

The Holographic Universe; Does Objective Reality Exist?

In 1982, a remarkable event took place. At the University of Paris, a research team led by physicist Alain Aspect performed what may turn out to be one of the most important experiments of the 20th century. You did not hear about it on the evening news. In fact, unless you are in the habit of reading scientific journals you probably have never even heard Aspect's name, though there are some who believe his discovery may change the face of science.

Aspect and his team discovered that under certain circumstances subatomic particles such as electrons are able to instantaneously communicate with each other regardless of the distance separating them. It doesn't matter whether they are 10 feet or 10 billion miles apart.

Somehow, each particle always seems to know what the other is doing. The problem with this feat is that it violates Einstein's long-held tenet that no communication can travel faster than the speed of light. Since traveling faster than the speed of light is tantamount to breaking the time barrier, this daunting prospect has caused some physicists to try to come up with elaborate ways to explain away Aspect's findings. But it has inspired others to offer even more radical explanations.

University of London physicist David Bohm, for example, believes Aspect's findings imply that objective reality does not exist, that despite its apparent solidity the universe is at heart a phantasm, a gigantic and splendidly detailed hologram.

To understand why Bohm makes this startling assertion, one must first understand a little about holograms. A hologram is a three-dimensional photograph made with the aid of a laser.

To make a hologram, the object to be photographed is first bathed in the light of a laser beam. Then a second laser beam is bounced off the reflected light of the first and the resulting interference pattern (the area where the two laser beams commingle) is captured on film.

When the film is developed, it looks like a meaningless swirl of light and dark lines. But as soon as the developed film is illuminated by another laser beam, a three-dimensional image of the original object appears.

The three-dimensionality of such images is not the only remarkable characteristic of holograms. If a hologram of a rose is cut in half and then illuminated by a laser, each half will still be found to contain the entire image of the rose.

Indeed, even if the halves are divided again, each snippet of film will always be found to contain a smaller but intact version of the original image. Unlike normal photographs, every part of a hologram contains all the information possessed by the whole.

The "whole in every part" nature of a hologram provides us with an entirely new way of

understanding organization and order. For most of its history, Western science has labored under the bias that the best way to understand a physical phenomenon, whether a frog or an atom, is to dissect it and study its respective parts.

A hologram teaches us that some things in the universe may not lend themselves to this approach. If we try to take apart something constructed holographically, we will not get the pieces of which it is made, we will only get smaller wholes.

This insight suggested to Bohm another way of understanding Aspect's discovery. Bohm believes the reason subatomic particles are able to remain in contact with one another regardless of the distance separating them is not because they are sending some sort of mysterious signal back and forth, but because their separateness is an illusion. He argues that at some deeper level of reality such particles are not individual entities, but are actually extensions of the same fundamental something.

To enable people to better visualize what he means, Bohm offers the following illustration.

Imagine an aquarium containing a fish. Imagine also that you are unable to see the aquarium directly and your knowledge about it and what it contains comes from two television cameras, one directed at the aquarium's front and the other directed at its side.

As you stare at the two television monitors, you might assume that the fish on each of the screens are separate entities. After all, because the cameras are set at different angles, each of the images will be slightly different. But as you continue to watch the two fish, you will eventually become aware that there is a certain relationship between them.

When one turns, the other also makes a slightly different but corresponding turn; when one faces the front, the other always faces toward the side. If you remain unaware of the full scope of the situation, you might even conclude that the fish must be instantaneously communicating with one another, but this is clearly not the case.

This, says Bohm, is precisely what is going on between the subatomic particles in Aspect's experiment.

According to Bohm, the apparent faster-than-light connection between subatomic particles is really telling us that there is a deeper level of reality we are not privy to, a more complex dimension beyond our own that is analogous to the aquarium. And, he adds, we view objects such as subatomic particles as separate from one another because we are seeing only a portion of their reality.

Such particles are not separate "parts", but facets of a deeper and more underlying unity that is ultimately as holographic and indivisible as the previously mentioned rose. And since everything in physical reality is comprised of these "eidolons", the universe is itself a projection, a hologram.

In addition to its phantomlike nature, such a universe would possess other rather startling features. If the apparent separateness of subatomic particles is illusory, it means that at a deeper level of reality all things in the universe are infinitely interconnected.

