

Searching for the Extended Self: Exploring the Implications of Parapsychology for Spirituality*

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Abstract: Much of Western society tends to place a great deal of emphasis on the individual self in pondering human existence. However, a number of spiritual and religious traditions also recognize an aspect to humanity that is transcendent – one that seems to extend beyond the individual self and encompass a broader spiritual connection with other people and the natural world in which we live. Such an aspect may not only be reflected in some of the profound divine and mystical experiences described in many spiritual and religious texts, but also in experiences that many people have had in which they seem to have intuitive thoughts, feelings, or impressions about others close to them that later turn out to be correct. It may even be reflected in certain experiences people have had that seem to touch on the possibility of an afterlife, an idea inherent in many religious and spiritual traditions.

The science of parapsychology seeks to develop a better understanding of these various kinds of exceptional human experiences – which have been traditionally labeled as psychic experiences – through a combination of experimental research and close study of personal experiential accounts. This paper provides a basic lay introduction to parapsychology and gives a brief overview of some of the findings from current parapsychological research which may have implications for the spiritual concept of an extended self that transcends mere individuality. When considered carefully, the findings appear to be in line with the notion of there being a broad spiritual web of interconnection between people and the natural world they inhabit, akin to that suggested by the Native American self-concept of the “long body.” Such a notion could offer a hopeful message for humanity and the pursuit of global harmony.

Introduction

The most beautiful and most profound emotion we can experience is the sensation of the mystical. It is the sower of all true science. He to whom this emotion is a stranger, who can no longer wonder and stand rapt in awe, is as good as dead. To know that what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty which our dull faculties can comprehend only in their most primitive forms – this knowledge, this feeling is at the center of true religiousness.

- Albert Einstein (quoted in Barnett, 1979, p. 108)

It may often be taken for granted that, from the earliest moments we can remember, we humans experience our thoughts, feelings, and perceptions from within the enclosed confines of our own body and brain, which gives each of us the sense of having a private and individual self. In pondering human existence, much of our modern Western society tends to place a lot of emphasis on this individual sense of self we have. For instance, we’re often taught to “be our own person” and to look at ourselves as being separate and distinct from others. While this can be good

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because it helps foster unique personalities among each of us, it can also be bad at times because when taken to the extreme, it can potentially lead to such socially limiting factors as segregation, discrimination, and prejudice.

This emphasis on the individual self in Western society is quite different from the more holistic view commonly held in a number of religious and spiritual traditions, which recognizes an aspect to humanity that is *transcendent* – that is, an aspect that extends beyond the perceived boundaries of the individual self and encompasses a broader sense of spiritual connection with other people and the natural world in which we live. Because other people and the natural world tend to have a great impact on our lives, we might perhaps think of this transcendent aspect as representing a spiritually “extended” part of our self.

There are various aspects of religious and spiritual tradition which, at their heart, seem to reflect this extended part of the self. Most notable among these are the kinds of profound divine and mystical experiences that have been described in religious and spiritual texts. For example, in many sections of the Bible, one can find accounts of compassionate divine healing of ill persons, instances of prophesy regarding events to come in people’s lives, and moments of laying witness to higher spiritual realms of existence where communion has occurred with one or more divine beings (for a list of where accounts of these and other profound experiences can be found in the Bible, see Conser, 2012, Ch. 15).

In Patanjali’s *Yoga Sutras*, descriptions are given of the various mind-body techniques and exercises that one may practice in order to free one’s self from the narrow boundaries of the body and move toward a state of achieving a union or oneness with the “Universal Self.” Upon achieving the proper level of mind-body conditioning through continual practice of the techniques and exercises, it is said that a person may attain unique abilities known as the *siddhis*, some of which seem to involve broader forms of knowing such as insight, intuition, and revelation (Braud, 2010).

Examples of the extended self can also be found in the oral traditions of Native American spirituality, as well. In the oral traditions of some Plains tribes such as the Oglala Sioux, there are accounts of shamans having profound visions in which they were able to transcend their own physical existence and witness a higher realm inhabited by the deities and spirits that are believed to guide and protect the tribe. Through their communion with the deities and spirits in this manner, the shamans often received foreknowledge about certain events and situations that was helpful in aiding the tribe through misfortunes (Hunt, 2003, pp. 163 – 169). The descriptions of the visions experienced by Black Elk, an Oglala Sioux chief and shaman, provide an ideal illustration of these kinds of experiences (Neihardt, 1972).

The oral tradition of the Iroquois tribe speaks of an aspect of the extended self known as the “long body,” which defines the lives of the tribal members (Aanstoos, 1986). In this tradition, a tribal member’s own sense of self is defined not only by their own embodied existence, but also by the relations they share with other family and tribal members, both living and deceased. The cohesive relations shared between family and tribal members are believed to be the spiritual basis for a much larger tribal body that defines the existence of the tribe as a whole. In addition, this larger tribal body can include objects and places that are considered sacred to the tribe because they are believed to aid in the tribe’s continued survival. In short, a tribal member’s sense of self is partly defined by his or her ties to the larger tribal “long body” that encompasses all the things

in nature and spirit that have come to shape and define the existence of tribe, which ultimately provides a basis for the tribal member's own individual existence.¹

Similarly, in the oral tradition of the Navajo tribe, a reference is made to an aspect of the extended self through the concept of *Diyin*, a dynamic and holistic process which encompasses all things that exist within the universe, include people, nature, and the spirit world (Maryboy & Begay, 2004). As the living and natural elements that make up the universe continually change over time, the cycle of *Diyin* is thought to constantly change, which can generate either harmony or misfortune for the tribe. It is also thought that the cycle can be greatly affected by people through behavioral changes and through the manipulation of their natural environment to better or worse ends, which in turn can affect the generation of harmony or misfortune. This suggests a close spiritual interaction between humans and the natural world that is inherent in *Diyin*.²

Although it may not be too widely recognized, an aspect to the extended self may also be reflected in Western society to some degree in a more subtle kind of experience that many people have reportedly had, in which they seem to suddenly have intuitive thoughts, feelings, or impressions about other people close to them that are later found to be correct. A good illustrative example of this kind of experience can be found in the account given in a letter sent to University of Virginia psychiatrist Ian Stevenson in 1968 by Mrs. Joicey Acker Hurth, which described a personal experience she had one evening in 1955:

When my five-year-old daughter [also named Joicey] came home from a birthday party, she was disappointed to find that her father and brother had gone to the Walt Disney movie without her. The Rivoli Theater is a block and a half away on the main street (Washington Ave.) which runs parallel with Portland Ave., our home address. I told Joicey that her father expected her to join them there, so she waved goodbye and skipped towards the corner.

I returned to the dinner dishes still unwashed in the kitchen sink. Quite suddenly while I held a plate in my hand an awesome feeling came over me. I dropped the plate, turned my eyes towards heaven and prayed aloud, "Oh God, don't let her get killed!"

For some unexplainable reason I knew Joicey had been hit by a car or was going to be. I was quite conscious of her involvement in an accident. I immediately went to the telephone, looked up a number, and shakily dialed the theater. I gave my name and said, "My little girl was on the way to the theater. She has had an accident. Is she badly hurt?"

The girl answering the telephone stammered, "How did you know? It – the accident – just happened. Hold the phone please!"

While I held the receiver, waiting, the siren sounded and an ambulance went out. I was frantic. Soon a very calm voice, that of the manager, Ray Nichols, spoke, "Mrs. Hurth, your little girl was struck by a car, but she is all right. Your husband is with her now. She appears to be in good shape, only stunned. Your husband is taking her to Dr. Hurth [little Joicey's uncle] now for an examination. Incidentally, Mrs. Hurth, how did you know?"

I don't remember my reply to this question; probably I said that I had a strong feeling that something had happened.

Another call to Dr. Hurth's home assured me that Joicey had not been seriously hurt. She had run into a moving car, was bounced off the front left fender to the pavement, had gotten up herself and run [*sic*] back to the same side of the street from which she started and sat on the curb until someone came. Dr. Hurth suggested that my husband take her to the movie anyway to get her mind off the accident. I did not see her until some two hours later. She had a few facial bruises, a swollen lip and a dirty party dress, but was otherwise fine.

¹ We will return to this concept of the "long body" later in this paper to see how it might be useful in thinking about exceptional experiences suggestive of an extended self.

² Elsewhere I have drawn attention to other aspects of spiritual tradition in Native Pueblo tribes of the American Southwest that are suggestive of a transcendent component to humanity (Williams, 2007).

Joicey remembers that at the time she was hit she called, "Mama." She remembers sitting on the curb crying and called "Mama, Mama, I want my Mama" (Stevenson, 1970, pp. 61 – 62).

Mrs. Hurth's husband and the theater manager Mr. Nichols both sent statements to Stevenson that further corroborated her account, and in them, they both confirmed that she had indeed called the theater only moments after the accident. Mr. Nichols further stated that he "...was sure there was no time for anyone to have run and told Mrs. Hurth about the accident after it happened and before she telephoned" (p. 64).

So how could Mrs. Hurth have possibly known about what was happening to her daughter at that moment? Could she have heard it? Perhaps, but this seems unlikely because in her letter, Mrs. Hurth denied hearing any sound that would have alerted her to the situation, and because the accident occurred a block and a half away, Mr. Nichols "...thought it impossible for such a sound, if it had occurred, to have been heard at Mrs. Hurth's house" (p. 64). Assuming that she didn't hear it, could she have possibly predicted that it was going to occur through logical inference? This also doesn't seem likely, because there didn't appear to be any clues apparent from little Joicey's behavior prior to leaving the home that would have enabled Mrs. Hurth to do so. So then how did she know? Is it possible that she could've known through something like telepathy?

