REMOTE VIEWING, NON-LOCALITY, AND ADVAITA VEDANTA

And a man's life's no more than to say 'one'. Hamlet, V, II, 81

INTRODUCTION

Remote viewing is an anomaly to what the vast majority of human beings consider to be the limitations of phenomenal perceptual reality - reality as perceived by our five senses. Non-locality as displayed by the violation of Bell's Inequality demonstrates a paradox of the assumptions of quantum theory - the most advanced scientific theory of the underpinnings of perceptual reality. In this paper I will draw a parallel between the anomaly of remote viewing and the paradoxes of quantum theory and then discuss how the ancient Indian philosophy of Advaita Vedanta may be applied to shed light on these phenomena. From the outset I would like to say that I have chosen remote viewing with a particular protocol because I believe that the series of tests that I will discuss are both the most scientifically rigorous parapsychological tests conducted to date and also the most revealing regarding the nature and abilities of consciousness. However, since consciousness as it is currently understood and defined - plays no role regarding photons and electrons, a parallel cannot be drawn there.

REMOTE VIEWING

Although there are vague references and allusions to what we would consider remote viewing in both ancient Indian and Greek texts, the actual terminology "remote viewing" is only thirty years old. However, as early as 1927 remote viewing - then referred to as "telepathy at a distance" - experiments were described in *Outlinne of Science*, edited by J. Arthur Thomson.¹ On the other hand, clairvoyance - the ability to see beyond perceptual reality - has always existed and was even discussed by philosophers such as William James and C.D. Broad. The remote viewing discussed in this paper began with a series of experiments conducted at Stanford Research Institute (SRI) in the early 1970s. According to Lois Duncan and William Roll, gifted subject Ingo Swann "was enlisted by the CIA to head a project in the 1970s to help locate Russian submarines in the Pacific Ocean."² Henceforth,

for over 20 years, the US government funded experiments that examine the possible existence of "remote viewing," the ability to psychically acquire information from a distant location. During the early 1970s, this work was carried out at the Stanford Research Institute (SRI). The program was transferred to SRI International (formerly SRI) in 1973, and then continued between 1992 and 1994 at Science Applications International Corporation (SAIC).³

The SRI experiments would have never been supported were it not for three direct hits in the early days of the program:

In one of the apparent successes, concerning the "West Virginia Site," two remote viewers purportedly identified an underground secret facility. One of them apparently named codewords and personnel in this facility accurately enough to set off a security investigation to determine how that information could have been leaked. Given only the coordinates of the site, the viewer first described the above-ground terrain, and he then proceeded to describe details of the hidden underground site.⁴

Similarly,

(At) SRI International, Swann was given the coordinates "latitude 49 degrees 20' south, longitude 70 degrees 14' east," and asked to give an instant response without looking at a map. He said immediately, "It's an island, maybe a mountain sticking up through cloud cover. The terrain seems rocky and very cold. I see some buildings rather mathematically laid out. One of them is orange." Swann continued with a detailed description of a complex on the supposedly uninhabited antarctic island of Kerguelen. He then stated that there were people there speaking French. This seeming preposterous statement was ridiculed by skeptics, but investigation later revealed that the French government had built a meteorological station on that island."⁵

The evidence for this type of remote viewing is very well documented and compelling. But this type of remote viewing also falls under the super-category of clairvoyance, whereas the protocol for the remote viewing experiments discussed in this paper will add the variable of telepathy, and thus consciousness, as we understand it¹*. In particular, the protocol for the experiments is as follows: a sender is placed in an hermetically sealed room in a laboratory at SRI; the room is hermetically sealed in order to control for the variables of electronic signals or electromagnetic waves, such as those used by satellites and cellular telephones. The sender then meets the receiver; this is the part of the experiment with which I am most concerned and this is the part of the experiment that distinguishes remote

¹* Although due to the unclarity and discrepancies regarding the nature of consciousness it can and has been argued that inanimate objects have consciousness, that sort of speculation falls outside the scope of this paper. As will be seen later in the discussion of Advaita Vedanta, consciousness plays an important role - that of a conduit - into the theoretical interconnectedness of essential reality, Brahman.