The electrons in a carbon atom in the human brain are connected to the subatomic particles that comprise every salmon that swims, every heart that beats and every star that shimmers in the sky.

Everything interpenetrates everything, and although human nature may seek to categorize, pigeonhole and subdivide, the various phenomena of the universe, all apportionments are of necessity artificial and all of nature is ultimately a seamless web.

In a holographic universe, even time and space could no longer be viewed as fundamentals. Because concepts such as location break down in a universe in which nothing is truly separate from anything else, time and three-dimensional space, like the images of the fish on the TV monitors, would also have to be viewed as projections of this deeper order.

At its deeper level reality is a sort of superhologram in which the past, present and future all exist simultaneously. This suggests that given the proper tools it might even be possible to someday reach into the superholographic level of reality and pluck out scenes from the long-forgotten past.

What else the superhologram contains is an open-ended question. Allowing, for the sake of argument, that the superhologram is the matrix that has given birth to everything in our universe, at the very least, it contains every subatomic particle that has been or will be -- every configuration of matter and energy that is possible, from snowflakes to quasars, from blue whales to gamma rays. It must be seen as a sort of cosmic storehouse of "All That Is."

Although Bohm concedes that we have no way of knowing what else might lie hidden in the superhologram, he does venture to say that we have no reason to assume it does not contain more. Or as he puts it, perhaps the superholographic level of reality is a "mere stage" beyond which lies "an infinity of further development".

Bohm is not the only researcher who has found evidence that the universe is a hologram. Working independently in the field of brain research, Stanford neurophysiologist Karl Pribram has also become persuaded of the holographic nature of reality.

Pribram was drawn to the holographic model by the puzzle of how and where memories are stored in the brain. For decades, numerous studies have shown that rather than being confined to a specific location, memories are dispersed throughout the brain.

In a series of landmark experiments in the 1920s, brain scientist Karl Lashley found that no matter what portion of a rat's brain he removed he was unable to eradicate its memory of how to perform complex tasks it had learned prior to surgery. The only problem was that no one was able to come up with a mechanism that might explain this curious "whole in every part" nature of memory storage.

Then in the 1960s, Pribram encountered the concept of holography and realized he had found the explanation brain scientists had been looking for. Pribram believes memories are encoded not in neurons, or small groupings of neurons, but in patterns of nerve impulses that crisscross the entire brain in the same way that patterns of laser light interference crisscross the entire area of a piece of film containing a holographic image. In other words, Pribram believes the brain is itself a hologram.

Pribram's theory also explains how the human brain can store so many memories in so little space. It has been estimated that the human brain has the capacity to memorize something on the order of 10 billion bits of information during the average human lifetime (or roughly the same amount of information contained in five sets of the Encyclopedia Britannica).

Similarly, it has been discovered that in addition to their other capabilities, holograms possess an astounding capacity for information storage--simply by changing the angle at which the two lasers strike a piece of photographic film, it is possible to record many different images on the same surface. It has been demonstrated that one cubic centimeter of film can hold as many as 10 billion bits of information.

Our uncanny ability to quickly retrieve whatever information we need from the enormous store of our memories becomes more understandable if the brain functions according to holographic principles. If a friend asks you to tell him what comes to mind when he says the word "zebra", you do not have to clumsily sort back through some gigantic and cerebral alphabetic file to arrive at an answer. Instead, associations like "striped", "horselike", and "animal native to Africa" all pop into your head instantly.

Indeed, one of the most amazing things about the human thinking process is that every piece of information seems instantly cross-correlated with every other piece of information--another feature intrinsic to the hologram. Because every portion of a hologram is infinitely interconnected with every other portion, it is perhaps nature's supreme example of a cross-correlated system.

The storage of memory is not the only neurophysiological puzzle that becomes more tractable in light of Pribram's holographic model of the brain. Another is how the brain is able to translate the avalanche of frequencies it receives via the senses (light frequencies, sound frequencies and so on) into the concrete world of our perceptions. Encoding and decoding frequencies is precisely what a hologram does best. Just as a hologram functions as a sort of lens, a translating device able to convert an apparently meaningless blur of frequencies into a coherent image, Pribram believes the brain also comprises a lens and uses holographic principles to mathematically convert the frequencies it receives through the senses into the inner world of our perceptions.

