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# Consciousness as an Active Force [Abridged]

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**References** 

# 1 - Introduction

As a researcher in computer science and artificial intelligence (AI) for over 20 years, I am known for my work on a variety of automated planning systems [Georgeff Lansky1, Georgeff Lansky2, Lansky1, Lansky2]. For instance, I have built artificial agents that "perceive", reason about their environment and about their own "beliefs", and take actions as a result. Despite -- or perhaps because of my expertise in this area -- I find myself alarmed by the emerging trend in the consciousness community to equate consciousness with simple awareness or even with more complex forms of reasoning and action based on awareness. The natural result of this equation will be to find computers capable of consciousness or -- perhaps even worse -- to view humans as complex machines [Dennett]. ...

The primary goal of this paper is to describe what I believe we may find in these explorations: that consciousness is an active force that we can exert upon the universe, not merely a passive perception or awareness of that Universe. ...

My reasoned argument for a more metaphysical view of consciousness is rooted in a quasimathematical definition of its mechanism -- one that assumes the reality of higher spatial dimensions. The ideas presented on behalf of this view of consciousness draw together concepts and experiences in alternative medicine, physics, and parapsychology.

# 2 - Consciousness and the Energy Body

My awakening to the ideas described in this paper come primarily through experimentation with and study of a variety of schools of alternative medicine. Indeed, I am currently in the process of a mid-life career change and am formally studying one particular school -- homeopathy.

A common thread that links many of the alternative approaches together is the notion that humans -- and perhaps all living things -- have energy-bodies that underly or form the basic underlying strata of their physical form. The energy body is intrinsic to the Chinese meridian system, Indian understanding of the **charkas** -- the empirically-based science of homeopathy (which emanated from the world of orthodox medicine in Europe of the 1800s), hands-on healing methods like Reiki, and exercises like tai chi, qi gong, and yoga. The energy that is being tapped and manipulated by these systems goes by many names: qi (chi), prana, vital force, human energy field, and more.

...My own personal experiences have convinced me unequivocally of the reality of the energy-body. In addition to practicing tai chi and qi gong, I have had positive experiences with ayurveda, acupuncture, hands-on healing, classical osteopathy, and homeopathy. One of my sons was cured of an "incurable" condition (infantile autism) through a mixture of homeopathy, classical osteopathy, and -- I believe -- the **focused consciousness** and belief of my family in his healing [Lansky\_HOL, Kaufman, Reichenberg Ullman].

Over the years, I have witnessed many other minor miracles as well. I have seen years of summer allergies simply vanish, visible ear infections disappear within hours, fevers drop in minutes, violent diarrhea stopped dead in its tracks, chronic longstanding twitching halt, and intransigent warts grow out and drop off.

If all of this is truly real -- if the energy body is a living, tangible phenomenon whose manipulation can directly affect the physical body -- its acceptance and integration into Western culture would necessarily revolutionalize our views of reality. No wonder it meets with such resistance and derision! And it seems to me that the energy body is also the best place to start looking for answers to our questions about consciousness.

Consider, for example, the so-called "placebo-effect". People often jest with derision about this phenomenon as if it were somehow illusory or unreal. But the fact is nearly all conventional drug trials indicate that a large percentage of the time people are able to heal themselves, merely at the suggestion that they have been given some material form of healing. Rather than belittling or shrugging this phenomenon off, we should instead take a closer look. Some mechanism must be at work. If we could tap into it and control it, we wouldn't need to ingest toxic chemicals to "cure" ourselves. Instead, we could find ways to support the most important agent of healing -- ourselves [Chopral, Weil]!

An important question to ask is whether the mechanism of the placebo effect is found within our physical body alone, or whether more subtle energetic mechanisms are at work. Studies in psychoneuroimmunology [Ader] certainly indicate that emotional states do affect our physical bodies through physical means (e.g., through the effects of neurohormones). These ideas have begun to be accepted even within the traditional medical community.

