer. The peer reviewer served to monitor for bias in the interview methodology and for bias in the coding of themes of the study. To further ensure that the researcher did not bring bias into the study, the peer reviewer was asked to blindly examine a transcribed interview of the researcher. Ultimately after a blind review of the researcher’s transcribed interview by the peer reviewer, this data was not included in the study as it provided no further themes and did not discount any themes already found in other interviews. By using this strategy the researcher ensured that her beliefs regarding trance dancing were not leading the coding of themes. A final method of validating the findings in this study was through comparing the findings with those themes found in other research.

**Conclusion**

This study had four objectives (1) ascertain the essence of trance dancing and through this understanding (2) develop a unified theory of the process of trance dancing, and (3) provide an interdisciplinary perspective of trance dancing in order to (4) contribute to the field of psychology in a broader perspective in terms of understanding trance. The broader significance of the study to the field of psychology rested on the third and fourth objectives and included within it 1) an increased understanding of divided attention which a) determined if divided attention was active in trance dancing, b) improved upon a definition of trance, and c) provided insight into historical and modern day expressions of trance, 2) an improved definition of trance, and 3) increased understanding of historical and modern experiences of trance and related concepts.

The primary objective of this study was to find the essence of trance dancing as it is viewed by participants who engage in the experience. This study consisted of interviews of 16 participants (8 female, 8 male) who varied across age, and experience with dance. The mean age of participants in this study was forty-one. The mean number of years of experience with dance of participants was seventeen years. Five participants had experience with formal training in dance across a variety of styles ballet, jazz, modern, and postmodern forms. Some participants had training in multiple forms of dance. Three participants had experience with formal training in other movement pursuits such as martial arts, theater, or athletics. All participants had some college education and were white. The essence of trance dancing as described by participants in this study included an experience of super-consciousness. This experience of super-consciousness included an ability to simultaneous experience dichotomous stimuli, heightened experiences of stimuli, and an expanded sense of self. The super-consciousness rested on the ability of participants to maintain mindful presence and quiet the thinking mind.

In addition understanding the essence of the trance dancing, the second objective of this qualitative study of trance dancing was to find a unifying theory of trance across disciplines. The mathematical model elucidated in this study serves this purpose in that theories across disciplines are viewed as existing in collaboration within the model.

Finally this study sought to provide an interdisciplinary perspective of trance dancing (the third objective) in order to contribute to the field of psychology in a broader perspective in terms of understanding trance (the fourth objective). Specifically, it was hoped that through an understanding of trance, the field of psychology could be enhanced in three ways. The first manner was to gain a deeper understanding of the processes of consciousness and divided attention. The second manner was an improvement of the conceptual definition of trance. The third manner to enhance the understanding of the similarities and differences of historical and modern day manifestations of a variety of psychological concepts including divided attention, consciousness, hypnosis, and trance.

 In regard to gaining a deeper understanding of divided consciousness there were three main considerations suggested as to how trance dancing could improve one’s understanding of divided consciousness. These considerations were a) to determine if experiences in trance, and trance dancing specifically, were a process of divided attention, b) to better understand the connection between the mind and the body during processes believed to contain divided attention, and c) to better understand the processing of sensation and perception during experiences believed to contain divided attention. In regard to the first consideration, the present study has served to present trance as not a division but an expansion of attention. That is the phenomenological experiences of participants were that they were expanded their consciousness instead of dividing it. It should be noted that within Hilgard’s (1977) theory of Neodissociation that a simultaneous experiencing of two processes is the essence of divided attention. However, participants in trance dancing would state that they experienced both processes simultaneously such as moving, focusing, and thinking changes and that they also experienced simultaneous components of those processes active/passive, internal/external, quieted thinking/expansive awareness of stimuli. With respect to a deeper understanding of body and mind connections it was found that participants undergo changes in both that seem to build upon one another. That is changes in thinking produced changes in body sense and changes in body sense and activity serve as a tool to produce changes in thinking. As far as improved understanding of sensation and perception, data from the current study serves to emphasize the simultaneous experience of perceiving stimuli from multiple sources (internal/external, self/others).

In regard to the second contribution to the field of psychology, that is to improve the conceptual definition of trance, certainly the phenomenological understanding of trance dancing from the viewpoint of participants has added a richness to the understanding of trance. In addition, the mathematical model of trance outlined in this study has helped to conceptualize trance such that previously dichotomous theories of role and state explanations of trance can be integrated within one inclusive theory.

Finally, in regard to a comparison of historical and modern experiences of trance, the mathematical model also incorporates findings from Anthropology and as such emphasizes the importance of understanding trance and attention within a cultural context. Furthermore, the mathematical model outlined in this study may provide a manner through which the field of psychology can begin to view the historical conflict between state and role theories as instead just components of a larger framework of trance. That is, perhaps the mathematical model described in this study could begin to allow psychologists to finally see the forest of trance instead of the trees of role, state, trait, neurology, dance, anthropology, and religion.