Experiences like Mrs. Hurth's, when it appears that they can't be adequately explained by coincidence, imagination, suggestion, logical inference, or clues obtained through our five ordinary senses (sight, sound, smell, taste, and touch), certainly do seem to hint at the possibility that they may have involved a psychic component like telepathy. But is there any chance that this could turn out to be more than just a possibility? In other words, are psychic phenomena really more than just the stuff of imagination and superstition?

To find out, researchers in the field of parapsychology have been attempting to explore the issue through a combination of experimental research, and close study of personal experiential accounts like Mrs. Hurth's. Parapsychology is the scientific study of the three general types of exceptional human experience that have traditionally been labeled as "psychic." These three types are:

1.) *Extrasensory Perception (ESP)* – the act of mentally perceiving, sensing, or otherwise gaining knowledgeable awareness about other people, places, or events without the use of logical inference or the five ordinary senses. ESP can be further divided into three sub-types: *telepathy* (mind-to-mind communication), *clairvoyance* (perception of distant objects, locations, or events), and *precognition* (gaining awareness of the future).

2.) *Psychokinesis (PK)* – a form of interaction between the human mind and physical matter, such that the mind is apparently able to have a subtle influence on the behavior of matter. For this reason, PK has often been popularly referred to as "mind over matter."

3.) *Survival-Related Phenomena* – includes any type of phenomenon which seems to bear on the issue of possible life after death, such as apparitions ("ghosts"), mediumship, near-death experiences, and out-of-body experiences.

When taken at face value, it can be argued that the kinds of experiences studied by parapsychologists could have valuable implications for spirituality and religion, particularly in what they might imply about the concept of an extended self. As J. B. Rhine, the Duke University researcher who is often considered to be the father of modern parapsychology, had put it in his book *The Reach of the Mind*:

If the mind of man is nonphysical, it is possible to formulate a hypothetical picture of a nonphysical system or world made up of all such minds existing in some sort of relationship to each other. This leads to speculative views of a kind of psychical oversoul, or reservoir, or continuum, or universe, having its own system of laws and properties and potentialities. One can conceive of this great total pattern as having a transcendent uniqueness over and above the nature of its parts that some might call its divinity (Rhine, 1947, p. 211).³

Such a view would seem to be very much in line with the viewpoint of the extended self held in several religious and spiritual traditions.

This paper is meant to provide a basic, general introduction to parapsychology for the benefit of lay readers interested in learning what the field may have to offer spirituality and religion⁴, and a brief overview will be given of some of the findings from current parapsychological research which may have implications for the spiritual concept of the extended self.⁵ We will begin by looking at the research relating to experiences of ESP.

Research on ESP

I've heard it said there's a window that opens from one mind to another,
But if there's no wall, there's no need for fitting the window, or the latch.

- Jelaluddin Rumi, 13th century mystical poet

The experiential account given by Mrs. Hurth, which provides a good illustrative example of a reported experience of ESP (and more specifically, of telepathy), was first reported back in the 1960s. Yet, there have been ESP experiences reported all throughout human history, with some of the earliest reported experiences apparently dating back to the ancient Greek and Roman periods (Dodds, 1971). It was not until the late 19th century, however, that serious scientific study of such experiences really began, when the Society for Psychical Research (SPR) was founded for this purpose in 1882 by a group of prominent scholars from Cambridge University in England (Gauld, 1968). As part of their effort to study ESP, the early members of the SPR devoted much of their research time toward collecting, examining, and verifying cases of ESP reported by people from all walks of life. The SPR's devotion to careful collection and corroboration of the reports eventually led to the publication of a two-volume anthology entitled *Phantasms of the Living* (Gurney, Myers, & Podmore, 1886), which presented just over 700 of the SPR's most well-documented cases.

The field of parapsychology then emerged at the beginning of the 20th century through the efforts of J. B. Rhine and psychologist William McDougall, when in 1934 they established a laboratory at Duke University that was devoted to the study of ESP and other psychic phenomena through the use of statistical analysis and carefully controlled experiments (Rhine, 1937). However, in keeping with the spirit of the early SPR members, Rhine's wife Louisa continued the effort to collect, examine, and verify reported cases of ESP as a supplement to the formal

³ Incidentally, Rhine initially went to denominational college with the intent of going into the ministry before he eventually decided to pursue a career in science – first in botany, then in parapsychology.

⁴ More in-depth introductions to parapsychology that are lay reader-friendly may be found in the books by Broughton (1991), Duncan and Roll (1995), and Powell (2009). Slightly more technical introductions can be found in the books by Irwin and Watt (2005), and Radin (1997, 2006).

⁵ Further discussion of the possible implications of parapsychology for spirituality and religion can be found in the essays contained in the anthology edited by Tart (1997).

experimental work (Rhine, 1981).⁶ The spirit of the Rhines' efforts is still carried on today at the Rhine Research Center in Durham, North Carolina, as well as by parapsychologists around the world.⁷

Apart from indicating that ESP experiences can (and do) occur among a wide range of people within the general public, the case reports collected by the early SPR members, Louisa Rhine, and other researchers also tend to reveal a pattern that may be in line with the spiritual notion that the extended self encompasses other people, particularly those we are related to. This pattern can be seen in Table 1, which shows the relations between the people involved in the individual cases of ESP contained in five separate case collections that have been compiled since the late 19th century. Here, "Immediate Family" refers to parent-child, spousal, and sibling relations, while "Extended Family" refers to any other family relations outside of the immediate (such as grandparents, aunts/uncles, cousins, in-laws, etc.).

Table 1. Relations Between People in Case Reports of ESP (% Cases)

Case Collection	# of Cases	Immediate Family	Extended Family	Friends	Strangers
Gurney et al. (1886)	702	44.2	9.0	31.7	4.3
Stevenson (1970)	194	63.9	7.2	26.3	2.6
L. E. Rhine (1981)	2878	39.0	14.2*	14.2*	13.4
Schouten (1981)	789	55.9	11.0	28.0	5.1
Persinger (1974)	164	53.0	16.0	14.0	9.0
Average Percent		51.2	11.5	22.8	6.9

* In her collection, Rhine placed friends and extended family in the same category (pp. 218 – 219, 222)

It is clear from the bottom row of this table that, on average, just over half (51%) of all reported cases of ESP involved people who share direct biological relations with each other, suggesting that ESP experiences tend to be most common among members of an immediate family. In stark contrast, ESP experiences tend to be rather rare among people who do not know each other at all, with only about 7% of the reported cases involving strangers, on average. But is this same pattern reflected in experimental tests for ESP?

Usually when the general public thinks of people being tested for ESP, they envision the classic ESP card tests developed by J. B. Rhine (1937) and psychologist Karl Zener, in which the participant attempts to guess which of five symbols (circle, square, star, cross, or waves) appears on each of the cards being drawn from a shuffled deck and looked at by another person. While this was generally the way ESP tests were conducted in Rhine's time, the experimental ESP tests used today have come a quite long way since then, being a bit more complex, controlled, and automated through the use of technology.

One of the most successful experimental tests used in recent years makes use of a mild sensory reduction technique known as *ganzfeld* (German for "total field"), which was intended to improve ESP receptivity by reducing any external sensory distractions.⁸ In order to see how the ganzfeld technique is typically used to test for telepathy, let's go through a ganzfeld ESP experiment a step at a time:

⁶ A concise history of the research conducted by the Rhines and their colleagues at the Duke laboratory can be found in the recent book by Horn (2009).

⁷ A number of the ESP cases collected by Louisa Rhine, along with more recent ones collected by the staff of the Rhine Research Center, can be found in the book *The Gift* (Feather & Schmicker, 2005).

⁸ This is somewhat akin to the way that people who practice meditation often try to "quiet" their minds from external sensory distractions in order to enter the meditative state (Honorton, 1977).

Let's say we have two people participating in the experiment – one of whom is acting as the telepathic “sender,” and the other who is acting as the “receiver.”⁹ Each of them is taken to a separate, isolated room that is also sound-proofed and shielded against radio signals (to be sure that they can't call each other using their cell phones).

In one of the rooms, the receiver is asked to sit down in an easy chair and recline back. Once he or she is comfortable, the ganzfeld technique is put into play: first, the receiver's eyes are covered over with a pair of semi-translucent eye shields (made out of the hollow, dome-shaped halves of a ping-pong ball), and then a low red light is shined directly upon them. From the receiver's viewpoint beneath the eye shields, this creates an unchanging, dim red visual atmosphere that some have described as looking like “a cloudy fog” (Wackermann et al., 2008, p. 1366). Finally, a pair of headphones is placed over the receiver's ears, through which the receiver continually listens to soft static noise (similar to the kind heard between two radio stations). By covering the receiver's eyes and ears in this way, the receiver is placed into a mild altered state of consciousness (which we'll conveniently call “the ganzfeld state”) in which his/her ordinary senses of vision and hearing are greatly reduced. This is done because by doing so, it is thought that ESP impressions (which are presumed to be “extrasensory” and so subtle that they may be effectively “drowned out” by signals coming from the ordinary senses) may have a better chance of seeping into the receiver's awareness.

Meanwhile, in the other room, the sender is asked to take a seat in front of a TV screen and relax. A few minutes later, a computer in another room randomly selects a detailed video clip (such as a visually dynamic scene from a movie) from a large bank of similar clips and projects it to the TV screen in the sender's room. The sender then watches this clip several times in a row while closely concentrating on its details. At the same time, the receiver in the other room continually describes any images or impressions that are going through his/her mind while he or she is in the ganzfeld state. Presumably, if telepathy does occur, then at least some of the images or impressions being experienced by the receiver in the ganzfeld state should correspond in some way to the details of the video clip being watched by the sender in the other room.