viewing from clairvoyance.^{2*} Subsequently the sender goes into an automobile and then follows directions as generated by a computerized program designed to randomize the final destination of the sender. Thus, the sender has no idea of where s/he is going within a 100 mile radius. At a given time, when the sender is at a precise location, the experimenter asks the receiver what the sender is seeing. Some of the receivers state what the sender is seeing and some of them state and/or draw a diagram of the area. The statements are recorded on audio or videocassette. The sender then photographs the target location and returns to SRI. An independent verification organization is given ten or twelve photos of potential target locations and the descriptions and/or diagrams provided by the receivers. Verifiers are asked to choose the photo that best corresponds to the description and/or diagram. The chosen photos are then sent back to SRI to be regarded by the experimenters and

²*The reason that I consider this to be the pivotal and most currently underweighted part of the experiment is because it is here that the consciousness of the receiver gains familiarity with the consciousness of the sender. During and following World War II, Louisa Rhine documented thousands of cases of mothers or wives who saw apparitions of their sons or husbands and then a short time later received notification that the son or husband had been killed around the time that the woman encountered the apparition. Similarly, the Navy conducted experiments in which mother seals were attached to EKG machines while their infants were taken out under the ocean floor in a submarine. The reason that the baby seals were taken in a submarine was because there are no waves currently known that are able to penetrate through the barrier of massive amounts of water. At a given time the baby seals were slaughtered and at the same time the EKG machines attached to the mother seal spiked. Thus, although it flies in the face of our common sense view of perceptual reality, it appears as if some form of information passes to both animals and humans when their offspring or loved ones, with whom they have great *familiarity*, are at the point of tremendous danger resulting in death. Due to the above data I believe that familiarity between the sender and receiver is vitally important. In fact, if further experiments were being conducted I would propose that mother/child, brother/sister, and husband/wife teams were used as senders and receivers. I would not be surprised if their results were significantly higher than those of senders and receivers with less familiarity.

receivers. The experimenter then compares the photos chosen by the verifiers with the photo taken by the sender of the location.

In 1988 an analysis was made of all of the experiments from 1973 until 1988. The analysis was based on 154 experiments conducted during that era, consisting of over 26,000 individual trials. Of those, almost 20,000 were of the forced-choice type, and just over 1000 were laboratory remote viewings. There was a total of 227 subjects in all experiments.

The statistical results were so overwhelming that results that extreme or more would occur only about once in every 10^{20} such instances if chance alone were the explanation.⁶

Under further analysis it was concluded that "for experienced remote viewers at

SRI the overall effect size was 0.385... These consistent results across laboratories

help refute the idea that the successful experiments at any one lab are the result of

fraud, sloppy protocols, or some methodological problem."⁷

The above experiments and the success rate of 38% direct hits is for "gifted subjects," people who have been able to hone this apparently dormant unmanifest skill or talent. However, Puthoff and Targ also conducted experiments with average subjects and found that many people have the ability to remote view.

...physicists Harold Puthoff and Russell Targ of the Stanford Research Institute in California found that just about everyone they tested had a capacity they call "remote viewing," the ability to describe accurately what a distant test subject is seeing. They found that individual after individual could remote-view simply by relaxing and describing whatever images came into their minds. Puthoff and Targ's findings have been duplicated by dozens of laboratories around the world, indicating that remote viewing is probably a widespread latent ability in all of us.

The Princeton Anomalies Research lab has also corroborated Puthoff and Targ's findings. In one study Jahn himself served as the receiver and tried to perceive what a colleague was observing in Paris, a city Jahn has never visited. In addition to seeing a bustling street, an image of a knight in armor came into Jahn's mind. It later turned out that the sender was standing in front of a government building ornamented with a statuary of historical military figures, one of whom was a knight in armor.⁸

In addition, time did not appear to be a significant factor in the remote

viewing experiments at SRI.

"Puthoff and Targ found that, in addition to being able to psychically describe remote locations that experimenters were visiting in the present, test subjects could also describe locations experimenters would be visiting in the future, before the locations had even been decided upon. In one instance, for example, an unusually talented subject named Hella Hammid, a photographer by vocation, was asked to describe the spot Puthoff would be visiting one-half hour hence. She concentrated and said she could see him entering "a black iron triangle." The triangle was bigger than a man," and although she did not know precisely what it was, she could hear a rhythmic squeaking sound occurring "about once a second." Ten minutes before she did this, Puthoff had set out on a half-hour drive in the Menlo Park and Palo Alto areas. At the end of the half hour, and well after Hammid had recorded her perception of the black iron triangle, Puthoff took out ten sealed envelopes containing ten different target locations. Using a random number generator, he chose one at random. Inside was the address of a small park about six miles from the laboratory. He drove to the park, and when he got there he found a children's swing - the black iron triangle - and walked into its midst. When he sat down in the swing it squeaked rhythmically as it swung back and forth.⁹

Puthoff and Targ's precognitive remote viewing findings have been duplicated by numerous laboratories around them world including Jahn and Dunne's research facility at Princeton. According to gifted subject Joe McMoneagle, the CIA has declassified and released less than 10% of all of the classified documents generated during the CIA funded experiments at SRI.