An impressive body of evidence suggests that the brain uses holographic principles to perform its operations. Pribram's theory, in fact, has gained increasing support among neurophysiologists.

Argentinean-Italian researcher Hugo Zucarelli recently extended the holographic model into the world of acoustic phenomena. Puzzled by the fact that humans can locate the source of sounds without moving their heads, even if they only possess hearing in one ear, Zucarelli discovered that holographic principles can explain this ability.

Zucarelli has also developed the technology of holophonic sound, a recording technique able to reproduce acoustic situations with an almost uncanny realism.

Pribram's belief that our brains mathematically construct "hard" reality by relying on input from a frequency domain has also received a good deal of experimental support.

It has been found that each of our senses is sensitive to a much broader range of frequencies than was previously suspected.

Researchers have discovered, for instance, that our visual systems are sensitive to sound frequencies, that our sense of smell is in part dependent on what are now called "cosmic frequencies", and that even the cells in our bodies are sensitive to a broad range of frequencies. Such findings suggest that it is only in the holographic domain of consciousness that such frequencies are sorted out and divided up into conventional perceptions.

But the most mind-boggling aspect of Pribram's holographic model of the brain is what happens when it is put together with Bohm's theory. For if the concreteness of the world is but a secondary reality and what is "there" is actually a holographic blur of frequencies, and if the brain is also a hologram and only selects some of the frequencies out of this blur and mathematically transforms them into sensory perceptions, what becomes of objective reality?

Put quite simply, it ceases to exist. As the religions of the East have long upheld, the material world is Maya, an illusion, and although we may think we are physical beings moving through a physical world, this too is an illusion.

We are really "receivers" floating through a kaleidoscopic sea of frequency, and what we extract from this sea and transmogrify into physical reality is but one channel from many extracted out of the superhologram.

This striking new picture of reality, the synthesis of Bohm and Pribram's views, has come to be called the holographic paradigm, and although many scientists have greeted it with skepticism, it has galvanized others. A small but growing group of researchers believe it may be the most accurate model of reality science has arrived at thus far. More than that, some believe it may solve some mysteries that have never before been explainable by science and even establish the paranormal as a part of nature.

Numerous researchers, including Bohm and Pribram, have noted that many parapsychological phenomena become much more understandable in terms of the holographic paradigm.

In a universe in which individual brains are actually indivisible portions of the greater hologram and everything is infinitely interconnected, telepathy may merely be the accessing of the holographic level.

It is obviously much easier to understand how information can travel from the mind of individual 'A' to that of individual 'B' at a far distance point and helps to understand a number of unsolved puzzles in psychology. In particular, Grof feels the holographic paradigm offers a model for understanding many of the baffling phenomena experienced by individuals during altered states of consciousness.

For further information on the nature of holographic reality, see:
http://www.gaianxaos.com/holographic_reality_of_being.htm

Holographic Reality of Being: The Nonlocal Universal Mind

Cosmology and Culture, December 1999

The main purpose of this paper is to explore conceptions of the mind and universe in context with a new paradigm shift in human consciousness. The foundation for this term paper will be based on easy to understand connections made between quantum theory, non-locality, Bell's theorem, and holograms. The goal is to open new avenues of understanding concerning the interconnectedness of all things in the broadest possible sense. Utilizing new scientific work concerning non-locality and holodynamics, we may be able to break down the apparent separateness that seemingly pervades human experiential observations. Key concepts will include the idea that each part of everything essentially contains the whole, and that everything is pervaded by underlying levels of interconnectedness.

"Bell's theorem proves that any model of reality, whether ordinary or contextual, must be connected by influences which do not respect the optical speed limit. If Bell's theorem is valid, we live in a superluminal reality. Bell's discovery of the necessary non-locality of deep reality is the most important achievement in reality research since the invention of quantum theory."