After about fifteen minutes, the receiver is taken out of the ganzfeld state and shown a collection of four separate video clips, one of which is the video clip that the sender was watching in the other room (the other three clips are meant to act as decoys). The receiver watches the clips carefully and rates each of them according to how closely they correspond to the images and impressions that he or she received while in the ganzfeld state. Once the receiver's ratings are officially recorded, the actual clip viewed by the sender is revealed to the receiver as feedback. If the receiver rated the actual clip as having the highest degree of correspondence with his/her ganzfeld images and impressions, then the experiment is considered a success (or a “hit,” as it's commonly called). With the probability of the receiver scoring a hit being 1 in 4, the average hit rate expected over time by pure chance alone is 25%.

One of the most successful series of ganzfeld ESP experiments was conducted by the late Charles Honorton and his colleagues at the Psychophysical Research Laboratories (PRL) in New Jersey from 1983 to 1989 (Honorton et al., 1990). Overall, the results of the PRL experiments were found to be significantly above chance expectation, with a combined hit rate of about 32%. Although a 7% increase in hit rate doesn't really sound very big, the odds that it had occurred by chance are about 500 to 1 (Bem & Honorton, 1994).

⁹ Currently, there isn't much evidence to clearly indicate that something is sent between the sender and the receiver in telepathy, so for now, the terms “sender” and “receiver” are used here more as convenient labels rather than as implying any kind of transfer mechanism.

After the results of the PRL ganzfeld experiments were published in the prominent journal *Psychological Bulletin* in 1994, many parapsychologists set out to conduct ganzfeld experiments of their own to see if they could reproduce the PRL's findings. Between 1987 and 2008, a total of 59 ganzfeld experiments had been conducted by parapsychologists at 15 separate laboratories located around the world. In total, there were 878 hits scored out of 2,832 experimental sessions for an overall hit rate of 31%, which almost exactly matches the PRL ganzfeld hit rate. The odds that this hit rate could've occurred by chance are incredibly small, at around a trillion to 1! These results clearly indicate that the receivers in ganzfeld ESP experiments were able to correctly select the actual target about one-third of the time, to a degree considerably beyond what would be expected if chance guessing was at work.

The average hit rate from these 59 ganzfeld ESP experiments as it cumulatively builds over time can be seen plotted as a line graph in Figure 1, which is based on an assessment of the ganzfeld results that I conducted in late 2010 (Williams, 2011). Each of the dots in the graph represents an individual experiment, and the small bars around each one show the estimated range where we can be 95% confident (statistically speaking) that the absolute (or "true") hit rate resides. Over time, it can clearly be seen that the average hit rate begins to level out at around 30%, and that the range estimate of where the "true" hit rate resides clearly excludes the expected chance hit rate of 25%. These results are consistent with analyses conducted by other researchers, all of which indicate an overall ganzfeld hit rate that is significantly above chance expectation (e.g., Radin, 2006, pp. 115 – 121; Storm et al., 2010).

Results Summary: 59 Ganzfeld ESP Experiments (1987 - 2008)

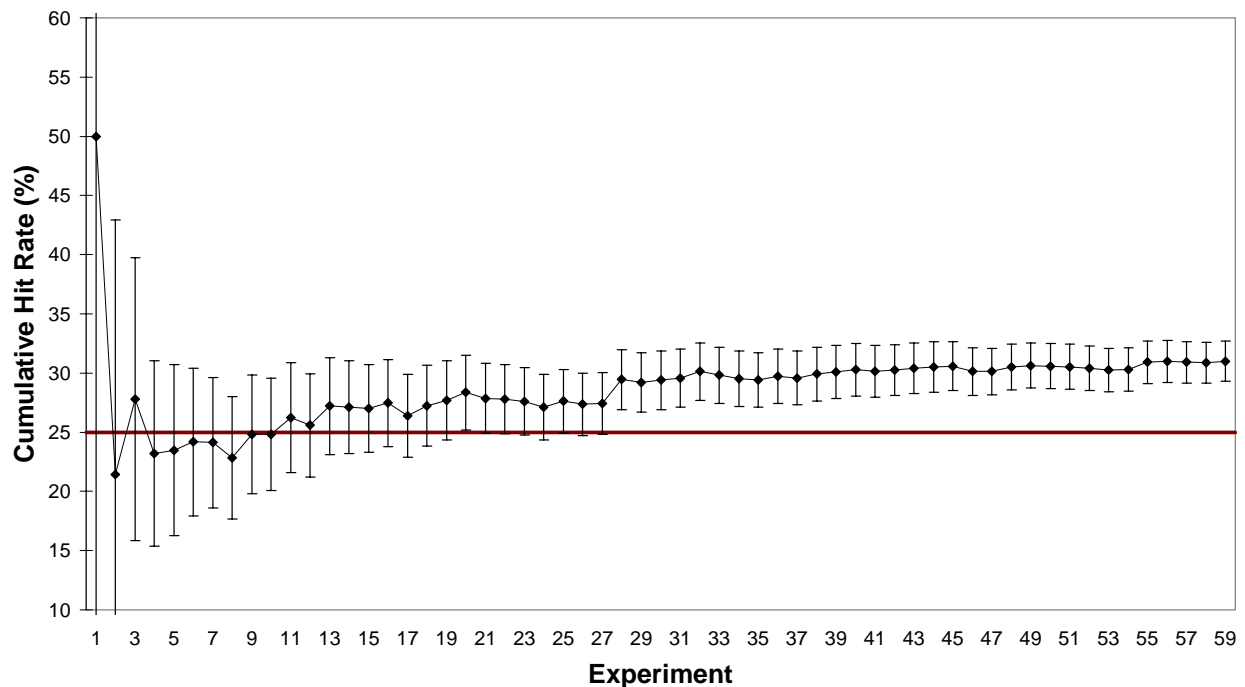


Figure 1. A graphical summary of the combined results from 59 ganzfeld ESP experiments, shown as a cumulative average hit rate over time. Each dot represents an experiment, and the tiny bars around each one indicate the statistical estimate of the range in which the absolute (or "true") hit rate is believed to reside. Note that over time, the average hit rate levels out at around 30%, and the estimated range does not include the expected chance hit rate of 25% (dark red horizontal line). Adapted from a published assessment by the author (Williams, 2011).

Having looked at the details of the ganzfeld ESP experiment, we can now return to the question at hand: Is the pattern of ESP being more common among biologically-related people reflected in experimental tests, just as it is in the study of case reports? The results of some experiments (e.g., Rice & Townsend, 1962; Stuart, 1946) seem to indicate that the answer is a tentative “yes,” including the results of two ganzfeld ESP experiments that were conducted at the Rhine Research Center by Cheryl Alexander and Richard Broughton in the mid- to late 1990s (Alexander & Broughton, 2001; Broughton & Alexander, 1997). The ganzfeld ESP performance among the various sender-receiver pairs participating in those two experiments can be seen in the bar graph in Figure 2, which indicates that the sender-receiver pairs who share a direct biological relation (e.g., siblings, parent-child) tend to score higher hit rates. (It is important to note, however, that the 100% hit rate scored by sibling pairs in the second experiment is based on the ESP performance of only one pair of siblings, so this hit rate may be somewhat inflated.)

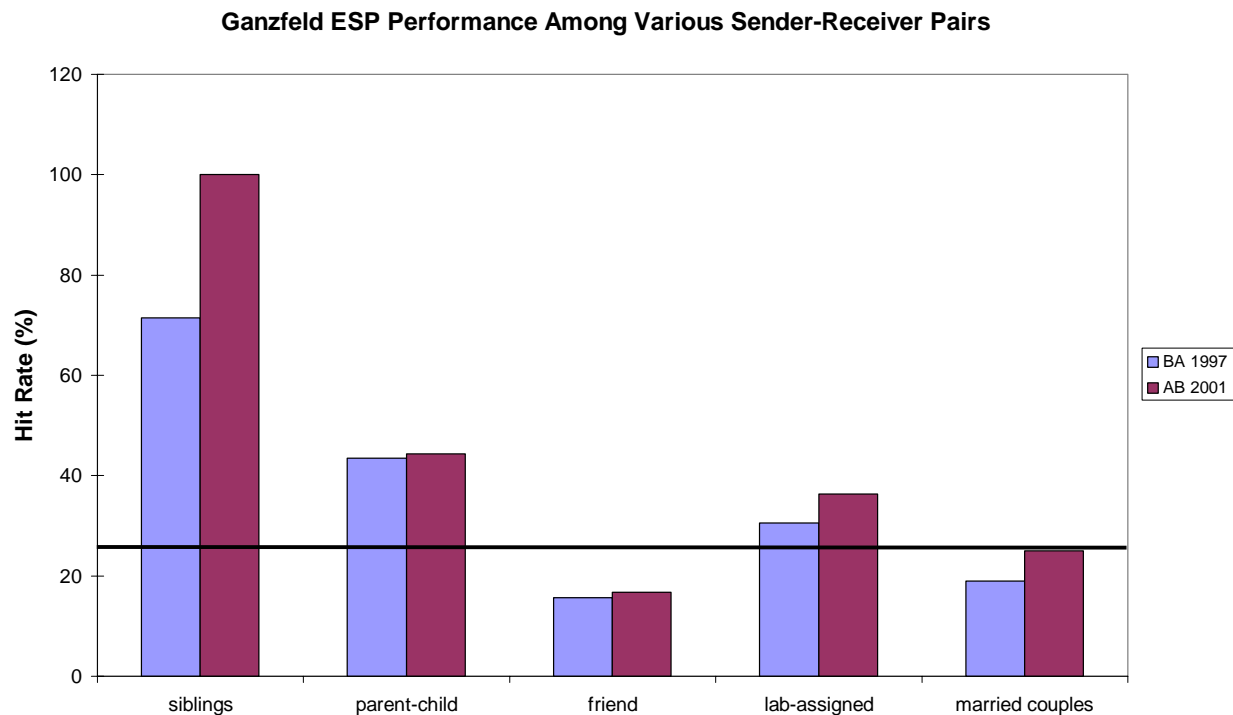


Figure 2. ESP performance among the various sender-receiver pairs participating in the two ganzfeld experiments conducted by Cheryl Alexander and Richard Broughton. The blue bars represent the sender-receiver pairs from the first experiment (Broughton & Alexander, 1997; BA 1997), and the red bars represent the pairs in the second experiment (Alexander & Broughton, 2001; AB 2001). The black horizontal line indicates the expected chance hit rate of 25%. Note: the 100% hit rate obtained by sibling pairs in the second experiment is based on the performance of only one pair of siblings.