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**Appendix A**

15 Original Questions of the Study:

1. Please tell me about your experiences with trance dancing
2. Please describe your physical sensations during trance dancing
3. Please describe your emotional functioning during trance dancing
4. Please describe your mental functioning during trance dancing
5. Where was your attention focused during the experience
6. Did any of your experiences happen under the influence of drugs/alcohol? Did this change the experience? Please explain.
7. What was your relationship like to yourself during the experiences?
8. What was your relationship like with others during the experience?
9. As part of your experiences has your relationship with the larger society changed?
10. Have you had similar experiences as you’ve described when movement was not involved? Please describe/explain this.
11. Have your experiences been spiritual, religious, secular? Please explain.
12. What are your beliefs in regard to religion, God, Spirituality, or a life philosophy?
13. What does it mean to be human?
14. Have you felt an increased sense of self-fulfillment related to your experiences?
15. Have you gained any benefit from your experiences? Please explain.

**Appendix B**

Emergent Questions

1. What do you consider in regard to whether a trance experience is productive or not?
2. How is control related to trance dancing?
3. Is there a personality trait that makes some people more willing to trance or more interested in trance dancing? If yes, how does this trait develop?
4. Do you use physical activity during trance dancing to process mental material?
5. How is insight related to trance dancing?
6. Does an audience impact the experience?
7. Is there a connection between musicians and dancers? Is there a connection between dancers? Are there other connections? Please describe these.
8. What is the role of a facilitator in the experience?
9. Please talk about energy.
10. Does time change during the experience?
11. Is rhythm important to the experience?
12. Is music important to the experience?
13. Does it consist of higher consciousness, altered consciousness, or day to day consciousness?
14. What role does control play?
15. Does decreased light impact the experience?
16. Are there social expectations to meet during an experience?
17. What is the essence of trance dancing?
18. Please talk about joy.
19. Is fatigue related to the experience?
20. What drives the body?
21. Please talk about light during the experience.
22. Please talk about grace or flow during the experience.
23. Is there a political aspect to the experience?
24. What role does vulnerability play in the experience?
25. What does being present mean?
26. Please tell me about your observations during the experience.
27. What is the role of stillness in the experience?
28. Can anyone experience this?
29. How is sex related to trance dancing?
30. How is sexual attractiveness related to trance dancing?
31. Are there gender differences relevant in trance dancing?

**Appendix C- Informed Consent**

**Research Study**

Title: Trance Dancing in Modern Industrialized Cultures: A Phenomenological Study

Researcher: Shannon Len Deets

Date:

Dear Participant;

Thank you for your interest in participating in this dissertation research study called “Trance Dancing in Modern Industrialized Cultures: A Phenomenological Study”. I value the unique contribution that you can make to my study and I am excited about the possibility of your participation in it. The purpose of this letter is to give you information regarding my research and how you can participate in the research. Then you can decide whether or not you would like to participate. Your participation is completely voluntary and you may decide to discontinue your participation at any time with no risk of penalty for withdrawing from the study. Your data may be withdrawn from the study until the point whereby identifiers are removed which is at the time when interviews are transcribed by this researcher. At that point, I will be unable to determine which data is yours and will not be able to separate it from the rest of the data collected. If you do decide to participate please sign the participation-release and informed consent document that you will find attached.

The research model I am using is a qualitative one through which I am seeking comprehensive and detailed descriptions of your experience with trance dancing. In this way I hope to illuminate or answer my question: “What is the experience of trance dancing?”

I do not have a specific hypothesis or explanation of trance dancing that I am trying to prove. Instead, I am interested in simply understanding what trance dancing is like for the individuals who have experienced it. Therefore as a co-researcher participant in this process you will be asked to recall specific experiences of trance dancing. I am seeking vivid, accurate, and comprehensive portrayals of what these experiences were like for you: your thoughts, feelings, and behaviors, as well as situations, events, places, and people connected with your experience.

I will audiotape our interview which is expected to last from 1 to 2 hours. I will then transcribe the interview into a typed format and this will be sent to you to review for its accuracy. For purposes of sending this transcript to you please provide either a postal address or an email address where you would like this transcript to be sent.

In addition to the first interview, I invite you to participate in a follow-up interview either in person, over the phone or Skype, or through email. This follow-up interview is estimated to take approximately 30 minutes.