NON-LOCALITY AND QUANTUM THEORY

Quantum theory provides the greatest theoretical scientific descriptions of reality known to man. However, there exist paradoxes in quantum theory that challenge scientists to reevaluate either the assumptions of quantum theory or our common sense view of the world as perceived by our five senses. Bernard d'Espagnat states that the world view of physicists

is based on three assumptions, or premises, that must be accepted without proof. One is realism, the doctrine that regularities in observed phenomena are caused by some physical reality whose existence is independent of human observation. The second premise holds that inductive inference is a valid mode of reasoning and can be applied freely, so that legitimate conclusions can be drawn from consistent observations. The third premise is called Einstein separability or Einstein locality, and it states that no influence of any kinds can propagate faster than the speed of light.¹⁰

However, the results of both theoretical calculations and actual quantum experiments reveal discrepancies between the predictions of quantum theory and what d'Espagnat calls "local realism." It appears that either quantum theory is incomplete - as Einstein believed - or one of the assumptions upon which it is based is ill-founded. D'Espagnat believes that the three assumptions upon which quantum theory is founded "are essential to a common-sense interpretation of the world, and most people would give them up only with reluctance."¹¹ Before we focus on the problem of locality as one of the assumptions of quantum theory, let us briefly outline the history of its discoveries and debates.

In 1900, Max Planck while looking at atomic models began discussing

"quanta." "Then Einstein in March of 1905 suggested on the basis of Planck's work that light itself sometimes came in quanta, later dubbed the 'photon.'"¹² For many years afterwards there was much debate regarding atomic models and the particle versus wave theory of quanta. In 1913 Neils Bohr devised a theory of atoms: "He postulated that the angular momentum of the electron in its orbit around the proton can take only one of a discrete series of values... Bohr obtained a sequence of allowed orbits which he could identify with the 'stable states' of the hydrogen atom."¹³ Thereafter physicists began splitting atoms and deflecting them into beams. Some of the results of quantum theory hypotheses and experiments then were indescribable in terms of classical physics; a radically new theory was developed to account for the discoveries that occurred from the turn of the century until 1920.

Although de Broglie and others played important roles regarding their work with atoms, three men are generally credited with the discovery or creation of quantum mechanics: Niels Bohr, Werner Heisenberg, and Erwin Schrodinger. Bohr is best known for "complementarity" and for originating "the so-called Copenhagen interpretation, according to which all hope of attaining a unified picture of objective reality must be abandoned;"¹⁴ Bohr's protege Heisenberg is best known for the Heisenberg Uncertainty Principle that stipulates that either a particle's momentum or position could be stated, but not both at the same time; and Schrodinger is best known for "Schrodinger's Equation" and his hypothetical

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experiment now called "Schrodinger's Cat."

Bohr's work with the double-slit experiment reveals the first paradox between quantum theory and phenomenal reality. Because it was demonstrated that atomic particles seem to pass through both slits of the two slit experiment at once to produce an inference pattern, "here we are forced to simultaneously hold in our minds two mutually inconsistent descriptions: "particle" and "wave." Bohr would say that the particle-nature of the object is complementary to its wavenature."¹⁵ Complementarity reveals the "duality" or apparent bipolarity of descriptions in quantum mechanics. Regarding Heisenberg's Uncertainty Principle, "Bohr would say that position is complementary to momentum and energy is complementary to time."¹⁶

However, Greenstein and Zajonc state that

(d)iffering views can be held as to the significance of complementarity. For example, we can argue that it implies that quantum mechanics is incapable of providing us with a full description of reality. This, of course, was Einstein's view: if one accepts the traditional meaning of understanding, quantum theory forbids us from attaining it.¹⁷

For the purposes of this paper we must note the discrepancies between the way quantum theory describes the world and the way in which we perceive it commonsensically, logically, and epistemologically. However, this is only the beginning of the discussion, or debate, that will lead us to Bell's Inequality and beyond.