Nick Herbert in Quantum Reality

We experience material reality in the form of separate objects. However, modern physics is developing a conceptual understanding of the physical universe as an interconnected whole. New scientific insights concerning the nature of reality in relation to quantum theory are beginning to produce a new understanding in which nothing is separable from anything else. We are beginning to find that although this perceived separation between material objects is experientially real, it is not ultimately real.

Quantum Crystalizations of the Non-local Universal Mind

Let us begin with the classical misconception by addressing the fundamental assumptions of Newtonian physics. In a very general sense, it was thought that science could be used to lift the veil of man's ignorance to reveal the ultimate reality that existed out there. It was assumed that physical objects existed separate from each other. They were also seen as existing separate from space. The classical conception of the relationship between physical reality and space is analogous to the relationship of billiard balls to a pool table. The behavior of physical reality was described as the interactions of the billiard balls. The table itself was seen as completely separate from what occurred on it. In this way, classical physics viewed space as nothing more than an arena where the interactions of physical objects took place.

With the advent of Einstein's theory of relativity, new relationships were taken into account. Specifically, it was observed that physical reality was inseparable from the spatial structure. In relativistic physics, material reality was still described as separately existent objects interacting like billiard balls. However, the connection was made between the structure of the billiard balls and the structure of the pool table on which the game was played. Ultimately, time and space, which were previously considered independent of each other, were now seen to be relative or related to each other through the underlying spatial structure of space-time.

It wasn't long after Einstein's insight into the interconnectedness of space and time that a new science began to emerge which we call quantum physics. This strange new science, which physicists encountered as they peered deeper and deeper in the structure of the atom, revealed a reality that was everything but consistent with common sense. By this I mean that the predictions the theory makes about the nature of reality do not correspond to our usual sensory perception of physical reality. However, quantum theory is the most accurate method physicists have for predicting the behavior of physical reality.

One startling feature of the quantum model is that electrons, as well as other subatomic particles, are not really objects at all. In addition, an electron can manifest as either a wave or a particle. An electron can be fired at a screen to reveal a tiny point of light, thus clearly revealing the particle-like side of its nature. However, the electron can also behave as a blurry cloud of energy. If fired at a barrier, in which two slits have been cut, the electron can go through both slits simultaneously. 1

A popular interpretation of the evidence suggests that the electron manifests as a particle only when it is being observed. For example, when an electron isn't being looked at, experimental findings suggest that it is always a wave. In another slightly different interpretation, it is the method of observation that determines which aspect of the electron's nature will manifest. Conceptually, we could say that what we experience as physical reality does not exist in a defined or definite state prior to the act of observation. Similarly, it is the act of observation itself which somehow defines the state of physical reality. This line of thought represents a radical break from classical physics in that there is no longer any reality out there which we are struggling to uncover. For indeed, any interaction we make somehow effects that which we are trying to observe.

Quantum theory also predicts another fascinating phenomena which is known as non-locality. It is quite obvious to our sensory perception of physical reality that things have specific locations. However, David Bohm, a protégé of Einstein and one of the world's most respected quantum physicists, held the view that at the quantum level, location ceased to exist. In other words, all points in space became equal to all other points in space, and it was meaningless to speak of anything as being separate from anything else. A non-local interaction links up one location with another without crossing space, without decay, and without delay. Simply put, a non-local interaction is unmediated, unmitigated, and immediate. 2

Bohm's conception of non-locality enabled him to give an explanation for what is known as the Einstein-Podolsky-Rosen paradox, or EPR paradox. In short, the paradox describes the problem of how two twin particles can seemingly communicate instantaneously with each other. The problem is that, according to Einstein's theory of relativity, nothing can travel faster than the speed of light, let alone instantaneously. Bohm's interpretation of the EPR paradox is that the twin particles are not separate, but non-locally connected. 3

In 1964, a theoretical physicist named John Stewart Bell devised a simple and elegant mathematical proof which demonstrated how non-locality could be experimentally verified. This proof is known as Bell's theorem. The only problem was that the testing of his theorem required a level of technological precision that was not yet available. 4 It wasn't until 1982 that physicists Alain Aspect, Jean Dalibard and Gerard Roger of the Institute of Optics at the University of Paris succeeded in verifying the twin particle test

that had been outlined by Bell.

