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Pueblo Parapsychology: Psi and the Longbody from the Southwest Indian Perspective

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Abstract: The concept of the longbody traces its origin to the language and spiritual tradition of Native American tribal cultures, particularly that of the Iroquois Indians. Within these cultures, it represents a worldview quite different from that of Western cultures, in that it posits a broad degree of spiritual interconnection between all things in the natural world, living and material alike. From this view, a tribal member's experience of self is not solely limited to their individual living body, but also includes other family and tribal members (both living and deceased), the objects they possess, and the geographical locations that they inhabit or consider sacred. These can all be seen as extensions of the individual small body and the self that, when taken as a whole, comprise the larger tribal "longbody." The concept was first introduced to parapsychology by Christopher Aanstoos (1986), and was adopted by William Roll (1987, 1989, 2005) as a metaphorical way to understand the interconnection between mind and matter that is suggested in one form or another by all the known types of psi phenomena. The concept does not seem to be unique only to the Iroquois; several Indian tribes of the American Southwest also have aspects of their oral-based spiritual tradition that reflect something very similar to the longbody. In this paper, the similar aspects from four Southwest tribes (the Hopi, the Navajo, Laguna Pueblo, and Zuni Pueblo) are reviewed, and their implications for tribal psi experiences and Roll's longbody hypothesis are discussed. It is suggested that tribal oral tradition, which is based in memory, opens the way for psi as a means to ensure the survival of the tribes and their respective longbodies across space-time. It is further suggested that the geophysical properties of the location of certain Pueblos and sacred tribal sites may display anomalous activity similar to that observed in investigations of reportedly haunted sites, which may aid in giving rise to tribal psi through their possible energetic effects on the brain. Possible directions for future research are also offered.

INTRODUCTION

Although it has not been widely recognized in recent years, it seems that the worldviews of Native American tribal cultures may offer perspectives about the relationship between humans, nature, and the physical world that could lead to new insights about psi phenomena. William G. Roll (1981b) was among the first to recognize the potential value of worldviews from tribal and Third World societies, pointing out that, within such views, there is often no individual distinction between humans and the objects and locations associated with them. From the viewpoint of these cultures, everything that exists in the natural world—living and material alike—is interconnected in some fundamental way. Psi phenomena seem to suggest interconnections of a similar sort. For example, telepathy suggests interconnection between two or more human minds, clairvoyance suggests interconnection between the human mind and a physical object or location, and psychokinesis (PK) suggests a sort of interconnection that allows interaction between mind and matter. This worldview is quite different from that of most Anglo-Western cultures, which tend to put a lot of emphasis on distinct individuality. This may be one reason why psi is often perceived as anomalous or "strange" within these cultures.

Based on its interconnected worldview, it would seem that concepts derived from Native American tradition might be useful in describing and thinking about psi functioning. One concept that has been used in this manner within parapsychology is the longbody, first introduced to the field by Christopher Aanstoos (1986) as a means of advancing the phenomenology of psi experiences. The concept itself has its origins in the language and spiritual tradition of the Iroquois Indian tribe, found in the area surrounding the Northeast United States and Southeastern Canada. Within this culture, a tribal member's sense of self is not limited only to the familiar boundaries of their small living body. Through shared cultural and ancestral bloodlines, the self is extended to include a larger tribal body that consists of other family and tribal members, both living and departed. The extended self can also include the various physical objects and geographical locations that have particular spiritual significance to the tribe, usually because they are perceived as having sacred ceremonial value or as having aided in the tribe's survival. In addition to the individual body, the tribal member's self is viewed as part of an elongated living body which encompasses all the things in nature and spirit that have come to shape and define their tribe's existence, providing a basis for the member's own existence.

Building upon the work of the French phenomenologist Maurice Merleau-Ponty, Aanstoos (1986, 2005) had shown that even people in modern Western societies sometimes incorporate other people and objects into their own embodiment, not unlike the ties reflected in Native American tradition.[1] He therefore suggested that the longbody concept could reflect these familiar connections between people and objects, as well as reflect psi connections. William Roll (1987, 1989, 2005) soon adopted the concept as a metaphorical way to picture the deep, yet subtle, interconnection between mind and matter that is inherently suggested by all forms of psi.

In Roll's usage of the concept, the longbody may be seen as the larger web that connects people, object, and place across space and time. According to Roll (2005), the mind is embodied within the living brain and body of the individual person, and the body is emplaced along with other people and material objects in space. The mind includes implicit memories of other significant people, objects, and places, which often come easily to mind as images when called forth. This suggests that the mind within the emplaced body of the individual person is also linked through memory to the emplaced minds and bodies of these significant others, as well as their own objects and places. This memory linkage between people, object, and place may open the way for psi as a way to maintain these meaningful relationships at a distance. If one goes further, they may eventually find a grander universal web of interconnection, or "Big Mind," that ties all people, objects, and places together at the most fundamental level of existence (Roll, 1997).

The tradition of the longbody, as held by the Iroquois, does not seem to be unique only to this particular tribe. Some Indian tribes of the American Southwest have aspects in their primarily oral-based tradition that seem to reflect something very similar to the longbody. In this paper, those aspects from four Southwest tribes (the Hopi, the Navajo, Laguna Pueblo, and Zuni Pueblo;[2] collectively referred to hereafter by the acronym

[1] Aanstoos (1986, 2005) offers several familiar examples of this from everyday life: a person winces in pain when witnessing someone close to them being poked with a needle, some people have a tendency to perceive the traits of certain individuals in their offspring, and golfers may exhibit a kind of "body English" in relation to the movement of their putted ball.

[2] The ancestral homeland of the Hopi tribe is located in the central and southeastern parts of Arizona. The Laguna Pueblo is found in the west-central portion of New Mexico, east of the city of Grants. The Navajo Nation and the Zuni Pueblo can both be found on the border between New Mexico and Arizona, with the Navajo being north of Zuni.

"HNLZ") are reviewed,[3] and their possible implications for tribal psi experiences and for Roll's longbody hypothesis are discussed. Possible directions for further research on these aspects are also offered.

UNITY AMONG PEOPLE, PLACE, AND SPIRITS

One aspect from HNLZ tradition that reflects something like the longbody consists of the references that are suggestive of a collective unity among tribal people, places, and the spiritual beings inherent in the religious beliefs of the culture.

Tribal unity is often expressed in verbal ways. Large tribes like the Navajo often collectively refer to themselves as nations as a way to reflect the fact that all of their members share a common bloodline.[4] Another way observed among the Navajo people is the referral to themselves by their ancestral tribal name of *Diné* (pronounced "dee-nay"), which means "The People." The plural of this, *Dine'é* (roughly pronounced "dee-nay-eh"), is often considered the full and more correct term, and also means "tribe," "people," and "nation" synonymously (Kluckhohn & Leighton, 1962, p. 23). Thus, when Navajo people refer to themselves and their origin, they do not perceive themselves as individuals, but as part of a collective tribal unit that includes their family and tribal ancestors.

This type of verbal reference is also meant to reflect the importance of kinship within a given tribe in order to preserve ancestral relations. Within the Navajo and Laguna tribes, the basic unit of kinship is the family or the clan, called *dóone'é* (roughly pronounced "doo-o-ne-eh") in Navajo (Pratt, 1993, p. 154) and *hano* in Laguna (Parsons, 1923, p. 206). The individual self and its origin are defined by group identity to a clan and all the family members that comprise it, whether they be direct relation or extended family (the latter is often declared through spiritual rite), living or deceased. Relationships between clans in turn help to structure and define the tribe as a whole, particularly in the way of clan functions in

[3] In addition to being based on documented accounts from the anthropological literature, the information provided on the relevant aspects from the Laguna tradition is also based to a lesser degree on my own personal knowledge as I have come to understand it based on traditions related to me by my family. For the reader's knowledge, I am full-blooded Pueblo Indian, being 3/4 Laguna and 1/4 Zuni (the latter comes from my maternal grandfather).

[4] This usage of "nation" is in addition to its other meaning as a political symbol of the tribe's self-governing nature.

ceremonialism.[5] In addition, the clan also helps to define a given tribe's past (described more below).

Within the Laguna Pueblo, tribal unity is displayed overtly through the behavior of tribal members with respect to one another. Though tribal members live as separate families within villages, many of them respect the tradition of their shared bloodline, and this underlies the social unity of unrelated members.[6] Thus, many unrelated tribal members and families may closely interact, support, and openly help each other on a frequent basis, as if they were immediate family. This unity is more overtly displayed during times of ceremony, when an entire village or even larger parts of the tribe comes together to take part.