The work of Bohr, Heisenberg, and Schrodinger began a debate with Einstein whose principle of relativity established that information could not travel faster than the speed of light. Einstein sought to prove that the "quantum-mechanical description of nature is incomplete or approximate."¹⁸ Einstein thought that there were "hidden variables" which were not accounted for by quantum theory and that "if the values of these hypothetical "hidden parameters" were known, a fully deterministic trajectory could be defined."¹⁹ Einstein spent much time trying to restore realism in physics and disprove Bohr's complementarity.

To accomplish this Einstein, and two younger colleagues, Podolsky and Rosen (EPR) argued that simultaneous position and momentum measurements were in fact possible. They went on to use a proposition from Einstein's special theory of relativity - that it is impossible to travel faster than the speed of light - and the assumption of separability to undermine Bohr's logic. EPR proposed that if particles' polarizations were measured at the same moment and were found to be identical, as quantum theory predicted, and that the polarization did not come into existence until the particles were observed or measured, then somehow the two photons must be instantaneously communicating with each other so that they knew which angle of polarization to agree upon. But since "instantaneous" is faster than the speed of light, this was impossible so Bohr had to be wrong.

It is a curious result of quantum theory that two material particles widely separated in space and time may not exist as separate, localized entities with well-defined properties, but may in fact be parts of one nonlocalized whole, whose properties are not determined until an act of observation occurs. This finding is known as the Einstein-Podolsky-Rosen (EPR) paradox.²⁰

For the purposes of this paper it is important to note one of the critical assumptions

of EPR: locality, or separability. If this assumption is in fact dubious, then there must be another way of interpreting the data:

(A)ccording to physical theory, it is impossible that the first particle can somehow send a signal to the second "informing" it of its choice of spin. Rather, it seems that the particles can no longer be regarded as separate entities with localized properties. Instead, they are part of one united whole which is not localized in space and whose properties are not completely determined until an act of observation takes place.²¹

In 1952 David Bohm "provided a complete theory in which particles had welldefined positions and trajectories at every instant of time, and yet which accounted for all quantum phenomena."²² Bohm was able to do this by making the move of giving up locality as an assumption. Instead he devised a "quantum force" that can be described by a wave function. In fact, Bohm went so far as to "see the world as an undivided whole."²³ This radically new worldview enabled Bohm to explain quantum mechanical interactions but it also begged many questions and defied the common sense perception of phenomenal reality. However, "historically, it was while thinking of this very nonlocality of Bohm's theory that Bell discovered his famous theorem."²⁴

John Bell developed a theorem, an impossibility proof - or inequality - that provided a means of demonstrating the difference between the predictions of quantum theory and the predictions of EPR realism in one experiment.

Bell was seeking a contradiction between realism, relativity, and quantum mechanics; so, naturally, he began by assuming all three. The restrictions of relativity and the predictions of quantum mechanics are generally agreed upon, but as usual realism requires a special definition. An appropriate hypothesis is that there is a 'complete set of hidden variables' that determines the outcome (which way the particles go) on each run. These variables might describe things located in the source, in the analyzers, or carried by the particles among them.²⁵

By doing this Bell was able to develop a set of equations that would reveal a paradox; all of the logic was correct but the solution was incorrect. "what is most striking about Bell's argument is that it seems to postulate little more than the existence of a real world."²⁶ There seems to be only one possible explanation: action at a distance, which is impossible according to Einstein's special theory of relativity. "Effects that do travel with infinite velocity give rise to so-called action at a distance. This phenomenon involves a radical revision of our ideas about physical reality, a revision Einstein, Podolsky and Rosen were unwilling to accept."²⁷ Wick provides an interesting way of looking at what Einstein called "Spooky action at a distance": he proposes that a single photon can be described by quantum mechanics as a wave spread out over an area; however, when the photon is measured or observed, the wave collapses. "The 'collapse' would simply represent an updating of our knowledge."²⁸

Since Bell published his theorem in 1964 experiments have been conducted, most notably by Alain Aspect, proving Bell's inequality is false and demonstrating that local hidden variables are incompatible with quantum theory. Thus, it appears that one of the postulates or assumptions of either quantum theory or local realism is incorrect. D'Espagnat asserts that, "If realism and the free use of induction are to be retained, the violation of the Bell inequality can be explained only by giving up the assumption of Einstein separability."²⁹ He says,

I have discussed a pair of protons as if they were independent entities that come together in the target and then move apart again. They can also be regarded as the elements of a single physical system that is created during the first interaction and becomes progressively more extended in space until it is disrupted by the first measurement. With respect to separability these descriptions are equivalent. In each case a violation of Einstein separability requires instantaneous action at a distance, either between independent systems or within a single extended system.³⁰

There appears to be a paradox between phenomenal reality, which to our senses appears not to be "entangled," and quantum theory in which elementary particles do appear to become entangled.