In what is now known as the Aspect experiments, the non-local effect was demonstrated by producing a series of twin particles, allowing them to travel in opposite directions, and then measuring certain characteristics of the particles. Quantum particles, when observed, display what is known as a spin state. In general, this characteristic comes in complementary pairs, such as an up or down spin state. In order to understand the type of experiments performed by Aspect and his team, let's consider the following simple variation. Imagine two particles which together have a zero net spin state. That is they each have opposite spin states relative the other, thus cancelling when they are combined. However, according to quantum theory, the precise state of each particle's spin characteristic is undefined until it is observed. Since the two particles must have opposite spin states, determining the spin state of one of the particles through observation determines the spin state of the other particle. 5

In quantum theory, the spin states do not just exist to be revealed by observation. The spin states are in some way the product of observation. So, the observation and determination of one spin state then gives the other particle a spin state. Prior to the initial observation, each particle has only a potential spin state, which when determined, has to be the opposite of the other. In the experiments led by Aspect, the particles fly away from each other at the speed of light and are allowed to travel a relatively great distance. Then, a primary measurement is made to determine the spin of one of the particles. After this measurement has been made, the spin state of the second particle is measured and is always observed to be in the opposite spin state relative to the first. For a more rigorous explanation of the actual way this experiment would be conducted, please refer to the text of Quantum Dynamics of Morphing Psy ~ Trance ~ Formations.

The amazing thing is that the observation of one particle instantaneously determines the spin state of the other particle regardless of the distance separating them. It doesn't matter if they're ten feet apart or ten billion miles apart. The question could be stated, how is information transferred between two apparently separate particles faster than the speed of light? A number of theories have arisen which attempt to account for hidden variables that somehow facilitate the unseen cause and effect relationship whereby one particle affects the other. However, these theories avoid the most obvious conclusion, which is that the apparent separateness of the particles is itself an illusion. The separateness is not ultimately real. Non-locality is simply a manifestation of the ultimate unity underlying what we experience as separate physical objects.

Holographic Mental Interference

As we shall see, these ideas are very consistent with concepts which describe the universe in terms of holographic principles. Before we proceed further into our exploration of unity, it is necessary to understand some of the basic ideas of holograms. A hologram is produced when a single laser beam is split into two separate beams. The first beam is bounced off the object whose image is to be recorded. The second beam is reflected off a mirror and allowed to collide with the reflected light of the first. When this happens, the two parts of the beam create an interference pattern that is recorded on a piece of film called a holographic plate. 6

It is this phenomena of interference which makes holography possible. Interference is simply a pattern that is created when waves move through each other. Consider what

happens when if you drop two pebbles in a pond. Each pebble will produce a set of waves that form concentric circles which radiate outward from the point of impact. As the waves from each pebble expand, they will at some point collide, and the pattern that results is known as the interference pattern.

The pattern that is recorded on the holographic plate looks absolutely nothing like the object which was used to make the recording. Basically, it looks like a bunch of chaotic swirl's and concentric rings. However, once another laser beam is used to illuminate the film, a three-dimensional image of the original object reappears. You can walk around the image and view it from different angles, but if you attempt to grab it, you'll find that there is really nothing there.

The most striking property of holograms is that the whole image is contained in each part of the film. If you take the original film, on which the interference pattern is recorded, and cut it in half, you will find that the entire image can be projected by illuminating only half of the whole. In fact, you can cut the holographic plate into as many pieces as you want and you'll find that each piece, when illuminated, produces smaller versions of the whole image. 7

At this point, we can easily begin to draw some very interesting connections between the concepts we've addressed. In the holographic model, we say that the information of the whole is contained in each part. This is the same thing as saying that the information is distributed non-locally. We have also found that, at the quantum level, all particles are also waves. Thus, all of physical reality is essentially nothing but interference patterns.

It might be a good idea for us to contemplate the meaning of this last statement for a moment. Imagine an endless web of energy patterns. Science has discovered that, at the quantum level, these waves of energy are connected non-locally. This means that every portion of the pattern is infinitely interconnected with every other portion. It is essential to remember that we are not objective observers to this field of crisscrossing frequency patterns. We are it.