A given tribe may also claim unity with a given location, leading to the concept of sacred sites. This is not only meant to reflect an ancestral and spiritual tie to the land for planting and harvesting, but can also reflect tribal origins and places of mystical significance. For example, the Navajo trace part of their origin to a place known as *Dinétah*, an area of canyons, mesas, and mountains located southeast of Farmington, New Mexico. Navajo mythology holds that *Dinétah* was the site where the first tribal people had emerged from an underworld existence, along with the deity-like spirits inherent in the tribal religion (Marriott & Rachlin, 1968). For this reason, it is seen as the source of all aspects of Navajo life: their history, language, ceremonies, and beliefs (Tapahonso, 2001). It is also thought to have curing powers. Whenever a healing ceremony is held, some reference to *Dinétah* is always made in the ceremony, if it cannot be directly held there (Kluckhohn & Leighton, 1962; Pratt, 1993).

Among the Hopi, unity is held with a small point in the ground called the *sipapu*, to which they trace their own origin. Like the Navajo, Hopi mythology dictates that the tribal members emerged from an underworld existence (Marriott & Rachlin, 1968), and the *sipapu* represents the point of emergence. Similarly, when Hopi people die, it is thought that they return to the underworld through the *sipapu*. Spiritual beings known as kachinas are also thought to enter the physical world through the *sipapu* during times of ceremony. Typically, an entire Hopi village ties itself to a central *sipapu* located toward the center of the village, although individual families often reflect the tradition themselves by having a smaller *sipapu* in

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[5] The relations between family members and individual clans can become quite complex within a tribe given that there is less emphasis on individuality. Parsons' (1923) detailed monograph on Laguna genealogy provides a clear reflection of this.

[6] This respect to bloodline tradition is one of the things that sets the foundation for extended family relations within a clan.

one room of their home (Hieb, 1992). The Laguna have their own loose interpretation of the *sipapu*, represented by a cave in the foothills of the tribe's sacred mountain[7] that the deceased journey to at death in order to reenter the underworld (Mails, 1983, p. 280).

Across HNLZ tradition, there is often a tribal tie to the land on which the *kiva* (ceremonial room) is built. The usual significance of the *kiva* is that it houses the village *sipapu* (Waters, 1963, p. 129), but it can also have other spiritual significances, such as being a place of natural healing power, or a place where spiritual visions have been reported in the past (Hieb, 1992).

Pueblo houses and *kivas* are thought to have tribal significance because of their symbolic connections to tribal people, to the underworld afterlife, and to the natural world. According to one perspective by Rina Swentzell (2001) of Santa Clara Pueblo, the structure of houses and *kivas* . . .

> emulated the low hills and mountains in their connectedness to the earth. The adobe structures flowed out of the earth, and it was often difficult to see where the ground stopped and where the structures began. The house structures were, moreover, connected to each other, enclosing an outdoor space from which we could directly connect with the sky and focus on the moving clouds. Connectedness was primary. The symbolic flowed into the physical world as at the nansipu [the Santa Clara word for *sipapu*] where the *po-wa-ha* (the breath of the cosmos) flowed out of the underworld into this world (p. 87).

Spiritual unity is the aspect within HLNZ tradition that often seems most reflective of the longbody. Each tribe believes that interrelatedness and interconnection also extends to the spiritual beings of the underworld existence, which are thought to continuously help guide tribal life and survival. Within the Hopi, Laguna, and Zuni cultures, this belief has led to the concept of the kachinas (David, 1993; Parsons, 1920; Waters, 1963, pp. 165-173, 198-209). In these cultures, the spirits of the underworld consist not only of deity-like beings that are tied to natural phenomena, but also of the spirits of deceased tribal members. Among their various symbolic purposes (others to be mentioned below), kachina figures are meant to represent the deceased in their temporary earthbound form as they return to the physical world to aid in tribal ceremony (Kealiinohomoku, 1989, p. 53;

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[7] This sacred mountain is Mount Taylor, located approximately 15 miles northwest of the pueblo in New Mexico.

Mails, 1988/2003, pp. 76-77; Ricks & Anthony, 1993, p. 7; Waters, 1963, p. 165-166). This has led some scholars to view kachina religion as ancestor worship and as a cult of the dead (Adams, 1991, pp. 9, 11-12). Since the longbody is thought to encompass both living and deceased people (Roll, 1989, 2005), kachina ceremonies may be viewed as ceremonies held to honor the tribal longbody. An indirect (and literal) symbol of this among the Zuni may be the existence of the *Shalako*s, towering kachina figures appearing in winter that have elongated bodies (Scully, 1975, p. 271).

Since spiritual unity includes ties to the deceased, it is also used to define the past of the tribe. It seems that for tribes ". . . [w]here there is an oral tradition, the emphasis is on the need to remember the past and to teach it. This is basically for survival" (Pratt, 1993, p. 154). Oral traditions are inherent in HLNZ, being sustained primarily through personal memory, and they are passed to others based on the recounted actions of deceased tribal ancestors and relatives. One poem by Navajo writer Luci Tapahonso (1990, cited in Pratt, 1993) well reflects the tribal definition of past through its oral tradition:

> *It has been this way for centuries among us [the Navajo]*
> *This is our history and way of raising children.*
> *It has worked well for centuries.*
> *You are here, your parents are here, your relatives are here.*
> *We are all here.* (p. 152)

In encompassing all those that one is related to, this poem suggests that longbody connections are vital not only to defining the Navajo's past, but also to defining their own identity. From this, it may be argued that one reason it is important for tribal members to remember their past is that doing so may help ensure the survival of the tribal longbody over time.

A second, much broader reference to unity among people, nature, and spirits can be found in Navajo tradition relating to the concept of *Diyin*. The concept itself relates to a kind of "sacred wholeness" that is believed to be fundamental to human life. According to Navajo professors Nancy Maryboy and David Begay (2004), *Diyin* is a dynamic and ongoing process encompassing all things existent in the universe through a pattern of complex interrelationships, and this process constantly changes as the living and natural elements which make it up change. Since human behavior changes frequently and humans often manipulate their surroundings in various ways, it is thought that humans can greatly affect the flux of *Diyin*, as can the underworld spirits through their influence on nature. These effects are thought to generate both positive and negative relationships between all things, and in turn, positive and negative "energy" within the

flux of *Diyin*. The accumulation of negative energy is often associated with the occurrence of harmful events such as human sickness and tribal conflict, necessitating the preparation of the healing ceremony (discussed later).

THE COGNITIVE AND THE CONATIVE IN PUEBLO SOCIETY

Another aspect from HNLZ tradition that seems to reflect the longbody is the reflection of both the cognitive and the conative within tribal culture. The two terms, cognitive and conative, are used here with respect to Roll's (2005) intended use of them, where they define the two forms of meaning attributed to either an animate (e.g., another person) or inanimate object. According to Roll (p. 150), an object's cognitive meaning reflects its measurable aspect, whereas its conative meaning reflects its emotional or affective quality.

An object's existence within physical reality is largely defined by its material properties: it has certain dimensions (e.g., length and width), a certain mass, and a certain composition, and these things usually change little over time. These properties are what localize the object in a certain place at a certain time, giving it physical being. In short, they are the things that make an object an object. They are also measurable, and give rise to the object's cognitive meaning by the people measuring them, leading to knowledge in science and technology.