In addition, when the results from the biologically-related sender-receiver pairs in both ganzfeld experiments are combined, their overall performance is significantly above chance, with a hit rate of 50% (20 hits in 40 experimental sessions) and an associated odds ratio of about 1,000 to 1. This finding appears to be in line with the notion that the extended self includes other people, especially those with whom we share a direct biological relation. However, because this finding is based only on a few studies, additional research is needed to further confirm it.

Research on Psychokinesis (PK, or “Mind Over Matter”)

The universe begins to look more like a great thought than like a great machine.

- James Jeans, quoted in the book *The Mysterious Universe* (1930, p. 158)

Some spiritual and religious views of the extended self also consider the relation of the self to the natural world, based on how people can impact and affect the natural world around them for better or worse ends. An aspect of the self that extends to the natural world may perhaps be reflected in reported experiences of psychokinesis (PK), or “mind over matter.” As an example of a PK experience, consider the account given in a letter sent to the Duke University laboratory by a woman living in Philadelphia, which described an experience that took place at a time when she felt stirred up with emotion:

I was reading an article on Jimmy West, the crippled orphan who did so much for child welfare when he grew up. His experience as a child seemed so appalling to me that it made a deep impression. He had a tubercular hip and was accused of malingering. The hospital discharged him as incurable and refused to readmit him. I don't know when my mind has ever been so stirred and perhaps that is why it happened. At any rate, as I put my magazine down and got up from my kitchen chair, we heard a loud sound in the living room. There was no one in there – not even the dog or cat, for I looked. The sound had been made by a book's falling out of the book case by itself. When I picked it up, I could hardly believe my eyes; for it was a book on surgery for children (Rhine, 1963, pp. 95 – 96).

If it wasn't due to the physical actions of another person or a pet, then what could have made the book fall out? And was it a mere coincidence that the subject of the fallen book was rather relevant to what the woman had been reading about in a magazine only moments before? Questions like these are what seem to raise the possibility of PK in this account, but to be more certain that PK could indeed be a possible factor here, it is important for researchers to try and produce PK effects under controlled test conditions.¹⁰

The early experimental tests for PK conducted by J. B. Rhine and his colleagues at the Duke laboratory involved attempts to mentally influence rolling dice, such that a particular target number came up on the dice more often than would be expected by chance alone. More recent PK tests, however, have made use of electronic circuits called random number generators (RNGs), which, as their name implies, produce long strings of binary numbers (i.e., a numerical string of “1”s and “0”s) based on the activity of a truly random and unpredictable physical source, such as radioactivity or the noise created by a moving stream of electrons. As a convenient and useful metaphor, we can liken this method of producing random binary numbers to repeatedly flipping an electronic “coin” in the air, and then seeing whether “heads” (arbitrarily represented by a “1”) or “tails” (represented by “0”) comes up on each flip. Thus, the probability of getting either “heads” or “tails” on each flip is exactly 50% (or “50/50”).

Ordinarily, a perfectly random RNG running undisturbed on its own would be expected to produce an equal balance of “heads” or “tails” over the course of a long series of coin flips. Ideally, when cumulatively plotted as a line graph, the resulting RNG data would look something like what is shown in Figure 3, with the trend in the data being flat and randomly zigzagging up and down around the solid pink line representing the expected outcome.

¹⁰ For additional accounts of various PK experiences, as well as a more detailed overview of tests for PK than that provided here, the interested reader should consult the recent book by Heath (2011).

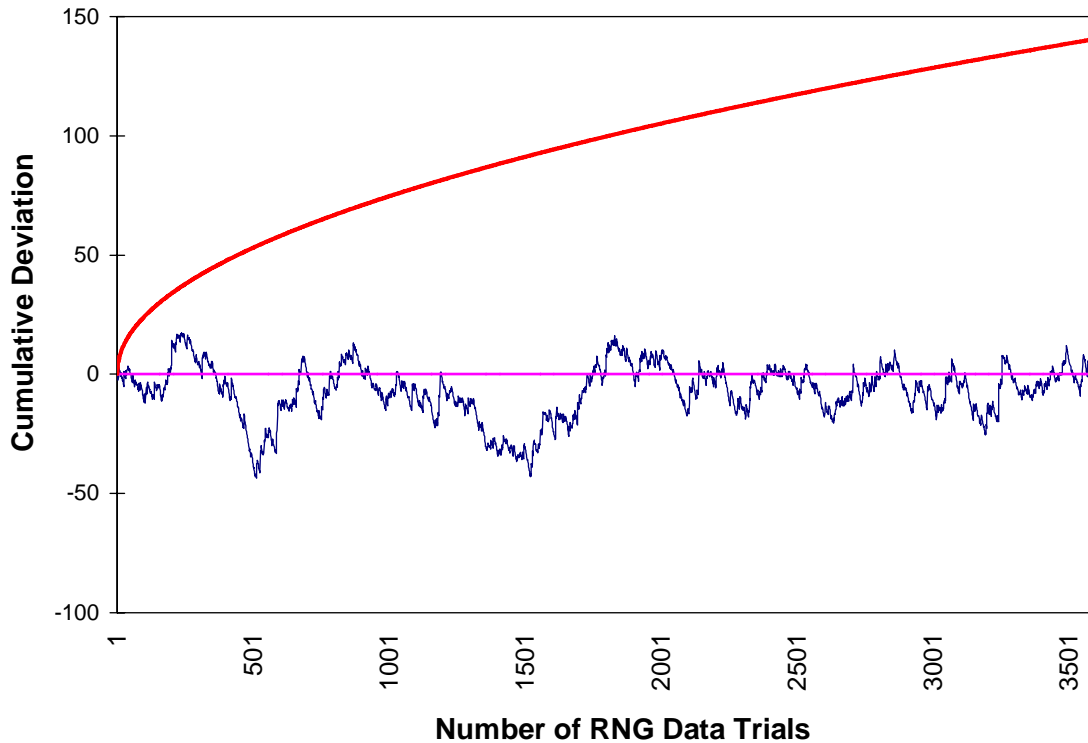


Figure 3. Data from a random number generator (RNG) as it would ideally be expected to look when running undisturbed on its own under ordinary, everyday circumstances, without any PK influence. The pink horizontal line represents the expected outcome, and the red curved arc represents the threshold of statistical significance (at odds of 20 to 1 against chance).

The goal of a person participating in a PK test is to try and upset the balance of “heads” and “tails” by mentally willing the RNG to produce either more “heads” or more “tails” than would be expected by chance. Later on, the test data can be compared against a matching series of control data collected from the RNG when the person is directing his/her attention away from the RNG, or (perhaps more preferably) when no one is present at all.

The most extensive series of PK tests was conducted by the Princeton Engineering Anomalies Research (PEAR) group at Princeton University over a twelve-year period (Jahn et al., 1997). An evaluation of the entire test series, involving a total of 91 participants and nearly 2.5 million individual RNG data trials, revealed a significant overall deviation from expected randomness, with an odds ratio of 35 trillion to one.

A graphical representation of the PEAR PK test series results can be seen in Figure 4. It shows the three individual directions of PK influence aimed for by each of the participants. When asked to aim “HI” (in other words, produce more “heads”), the participants were apparently able to willfully move the data line steadily *upward* (top arrow in Figure 4) away from expected randomness, making the RNG produce more “heads” and, in effect, making it behave “less randomly” than expected. Similarly, when asked to aim “LO” (i.e., produce more “tails”), the participants were apparently able to willfully move the line steadily *downward* (bottom arrow in

Figure 4), making the RNG produce more “tails” and, in effect, making it become “more random” or “noisy” than usual. Even when the participants were asked to try and mentally will the RNG to maintain a flat and steady baseline (“BL”), there appeared to be some degree of PK influence on the data.¹¹ In contrast, no such patterns were seen in the control data collected from the RNG when no one was around.