David Bohm suggests the possibility that this underlying unity of existence produces the physical world in the same way as a holographic plate produces a hologram. Could it be that our experiential perception of separateness is nothing more than a holographic illusion? Bohm describes the deeper level of reality as the "implicate", or enfolded, order. He refers to the level of reality of our everyday experience, as the "explicate", or unfolded, order. 8 This is not to say that our physical existence is unreal. However, it is helpful to understand it simply as a secondary reality.

Let us consider what we are really observing when we perceive a physical object. Consider the paper you are reading and words on the page. What you see out there is not what exists directly where it seems to be. You are perceiving a holographic blur of frequency patterns that are translated into a pattern of neural stimulation, which in turn is experienced as the object out there. In fact, the process of determining that the object exists out there occurs only in your mind's interpretation of the neural stimulation. When you look up at the stars, you are seeing light that left the stars millions and perhaps billions of years ago. Again, we are not seeing what is there directly; we are seeing a pattern of neural stimulation created by our interpretation of the light. "The same holds true for all the physical senses.

What you see, hear, taste, touch, and smell are all ultimately patterns of neuronal stimulation that in some way correlates with what is out there, but still are not really that.” 9 The frequencies that are translated into neural stimulation are, in and of themselves, colorless, textureless, and tasteless. The qualities we experience through sensory perception are created by the mind and represent an “explicate” order or secondary reality.

Our material reality is but a filtered version of the ultimate unity which connects everything. This filtered version creates separateness because it only perceives bits and pieces of the whole at a time. If we could remove the filter, we would experience reality directly as an interference pattern where all information is distributed non-locally. Again, let’s not forget that we are this pattern. Your hands, this paper, the trees outside the window, our solar system, the entire universe; it’s all a seamless, unbroken extension of everything else. It is one thing. If this is true, then there can be no objective reality because the observer, the process of observing, and the observed become one thing.

Morphogenesis & Dynamic Relativity

Let us contemplate and consider how the uncut fundamental wholeness of all reality became the differentiated reality of our experience. Firstly, we’ll begin by introducing the concept of absolute existence. Absolute existence is the uncut whole from which the pieces of reality emerge. Conceptually, absolute existence is undefined and unbordered existence. As we will see, absolute existence is equivalent to existent nothingness. Nothing does not mean non-existence. It simply means that what does exist is not definable as this or that, and therefore, no-thing. Absolute existence has no structure, and thus, contains no boundaries that could be used to define here in relation to there. “Physical reality is the reality of objects, the reality of things.

We hear things, we see things, we feel things, we taste things, we smell things. Throughout life we have assumed that all those things exist as defined things independent of our experience of them as those things.” 10 However, as noted in our discussion of quantum theory, science has found that this may not be the case. The defined thing-ness of those things we experience cannot exist except in relation to our experience of them.

In fact, any thing that can be experienced only exists in relation to something else. We may experience up and think that up is independently up; however, up can only be up in relation to down. Likewise, we experience hot and think that hot is independently hot, not aware that hot can only be hot in relation to cold. “The same is true for everything that we experience, in that whatever we experience something to be, it can only be that in relation to some other aspect of existence that is not-that.” 11 This form of existence can be termed relational existence: existence that is what it is in relationship to some other aspect of existence.

While absolute existence is structureless, relational existence has structure. In order to get from the uncut boundless non-structure of absolute existence to the structure of relational existence, the system must undergo some transformation or process. In order for the one thing to become two things, the one thing must polarize itself. It is this process of dualization whereby absolute existence forms a relationship with itself. Thus, some relational existence is defined in terms of some other relational existence.

“Once relative realities exist, there exists a level of structure within existence. The existence of this relational structure allows existence to form other relationships with itself.”¹² In other words, absolute existence does not dualize just once, but does so over and over again, repeatedly and progressively. What this means is that the relational realities produced by each level of dualization themselves undergo the process of dualization, resulting in the creation of two new relational realities within each preceding level of relational existence. This process of repeated and progressive dualization creates an interconnected structure of relational realities which we can call a relational matrix.

Regardless of how many times existence dualizes, the underlying reality will always be that of unity and interconnectedness. Although we experience reality as seemingly separate pieces, the fundamental reality form which that perception arises is that of oneness, whereby nothing is separable from anything else. Each part of the structure, each reality cell, contains some of the existence of all the other reality cells. Thus, each part of the structure is a reflection of the whole.