People also often ascribe personal, affective quality to an object according to the significance it has in their lives, whether functional (i.e., utilitarian) or sentimental. This affective quality can be quite important because it can either draw us towards or away from certain objects based on the perceived effect that they may have on our survival and well-being. The degree of affective quality we ascribe to a certain object based on its perceived effect can give rise to its conative meaning, and this meaning can change frequently over time. In ESP, a person nonlocally perceives the conative meaning of another person or inanimate object whose physical form is absent, according to Roll (2005, p. 151). The sensibility of this notion can be seen when one looks at certain features of spontaneous psi experiences (Feather & Schmicker, 2005; Rhine, 1961). For example, telepathic experiences seem to occur most often among persons that share a meaningful relationship.[8] The event which seems to precipitate the

[8] This meaningful relationship can involve people who are emotionally close, or who are biologically related. This feature is also reflected in some experimental results (e.g., Broughton & Alexander, 1997; Rice & Townsend, 1962; Stuart, 1946).

experience (as in crisis cases) also seems to carry a great deal of emotional meaning for one or both of the persons involved. In psychometry (Roll, 1978, 2004; Schwartz, 1978/2001, Ch. 2, 4-6), a person seems to perceive meaningful details about the person or events that have been associated with the handled object. Similarly, in PK experiences, the objects affected often have some degree of meaningful significance to either the person witnessing the PK event, or the person that it is attributed to.[9]

Within pueblo society, the cognitive and conative aspects of objects are often seen as being intertwined when it comes to ceremonial observation. Regarding kachina religion, Hopi scholar Barton Wright (1977, cited in Ricks & Anthony, 1993) writes: "The basic concept of the katsina cult is that all things in the world have two forms, the visible object and a spiritual counterpart, a dualism that balances mass and energy" (p. 7). This concept sets a basis for kachina representation during ceremonial dances, which has its own dual nature. On the one hand, human impersonation of a kachina spirit brings a cognitive construct into material form (i.e., by wearing a kachina costume, a tribal member brings a mythical being inherent in the tribal religion into visual form). On the other hand, the elaborate details of the costume bring out the spiritual significance of the kachina, expressing its spiritual nature, and thus, its conative meaning.

Other activities in Hopi life have a similar dual nature. During the farming season, the processes of planting and harvesting each have their own cognitive aspects in where to grow crops, how deep to place their seeds, and how they should be irrigated, for example. Yet these processes also have conative aspects, in that they have strong underlying spiritual meaning, as well. When these processes are carried out, they are often done with ritual prayers to the spirits who are believed to have an influence on crop growth and rain cycles. One function of the kachina ceremony is to honor and pray to these spirits so that they may bring the tribe a bountiful harvest. In relation to Hopi crop farming, Native American historian Thomas Mails (1988/2003) writes:

> In its essence, the central pathway walked by the Hopi has been an annual cycle of rituals that are preparatory in nature and go hand in hand with specific planting, cultivating, and harvesting tasks. These rituals include acts having to do with the continuance and heightening of their spiritual awareness of everything needful to life and survival. In other words, *both the material and the*

[9] For more extensive discussion about ESP as the nonlocal perception of conative meaning, see Roll (2005).

> *spiritual sides of life are addressed in the central pathways, although in truth the Hopi sees no distinction between the two, for the material life is itself infused with spirituality*. (p. 73, emphasis added)

In other words, the cognitive (reflected by the material side) and the conative (reflected by the spiritual side) are both involved in the process.

Another clear suggestion of cognitive and conative within kachina religion is the way in which tribal people regard the kachina mask worn in ceremonies. In the eyes of non-Indians, a kachina mask is often seen as a wonderfully simple piece of cultural art made of wood, pine boughs, and bird feathers, among other natural materials. In the eyes of Pueblo Indians, the mask represents something much more than just art. In addition to its material form, a tribe gives the mask conative meaning that embodies the mask with strong spiritual significance, in that they equate the mask with the spirit of the kachina itself. This is most evident in the tribal accounts of how it is cared for and perceived among the pueblo people. When a pueblo man dons the mask in ceremony, it is believed that he becomes instilled with the spirit of the kachina, and that rather than being a simple man impersonating a kachina, he becomes the kachina in every way (Adams, 1991; Ricks & Anthony, 1993; Waters, 1963, p. 167). When not in ceremonial use, a kachina mask is carefully stored and is ritually fed every day, with certain songs and prayers expressed to the mask during them (Mails, 1988/2003, p. 79; Waters, 1963, p. 167). During ceremonial dances, pueblo villagers display a similar ritual by symbolically "feeding" the kachinas through offerings of cornmeal while making prayers to them. Mails (1988/2003) notes in this ritual that, of the offerings made, ". . . the spirits only eat the soul of the food" (p. 76). Roll (personal communication, 2004) has previously noted the cognitive and conative aspects of this ritual, which is present in many other tribal cultures of the world.

The way in which pueblo people approach the ceremony seems to offer another suggestion of cognitive and conative. Historian Edward Dozier (1970/1983) notes: "Pueblo ceremonialism is best understood as an aspect of the general Pueblo concept of the interrelatedness and cooperative nature of the universe. Ceremonial activity is the Pueblo's contribution to maintaining a harmonious balance which is believed to be the natural state of affairs" (p. 200). In relation to the pueblo's contribution, Thompson and Joseph (1944, in Dozier, 1970/1983) further note: "The rules of ceremonial observance have two aspects, the spiritual and the psychical. If either aspect is neglected or any regulation is broken, failure will result" (p. 200). This suggests that the ceremonial process as a whole has cognitive aspects (reflected in its ritual activity, which must be carried out in a precise

manner) and conative aspects (reflected in the higher spiritual significance that is believed to result from that activity) to it that complement each other. This is also the viewpoint in Navajo healing ceremonies with regard to *Diyin*, examined further in the next section.

One last suggestion comes from the clan rituals and customs observed when a tribal member has died (Parsons, 1923, pp. 216-219). Though their viewpoints slightly differ, the HNLZ each hold the belief that the soul departs from the body upon death and makes a spiritual journey back to the underworld (Erdoes, 1976, p. 202) to live on as part of the larger tribal longbody. The Laguna also believe that the deceased continue to spiritually interact with the physical world, helping to bring rain (Mails, 1983, p. 280), in addition to being guiding spirits for the tribe through longbody ties. The Hopi believe that upon death, the deceased become kachina spirits (Kealiinohomoku, 1989, p. 53; Mails, 1988/2003, pp. 76-77; Ricks & Anthony, 1993, p. 7; Waters, 1963, p. 167), forming the basis for viewing the kachina religion as a cult of the dead (Adams, 1991). Burial rituals done by the Hopi, Laguna, and Zuni symbolize this belief: the Hopi cover the deceased's face with cotton or place cotton tiers along the top of the head, which is meant to symbolize the kachinas as cloud spirits (Mails, 1983, p. 280; 1988/2003, p. 77). In Zuni and Laguna, if the deceased was a kachina impersonator, the face is painted with a certain pattern indicative of this, and the body may be sprinkled with water as ritual song that places the deceased among the storm clouds is chanted (Parsons, 1923, pp. 217-218). Feathers and other sacred animal objects are also commonly placed on the corpse to symbolize the tribe's spiritual connection to nature and the tribal land, both of which bring rain and life. Food, filled water jugs, and other material belongings are buried along with the deceased, reflecting the belief that the deceased's spirit needs to take what they need to make the journey back to the underworld, which is often thought to be a long process.[10]

The ritual of burying objects with the deceased apparently dates back to the time of the ancient Anasazi Indians (the historical ancestors of modern Pueblo people), as evidenced from the archaeological record dating from the Mimbres period (1000-1150 A.D.). Pottery artifacts found at Anasazi burial sites that date from this period often had holes punched into them. It is thought that the Anasazi believed that upon molding the piece, a

[10] Although the journey between them is long, it is believed in some tribes like Laguna that the actual metaphoric "distance" between the physical world and the underworld is very short, which allows the spirits of the deceased to continue interacting with the physical world and helping to guide tribal life.

pottery "spirit" became embodied within it,[11] and that when the pottery was buried with the deceased, a break in the piece (called a "kill hole") had to be made so that the embodied "spirit" could then be released and accompany the deceased's spirit to the afterlife (Erdoes, 1976, p. 202; Peckham, 1989). This ritual is still done in modern times by tradition, and one tends to find many pottery shards littering pueblo cemeteries.

Rituals carried out following the burial further suggest cognitive and conative aspects. The Laguna and Zuni believe that after the burial, the spirit of the deceased lingers for a short time (usually 2-4 days) in their home before beginning the journey back to the underworld. The day after the burial, the spirit is invited into the home, and food and drink are offered to it (Erdoes, 1976, p. 202). Food may be taken to the deceased's grave in the few days following to "feed" the lingering spirit (Parsons, 1920, p. 219). Once this short period has elapsed, the deceased's home is then spiritually cleansed by washing its walls and repainting them (Mails, 1983, p. 280). Any remaining belongings are similarly washed and fumigated with cedar wood smoke as a means of spirit release (Parsons, 1920, p. 129; 1923, p. 219).

These are only but a few of the many possible examples from pueblo life that seem to reflect Roll's (2005) idea of the cognitive and the conative.