ADVAITA VEDANTA

Although '*vedanta*' means "end of the vedas," which refers to the Upanisads, the teachings of Vedanta are based on the Upanisads, Brahma Sutras, and Bhagavadgita and are "understood to represent the consummation or culmination (*anta*) of the entire Vedic speculation, or indeed or all knowledge (*veda*)."³¹ Over two hundred texts call themselves Upanisads and most of them deal with questions regarding the nature of reality and ultimate reality. Most germane to our discussion is that "the Upanisadic teachers have consistently emphasized the view that the essential or real Self (*atman*) has to be differentiated from the empirical or embodied self. Indeed, true philosophical knowledge consists in not confusing the one for the other.³² Another way of stating that essential distinction would be to say that our five senses give us a limited provisional perspective on reality; they are filters for sense data that may, in fact, lead us away or astray from the larger picture. "The heart of Advaitic thinking can be summarized in three concise statements: Brahman is non-dual and unchanging reality; the world is illusion; man's eternal Self (Atman) is not different from reality (Brahman)."

Sankara, who lived around 700 C.E. is "generally acknowledged as the most influential of all Hindu religious thinkers."³³ His doctrine "has been well summed up in the following verse which circulates among the Teachers of his school. 'This universe of plurality is verily an illusion. The reality is the indifferentiated Absolute and I am that'."³⁴ The goal of Sankara's philosophy is *moksa*, release from *samsara*, which results from karma. The means to *moksa* is *jnana*, right knowledge. The practitioner must not be attached to the things of this world for they are illusory, *maya*; Advaita Vedanta avers that ultimate reality, *Brahman*, is non-dual, identical to *Atman*, the individual self or soul, and that our perceptual world is illusory, provisional, and merely the result of ignorance, *avidya*. According to Zimmer,

basing his reasoning on the Vedic formula, *tat tvam asi*, "That art thou," Sankara developed with unwavering consistency a systematic doctrine, taking the Self (*atman*) as the sole reality and regarding all else as the phantasmagoric production on nescience (*avidya*). The cosmos is an effect of nescience, and so also is that interior ego (*ahankara*) which is everywhere mistaken for the Self. *Maya*, illusion, mocks the perceiving, cogitating, and intuitive faculties at every turn. The Self is hidden deep. But when the Self is known there is no nescience, no *maya*, no *avidya*; i.e., no macrocosm or microcosm - no world.³⁵ For Sankara Brahman is ineffable: "no positive language is adequate to

describe Brahman."³⁶

"It is non-conceptual and hence it is not known in the way in which other common objects are known... It is strictly beyond thought and word."³⁷

Brahman is

non-empirical, unknowable as an object and yet knowledge itself, transcendental, non-relational, unspeakable, indescribable, inconceivable, beyond thought, beyond words, the realm of Silence, the eternal grand negation, a splendid isolation, a vacuum with no content, without language, and yet is the only light that shines by itself."³⁸

It has no sound or touch, no appearance, taste or smell; It is without beginning or end, undecaying and eternal; When a man perceives it, fixed and beyond the immense, He is freed from the jaws of death.³⁹

What cannot be seen, what cannot be grasped, without color, without sight or hearing, without hands or feet; What is eternal and all pervading, extremely minute, present everywhere - That is the immutable, which the wise fully perceive.⁴⁰

The above quotes refer specifically to Nirguna Brahman which is Brahman without attributes, unmanifest: "The Nirguna Brahman of Advaita Vedanta is the non-relational, *transphenomenal ground which acts as the substrate for the appearance of the world*. The world of difference is not a manifestation of Nirguna Brahman but only its appearance."⁴¹ (My emphasis) However, Brahman being beyond perceptual reality does not mean that it is inaccessible, for Brahman itself is divided into Nirguna Brahman and Saguna Brahman. According to Iyer, "it is Nirguna Brahman that appears as Saguna Brahman under the influence of Maya.⁴² Saguna Brahman is Brahman with attributes. Mugdal quoting the Taittiriya Upanisad 3.1. defines Saguna Brahman as "The Source from which the world proceeds, by which it maintained and ended" and "That from which these beings are born, that by which when born they live, that into which when departing they enter.⁴³ Saguna Brahman is the conduit between human beings and the highest reality, Nirguna Brahman.