For example, most people now accept that <u>stress</u> can lead to disease. Thus, it is clear that our thoughts and emotions affect our physical bodies and are at least part of the explanation for the placebo effect. But can purely physical mechanisms also explain <u>cases of healing that involve nonlocality</u>? For example, research indicates that **prayer** -- even at a distance by a stranger -- can affect the healing outcome of another person who is unaware that these prayers are taking place [Dossey]. It seems that

some other kind of mechanism must be at work -- one that extends beyond the mechanics of the individual physical body.

I believe that an important component of the placebo effect is the ability of humans to control and repair their energy bodies. If this is true and the energy-body is the fundamental lattice upon which our physical bodies are built, this ability would have unimagined power -- much greater than those of our brain chemicals or even that of enzymatic repair of DNA. If it is real, a connection between the brain and the energy-body (the energy brain -- the mind?) may be the most important factor in the placebo effect -- the key to how the mind affects the physical body.

Now, let's extend these concepts even further and more radically. If the energy-body is real, it is only natural to consider that the energy composing it also pervades the Universe. This energy -- or at least some force related to it -- may form the "communications-network" whereby non-local effects occur: psychic phenomena, the collective unconscious, synchronicity. People only now are beginning to learn to control and affect their own physical bodies through "mind-over-body" techniques. The next step would be to realize that we can actually affect Global reality in the same way -- we are all connected. This would explain how prayer at a distance can affect healing. It also explains why a physician's attitude can be an important factor in the healing process. If the energy-body (individual and collective) exists and can be understood and controlled reliably and to our benefit, it is our imperative to learn how to do so.

Now, let's become even more esoteric. Recent work in physics seems to indicate that <u>higher</u> <u>dimensional forces may be at work</u>. In his book <u>Hyperspace</u>, <u>Michio Kaku</u> discusses how mathematical use of higher dimensions (at least 10) provides the most cogent means for building a model that unifies all the known forces -- i.e., it provides an elegant way of producing a Unified Field Theory.

Rather than viewing the use of higher dimensions merely as a mathematical artifice, we might consider that these higher dimensions are actually real -- that the fields themselves actually reside in higher dimensional space. This being the case, it would also be reasonable to assume that undetected fields (such as the hypothetical energy body) do as well. Certainly this would explain why the energy body and our mechanism for exerting control over it have been so hard to detect and measure. Little wonder that these concepts have not been integrated into western orthodox medicine, which has a tradition of focusing primarily on observable mechanism rather than on empirical correlation.

The alternative modalities, in contrast, tend to be <u>empirically</u> based. Observations (and resulting generalizations) are made about methods that have been consistently shown to work with less bias arising from issues of physical plausibility. In any case, despite the problematic nature of scientifically testing higher-dimensional phenomena, we should not despair. Our own bodies provide a fertile testing ground. The mechanisms for controlling these fields seem to reside within us.

#### So what about consciousness?

As I read much of the emerging literature in this field, I see the term used in many senses. One is simply a notion that I prefer to call "awareness" -- i.e., relating to whether-or-not we are "conscious" of something. I have no argument against the assertion that this form of consciousness may simply be a manifestation of a physical brain mechanism. But the term "consciousness" has also been used in a much stronger sense as a force that governs our perceptions of reality or -- more operationally -- as a force that can control and affect our perceived reality. It is this sense that I subscribe to. In particular, I believe that:

# Consciousness is an <u>active</u> force or mechanism that can -- among other things -- control or cause change in the human energy field as well as, potentially, the Universal field.

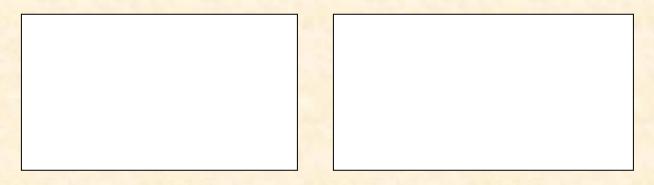
Thus as humans, we have within us the ability to use consciousness to affect both ourselves and our environment for good or for ill. Through consciousness, we can repair our energy bodies, control the flow of chemicals through our physical body, or give ourselves a heart-attack and die. We can also (but perhaps with less reliability) communicate our feelings to others at a distance, or bring events into our lives that aid or hinder us.