Since any localized area of existence has the quality of a-where-ness, then a non-localized area of existence, which would be everywhere, would not have a-where-ness, but would have the quality of every-where-ness or no-where-ness. This unbordered every-where-ness is consciousness. Consciousness exists everywhere, and thus nowhere. Absolute existence, as we’ve defined it, can be considered as existent nothingness, because it exists without the borders which define a thing. It is no-thing and no-where, because it is everywhere. Absolute existence is consciousness.

Any attempt to transcend the duality of existence inherent to our experience can seem hopeless until one realizes that they are an inseparable part of whatever it is that exists. Therefore, we have access to whatever it is that exists directly because of the inescapable fact that we are that.¹³ At the deeper “implicate” level of reality, you are infinitely connected to everything else that is. You are connected to every other person, organism, and atom in the universe; thus, you are all these things. Similarly, your thoughts are infinitely connected to all thoughts. Being that the image of the whole is contained within each part, the whole universe is within you. The information of the whole is distributed non-locally, and therefore you have access to all of it. Your mind is the Universal Mind.

All relative realities are created by consciousness existing in relation to itself. “We are that consciousness. We are that consciousness existing in relation to itself and interacting with itself.” There is nothing else. None of the things we perceive as separate have an independent existence, as all are in actuality relational extensions of the underlying unity of consciousness. “Physical reality is a product of consciousness. Consciousness is not a product of physical reality. Physical reality does not interact with itself in some unknown fashion to cause consciousness to come into existence. Consciousness in the process of repeated and progressive self-relation becomes the awareness of experience, and thus creates physical reality.”¹⁴

We have seen that we cannot directly experience the true texture of quantum reality because everything we look at crystallizes into matter. For the same reason, we can never experience consciousness as consciousness. When the unbordered, structureless-ness of consciousness attempts to look at itself, it creates a relational

structure or frame of reference, experienced as a relative state of awareness. Consciousness can only experience itself through its creation. This a wonderful thing because here we are, armed with the understanding that nothing is truly separable from anything else, and experiencing ourselves as all that is. Separateness is an illusion. Fundamentally, your true self is not other than the indestructible, unbordered, structrueless-ness of consciousness. To put it another way, you are God. The Universe is your body. The understanding of this truth gives rise to the experience of unconditional LOVE for all frequencies because they all exist within you.

End Notes

1 Talbot, Michael. p. 33

2 Ibid. p. 41

3 Ibid. p. 37

4 Ibid. p. 43

5 Kaufman, Steven E.

6 Talbot, Michael. p. 14

7 Ibid. p. 16

8 Ibid. p. 46

9 Kaufman, Steven E.

10 Ibid.

11 Ibid.

12 Ibid.

13 Ibid.

14 Ibid.

- figures of holographic recording, and wave interference patterns thanks to Debby West.

Holographic Communication Theory

<http://www.hologram.net/theory/theory.htm>

- figures of relational reality model, and cover illustration thanks to Steven E. Kaufman.

Unified Reality Theory: The Evolution of Existence Into Experience.

Sources

Combs, Allan. The Radiance of Being. Floris Books. 1995

Corwin, Thomas Michael. The Universe: From Chaos to Consciousness. Harcourt Brace

Jovanovich Publishers. 1989.

Kafatos, Menas, ed by. Bell's Theorem, Quantum Theory and Conceptions of the Universe.

Kluwer Academic Publishers. 1989.

McKenna, Terence. The Invisible Landscape: Mind, Hallucinogens, and the I Ching.

Harper San Francisco. 1975.

Talbot, Michael. The Holographic Universe. Harper Collins Publishers. 1991.

Mystic Fire Audio; Sound Horizons Audio/Video Incorporated. Chopra, Deepak. Quantum Healing Workshop

<http://www.unifiedreality.com> Kaufman, Steven E. Unified Reality Theory: The Evolution of Existence Into Experience. copyright 1997-99.

<http://www2.eu.spiritweb.org/Spirit/article-937253335.html> Navid. The Holographic Universe and Islam. September 1999.