In addition, "Samkara regarded the highest texts of the Upanisads, through which the truth is finally conveyed, as negative in character. The spoken word can give no idea of the Absolute, and would bring it down into the world of objects if it could."⁴⁴ This is similar to the absolute of Madhyamika Buddhism, *Tattva*:

The *Tattva* of Nagarjuna and the Brahman of Sankara are both transcendental to thought. According to them this ultimate is non-dual, ineffable, trans-empirical, beyond thought, trans-relational; it is not an object of knowledge and, therefore is not knowable as an object; for all knowability is knowability as an object and, therefore, the ultimate cannot be conceived or determined in thought. It is indeterminate and beyond all predicates. It is, therefore, unspeakable or indescribable. According to Nagarjuna, it is Catuskoti vinirmukta, and according to Sankaracarya it is "neti neti".⁴⁵

The only viable positive remark about the *Sunyata* of Madhyamika and Brahman is that their essence is interconnectedness: "Both the Sunyavada or the theory of emptiness of Nagarjuna and the Advaita-vada or non-dualism of Samkara have one thing in common which is the oneness of the universe."⁴⁶

OBSERVATIONS

I will begin this section by admitting the highly speculative nature of any parallels that I draw between remote viewing and non-locality in quantum theory. In addition, any attempt to explain these phenomena through Advaita Vedanta or any other philosophy or religion will not be as scientifically or academically rigorous as it is interesting. By the same token, any attempt to use scientific findings to "prove" the existence of God or any Absolute is misguided.

Etant donné, I find an interesting micro/macro parallel between splitting atomic particles that apparently later work in unison and the remote viewing experiments wherein the receiver and sender meet and then are psychically reunited later in time. I admit that I am partial to Wick's aforementioned theory regarding atomics particles, that they exist spread out over an area like a wave until they are measured or observed and then they regain their particle nature. This does not seem to be dissimilar to what de Broglie called a "pilot wave" 70 years ago. Along those lines let us consider a highly speculative similar model for senders and receivers in the remote viewing experiments: by some unknown means (hidden variables?) they become psychically united like a wave until the time when the experiment takes a "measurement" from the receiver. Let us revisit d'Espagnat's comment:

I have discussed a pair of protons as if they were independent entities that come together in the target and then move apart again. They can also be regarded as the elements of a single physical system *that is created during the* *first interaction and becomes progressively more extended in space until it is disrupted by the first measurement.*⁴⁷ (My emphasis)

But in the case of human beings this seems counterintuitive, nonsensical and absurd. The receiver and experimenter are in an hermetically sealed room so it would be impossible by the supposed laws of nature that a wave of say, electromagnetic energy, could pass through the walls of the room.

So there must exist a more sensible possibility as to how photons "communicate" with other photons, or how senders "communicate" with receivers in remote viewing experiments, or why Louisa Rhine received thousands of reports from women during WWII whose husbands or sons "communicated" with them from Europe upon death, or how mother seals in Navy experiments register heightened EKGs when their infants were killed on submarines.

In my research I have found two precedents that try to account for the above phenomena: one is a book entitled *The Medium, the Mystic, and the Physicist* by Lawrence LeShan, Ph.D. and the second is a speech by K. Ramakrishna Rao entitled "Psi: Its Place in Nature." In addition, in the work of Douglas Stokes on "Theoretical Parapsychology" non-local quantum theories such as Bohm's idea of quantum force are briefly mentioned. LeShan's book is more New Age than academic so it will not be discussed here other than to say that he often arbitrarily juxtaposes quotations (possibly taken out of context) from physicists, gifted subjects, and mystics to demonstrate the similarity of their languages regarding the essential oneness of what he calls "Clairvoyant Reality" - which does not appear to be terribly dissimilar from Brahman.