How exactly can we characterize or model such a mechanism of consciousness? The rest of this paper describes some ideas along these lines, focused primarily on the use of a possible-worlds model. I will also argue that consciousness is a higher-dimensional force that can, more broadly, affect all aspects of three-dimensional reality, not just the human energy field.

#### 3 - Possible Worlds

Consider our 3-dimensional spatial world. At each point in time, we are in a 3-dimensional state that has <u>many</u> possible futures. We are at a gateway to an infinite number of possible future 3-dimensional next-states. As we proceed through time, we carve out a "tube" in space-time that can be viewed as residing in 4-dimensional space. Within this 4-dimensional space resides all of our possible temporal trajectories through 3 dimensions.

This notion may be easier to visualize if we drop down a dimension and visualize the life of a 2-dimensional creature as it makes its way around a 2-dimensional plane over time. At each point in time, the creature is at a location in the plane. The plane as a whole may be viewed as a state -- a "snapshot" in time. We can visualize progress of the creature via a sequence of planes, each representing a time point in the life of the creature. As it moves through time, the creature carves out a tube in 3-dimensional space. The figures below illustrate this concept in the 2-to-3 dimensional case and its 3-to-4 dimensional analogue. In the second figure, the 3-dimensional soccer-ball-creature makes a choice at point 'C' between traversing one path or another. This creates a branching point in the space of its possible space-time trajectories through 4-space....



Let's now reflect on our own individual trajectories through space-time. At each point in time, a choice is made between all of our (possibly infinite) next states in 3 dimensions. These choices are made each instant as we carve out our 3-D-space/time trajectory. This **choice function C** may thus be described as follows:

C: (3Dstate,t) --> (3Dstate',t+delta) or equivalently C: 4Dstate --> 4Dstate'

Of course, it is clear that at each "choice point" some of our possible future states are much more highly probable than others. For example, it is most likely that our hearts will keep beating, that our cells will keep regenerating, that our bodies will keep aging. These high-probability courses-of-events seem almost mechanistic in nature and are often totally unconscious to us. (At least, we are unaware of them.)

On the other end of the spectrum, there are many C-choices that clearly seem to be the result of our conscious will: what actions we take, what we say. We usually have the sense that such events would otherwise not have occurred unless we had "made them so". (Of course, many would argue that these activities are also deterministic or mechanistic in nature; i.e., that our thoughts are simply following rules that have been learned or are genetically pre-programmed -- the traditional AI or cognitive science view of things.)

However, there are certainly some C-choices which don't seem so easily characterized by a mechanistic model. Consider, for example, medical "**miracles**" whereby the default clockwork of our own body -- or even a stranger's body -- is somehow supervened by our thoughts. In these cases, seemingly inevitable courses of events change to less probable courses. A cancer tumor inexplicably shrinks and disappears, or a prayer promotes healing at a distance. Such courses of events are not likely, but they are physically possible since body tissues are constantly replacing themselves and the potential for repair is always there [Chopra1].

It is in these C-choices that I believe consciousness plays a critical role. In other words, the "consciousness force" may be a <u>special</u> kind of C-function -- one that can take us off more automatic high-probability trajectories onto less-probable ones; from the current state to a less-probable next state. In other words:

# Consciousness is a 4- or-higher dimensional force that can operationalize the C-choosing-function and affect our trajectory through 4-dimensional space.

This active consciousness may be operating in a forward "pushing" fashion, causing things to manifest in the future. It may also be operating in a "pulling" fashion, generating future goal states which draw us to them. It may even be possible that consciousness can affect the past [Schmidt].