I am a doctoral candidate for a PhD in Counseling Psychology at Gannon University in Erie Pennsylvania. I would like to clarify my role during this process. I am working at this time as a researcher and I am simply interested in understanding the experience of trance dancing. I will not be able to provide psychological or substance abuse counseling to co-researcher participants. Also, due to the topic of my study, it is a possibility that some co-researcher participants may have experience with drugs. My study is not concerned with the personal habits of co-researchers and instead is concerned only with the experience of trance dancing. Therefore, the experiences of co-researcher participants who have experienced trance dancing while using substances will be treated as equally valid as the experiences of co-researcher participants who have experienced trance dancing without substances. If you feel like you would like some assistance with mental health concerns or substance abuse I have attached a sheet that details ways to seek help.

Your privacy is very important to me. I will strive to keep your information completely confidential. I will be the only person who will know the identity of the individuals who participate in this study. I will not release these identities to any other person at Gannon or in government agencies. I will not release identifying information regarding drug use to anyone. Due to the nature of the research that I am conducting I may use direct quotes from our interviews in the written dissertation project or subsequent professional papers. However, I will disguise the identity of the individual who provided the quote through aliases and I will never use the individual’s name or other clearly identifying information. Please understand that it is my intention to take every precaution to ensure your confidentiality, however there are some important factors you should consider:

 -If you participate in an interview in a public location others may see you and know that you are interviewing with me (this would also pertain to interviews that are done on public computers)

 -Due to the fact that some participants in the research may know each other prior to starting the research, individuals who know you previously may be able to guess your identity through the quotes that are used however I will make every attempt to disguise identifying and will not use quotes that contain readily identifiable information. Furthermore, if I believe that the quote would put you at risk of being identified I will not use it.

Although there are no confirmed benefits to you for participating in this research, some individuals may enjoy sharing their story about the experience of trance dancing. It is believed by this researcher that this study may provide more information to the field of psychology in regard to the process of consciousness.

The procedures used are standard research procedures and are not experimental. Because of this there is expected to be no discomfort resulting from your participation beyond any discomfort you may feel in day to day life.

If you have any questions about the study please contact me at 814-807-1202 or sld-lpc@live.com. If you have questions regarding your rights as a participant please contact Robert Nelsen, Ed.D., my dissertation advisor at 814-871-7723 or Gannon University, 109 University Square, Erie, Pennsylvania 16541-0001.

I value your participation and thank you for the commitment of time, energy, and effort.

Sincerely,

Shannon Deets

Participant Release Form and Informed Consent

I agree to participate in a research study of “Trance Dancing in Modern Industrialized Cultures: A Phenomenological Study”. I understand the purpose and nature of this study and I am participating voluntarily. I grant permission for the data to be used in the process of completing a Ph.D. degree, including a dissertation and any other future publication. I understand that some direct quotes from the interviews may be used. I grant permission for direct quotes to be used at the researcher’s discretion. I agree to meet for an initial interview either in person, over the phone, or electronically through Skype or email. The initial interview will take approximately 1 to 2 hours. I also agree to meet for a follow-up interview that will take approximately ½ hour. I grant permission for the interviews to be audio recorded and/or saved as electronic transcripts. I grant permission for interviews to be transcribed into a written record of the conversation.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Research Participant/ Date

Address where I would like the transcript to be sent:

How I would like to be contacted for a follow-up interview:

If you would like a summary of the completed research please sign here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If you would like a copy of the completed dissertation please sign here (please note dissertations can be hundreds of pages in length): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address (Postal/email) where you would like a summary of completed dissertation sent:

**Ways to seek help**

**Mental Health**

To find a psychologist you can contact the American Psychological Association by calling 800-374-2721 or you can use their website at www.apa.org (When on the website go to “psychological help center” and then “find a psychologist”.

If you have insurance you can also look on your insurance card for “MH member services”. If you call that number your insurance company will be able to direct you to psychologists in your area.

Finally, if you are having a mental health emergency you can call 911 or go to your nearest Emergency Room.

**Substance Abuse**

To find help for substance abuse you can contact the Substance Abuse and Mental Health Services Administration at [www.samhsa.gov](http://www.samhsa.gov) and go to “find help”. You can also call 800-662-4357 to find a substance abuse counselor.

If you have insurance you can also look on your insurance card for “MH member services” or specifically “substance abuse services”. If you call that number your insurance company will be able to direct you to substance abuse counselors in your area.

Finally, if you are having an emergency you can call 911 or go to your nearest Emergency Room.

**Appendix D-Participants Summary of Data**

There were 21 themes that I found from analyzing the data from the interviews. Please review these and let me know if these do not fit with your experience of trance dancing. I also analyzed the data to include a descriptive mathematical equation. Please review this equation and let me know what you think. Finally, I have analyzed the data and distilled it into what I believe the data shows to be the essence of trance dancing. Please review this essence and provide feedback.