On the other hand, Rao, the former president of the Parapsychological

Association stated that

(o)ur attempt to understand psi in some ways parallels the attempts of some of the Indian thinkers to understand the nature of the Brahman, the supreme self. It is suggested, for example, that the best way to grasp the Brahman is to strip it of all the contents of experience through a process of elimination. This process of successive denial of attributes in describing Brahman is expressed in the famous formula "neti, neti." The denied attributes include all the things and relations we find in the world, including spatial, temporal, and sensory attributes.⁴⁸

By denying attributes we are not left with nothing in the conventional sense; that

Nothing, like the Sunyata of Madhyamika Buddhism, establishes an essential

oneness or interconnectedness for all things. According to Advaita Vedanta,

Buddhism, Kabbalah, and even Christian mysticism, the means to penetrating that

oneness is consciousness. Rao continues,

(o)rdinary consciousness or thought is a process, whereas Atman is a state of being. The statement in the Chandogya Upanisad, "tat tvam asi" referred to as the mahavakya, or the great saying, expresses the relationship between the individual consciousness and the supreme consciousness."⁴⁹

For Rao the absolute can be thought of as a supreme consciousness or universal

consciousness. Stokes follows Rao in relating the non-locality of quantum theory to

remote viewing by commenting that

the universe seems to contain entities that cannot be localized in space and time, and seemingly separate and isolated particles can under certain circumstances be seen to be parts of one united system. This suggests that two seemingly separate minds might also form part of a larger, unified, nonlocal entity, thus permitting psi phenomena to occur.⁵⁰

Stokes continues by saying that

Rao (1978a), in a presidential address to the Parapsychological Association, has noted the similarity of Bohm's concept of an implicate order (in which all events are interconnected) underlying the manifest world and Pribram's view of the world as a hologram (in which the whole universe is somehow contained in or related to every part) to the Vedantic doctrine of the identity between Atman (or individual consciousness) and Brahman (Supreme Self or World Mind).⁵¹

Although there are problems with Michael Talbot's book The Holographic

Universe, I think that a holograph is an interesting metaphor for the essential state of reality beyond phenomenal reality. One property of a hologram is that any molecule of it can be used to re-create the entire hologram. This, if viable, would explain all of the above mentioned cases of clairvoyance where gifted subjects were given longitude and latitude coordinates and then "saw" those areas from a distance. Talbot relates this to Advaita Vedanta and also to contemporary neurology by stating that

(t)he holographic universe is very much like Sankara's Brahman, the ultimate or first order reality. The holonomic brain resembles in essentials the individual self, the *jiva*. The advaita belief that the world of our experience is a mere appearance or a second-order reality is also implied in Pribram's theory. Both seem to hold that the primary reality provides the ground, the field, or the medium for the secondary reality as it manifests in our experience, and that the form of the processed reality is very much a function of our physical system. Again, they seem to hold that while primary reality in itself is in principle unknowable at the level of our sensory awareness, it may be knowable in another dimension. There is thus the possibility of transcending the ordinary state of awareness and achieving consciousness without content. When such a state is achieved, the brain may function as a hologram of the universe so that it attains a state of omniscience. In the language of advaita, when the veil of avidya is removed, we have the knowledge of the absolute.⁵²

Talbot here asserts - like Advaita Vedanta - a primary reality beyond perceptual reality that may act as a field or medium for "communication." Interestingly, even philosopher Bertrand Russell, who is best known for his work in the Philosophy of Mathematics and Logic, wrote

1. That there is a better way of gaining information than through the senses.

- 2. That there is a fundamental unity to all things.
- 3. That time is an illusion...⁵³

If we believe the results of the recent experiments in remote viewing and the data generated by Aspect's experiments that violate Bell's Inequality, then it appears that our common sense notions of locality and separability may be illusory. It is obvious that much more research must be conducted in this area. As more quantum theory experiments contradict the assumption of local realism scientists will be confronted with a re-evaluation of what is considered to be essential or primary reality. Hopefully, like Schrodinger, in looking forwards they will look backwards to Indian Philosophy in order to develop a hermeneutics that includes nonlocality as one of its basic tenets. Although our senses lead us to believe that we are distinct local separate individuals, there seems to be scientific evidence to the contrary. Or at least there is a pervasive ubiquitous field, such as ether was described until the last century, which is capable of transmitting information. Either one of these two possibilities is encompassed by Brahman - and also by

Sunyata, Ein Sof, and other religious absolutes. Hopefully as more information pervades the world through technology such as the Internet there will be a Kuhnian paradigm shift and our understanding of both phenomenal and absolute reality will be revised so what is currently considered to be paranormal come will to be considered normal - again. Possibly a man's life really is no more than to say 'one', to acknowledge the fundamental and essential oneness of the universe.

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