The view of consciousness as a special C-choosing-function may also provide a definition of **free will**. If we are passively sitting still in a chair staring out the window, we do not normally experience a feeling of exerting free will. At least upon the external world. We simply let things proceed according to their default mechanistic outcome. But when we exert our free will -- the force of our consciousness -- we invoke our power to change the default trajectory of ourselves and our environment through four-dimensional space. We concomitantly have the sense that we have altered what would otherwise have been a different outcome.

In summary then, consciousness is an <u>active</u> force for change. It can alter what seems to be our irrevocable destiny. Our exertion of consciousness is perceived or felt as "free will".

#### 4 - Related Work

Of course, many of the ideas outlined above are not exclusively my own. For example, <u>Amit Goswami</u> -- a nuclear physicist at the University of Oregon -- also describes consciousness as the force that "collapses the quantum possibilities into actuality" [<u>Goswami</u>]. He tends to view consciousness in terms of Quantum Mechanics rather than appealing explicitly to higher dimensions or focusing on the energy-body as a testing ground. Like me, Goswami believes that the view of consciousness as a decision function supports the "perennial philosophy" and can be used to resolve many outstanding problems of interest to the consciousness community: mind/body duality (consciousness is unitive and self referent, and there is quantum machinery in the brain-mind); nonlocality and the paranormal; the meaning of creativity; and more.

Reflections about life in 2 dimensions and the possibility of <u>4-or-higher dimensional reality</u> are also not my own ideas. A late-19<sup>th</sup> century novel that is still popular today, <u>Flatland</u> tells the story of a square living on a plane who is given the opportunity to see his own world from a 3-dimensional perspective. While the author Edwin Abbott used this story as a literary tactic for political commentary on his time, the book reflects a common fascination of that period with the 4<sup>th</sup> dimension as a reality laying just outside our 3-dimensional world.

As Michio Kaku discusses in this book <u>Hyperspace</u>, the notion of the 4<sup>th</sup> dimension had a profound impact on the art and philosophy of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. It was also espoused by respected physicists. But since this fascination was also embraced and exploited by others of less respectability and integrity, it became polluted by its own popularity. Indeed, the postulate of consciousness as a higher dimensional force (in contrast to consciousness as awareness) may be similarly discredited as being too "New Age". However, these associations do not make the hypothesis false.

Other related work on higher dimensionality includes Rucker's book on the 4<sup>th</sup> dimension [Rucker]; a recent article in Alternative Therapies [Bessinger] which promotes the idea of consciousness as a higher dimensional energetic field; and a paper on the Internet by Joachim Wolf. Higher-dimensional models can also clearly be linked to Sheldrake's morphogenetic fields and holographic models of reality.

# 5 - Ramifications, Questions, Ideas

The notion of **consciousness as a 4 (or higher) dimensional** choosing function explains much and raises many questions. In this section, I address many ideas that have come to mind since I began thinking about these ideas several years ago.

#### 5.1 Is consciousness3-D, 4-D, or higher-D?

Of course, it is quite reasonable to ask even if consciousness is a C-choosing function, can't it simply reside in our apparent 3-D world? Why should its natural domain be in 4-or-higher dimensions? Many people would argue that there is no reason to appeal to higher-dimensionality -- that the workings of the 3-D world are quite mysterious enough to hide many hidden potentialities. Yet, I find myself firmly in the higher-D camp. **There are basically 2 reasons which together make the higher-dimensionality argument seem more likely**. Or at least more appealing.

First is the aforementioned trend in the physics world indicating that **only an appeal to higher-dimensionality can produce a Unified Field Theory**. If the known forces reside in higher dimensions, then it only stands to reason that undocumented and undetected forces and fields -- which we postulate are at least related to consciousness -- also reside there.