21 Themes:

**Belief that the experience is available to everyone**: this theme details a belief by participants that anyone who desires and is open to the experience of trance through movement can then achieve trance through movement.

**Belief that movement is an efficient route to the altered state**: this theme details a belief by participants that movement is an effective way to produce an altered state.

**Impact of Chemical Substances**: participants described a belief that altered states can be created through chemical substances but that this method of producing altered states is either preferred equally with movement to create an altered state or is less preferred than movement to create an altered state. Data for this study suggested that no participants preferred chemical substances over movement in the creation of altered states.

**Active observer**: participants described a function of their mind that continued to observe them during the trance experience.

**Focus**: participants described an increased or hyper-focus during trance than was different than their day to day focus.

**Universal connectedness**: participants described a feeling of being connected in a new way. This included feeling more connected to others or to nature. This also included feeling an increased connection to the universe in general.

**Super-consciousness**: participants described overcoming the day to day judging ego and thereby becoming mindful and present in the here and now moments. This mindful presence was thereby described as an expanded consciousness.

**Energy**: participants discussed a felt sense of energy during trance.

**Transcending the Ego**: participants described an ability to overcome the judging function of their mind. Also included in this was an ability to give up some control and to become more vulnerable in order to be open to the super-consciousness of trance.

**Increased self-attributes**: participants described a sense of increased self-worth, increased self-esteem, increased self-confidence or other increased self-attributes as a result of trance.

**Increased acceptance**: participants described either an increased ability to interact with strangers or a decreased tendency to identify, label, or categorize others or themselves in some socially defined manner.

**Transformation of the self**: participants described being in connection with a “higher self” or a more complete or true self as a result of their trance dancing experiences.

**Elevation**: participants described feelings of being lifted, being elevated, or floating as a result of the trance dancing.

**Freedom**: participants discussed a feeling of freedom as a result of their trance dancing experiences.

**Well-being**: participants discussed feeling a sense of health, well-being, or balance as a result of trance dancing. Some participants discussed that trance dancing helped them to deal with day to day life in an improved way or that it changed their whole day.

**Spiritual**: participants described trance dancing as containing some aspect of spirituality.

**Search for truth/reality**: participants described trance dancing as a component in their search for truth or reality in regard to way in which the universe works or the meaning of being human.

**Changed relationship to one’s body**: participants described interacting with or viewing their body in a new way as a result of trance dancing.

**Ecstatic emotional experience**: participants described trance dancing as including joy, love, happiness, or ecstasy.

**Community**: participants discussed a feeling of community as occurring between individuals who engage in trance dancing. Participants also described a willingness to want to invite others into the experience of trance dancing.

**Language**: participants described a changed ability to communicate with one another within trance dancing. Some participants discussed that trance dancing itself was a language. Some participants described increased communication as a result of energy within trance dancing. Some participants discussed that they were able to speak with others more easily or more deeply after the experiences of trance dancing with those individuals.

**Mathematical Model**

The mathematical model of the phenomenon can be expressed as aX+bY=Z where Ʃ (z1-z∞)=1. In this model, x and y are tools that an individual uses to initiate the trance. The + symbol represents the operational method by which the individual uses the tools. The = symbol is a mathematical representation of a decision gate that individuals pass through to enter the trance. The decision gate is important in that if an individual does not consciously consent to the experience there will be no trance. However, it should be noted that the decision gate can actually be a component of some tools. This is particularly true in regard to substance induced trance as the decision to take the substance constitutes the decision to enter into trance. In this example, the tool would be a substance, ingestion of the substance would be the method and the choice to ingest the substance would be the decision gate. Z constitutes the tipping point or fulcrum into the experience of the trance. Z is also the essence of trance dancing. This model also accounts for moderator variables in that there are some aspects of trance dancing that can enhance or detract from the trance experience; these are represented in the mathematical model as “a” or “b”. Finally, within each experience of trance and across each experience of trance there is a building of the experiences into a summation of the totality of trance dancing experience; this is represented mathematically as Ʃ (z1-z∞)=1. In a very rudimentary manner, I refer to this as outcomes in my study.

Tools: these include ways of initiating trance and could include meditation, dance, drugs, fasting, focus, etc.

Methods: these are the ways in which individuals use the tools to initiate trance. These include a direction (internal or external), a process (active or passive), and connectedness (to self or others)

Decision Gate: this includes transcending the ego. That is, the individual has to be willing to be vulnerable and willing to give up control in order enter into trance.

Fulcrum: the fulcrum is the tipping point whereby the individual’s consciousness is changed. This would be the initiation of the super-consciousness.

Outcomes: these include short term and long term benefits of trance dancing.

**Essence:** The essence of trance dancing according to the data as analyzed through themes and the mathematical model appears to be the super-consciousness/fulcrum.