CEREMONY, HEALING AND PSI

> "*When you put a thing in order, and give it a name, and you are all in accord, it becomes*" *(*From the Navajo tradition, Waters, 1950)

Among the Navajo, the cognitive and the conative are reflected most often in the healing ceremony. Navajo spirituality primarily focuses on achieving a balance between the positive and negative relationships between everything in the universe that is inherent in the flux of *Diyin.*[12] As mentioned previously, it is thought that humans can have a great effect on *Diyin*, not only by manipulating their environment, but also by holding

[11] Most often this pottery "spirit" was an animal spirit, given the frequency of animal designs on Mimbres pottery (Fewkes, 1914/1990; Peckham, 1989).

[12] In other words, the focus is on achieving homeostasis, which the Navajo call *hozhoo*, loosely translated as meaning "harmony" (Maryboy & Begay, 2004, p. 28).

negative thoughts and dabbling in magical powers.[13] Such acts tend to upset the balance by creating more negative "energy" within *Diyin*, and an excessive amount of this energy is thought to lead to negative consequences like human sickness and social or intertribal conflict. In order to cure an ill person and/or restore the balance to *Diyin*, the healing ceremony is carried out (Kluckhohn & Leighton, 1962; Maryboy & Begay, 2004).[14]

Healing ceremonies among the Navajo (and other tribes) are often communal events that can involve entire families or even an entire village. Central to the ceremony is the medicine man, who acts both as a spiritual healer and as the Indian equivalent of a psychotherapist, hearing the patient's guilty acts that led to the *Diyin* imbalance and forgiving them. As a result of this trusting relationship, both healer and the patient form a bond analogous to kinship that remains for life (Kluckhohn, 1939, p. 58; Kluckhohn & Leighton, 1962, p. 198). The families and larger sections of the tribe that are participating in the ceremony often aid each other in performing its rituals, and this large-scale cooperation with a shared focus on healing may facilitate the formation of a temporary healing longbody. Healing deity-like spirits and the spirits of deceased tribal members are both called upon during the ceremony for their help in guiding the restoration of the *Diyin* balance, and this may suggest the involvement of the larger tribal longbody (Pratt, 1993, pp. 155-156).

Navajo and Hopi healing ceremonies often consist of a number of rituals that can take anywhere from an hour to several nights to complete.[15] Rituals can include herbal medicine, ceremonial song, smoke fumigation, and group prayer or meditation (Cohen, 1998; Mails, 1988/2003, pp. 81-84). Exclusive among the Navajo is the use of sandpaintings, which depict healing spirits of the underworld and various natural phenomena that represent those same components of *Diyin* (Maryboy & Begay, 2004). Each of these rituals seems to have cognitive and conative aspects associated with them: The ingestion of herbal medicines is thought to bring the patient in touch with the natural healing powers of the earth. The balance and rhythm generated from performing ceremonial song is associated with the cosmic

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[13] A strong belief in witchcraft exists in Navajo culture. For detailed discussion, see Kluckhohn (1944) and Kluckhohn and Leighton (1962, pp. 187-193).

[14] It should be mentioned that certain forms of divination used by the Navajo to diagnose illness, such as hand trembling and crystal gazing (Kluckhohn, 1939, pp. 66-71), may have psi-related aspects of their own. They are not mentioned here for matters of brevity, but Reichbart (1976) has pointed out that they may bring about states similar to trance mediumship, and may thus be psi-conducive. The interested reader should consult his article on hand trembling and psi for further discussion.

[15] A Navajo healing ceremony is often called a "Chantway."

order of the universe (Maryboy & Begay, 2004). Fumigation of people and objects with smoke allows spiritual cleansing, aside from a common tribal belief that smoke carries one's prayers up to the heavens. Sandpaintings are thought to heal through contact with the spirits (Kluckhohn & Leighton, 1962).[16] Group prayer and meditation are associated with the summoning of underworld healing spirits through the use of *pahos*, or prayer sticks (Mails, 1988/2003, pp. 85-89; Waters, 1963, pp. 131-134). Mistakes in any of these rituals are thought to have a negative effect on *Diyin* (Maryboy & Begay, 2004).

The communal group nature of the ceremony, with its shared focus toward healing and restoring *Diyin* balance, may perhaps make it conducive to a group PK effect. In terms of healing, this group effect may be a physiological one similar to that seen in studies of bio-PK and distant mental influence on living systems (DMILS) that have received growing attention in recent years (e.g., Braud, 2003; Delanoy, 2001; Schlitz & Braud, 1997; Targ, 1997). Within other contexts, the focus of the group may have influence on the surrounding environment, an influence interpreted as human effects on *Diyin.* This latter influence may be analogous to the PK-related effect seen in studies of "field consciousness" (Nelson et al., 1996, 1998). In these studies, random data collected during group workshops focused on distant healing or meditation have shown notable non-random patterns (Nelson & Radin, 2003; Rowe, 1998). So far, at least one such study has been conducted in relation to Native American tradition: data collected during a sacred site healing and preservation ceremony conducted by a Shoshone Indian shaman at Devil's Tower in Wyoming had shown significant deviations from randomness throughout the ceremony (Nelson et al., 1998, pp. 432-433; Nelson & Radin, 2003, pp. 53-54). The concepts of both DMILS and field consciousness seem to suggest some form of interconnectedness through partnership (e.g., Braud, 2003, pp. xliii-xliv) and shared group experience (e.g., Nelson et al., 1996, pp. 136-137), respectively, and this may be another basis for their relevance within the context of healing.

Kachina ceremonies are also thought to have a healing-related purpose underlying them (Adams, 1991), in that they too may be perceived as a contribution to maintaining a harmonious balance in the natural world through positive, focused ritual (Dozier, 1970/1983, p. 200). Thompson and Joseph (1944, cited in Dozier, 1970/1983) note:

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[16] Spirit contact healing is thought to be achieved by having the patient sit directly on the sandpainting during the ceremony, and then having the colored sand poured and rubbed on their body afterwards.

> . . . to carry out a rite successfully, the participants must not only follow the prescribed ritual behavior, perform all the proper acts and observe the tabus [*sic*], but they must also exercise control over their emotions and thoughts. They must keep a 'good heart.' A 'good heart' means that one must not feel fear, anger, sadness, or worry. In other words, one must be inwardly tranquil and of good will. (p. 200)

In other words, analogous to the Navajo tradition of human effects on *Diyin*, participants must keep a positive focus during a ceremony in order to ensure success of the kachina ceremony. If such an outlook is shared among all the participants, then this too might facilitate a kind of shared group "coherence" analogous to the kind that is thought to underlie field consciousness effects (Nelson et al., 1996, 1998).

The large group nature of a kachina ceremony might itself suggest the possibility of a group PK effect. Such ceremonies often involve large group dances that are rhythmic and synchronized, with a mass focus of attention upon them by the numerous pueblo villagers in attendance. Tribal members regularly work together to ensure that the ceremony goes smoothly,[17] and families regularly invite each other to their homes for visits and a meal during the ceremony, both of which promote social gathering and cohesiveness (Adams, 1991; Kealiinohomoku, 1989). With regard to this group nature of a Hopi kachina ceremony, Joann Kealiinohomoku (1989) writes:

> Both dancers and non-dancers are mesmerized by the rhythmically pleasing patterns, and the collective thoughts and energies magnetically attract the katsina spirits. This [spiritual energy] vortex is intensified by the accumulation of rhythms that systematically and insistently beat together with some combination of drums, rattles, bells, and moving bodies. . . . A feeling of closeness and caring envelops the people who sit or stand quietly together while surrounding the dancers in the plaza. (pp. 58-59).

This seems akin to the kind of social atmosphere reported in some of the group situations that have displayed field consciousness effects (Nelson et al., 1996, 1998), and it may perhaps entail the formation of a short-lived

[17] This communal ceremonial aid usually comes about through individual clan functions for a kachina ceremony. For details, see Parsons (1923, pp. 219-224).

ceremonial longbody. Kachina ceremonies also have the purpose of bringing rain, and a group focus towards this purpose may lead to a possible PK effect on the surrounding physical atmosphere. This possibility is suggested in a natural "group consciousness" study by Nelson (1997), which found that there tended to be less rain over time on days of large outdoor group ceremonies held at Princeton University. In one sense, this might be seen as the opposite effect of the stereotypical Indian "rain dance."