The more compelling reason, however, is that higher dimensionality **provides the most simple and comprehensive explanation for paranormal phenomena, especially those that involve nonlocality** or demonstrate temporal anomalies. For example, consider the study on healing via prayer at a distance, or alleged psychic abilities such as remote-viewing. Invoking our analogy to a 2-dimensional world, what if a 2-dimensional creature were able to "lift" itself up into the 3<sup>rd</sup> dimension in at least in some fashion? If our 2-dimensional circle had a 3-dimensional "energy body" that it could directly access, it would be able to view activity at a distance on the plane without physically traveling through that plane. By analogy, psychics may be energetically rising (via so-called Out-of-Body Experiences) into the 4<sup>th</sup> dimension to view what's going on elsewhere. The ability to project an aspect of oneself into higher dimensions would also explain temporally-based paranormal phenomena such as foretelling the Future. There are even studies that indicate that humans can use **psi** to affect the Past [Schmidt].

If a 2-D creature were "lifted" up into 3-D and possessed some kind of 3-D form, it would also be able to see inside its fellow 2-D inhabitants. Thus, higher dimensionality can also provide a simple and compelling explanation for inner-vision -- the ability to view <u>inside</u> solid objects. (For extensive discussion on the geometry of the 4<sup>th</sup> dimension and its ramifications, see [Rucker].) Such inner-vision has been claimed by some reputable healers and medical-intuitives. They claim they actually see inside their clients' bodies and have documented the veracity of their viewings through subsequent medical tests [Brennan].

Together, all of these phenomenon (and there are many more) seem to lead to a higher-dimensional view of consciousness. If only one of them is real, it at least demands an explanation. If many of these phenomena are real, it seems most elegant and scientifically plausible to adopt an explanation like higher-dimensionality that provides the greatest explanatory coverage.

#### 5.2 Continuity vs. Discontinuity

Assuming now that consciousness is a higher-dimensional force that can affect our trajectory through 3-D space/time, it is reasonable to ask must this trajectory be <u>continuous</u>? If, for example, we could spontaneously map ourselves from one point in 4-dimensional space to any other, the result would

be mind-boggling. Even if we stayed within the context of a trajectory through space-time that aligned with our current known Universe, we would be able to spontaneously appear elsewhere on the Globe or pop back-and-forth in time. If we could also use consciousness to suddenly appear in another 3-D space/time trajectory -- another flow of possible realities -- we would experience an even more jarring form of discontinuity. This latter kind of experience lies in the realm of science-fiction [LeGuin]. Even devotees of the paranormal rarely claim it.

Personally, I would argue for universal adherence to continuity of some form, albeit a form of continuity that is apparent at one level of dimensionality while being seemingly discontinuous at a lower level. i.e., Continuity may be dimension-relative. Once again, let us appeal to the analogy with 2/3 dimensions. If a 2-dimensional circle was able to lift into 3 dimensions and plop down elsewhere on its plane, this event would seem discontinuous to the circle's planar friends. However, it would seem quite continuous from a 3-dimensional perspective. Similarly, seeming discontinuities in 3-space (e.g., popping to another place and time) may be continuous in 4-space.

Of course, it is clear that human use of consciousness almost always defines a trajectory through 3-D space/time that is continuous in 3-D. Discontinuities are -- at best -- highly unlikely and perhaps impossible for our physical bodies. For example, our use of consciousness to heal our bodies will most likely do so in a continuous way. In order to shrink a tumor, we must do so by harnessing the natural process of replacement of body tissue. It is much less likely that we could proceed directly to a state in which the tumor is spontaneously gone.

Indeed, we might argue that our physical bodies (being 3-dimensional) cannot transcend into higher dimensions, while our higher-dimensional energy-bodies can. When people claim to have "out of body" experiences, they claim to do so in <u>energetic</u> form -- not in physical form. Perhaps there is a spectrum of likelihood involved in this conundrum: from just letting things proceed mechanistically, to using consciousness to affect that mechanistic course, to using consciousness to transcend our physical body and operate in energetic form in 4 dimensions within our own space/time trajectory. At the farthest end of the spectrum lay such unlikely phenomena as spontaneous mapping into other regions of 4-space or physical transcendence of 3 dimensions.