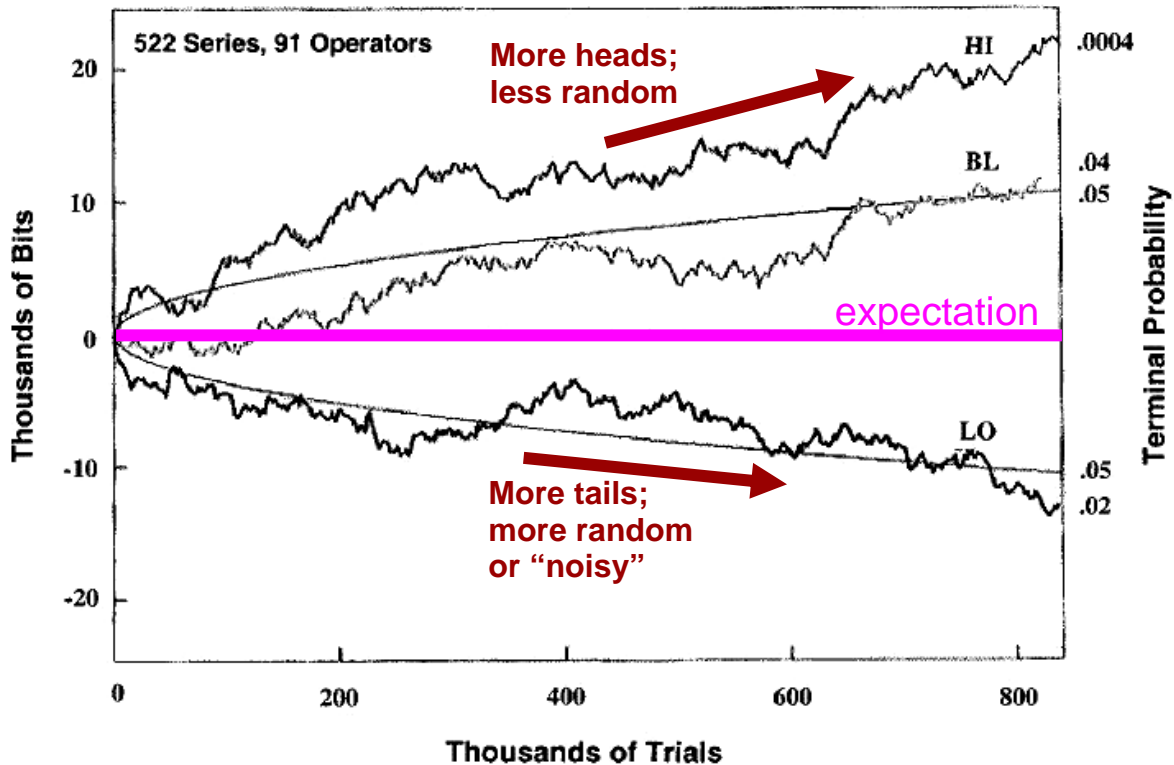


Figure 4. RNG data from the 12-year series of PK tests conducted by the PEAR group at Princeton University, showing the three directions of PK influence aimed for by the 91 test participants. The thin curved arcs indicate the threshold of statistical significance. Compare the behavior of these RNG data patterns with the nominally random pattern shown in Figure 3. Adapted from Figure 2 of Jahn et al. (1997).

In addition to the extensive test series by the PEAR group, hundreds of other RNG-based experimental tests for PK have been conducted by parapsychologists since 1959. Analyses of these experiments also tend to collectively provide support for a PK effect, indicating that while the change in the balance in “1”s and “0”s produced by the effect is quite small (being a little less than 1% above the 50% expected by chance), it is also associated with an odds ratio that is conservatively estimated to be around 1,000 to 1 (Bösch et al., 2006; Radin, 2006, Ch. 9; Radin & Nelson, 1989, 2003; Radin et al., 2006a, 2006b).

These analyses indicate that PK effects tend to be so small in magnitude that they are just barely distinguishable from the random “sea” of background noise that regularly permeates the data produced by RNGs. Despite how small they tend to be, are these PK effects capable of manifesting in the real world? And if so, can they be detected? To find out, the PEAR researchers began taking portable RNGs and setting them up in places where various kinds of group-oriented social events (such as concerts, parties, and workshops) were being held. But unlike in the

¹¹ For a more detailed overview of the work by the PEAR group, see the recent book by Jahn and Dunne (2011).

standard PK test, the people in the social groups were not trying to mentally influence the RNG in this case. Instead, the RNG was simply left to run silently in the background on its own, and in most cases, the people in the groups were completely unaware of its presence. When analyzed, the RNG data collected during the group events often showed a significant non-random pattern very similar to that seen in the PK test results shown in Figure 4 (Nelson et al., 1996). In contrast, no such pattern was seen in control data collected after the event was over, and the group had dispersed.

In total, the PEAR researchers collected RNG data at 15 different kinds of group social events, and the combined results from them had odds of over 450,000 to 1 against chance (Nelson et al., 1998). These studies suggest an unconscious form of PK that may perhaps be related in some way to the social unity, rapport, or “bond” shared between the members of the groups, as well as the dynamic interactions that result from such unity.

The promise that these group-oriented studies offered for exploring PK effects in the real world led PEAR researcher Roger Nelson (2001) and other researchers to broadly expand the exploration to a global scale. To do this, they collectively created the first worldwide, Internet-based network of RNGs that continuously collects random data every second, 24 hours a day, seven days a week. The purpose of this continuously running RNG network is to monitor for any unconscious group PK effects that may occur on a global scale in conjunction with the mass focus of attention and emotional response by people around the world toward the occurrence of major world events. In other words, it is thought that when people around the world focus their attention and emotions on the occurrence of a major event, the data produced by the RNG network will suddenly become less random (i.e., produce more “heads”) than expected in conjunction with their worldly group focus. The international research effort to maintain and monitor this RNG network, involving some 70 researchers worldwide, has become known as the Global Consciousness Project (or GCP, for short). On average, there are between 50 and 70 RNGs in the GCP’s global network that are continuously running, collecting random data around the clock and sending their data over the Internet to a central server located in Princeton, New Jersey, where it is collected and archived (Bancel & Nelson, 2008).

Since it first began in 1998, the GCP has examined the random data collected by its RNG network for over 400 formally-identified world events such as the celebration of New Year’s Eve, the organized “Global OM” worldwide meditation, the start of the war in Iraq, the royal wedding of Prince William and Catherine Middleton, the *Costa Concordia* cruise ship disaster, President Obama’s re-election, and the events of September 11, 2001. As an example, a graph of the RNG network data collected during an event of notable spiritual and religious significance – the public funeral mass held for Pope John Paul II in the Vatican square in Rome on April 8, 2005, which was attended by thousands and watched on television by millions of people around the world – is shown in Figure 5.

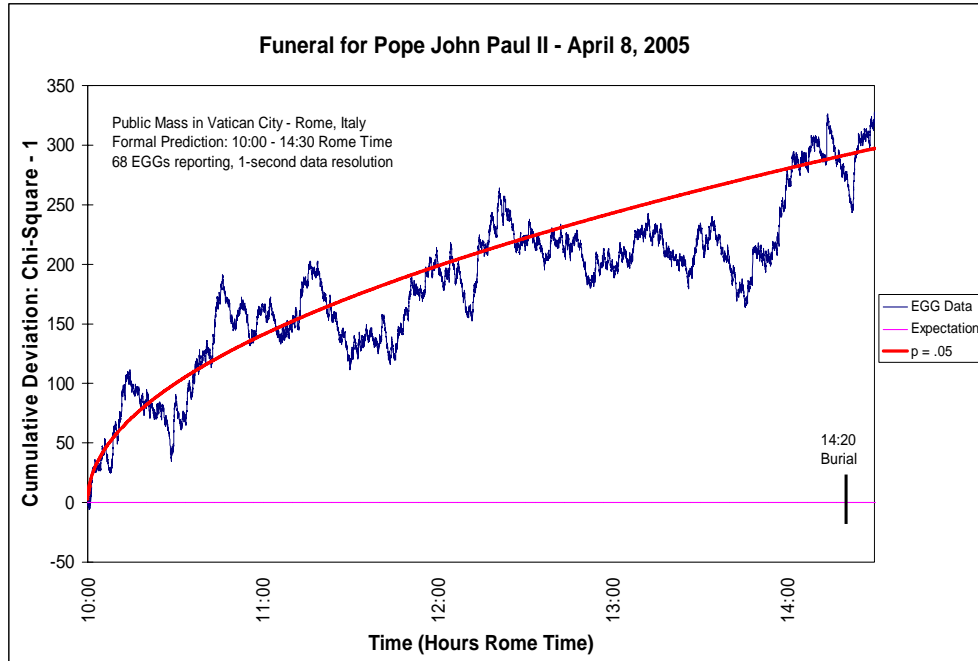


Figure 5. A GCP event example showing the global RNG network data collected during the public funeral for Pope John Paul II. The pink horizontal line indicates the expected outcome, and the curved red arc indicates the threshold of statistical significance. Compare the behavior of this data pattern to the nominally random pattern shown in Figure 3.

It can be seen that, in contrast to the nominally random data pattern shown in Figure 3, the RNG data collected during the Pope's funeral show a pretty steady upward trend, corresponding to an increase in the number of "heads" to a statistically significant degree. But because PK effects tend to be so small, it is not really possible to ascribe much meaning to the outcomes for individual events. To be more confident that a genuine PK effect is being observed in the RNG network data during world events, we have to consider the results from a much larger collection of events as a whole. As mentioned, the GCP has examined the network data for over 400 events. A graphical representation of the collective results for the entire database of events is shown in Figure 6.