PLACE MEMORY AND SACRED SITES

There is one other aspect of HNLZ culture that may be relevant to the longbody, and that is sacred Indian sites as possible harborers of "place memory." The concept comes from the Oxford philosopher H. H. Price (1939, 1940), who had initially proposed it as a way to account for psychometry and veridical haunting apparitions. Roll (1989, 1993, 2005) later expanded on the concept by providing a logical basis for it: The mind, which holds memories, is embodied. In turn, the body is emplaced, which means the mind is also emplaced. If that is so, then this further means that memories are emplaced. In addition, Roll (1988) has argued that memory can be seen as mind stretched out in space and time, and may therefore serve as both a basis and a limiting factor for the reach of the longbody. Considering this, one could argue that historical and sacred sites may harbor the personal history of a given tribe in the form of place memory as one way to preserve the tribal longbody over time.

Reflecting on the recording her second album in Taos, New Mexico, in 1993, musician Tori Amos (in Rogers, 1994) had stated, "When I went to New Mexico I felt the past from the Pueblo nation. You stand out on those plains, and you just see them coming over the hill, you see the horses coming over the hill, and that land is still alive with those memories, the Southwest, that's one reason that I was drawn to go record there" (p. 73). Anecdotal accounts like these of people "feeling the history of the tribe" or a "deep sense of tranquility or peace" at a sacred site or a place of tribal inhabitance may be akin to reports of place memory as it relates to psychometry and haunting. Regarding the latter, Price (1939) had written:

> Persistent and dynamic images, which when once formed may have a kind of independent life of their own, and may escape more or less completely from the control of their author. . . . An image or a group of images may get itself localized in a particular region of Physical Space. . . . Once localized there, they might continue to be so localized for a considerable period, retaining the telepathic

> charge which they had at first, though this might gradually diminish in intensity. (pp. 325-326)

From this perspective, one might argue that sacred tribal places like *kivas* might be most susceptible to place memory given the persistent annual celebration and ritual repetition of ceremony, as well as the dynamic nature of such events (e.g., drumming, rattling, and dancing), the memories of which might be experienced by others visiting the site with time. In discussing place memory, Pamela Rae Heath (2004, 2005) suggested that there may be two ways in which the memories become localized: they may be done so passively through repetitive action, and they may be done so actively through PK.[18] If that is so, then ceremonial action in a *kiva* would seem to be most in line with the former, but it may also involve the latter to some degree if activities that produce sympathetic nervous system arousal (such as dancing) are also conducive to PK (Roll, 1987, p. 20).

The sensibility of sacred sites harboring place memory is also suggested by a metaphorical statement by Steve McDowell (1990, cited in Hieb, 1992) in relation to historic New Mexican religious architecture: "Architecture is a form of memory, less similar to the structured mechanisms of history than it is a life form, with a growth, adaptation and life span that resemble those of an ancient tree" (p. 76). This perspective would seem to suggest that architecture can be seen as more dynamic than static, much in the same way that place memory may be seen as dynamic. Louis Hieb (1992) then notes: "In societies without a written language—like the Hopi . . . architecture becomes an enduring embodiment of ideas expressed in symbolic form" (p. 76). Architecture can also be a defining part of place, and in some sense, memories associated with a place might represent an enduring embodiment of ideas expressed in dynamic form.

There may be some suggestion of psi-related experience of persistent place memory within the traditions of a few of the Southwest tribes. Mails (1988/2003) had written that, according to the Hopi tradition,

> The place where one worships and petitions is extremely important. Closeness to the deities, the very warmth and power of their beings, must be felt. When this is so, people hear the powers speak, motivation comes, and amazing things happen. The dead return, magic and miracles occur, and *believers are simultaneously*

[18] There may be some preliminary evidence to support Heath's hypothesis that PK takes an active role in the formation of place memory; see the review by Williams and Roll (2006).

> *transported back into ancient time and forward into the future. Consciousness is expanded.* (p. 91, emphasis added).

This suggests that experiences of spiritual vision at a Hopi worship site may in part involve the experience of place memory in the same sense as one might experience it when seeing a veridical haunting apparition (Roll, 1981a).

Similar perceptions about the home (called a hogan) are held by the Navajo in relation to bad dreams. Kluckhohn and Leighton (1962) note: "If bad dreams keep coming, the hogan will be torn down and a new one will be built some distance away, because the bad dreams are supposed to come from ghosts who are frequenting their old haunts and trying to draw their relatives into ghostland with them" (p. 204). This too suggests ESP impressions of place memory and apparitions as it relates to hauntings (Roll, 1981a). It also seems to be in line with a slight difference in dream content observed at sacred sites in the UK as compared to home dream reports, though this observed difference is tentative and still needs to be studied further (Krippner, Devereux, & Fish, 2003).

Rina Swentzell (2001) states that Santa Clara Pueblo homes are also viewed in a similar fashion, noting that "Many different kinds of energies flowed through the structures because they shared in the energies of the people who lived and died within them" (p. 89).

Anecdotal Examples of Psi and Longbody Connections

As a way to illustrate how the longbody may tie into tribal psi experiences, three anecdotal examples suggestive of the latter are presented here. The first comes from Navajo researcher Willard W. Hill (1938, in Kluckhohn, 1939), who noted in a discussion of the tribe's Rain Chant:

> During a ceremony, the individuals in a hogan were supposed to sit and think hard, stare straight ahead, and be very quiet. If the chanter were [*sic*] performing the ceremony in the right manner some one of the audience would get a vision pertaining to the chanter and his objective. This would be a sign that the ceremony was being properly conducted and that it would be successful (p. 66).

One might note that this ceremonial setting is quite similar to that of a spiritual séance, and might be conducive to group ESP interpreted as spiritual vision. According to Roll, one of the factors that may facilitate psi

among a closely-knit group is the formation of a group longbody (Duncan & Roll, 1995, p. 152).

The second example is described by Duncan and Roll (1995), in which an archaeologist challenges a psychic to pick up psychometric information from pueblo artifacts in order to tell where they came from:

> "One tiny piece of shell gave me a picture of a civilization to the west of me," she says. "I got the styles of houses, decorations and styles of pottery, and the name *Zuni*. From a fragment of a pot I got entirely different styles of dwellings, pottery, and decoration, and the word *Aztec*. I identified three more fragments, one of them *Hopi*." The archaeologist verified that all these impressions were accurate and said he did not believe that any professional archaeologist could have done better unless he had spent a lifetime with Indian artifacts from those particular civilizations. (p. 65)

This example may illustrate how the conative aspects of an object, when it is persistently imbued with meaning in ceremony, may be psychically perceived as place memory. Similar cases in which historical artifacts and sites were used as psychometric sources have been described in detail by Schwartz (1978/2001, Ch. 2, 4-6), and they may further illustrate how place memory associated with objects and sites might allow psychics to "reconnect" with the persisting tribal longbodies of existing or extinct cultures across space and time.

The third was an experience related to me by my father, which had occurred in relation to the passing of my great-uncle:

> I was in Albuquerque the weekend Uncle passed away. I was not there when he did. I was on my way back to California. But on Monday, the day after he passed, I was in Winslow, Arizona. While I was there, I had this feeling to go back to Laguna. Why I had this feeling, I don't know. Or I guess I knew where it was coming from. When I pray in Laguna, I ask the spirits to whisper in my ear, things I need to know. It is my belief that Uncle had sent the spirits to tell me to come home for him that day. I went on to Lancaster. I was there an hour when I got the call that Uncle had passed. I should have gone back while in Winslow. Three-hours later I was on my way back home.

While interpreted within a native context, this experience seems to be suggestive of either precognition or retrocognition, depending on which cognized event is focused on (the phone call or the passing, respectively).

My father was known to have a close connection to my great-uncle, visiting him whenever he could, and this might have given rise to a personal longbody connection between them that was maintained at a distance through psi. Alternatively, my father's interpretation suggests a close personal connection to the larger tribal longbody.