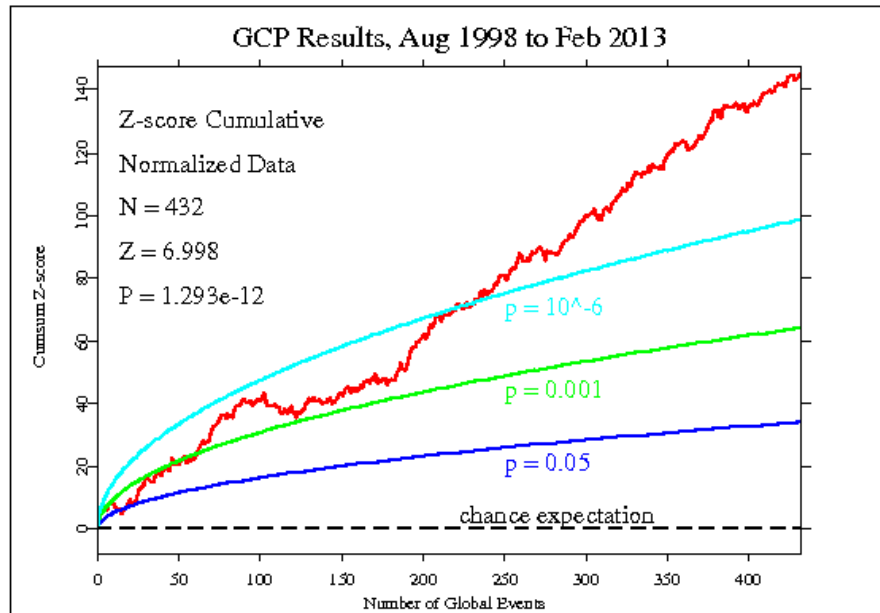


Figure 6. Graphical representation of the collective results for the entire GCP database of over 400 formally-defined world events, from August 1998 to February 2013. The curved arcs represent the thresholds for increasingly higher levels of statistical significance. Source: GCP results webpage (<http://noosphere.global-mind.org/results.html>).

The pattern seen in the graph clearly indicates that across the entire event database, the RNG network data are not random as expected, but clearly show a steady upward trend, indicating a highly significant increase in the number of “heads.” According to the most recently published assessment (Nelson & Bancel, 2011), the entire GCP event database result is associated with an odds ratio of about a billion to one.¹²

A similar kind of pattern is seen if we look specifically at the many public events in the GCP database that were meant to promote global peace and harmony by bringing many people together in organized meditations, mass prayer, and public demonstrations in social activism for the benefit of humankind. Figure 7 shows a graphical representation of the collective results for 110 events in the GCP database that had this purpose, which is based on an analysis that I recently conducted in February 2013.

¹² For additional details on the GCP and its event results, see the GCP website (<http://noosphere.global-mind.org>).

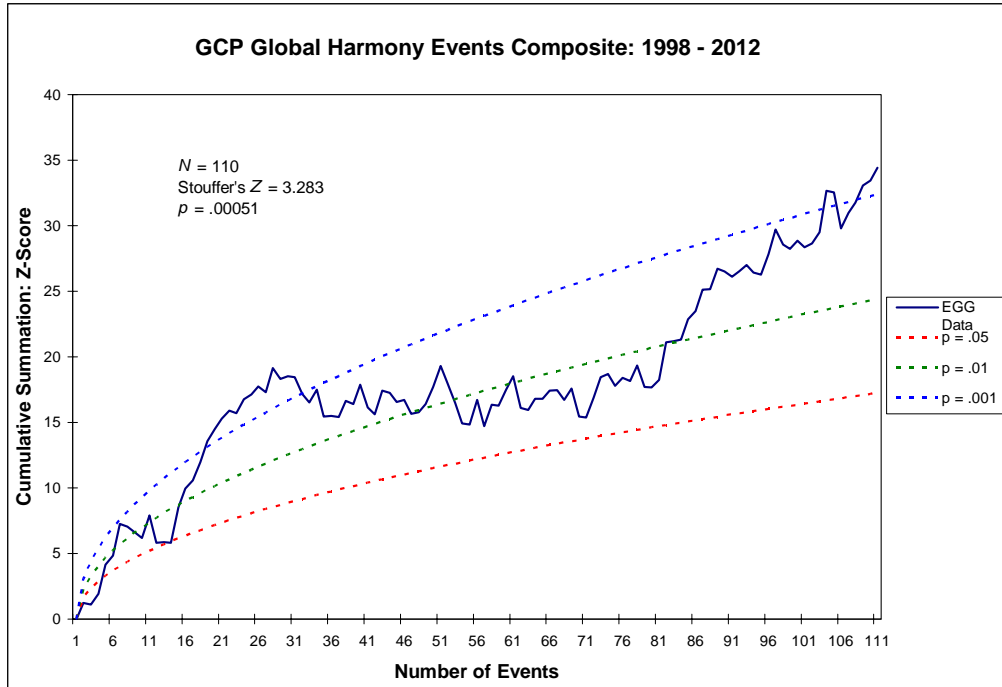


Figure 7. Graphical representation of the collective results for 110 individual events in the GCP database that were meant to promote peace and global harmony through activities such as organized meditations, mass prayer events, and public demonstrations in social activism. The curved arcs represent the thresholds for increasing levels of statistical significance.

Similar to the result for the entire GCP database, the collective results for the 110 events promoting global harmony tend to show an upward trend, corresponding to a significant increase in “heads.” Overall, this result is associated with an odds ratio of about 1,950 to 1.

The general implication that these PK results seem to have for spirituality is that some part of the self may extend not only to encompass other people, but also the natural world, as well. When many people come together as a group with a shared intent, purpose, or goal, some aspect of their environment seems to subtly become more “ordered” or “structured” in accord with their collective focus, unity, or rapport. In other words, it seems that as we all move together as one, some aspect of the natural world seems to move along with us, as well.

Research on Survival-Related Phenomena

“Guess now who holds thee?” “Death,” I said. But there the silver answer rang, “Not Death, but Love.”

- Elizabeth Barrett Browning, from *Sonnets from the Portuguese*

Many religious and spiritual traditions consider an extended aspect to the self that continues on in some form of afterlife existence, such as going to Heaven or being reincarnated in another form. Experiences in which people have reportedly had encounters with, or received communications from, deceased loved ones certainly seem to have a direct bearing on this issue, and since the late 19th century, parapsychologists have been studying such experiences in order to verify their details and learn more about what they might have to tell us about the possibility of life after death. As an example of this kind of experience, consider the following account given by

a woman from Arkansas, in which she describes an apparitional (or “ghost”) experience that her cousin once had:

A cousin from my mother’s side of the family saw my father just minutes after his death.

Our families had been estranged since she was young, so I was shocked when I heard that she woke up at three o’clock on Sunday morning with him at the foot of her bed. At breakfast, she told her husband and children. “I looked up and saw an old man standing there, staring at me. He was radiating a peaceful golden glow. It’s been over 30 years since I saw Uncle Ted, but I know that was him and that he’s dead.” Then, on Tuesday, they read in the newspaper that he had died at 3 A.M. on Sunday.

After all those years, she called me and described me father in exact detail. I had read that apparitions were hallucinations, so I had to wonder *How could she have hallucinated that?* She couldn’t have, because the last time she or anyone in her family saw him, he weighed over two hundred pounds, had a head full of thick black hair, and a shining complexion. But during the last months of his life, he became thin, frail, wrinkled, and his hair was thin and totally gray. Plus, she described his final physical changes, which only his doctor, nurse, and I knew.

My cousin said, “Uncle Ted didn’t say anything, but I somehow knew exactly who he was and that he was there to make amends. And for some reason, all the pain and anger I felt toward the family disappeared when I saw him like that. I can’t believe it, but just seeing him was all I needed. I’m not mad at anyone any more. It’s okay.”

Now my cousin and I talk often, and she came to our family gathering this summer. Seems like a miracle (Arcangel, 2005, pp. 22 – 23, emphasis in original).

This account provides a good example of the kinds of spontaneous encounters that people have had with apparitions of deceased individuals, and it is particularly interesting from a parapsychological viewpoint because the woman’s cousin had apparently witnessed physical details about her deceased uncle that she couldn’t have known about at the time, since she had not seen her uncle in 30 years. This seems to suggest a psychic component to the experience, which might have helped mediate its occurrence.

Like case reports of ESP, examination of reported cases of apparitional experiences tend to reveal a pattern that is in line with the notion that the extended self encompasses other people, particular those we are related to. The pattern can be seen in Table 2, which shows the relationship between the witness and the deceased person seen in cases of apparitional experiences contained in five case collections that have been compiled since the 1970s. As before, “Immediate Family” refers to parent-child, spousal, and sibling relations, while “Extended Family” refers to any other family relations outside of the immediate (such as grandparents, aunts/uncles, cousins, in-laws, etc.).

Table 3. Relation Between Witness & Deceased Person Seen in Apparition Cases (% Cases)

Case Collection	# of Cases	Immediate Family	Extended Family	Friends	Strangers
Persinger (1974)	193	47.0	22.0	18.0	13.0
Osis & Haraldsson (1977)	418	60.3	12.2	6.9	20.6
Haraldsson (1988-89)	100	53.0	-	10.0	11.0
Haraldsson (2009)	337	46.0	-	8.0	29.7
Arcangel (2005)	590	58.2	11.3	-	12.7
Average Percent		52.9	15.2	10.7	17.4

Note: Categories in a certain case collection for which there were no available values are marked with a dash (-).