DISCUSSION

> "*My people once hunted for buffalo—now we hunt for knowledge*" (Lakota Chief Joseph Chasing Horse, in a press release for a meeting exploring connections between astronomy and traditional Lakota star knowledge, *Science*, *283*, p. 2007)

The suggestions from HNLZ tradition of a unity among people, place and spirit; of cognitive and conative aspects within tribal society, and of a possible link between sacred sites and place memory all seem to metaphorically suggest a close interconnection between mind and matter that is akin to that proposed for the longbody in a parapsychological context (Roll, 1987, 1989, 2005). What might the deeper implications of this be for psi and the longbody? Roll (1966, 1975, Ch. 4) has previously proposed a theory in which (long-term) memory traces play an important role in ESP. Given that HNLZ use a memory-based oral tradition as the prime method of preserving their culture, ESP may play a supplemental role in maintaining the traditions over time for the benefit of the survival of the larger tribal longbody. In addition, by remembering them through their oral traditions, the four tribes might keep very close longbody ties to their deceased tribal members. This might at times be conducive to the experience of survival-related phenomena that is often interpreted within the context of underworld spirit connections. Survival after death in this context would more seem to represent a longbody persisting across space and time rather than the survival of individual minds.

To help preserve the history of the tribal longbody, PK might have a role in defining the conative aspects of ceremonial objects and sacred sites that become part of their respective place memories. In this case, the conative aspects might be achieved primarily through group PK effects during a ceremonial event, with the latter carrying strong spiritual meaning for Indian tribes in terms of their survival (Adams, 1991; Dozier, 1970/1983; Kealiinohomoku, 1989; Waters, 1950, 1963). As an object or site is continually used over time in large group ceremonies, it might be subject to place memory formation through repetitive action and PK as proposed by Heath (2004, 2005). As with ceremonial healing, the form of

group PK involved might be akin to the "field consciousness" effects observed in relation to other spiritual techniques, such as meditation (Nelson & Radin, 2003; Rowe, 1998).

It is possible that some tribal psi experiences at sacred sites could be similar to haunt experiences, in that some locations deemed as sacred by Indian tribes may display geophysical properties very similar to those found at reported haunt sites (Roll & Persinger, 2001). Another reason for thinking this is that physical measurements taken at various archaeological sites in Europe suggest that these sites can have unusual geophysical properties (Devereux, 1990). Similarly, some sacred Indian artifacts may have some unique physical properties of their own (e.g., an artifact that is materially composed in part of radioactive elements).

The geophysical properties most likely to be associated with tribal psi experiences among HNLZ are ionizing radiation and geomagnetism, based on the geology of the American Southwest (Adams, 1999). Within New Mexico and Arizona, there is frequent mining for radioactive elements such as Uranium-238, the decay products of which can contribute to background radiation levels if considerable concentrations are present in rock formations surrounding tribal sites. Dry desert winds, such as those produced by the Santa Ana winds, can also affect radiation levels by producing excess positive ion counts (Assael, Pfeifer, & Sulman, 1974; Charry & Hawkinshire, 1981; Persinger, 1979). Some studies seem to suggest that atmospheric ionization can affect brain wave patterns (Assael, Pfeifer, & Sulman, 1974), as well as behavior and mood (Frey, 1961).

In relation to radiation, radon gas might be a possible secondary factor. Radon is often a decay product of uranium, and is known to be toxic when inhaled in large amounts (Kerr, 1988). Concentrations of radon gas could build up within rock formations and seep into enclosed tribal sites like *kivas*, where it may concentrate. Without proper ventilation, the gas could be frequently inhaled by tribal people occupying the space, leading to hypoxia and its associated hallucinatory effects. Radon toxicity could be one contributing factor behind a Hopi tradition warning non-Indians not to trespass on a sacred tribal site, the consequences of which might be deadly (Marriott & Rachlin, 1968, pp. 243-245).

Electromagnetic and geomagnetic fluctuations within the Southwest region could be another contributing factor. Certain regions, such as the Tucumcari Basin in New Mexico, have been found to have transient geomagnetic variation anomalies in the areas around deep sedimentary basins with conductive properties (Persinger, 1987, p. 97; Porath & Dziewonski, 1971). Anomalies arising from thermoremanent magnetization as a result of excessive heat in room fire hearths and pits may be a further source of magnetic field fluctuation in sacred sites (Sternberg, 1987). The

activity associated with geological processes in the area around a sacred site, such as the movement of water in an underground aquifer or volcano-related seismic activity, may also contribute to anomalous magnetic field variations and gas emissions (Persinger, 1979, 1985, 1987).

The effects of these magnetic fluctuations may be similar to those proposed for haunt cases, in that they might affect the brains of people present at the site, leading to subjective experiences similar to the sensed presence, apparitions, and other haunt-related phenomena (Persinger, 1979, 1985, 1987, 1993, 2001; Roll & Persinger, 2001). Certain brain areas particularly sensitive to magnetic fields, such as the temporal lobes and the limbic system, may perhaps affect the content of such experiences if influenced by anomalous magnetic fields. Persinger (1983, 1993, 2001) has suggested that religious and mystical experiences may be a function of temporal lobe microseizuring, a neuroelectrical phenomenon that may be facilitated by exposure to complex magnetic fields. The two main structures of the limbic system, the hippocampus and the amygdala, are known to be centrally involved in memory and emotion, respectively. Electrical stimulation of these structures has been associated with the experience of memory- or dream-like hallucinations of scenes, déjà vu, various bodily sensations, and negative emotions, among others (Halgren et al., 1978). Activation of these structures through electrical induction by an anomalous magnetic field may perhaps generate similar transient experiences in people visiting sites that contain such a field.

In addition, there might be some aspects of the ceremonial process itself that might facilitate psi-conducive altered states of consciousness, such as the rhythmic beats of ceremonial drumming. Drum beats seem to produce acoustic sound waves that at times can modulate and produce brain wave patterns that "follow" the same frequency as the waves, a process called "auditory driving" (Vaitl et al., 2005, p. 107). A similar process may be involved in the technique of binaural beating, which is often used to induce altered states (Atwater, 1997). Sound waves from unified ceremonial singing and chanting that become localized within an enclosed space (like a *kiva*) may also create a standing sound wave within the space that could have an auditory driving-related effect over time. Sound measurements taken in European archaeological sites by Devereux and Jahn (1996) and by Jahn, Devereux, and Ibison (1996) seem to indicate the presence of such standing sound waves, hinting at the sensibility of the idea.

Aside from geophysical properties, there might also be certain psychological factors that could influence the experience of tribal psi. Some studies suggest that certain contextual variables, such as cultural beliefs, rumors, and cues embedded in the surrounding environment, could influence one's perception in a haunt experience (Harte, 2000; Lange et al.,

1996). Certain environmental factors which might give one the sense of a mysterious atmosphere, such as lighting levels, have also been found to correlate with reported experiences at haunt sites (Wiseman et al., 2003). Similar to haunts, these factors might predispose one to an expectation of mystical experience within sacred sites, given their known history, intended use, and spiritual decoration.

In terms of psychological factors that may relate to healing, McClenon (1997) has suggested that suggestions embedded in shamanic rituals may have therapeutic effects, perhaps analogous to a placebo effect. Such suggestions could come from contextual variables, as well, as suggested by the findings of Houran, Lange, and Crist-Houran (1997) in relation to shamanic trance. In addition, McClenon (1994) has proposed that anomalous experiences (including psi) may have in part given rise to belief in souls, spirits, and an afterlife, forming the basis for religion. If some anomalous experiences are the result of geophysical factors and/or psychological factors, then this, combined with McClenon's hypothesis, could possibly account in part for the presence of strong spiritual aspects in tribal societies like the ones described here.

CONCLUSION

Some of the ideas relating to longbody aspects of HNLZ tradition and their implications for tribal psi that have been discussed here seem open to further exploration. Possible directions for future research might include:

1. examining through survey study the frequency of psi-related experiences among Indian tribes that rely strongly on a memory-based oral tradition in order to further explore the relation between ESP and memory among Indians;

2. further field exploration of the geophysical properties of sacred Indian sites using measuring instruments, with a comparison to the measurements recorded at traditional haunt sites;

3. field measurements of possible group PK effects during Native American tribal ceremonies through the use of portable random number generators.[19] Similar measurements can be taken for healing ceremonies as they might relate to bio-PK and DMILS;

[19] I have recently made a preliminary effort in this direction by collecting random data during the 2005 Gathering of Nations Powwow (Williams, 2006). Analysis revealed that the data were

4. collecting, and making a closer examination of the phenomenological aspects of, reported psi experiences among Native Americans to see what they might tell us about tribal psi experience as compared to psi experiences among Anglos. This, along with (1) above, might help to estimate the frequency and type of psi experiences of Native Americans, which can also be compared to Anglo reports.