The bottom row of the table indicates that, like in cases of ESP, just over half (53%) of the apparition cases involve people who share a direct biological relation, suggesting that witnesses

tend to most commonly encounter apparitions of deceased members of their immediate family. Of note in the table as well is the significantly higher number of apparition cases in which the witness and the deceased person seen are strangers to each other. One way in which this particular finding might be explained is to consider the possibility that some of these cases involve apparitions seen in the context of haunting cases, where a detailed, life-like spectral image of the deceased person is seen in a certain place that he or she was known to have inhabited in life, such as his/her home or a favorite hangout. In such cases, people who visit the place may see persons who they never knew in life, but who were known by others to be associated with the place.

Although they are plentiful in folklore, haunting cases that involve detailed, life-like apparitions of previous inhabitants actually seem to be quite rare in the parapsychological research literature. One of the few known documented cases is the “Gordy” case investigated in the 1980s by the late William Roll, a parapsychologist at the University of West Georgia and the former research director of the Psychical Research Foundation (PRF). A brief narrative of the case is as follows (based on Roll & Persinger, 2001, p. 160):

Soon after moving to a new home with her family, a little girl named Heidi Wyrick had met a man in her neighborhood named “Con,” who invited her to play on a tree swing in a nearby yard. When Heidi asked for permission to do so, her mother asked about Con and Heidi described him as wearing a T-shirt “with blood all over.” Concerned that Con might try to harm the girl, Heidi’s parents had the neighborhood searched for the man, but they were unable to find him.

A short time later, Heidi began speaking of regularly meeting with another man in the neighborhood named “Mr. Gordy” to play on the swing, and her parents simply figured that Con and Mr. Gordy were the girl’s imaginary playmates. Eventually, through a series of documents, they discovered that an elderly gentleman named James Gordy, as well as a man named “Lon,” had actually lived in the neighborhood many years back, and that Lon had lost his hand in a machinery accident. The descriptions that Heidi gave of the two men were later found to closely match photographs of them, and she was also able to correctly pick them out of a random collection of old photographs. Try as he might, Roll could find no normal way in which Heidi could have learned about them prior to her family’s discovery of their identities.¹³

In this case, Heidi had apparently witnessed the apparitions of two men who were initially strangers to her, but who were known to have lived in her neighborhood in the past. This suggests that Heidi may have psychically perceived some aspect of the personality or consciousness of the two men that somehow persisted in the area where they lived, a suggestion seemingly consistent with the notion of there being an extended part of the self that continues on after death.

Another kind of experience that many people have reported which may have some indirect bearing on the issue of apparitions, and which also seems to be consistent with the notion of an extended self that continues on, is the out-of-body experience (or OBE, for short). In an OBE, people have the sensation that their self has left their physical body and taken up a position somewhere outside of it. From this position, they may report seeing their own body and viewing their surroundings as though they were a separate bystander. A central question raised by these experiences is: Is there really something that physically leaves the body during an OBE, or the experience all in the mind of the person having it?

¹³ In the early 1990s, the popular television show *Unsolved Mysteries* had aired a segment that profiled this case and Roll’s investigation of it (see the Flash video clips included on the CD). More recently, the case was the subject of the Discovery Channel documentary *A Haunting in Georgia*, which is available on DVD.

To try and find out, the Psychical Research Foundation conducted a series of experimental tests in the 1970s in which Keith Harary, a PRF research assistant who reported having many elaborate OBEs, attempted to “project” himself in his out-of-body form to a distant part of the PRF laboratory facility where people, animals, or measuring instruments were located to see if they could possibly “detect” his out-of-body “presence” (Morris et al., 1978). Although most of the people, animals, and instruments did not show any clear “response” to Harary’s “presence,” some intriguing results were obtained with “Spirit,” a kitten belonging to Harary that appeared to share a close human-animal bond with him.

During the tests, Spirit was placed into a small wooden enclosure and his behavior was closely monitored by the researchers throughout the duration of the tests. Most of the time, Spirit wandered freely around the enclosure and meowed frequently. However, during the randomly-determined times when Harary attempted to “project” himself to the test room, Spirit’s behavior changed considerably: the little kitten did not wander around as much, and it did not meow even once!

Even today, the PRF is still exploring the question through a new series of experimental tests being conducted in collaboration with the Rhine Research Center and the Monroe Institute in Virginia. In these tests, attempts are being made to measure any changes in body weight that may occur in certain selected people while they are willfully attempting to have an OBE through induction techniques they’ve learned in programs offered at the Monroe Institute. Electronic scales are closely monitored whenever these trained people report a sensation of going out of their bodies to see whether or not a corresponding gain or loss in the weight of their bodies occurs. If such a weight change is found to be a fairly consistent occurrence, then it would be a first step in determining whether or not something really does physically leave and then re-enter the body during an OBE. Such a finding could potentially have implications for what, if anything, may continue on after death. Currently, these tests are still in their preliminary stages, and the research is ongoing.

Conclusion

Gliding with winds of space and time
Rising up in the cosmic mind
Soaring higher, towards the sublime
Merging with the one mind
With the gift of love
Guided by God above
I flew through Heaven’s door

- Cheryl Alexander (2011), lyrics from her song “Illusions,” in her book *Reflections*

Even as the cell is the unit of the organic body, so the family is the unit of society.

- Fortune from a Chinese fortune cookie

In the end, what might we be able to learn from current findings in parapsychological research as a whole? First, the findings demonstrate that psychic phenomena really are likely to be more than just the stuff of imagination and superstition – case studies reveal that ordinary, everyday people can (and do) have what appear to be psychic experiences, and experimental tests of ESP and PK indicate that participants are able to score slightly, but significantly, higher than chance alone would expect, in ways that are not easily attributable to chance coincidence,

suggestion, logical inference, or clues received through the five ordinary senses. And when considered carefully, the findings suggest that, as the late researcher William Braud had once pointed out,

... [t]he occurrence of psychic phenomena seems to require a condition of profound and extensive interconnectedness among people and also between people and all of animate and inanimate Nature. Such interconnectedness has important implications for our understanding of who we really are, of our individuality, of our true selves; and from these implications flow other, ethical implications for appropriately interacting with others and with our environment (Braud, 1997, p. 141).

In addition, the indication that psychic phenomena may reflect some form of interconnectedness is consistent with the holistic view held within many spiritual and religious traditions that we are all really a part of something much bigger than our individual selves. Perhaps at a deeply fundamental level, there may be an extended part of our selves that acts as a thread weaved within a broad web of spiritual interconnection that is akin to the Iroquois tribal concept of the self known as the “long body” (Aanstoos, 1986), which had been mentioned previously in the introduction. If that is so, then perhaps psychic phenomena can be thought of in this way as reflecting some aspect of the extended self in our modern Western society. And although it can be very difficult to consider the possibility of psychic phenomena within the context of our Western society, it turns out that the concept of the long body may provide us with a way in which we might come to comprehend their occurrence, at least on a basic level.

In adapting the long body concept to parapsychology, the late William Roll (1987, 2008) had suggested that, rather than thinking of them as unusual experiences that occur beyond the limits of our bodies, we might instead think of psychic experiences as occurring within the broader mental space of the extended self that comprises the long body. Although it may appear on the surface that we are all separate and distinct individuals, the interconnectedness reflected by the occurrence of psychic phenomena seems to suggest that, on a more subtle level, this separate individuality may really only be an illusion that obscures a much broader (albeit less overtly apparent) cohesive link between us all. One way in which this link may be maintained is through memory, for by remembering someone significant in our lives, we maintain a certain mental link to him/her, even when he or she is not in our direct presence. In addition to enabling us to remember, there also is some anecdotal and experimental evidence in parapsychology to indicate that memory is involved in the experience of ESP (Broughton, 2006; Irwin, 1979; Palmer, 2006; Roll, 1966; Stanford, 2006), suggesting that it may be a part of the tie that binds the long body together across space and time. In short, while our embodied sense of self gives us the impression of separation from others around us, our broader “long body” self may be the spiritual bridge that cross the gap between this perceived separation. Through the larger expanse of our broader long body self, we may all be connected to some degree.

If this concept has merit, then it offers us a different way of looking at ourselves and our relations with others. Perhaps if we all consider this concept a little deeper, then we might a basis for respecting each other and preserving this small plant on which we live, just as the late William Braud (1997) had envisioned. It is my hope that we may all be able to carry the spirit of his vision onward in the years to come, for the good of all humanity.