And of course, psi testing with Native Americans might be worth consideration, provided that willing subjects can be found. To date, it appears that only one study with an Indian population (children from a Canadian Plains tribe) has been conducted, with mixed results (Foster, 1943). Findings from these research directions might be useful in further supporting or disproving some of the ideas suggested here, as well as possibly deriving more refined perspectives on psi and the longbody within the Native American tradition.

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REFERENCES

Aanstoos, C. M. (1986). Psi and the phenomenology of the long body. *Theta, 13-14,* 49-51.

Aanstoos, C. M. (2005). Phenomenology of embodiment. In *The Parapsychological Association 48th Annual Convention*: *Proceedings of presented papers* (pp. 12-23). Raleigh, NC: Parapsychological Association.

Adams, E. C. (1991). *The origin and development of the Pueblo Katsina cult*. Tucson, AZ: University of Arizona Press.

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at chance. It was noted, however, that the psychological atmosphere of this public event was quite different than that for private tribal ceremonies.

Adams, M. H. (1999). Physical anomalies at sacred sites. Paper presented at the 18th Annual Meeting of the Society for Scientific Exploration, University of New Mexico, Albuquerque, NM, June 10-12.

Assael, M., Pfeifer, Y., & Sulman, F. G. (1974). Influence of artificial air ionization on the human electroencephalogram. *International Journal of Biometeorology*, *18*, 306-312.

Atwater, F. H. (1997). Accessing anomalous states of consciousness with a binaural beat technology. *Journal of Scientific Exploration*, *11*, 263-274.

Braud, W. (2003). *Distant mental influence: Its contributions to science, healing, and human interactions*. Charlottesville, VA: Hampton Roads Publishing Company.

Broughton, R. S., & Alexander, C. H. (1997). Autoganzfeld II: An attempted replication of the PRL ganzfeld research. *Journal of Parapsychology*, *61*, 209-226.

Charry, J. M., & Hawkinshire V, F. B. W. (1981). Effects of atmospheric electricity on some substrates of disordered social behavior. *Journal of Personality and Social Psychology*, *41*, 185-197.

Cohen, K. B. H. (1998). Native American medicine. *Alternative Therapies in Health and Medicine*, *4*, 45-57.

David, N. (1993). *Kachinas: Spirit beings of the Hopi*. Albuquerque, NM: Avanyu Publishing, Inc.

Delanoy, D. L. (2001). Anomalous psychophysiological responses to remote cognition: The DMILS studies. *European Journal of Parapsychology*, *16*, 29-40.

Devereux, P. (1990). *Places of power: Measuring the secret energy of ancient sites*. London: Blandford.

Devereux, P., & Jahn, R. G. (1996). Preliminary investigations and cognitive considerations of the acoustical resonances of selected archaeological sites. *Antiquity*, *70*, 665- 666.

Dozier, E. P. (1970/1983). *The Pueblo Indians of North America*. Prospect Heights, IL: Waveland Press.

Duncan, L., & Roll, W. (1995). *Psychic connections: A journey into the mysterious world of psi*. New York: Delacorte Press.

Erdoes, R. (1976). *The Rain Dance People: The Pueblo Indians, past and present*. New York: Alfred A. Knopf, Inc.

Feather, S. R., & Schmicker, M. (2005). *The gift: ESP, the extraordinary experiences of ordinary people*. New York: St. Martin's Press.

Fewkes, J. W. (1914/1990). *The Mimbres: Art and archeology*. Albuquerque, NM: Avanyu Publishing.

Foster, A. A. (1943). ESP tests with American Indian children: A comparison of methods. *Journal of Parapsychology*, *7*, 94-103.

Frey, A. H. (1961). Human behavior and atmospheric ions. *Psychological Review, 68*, 225-228.

Halgren, E., Walter, R. D., Cherlow, D. G., & Crandall, P. H. (1978). Mental phenomena evoked by electrical stimulation of the human hippocampal formation and amygdala. *Brain, 101*, 83-117.

Harte, T. M. (2000). Contextual mediation of perceptions during hauntings and poltergeist-like experiences: A replication and extension. *Perceptual and Motor Skills, 91*, 451-459.

Heath, P. R. (2004). The possible role of psychokinesis in place memory. *Australian Journal of Parapsychology, 4*, 63-80.

Heath, P. R. (2005). A new theory on place memory. *Australian Journal of Parapsychology, 5*, 40-58.

Hieb, L. A. (1992). The kiva and the evolution of symbol systems. In B. H. Morrow & V. B. Price (Eds.) *Proceedings: The Mesa Verde symposium on Anasazi architecture and American design* (pp. 67-84). Albuquerque, NM: Landscape Architects, Inc.

Houran, J., Lange, R., & Crist-Houran, M. (1997). An assessment of contextual mediation in trance states of shamanic journeys. *Perceptual and Motor Skills, 85*, 59-65.

Jahn, R. G., Devereux, P., & Ibison, M. (1996). Acoustical resonances of assorted ancient structures. *Journal of the Acoustical Society of America, 99*, 649-658.

Lange, R., Houran, J., Harte, T. M., & Havens, R. A. (1996). Contextual mediation of perceptions in hauntings and poltergeist-like experiences. *Perceptual and Motor Skills, 82*, 755-762.

Kealiinohomoku, J. W. (1989). The Hopi katsina dance event "doings." In S. B. Vane & L. J. Bean (Eds.) *Seasons of the Kachina: Proceedings of the California State University, Hayward conferences on the Western Pueblos 1987-1988* (pp. 51-63). Ballena Press Anthropological Papers No. 34. Hayward, CA: Ballena Press/California State University, Hayward.

Kerr, R. A. (1988). Indoor radon: The deadliest pollutant. *Science, 240*, 606-608.

Kluckhohn, C. (1939). Some personal and social aspects of Navaho ceremonial practice. *Harvard Theological Review, 32*, 57-82.

Kluckhohn, C. (1944). *Navaho witchcraft*. Boston: Beacon Press.

Kluckhohn, C., & Leighton, D. (1962). *The Navaho* (Rev. Ed.). Garden City, NY: Anchor Books/American Museum of Natural History.

Krippner, S., Devereux, P., & Fish, A. (2003). The use of the Strauch Scale to study dream reports from sacred sites in England and Wales. *Dreaming, 13*, 95-105.

Mails, T. E. (1983). *The Pueblo children of the Earth Mother, Volume II*. New York: Doubleday & Company, Inc.

Mails, T. E. (1988/2003). *Secret Native American pathways*. Tulsa, OK: Council Oak Books.

Marriott, A., & Rachlin, C. K. (1968). *American Indian mythology*. New York: Mentor Books/New American Library.

Maryboy, N. C., & Begay, D. H. (2004). Ceremonial healing: Traditional ways of healing expressed through Navajo consciousness. *Shift: At the Frontiers of Consciousness*, *3*, 25-29.

McClenon, J. (1994). *Wonderous events: Foundations of religious belief*. Philadelphia: University of Pennsylvania Press.

McClenon, J. (1997). Shamanic healing, human evolution, and the origin of religion. *Journal for the Scientific Study of Religion*, *36*, 345-354.

Nelson, R. D. (1997). Wishing for good weather: A natural experiment in group consciousness. *Journal of Scientific Exploration*, *11*, 47-58.

Nelson, R. D., Bradish, G. J., Dobyns, Y. H., Dunne, B. J., & Jahn, R. G. (1996). FieldREG anomalies in group situations. *Journal of Scientific Exploration*, *10*, 111-141.

Nelson, R. D., Jahn, R. G., Dunne, B. J., Dobyns, Y. H., & Bradish, G. J. (1998). FieldREG II: Consciousness field effects: Replications and explorations. *Journal of Scientific Exploration*, *12*, 425-454.

Nelson, R. D., & Radin, D. I. (2003). FieldREG experiments and group consciousness: Extending REG/RNG research to real-world situations. In W. B. Jonas & C. C. Crawford (Eds.) *Healing, intention, and energy medicine: Science, research methods and clinical implications* (pp. 49-57). Edinburgh, UK: Churchill Livingstone.

Parsons, E. C. (1920). Notes on ceremonialism at Laguna. *Anthropological Papers of the American Museum of Natural History*, *19*, 85-131.

Parsons, E. C. (1923). Laguna genealogies. *Anthropological Papers of the American Museum of Natural History*, *19*, 133-292.