References

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

- Alexander, C. (2011). *Reflections*. Cary, NC: Author/Atomic Fly Studios.
- Alexander, C. H., & Broughton, R. S. (2001). Cerebral hemisphere dominance and ESP performance in the autoganzfeld. *Journal of Parapsychology*, 65, 397 – 416.
- Arcangel, D. (2005). *Afterlife Encounters: Ordinary People, Extraordinary Experiences*. Charlottesville, VA: Hampton Roads Publishing Company.
- Bancel, P., & Nelson, R. (2008). The GCP event experiment: Design, analytical methods, results. *Journal of Scientific Exploration*, 22, 309 – 333.
- Barnett, L. (1979). *The Universe and Dr. Einstein* (Rev. Ed.). New York: Bantam Books.
- Bem, D. J., & Honorton, C. (1994). Does psi exist? Replicable evidence for an anomalous process of information transfer. *Psychological Bulletin*, 115, 4 – 18.
- Bösch, H., Steinkamp, F., & Boller, E. (2006). Examining psychokinesis: The interaction of human intention with random number generators – a meta-analysis. *Psychological Bulletin*, 132, 497 – 523.
- Braud, W. (1997). Parapsychology and spirituality: Implications and intimations. In C. T. Tart (Ed.) *Body Mind Spirit: Exploring the Parapsychology of Spirituality* (pp. 135 – 152). Charlottesville, VA: Hampton Roads Publishing Company.
- Braud, W. (2010). Patanjali *Yoga Sutras* and parapsychological research: Exploring matches and mismatches. In K. R. Rao (Ed.) *Yoga and Parapsychology: Empirical Research and Theoretical Studies* (pp. 241 – 260). Delhi, India: Motilal Barnarsidass.
- Broughton, R. S. (1991). *Parapsychology: The Controversial Science*. New York: Ballantine Books.
- Broughton, R. S. (2006). Memory, emotion and the receptive psi process. *Journal of Parapsychology*, 70, 255 – 274.
- Broughton, R. S., & Alexander, C. H. (1997). Autoganzfeld II: An attempted replication of the PRL ganzfeld research. *Journal of Parapsychology*, 61, 209 – 226.
- Conser, J. (2012). *Proof of God 2012*. Charleston, SC: CreateSpace.
- Dodds, E. R. (1971). Supernormal phenomena in classical antiquity. *Proceedings of the Society for Psychical Research*, 55, 189 – 237.
- Duncan, L., & Roll, W. G. (1995). *Psychic Connections: A Journey into the Mysterious World of Psi*. New York: Delacorte Press.
- Feather, S. R., & Schmicker, M. (2005). *The Gift: ESP, the Extraordinary Experiences of Ordinary People*. New York: St. Martin's Press.
- Gauld, A. (1968). *The Founders of Psychical Research*. New York: Schocken Books.
- Gurney, E., Myers, F. W. H., & Podmore, F. (1886). *Phantasms of the Living* (2 vols.). London: Trübner & Company.
- Haraldsson, E. (1988-1989). Survey of claimed encounters with the dead. *Omega: Journal of Death & Dying*, 19, 103 – 113.
- Haraldsson, E. (2009). Alleged encounters with the dead: The importance of violent death in 337 new cases. *Journal of Parapsychology*, 73, 91 – 118.
- Heath, P. R. (2011). *Mind-Matter Interaction: Historical Reports, Research and Firsthand Accounts*. Jefferson, NC: McFarland & Company, Inc.
- Honorton, C. (1977). Psi and internal attention states. In B. B. Wolman (Ed.) *Handbook of Parapsychology* (pp. 435 – 472). New York: Van Nostrand Reinhold.
- Honorton, C., Berger, R. E., Varvoglis, M. P., Quant, M., Derr, P., Schechter, E. I., & Ferrari, D. C. (1990). Psi communication in the ganzfeld: Experiments with an automated testing system and a comparison with a meta-analysis of earlier studies. *Journal of Parapsychology*, 54, 99 – 139.
- Horn, S. (2009). *Unbelievable: Investigations into Ghosts, Poltergeists, Telepathy and Other Unseen Phenomena from the Duke Parapsychology Laboratory*. New York: Ecco/HarperCollins Publishers.
- Hunt, N. B. (2003). *Shamanism in North America*. Buffalo, NY: Firefly Books.
- Irwin, H. J. (1979). *Psi and the Mind: An Information Processing Approach*. Metuchen, NJ: Scarecrow Press.

- Irwin, H. J., & Watt, C. A. (2007). *An Introduction to Parapsychology* (5th Ed.). Jefferson, NC: McFarland & Company.
- Jahn, R. G., & Dunne, B. J. (2011). *Consciousness and the Source of Reality: The PEAR Odyssey*. Princeton, NJ: ICRL Press.
- Jahn, R. G., Dunne, B. J., Nelson, R. D., Dobyns, Y. H., & Bradish, G. J. (1997). Correlations of random binary sequences with pre-stated operator intention: A review of a 12-year program. *Journal of Scientific Exploration*, *11*, 345 – 367.
- Jeans, J. (1930). *The Mysterious Universe*. New York: Macmillan Publishing Company.
- Maryboy, N. C., & Begay, D. H. (2004, June-August). Ceremonial healing: Traditional ways of healing expressed through Navajo consciousness. *Shift: At the Frontiers of Consciousness*, *3*, 25 – 29.
- Morris, R. L., Harary, S. B., Janis, J., Hartwell, J., & Roll, W. G. (1978). Studies of communication during out-of-body experiences. *Journal of the American Society for Psychical Research*, *72*, 1 – 21.
- Neihardt, J. G. (1972). *Black Elk Speaks*. New York: Pocket Books.
- Nelson, R. D. (2001). Correlation of global events with REG data: An Internet-based, nonlocal anomalies experiment. *Journal of Parapsychology*, *65*, 247 – 271.
- Nelson, R. D., & Bancel, P. (2011). Effects of mass consciousness: Changes in random data during global events. *Explore: The Journal of Science & Healing*, *7*, 373 – 383.
- 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.
- Osis, K., & Haraldsson, E. (1977). *At the Hour of Death*. New York: Avon Books.
- Palmer, J. (2006). Memory and ESP – A review of the experimental literature. *European Journal of Parapsychology*, *21*, 95 – 121.
- Persinger, M. A. (1974). *The Paranormal: Part I – Patterns*. New York: MSS Information Corporation.
- Powell, D. H. (2009). *The ESP Enigma: The Scientific Case for Psychic Phenomena*. New York: Walker & Company.
- Radin, D. I. (1997). *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. San Francisco: HarperEdge.
- Radin, D. (2006). *Entangled Minds: Extrasensory Experiences in a Quantum Reality*. New York: Paraview Pocket Books.
- Radin, D. I., & Nelson, R. D. (1989). Evidence for consciousness-related anomalies in random physical systems. *Foundations of Physics*, *19*, 1499 – 1514.
- Radin, D. I., & Nelson, R. D. (2003). A meta-analysis of mind-matter interaction experiments from 1959 to 2000. In W. B. Jonas & C. C. Crawford (Eds.) *Healing, Intention, and Energy Medicine: Science, Research Methods and Clinical Implications* (pp. 39 – 48). Edinburgh, UK: Churchill Livingstone.
- Radin, D., Nelson, R., Dobyns, Y., & Houtkooper, J. (2006a). Reexamining psychokinesis: Comment on Bösch, Steinkamp, and Boller (2006). *Psychological Bulletin*, *132*, 529 – 532.
- Radin, D., Nelson, R., Dobyns, Y., & Houtkooper, J. (2006b). Assessing the evidence for mind-matter interaction effects. *Journal of Scientific Exploration*, *20*, 361 – 374.
- Rhine, J. B. (1937). *New Frontiers of the Mind: The Story of the Duke Experiments*. New York: Farrar & Rinehart, Inc.
- Rhine, J. B. (1947). *The Reach of the Mind*. New York: William Sloane Associates, Inc.
- Rhine, L. E. (1963). Spontaneous physical effects and the psi process. *Journal of Parapsychology*, *27*, 84 – 122.
- Rhine, L. E. (1981). *The Invisible Picture: A Study of Psychic Experiences*. Metuchen, NJ: Scarecrow Press.
- Rice, G. E., & Townsend, J. (1962). Agent-percipient relationship and GESP performance. *Journal of Parapsychology*, *26*, 211 – 217.

- Roll, W. G. (1966). ESP and memory. *International Journal of Neuropsychiatry*, 2, 505 – 521.
- Roll, W. G. (1982). The changing perspective on life after death. In S. Krippner (Ed.) *Advances in Parapsychological Research 3* (pp. 147 – 291). New York: Plenum Press.
- Roll, W. G. (1987). Memory and the long body. *Theta*, 15, 10 – 29.
- 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. (2008). Psi and the long body. *Australian Journal of Parapsychology*, 8, 6 – 28.
- 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: Interdisciplinary Perspectives* (pp. 123 – 163). Jefferson, NC: McFarland & Company, Inc.
- Roll, W. G., & Williams, B. J. (2009). *The matter of meaning*. Paper presented at the symposium “The Neurobiology of Extraordinary Experiences,” held at the 117th Annual Convention of the American Psychological Association, Toronto, Ontario, Canada, August 8.
- Schouten, S. A. (1981). Analysing spontaneous cases: A replication based on the Sannwald collection. *European Journal of Parapsychology*, 4, 9 – 48.
- Stanford, R. (2006). Making sense of the extrasensory – Modeling receptive psi using memory-related concepts. *European Journal of Parapsychology*, 21, 122 – 147.
- Stevenson, I. (1970). *Telepathic Impressions: A Review and Report of Thirty-five New Cases*. Charlottesville, VA: University Press of Virginia.
- Storm, L., Tressoldi, P. E., & Di Risio, L. (2010). Meta-analysis of free-response studies, 1992 – 2008: Assessing the noise reduction model in parapsychology. *Psychological Bulletin*, 136, 471 – 485.
- Stuart, C. E. (1946). GESP experiments with the free response method. *Journal of Parapsychology*, 10, 21 – 35.
- Tart, C. T. (1968). A psychophysiological study of out-of-the-body experiences in a selected subject. *Journal of the American Society for Psychical Research*, 62, 3 – 27.
- Tart, C. T. (Ed.) (1997). *Body Mind Spirit: Exploring the Parapsychology of Spirituality*. Charlottesville, VA: Hampton Roads Publishing Company.
- Wackermann, J., Pütz, P., & Allefeld, C. (2008). Ganzfeld-induced hallucinatory experience, its phenomenology and cerebral electrophysiology. *Cortex*, 44, 1364 – 1378.
- Williams, B. J. (2007). Pueblo parapsychology: Psi and the longbody from the Southwest Indian perspective. *Australian Journal of Parapsychology*, 7, 134 – 163.
- Williams, B. J. (2011). Revisiting the ganzfeld ESP debate: A basic review and assessment. *Journal of Scientific Exploration*, 25, 639 – 661.