Peckham, S. (1989). Prehistoric pottery of New Mexico. In A. H. Whiteford, S. Peckham, R. Dillingham, N. Fox, & K. P. Kent (Eds.) *I am here: Two thousand years of Southwest Indian arts and culture* (pp. 29-45). Santa Fe, NM: Museum of New Mexico Press.

Persinger, M. A. (1979). Geophysical models for parapsychological experiences. In S. Krippner (Ed.) *Psychoenergetic systems: The interaction of consciousness, energy, and matter* (pp. 239-250). New York: Gordon and Breach.

Persinger, M. A. (1983). Religious and mystical experiences as artifacts of temporal lobe function: A general hypothesis. *Perceptual and Motor Skills*, *57*, 1255-1262.

Persinger, M. A. (1985). Geophysical variables and behavior: XXII. The tectonogenic strain continuum of unusual events. *Perceptual and Motor Skills*, *60*, 59-65.

Persinger, M. A. (1987). Geopsychology and geopsychopathology: Mental processes and disorders associated with geochemical and geophysical factors. *Experientia*, *43*, 92-103.

Persinger, M. A. (1993). Vectorial cerebral hemisphericity as differential sources for the sensed presence, mystical experiences and religious conversions. *Perceptual and Motor Skills*, 76, 915-930.

Persinger, M. A. (2001). The neuropsychiatry of paranormal experiences. *Journal of Neuropsychiatry and the Clinical Neurosciences*, *13*, 515-524.

Porath, H., & Dziewonski, A. (1971). Crustal resistivity anomalies from geomagnetic deep-sounding studies. *Reviews of Geophysics & Space Physics*, *9*, 891-915.

Pratt, K. J. (1993). Some Navajo relations to the past. In J. Piper (Ed.) *Papers from the third, fourth, and sixth Navajo studies conferences* (pp. 151-157). Window Rock, AZ: Navajo Nation Preservation Department.

Price, H. H. (1939). Haunting and the "psychic ether" hypothesis: With some preliminary reflections on the present condition and possible future of psychical research. *Proceedings of the Society for Psychical Research*, *45*, 307-343.

Price, H. H. (1940). Some philosophical questions about telepathy and clairvoyance. *Philosophy*, *15*, 363-385.

Reichbart, R. (1976). The Navajo hand trembler: Multiple roles of the psychic in traditional Navajo society. *Journal of the American Society for Psychical Research*, *70*, 381-396.

Rhine, L. E. (1961). *Hidden channels of the mind*. New York: William Sloane Associates.

Rice, G. E., & Townsend, J. (1962). Agent-percipient relationship and GESP performance. *Journal of Parapsychology*, *26*, 211-217.

Ricks, J. B., & Anthony, Jr., A. E. (1993). The Hopi. In N. David, Sr. *Kachinas: Spirit beings of the Hopi* (pp. 6-11). Albuquerque, NM: Avanyu Publishing, Inc.

Rogers, K. (1994). *Tori Amos: All these years: The authorized illustrated biography*. London, UK: Omnibus Press.

Roll, W. G. (1966). ESP and memory. *International Journal of Neuropsychiatry*, *2*, 505-521.

Roll, W. G. (1975). *Theory and experiment in psychical research* [M.Litt thesis, Oxford, 1959]. New York: Arno Press.

Roll, W. G. (1978). Hypnosis and object association. In M. Ebon (Ed.) *The Signet handbook of parapsychology* (pp. 327-353). New York: Signet/New American Library.

Roll, W. G. (1981a). A memory theory for apparitions. In W. G. Roll & J. Beloff (Eds.) *Research in parapsychology 1980* (pp. 5-7). Metuchen, NJ: Scarecrow Press.

Roll, W. G. (1981b). "External mystical powers." In W. G. Roll & J. Beloff (Eds.) *Research in parapsychology 1980* (p. 13). Metuchen, NJ: Scarecrow Press.

Roll, W. G. (1987). Memory and the long body. *Theta, 15*, 10-29.

Roll, W. G. (1988). Psi and the phenomenology of memory. In D. H. Weiner & R. L. Morris (Eds.) *Research in parapsychology 1987* (pp. 131-134). Metuchen, NJ: Scarecrow Press.

Roll, W. G. (1989). Memory and the long body. In L. A. Henkel & R. E. Berger (Eds.) *Research in parapsychology 1988* (pp. 67-72). Metuchen, NJ: Scarecrow Press.

Roll, W. G. (1993). Mind and method. In L. Coly & J. D. S. McMahon (Eds.) *Proceedings of an international conference: Psi research methodology: A Re-examination* (pp. 274-294). New York: Parapsychology Foundation, Inc.

Roll, W. G. (1997). My search for the soul. In C. T. Tart (Ed.) *Body mind spirit: Exploring the parapsychology of spirituality* (pp. 50-67). Charlottesville, VA: Hampton Roads Publishing Company.

Roll, W. G. (2004). Early studies on psychometry. *Journal of Scientific Exploration, 18*, 711-720.

Roll, W. G. (2005). Psi and the long body. In *The Parapsychological Association 48th Annual Convention: Proceedings of presented papers* (pp. 149-162). Raleigh, NC: Parapsychological Association.

Roll, W. G., & Persinger, M. A. (2001). Investigations of poltergeists and haunts: A review and interpretation. In J. Houran & R. Lange (Eds.) *Hauntings and poltergeists: Multidisciplinary perspectives* (pp. 123-163). Jefferson, NC: McFarland & Company, Inc.

Rowe, W. D. (1998). Physical measurement of episodes of focused group energy. *Journal of Scientific Exploration, 12*, 569-581.

Schlitz, M., & Braud, W. (1997). Distant intentionality and healing: Assessing the evidence. *Alternative Therapies in Health and Medicine, 3*, 62-73.

Schwartz, S. A. (1978/2001). *The secret vaults of time: Psychic archeology and the quest for man's beginnings*. Charlottesville, VA: Hampton Roads Publishing.

Scully, V. (1975). *Pueblo: Mountain, village, dance*. New York: Viking Press.

Sternberg, R. S. (1987). Archaeomagnetism and magnetic anomalies in the American Southwest. *Geophysics*, *52*, 368-371.

Stuart, C. E. (1946). GESP experiments with the free response method. *Journal of Parapsychology*, *10*, 21-35.

Swentzell, R. (2001). Remembering Tewa Pueblo houses and spaces. In A. G. Melendez, J. Young, P. Moore, & P. Pynes (Eds.) *The multi-cultural southwest: A reader* (pp. 86-90). Tucson, AZ: University of Arizona Press.

Tapahonso, L. (2001). Ode to the land: The Diné perspective. In A. G. Melendez, J. Young, P. Moore, & P. Pynes (Eds.) *The multi-cultural southwest: A reader* (pp. 97-101). Tucson, AZ: University of Arizona Press.

Targ, E. (1997). Evaluating distant healing: A review. *Alternative Therapies in Health and Medicine*, *3*, 74-78.

Vaitl, D., Birbaumer, N., Gruzelier, J., Jamieson, G. A., Kotchoubey, B., Kübler, A., Lehmann, D., Miltner, W. H. R., Ott, U., Pütz, P., Sammer, G., Strauch, I., Strehl, U., Wackermann, J., & Wiess, T. (2005). Psychobiology of altered states of consciousness. *Psychological Bulletin*, *131*, 98-127.

Waters, F. (1950). *Masked gods: Navaho & Pueblo ceremonialism.* Athens, OH: Swallow Press.

Waters, F. (1963). *Book of the Hopi*. New York: Penguin Books.

Williams, B. J. (2006). Field RNG exploration during a public Native American powwow. In *The Parapsychological Association 49th Annual Convention Proceedings of presented papers:* (pp. 237-247). Petaluma, NC: Parapsychological Association.

Williams, B. J., & Roll, W. G. (2006). Psi, place memory, & laboratory space. In *The Parapsychological Association 49th Annual Convention*: *Proceedings of presented papers* (pp. 248-258). Petaluma, NC: Parapsychological Association.

Wiseman, R., Watt, C., Stevens, P., Greening, E., & O'Keeffe, C. (2003). An investigation into alleged 'hauntings.' *British Journal of Psychology*, *94*, 195-211.

Wright, B., Gaede, M., & Gaede, M. (1988). *The Hopi photographs—Kate Cory: 1905-1912.* Albuquerque, NM: University of New Mexico Press.

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