#### **5.3 Free Will is Dimension-Relative**

I have already suggested that free will is the human feeling (or sensation) of exerting the force of consciousness. Moreover, I have also postulated that aspects of consciousness or our perception of consciousness may be dimension-relative. For example, whether or not consciousness seems to adhere to laws of continuity may depend on one's dimensional-perspective. In this section, I will suggest that the notion of free-will is also a dimension-relative phenomenon. What seems "free" in one dimension may be quite mechanistic or a matter-of-course at a higher dimension of reality.

Let us assume for a moment that consciousness exists at an infinity of dimensions of reality. What role does it play at each level? I have hypothesized that a 4-dimensional consciousness affects how three-dimensional creatures carve their path through 3-D space/time. This 4 dimensional force essentially determines our 3-D fate. By analogy, a 5-dimensional consciousness would determine how our 4-dimensional consciousness decides that fate. And so on.

Now, let us assume that our 4-dimensional self operates in its own universe with its own 4-dimensional rules of reality. The actions that it takes that affect 3-D may seem quite "mechanical" from a 4-dimensional perspective -- as mechanical, say, as the operation of a clockwork. However, because these mechanisms aren't apparent to the 3-D self, that 3-D self perceives 4-D actions as "free will". They seem to just happen freely; there is a feeling of spontaneity about them. In other words, what feels

like free-will in 3 dimensions may not be in 4. And what feels like free will to the 4-dimensional self may not be in 5 dimensions. And so on.

#### 5.4 Relationship between Qi, Psi, and Consciousness

There is clearly growing evidence that both *qi* and *psi* exist and have measurable effect. It also seems intuitive to us that these phenomena are somehow linked to each other and to consciousness. But how? In this section, I hypothesize further on these relationships.

The scientific world has already identified 4 fundamental forces of Nature and has been striving to find a <u>unifying</u> force that explains or underlies them all. In my view, it is quite reasonable to assume that <u>there may be many more undetected energy fields out there</u>. After all, humanity was quite unaware of the electromagnetic field or the nuclear forces until only recently. I believe that *qi* is another of these fields that has a direct relationship with living tissues. The Chinese meridian system and the Indian *chakras* define a precise anatomy of the *qi* field and its relationship to the human body -- e.g., how the *chakras* spin and draw *qi* into the body, how various channels circulate *qi* within the body, how these channels relate to the physical organs, and how *qi* is subdivided into various subcategories of energy that must be in balance in order to maintain health. Practitioners of meditative practices like qi gong actually feel qi as a physical body sensation and can manipulate it within themselves and others. Hands, in particular, seem to be acute qi detectors and transmitters. I myself have had such experiences with *qi*. I believe it is only a matter of time before scientists are actually able to detect and measure it. Efforts are already underway to do so [Leonard].

There is also evidence that *qi* can be affected by non-living materials. For instance, in addition to direct manipulation of the energy-body, most of the alternative medical systems try to affect it through the use of remedies and dietary regimens [Chopra2]. Over the centuries, certain foods, herbs, minerals, and other substances have been correlated with the restoration of balance and health to the energy-body. I believe that these substances have some sort of energetic resonance with the human energy body. Resonance of this kind is very likely the mechanism underlying homeopathy [Vithoulkas].

**Homeopathic use of infinitesimal doses**, for example, is quite suspect to medical practitioners trained only to believe in physical mechanisms. A typical homeopathic remedy may be composed of some selected substance diluted in water in a ratio of 1:100<sup>200</sup>. This 200C dilution is achieved by diluting 1 drop of "substance" in 100 drops of water, taking one drop of this dilution and diluting it further in 100 drops of water, and so on ... 200 times. Even dilutions of 100<sup>10,000</sup> are not uncommonly used. An important part of the dilution process is vigorous shaking (succussion) of the solution after each dilution step.

Obviously, since Avogadro's number is merely  $10^{24}$ , it is unlikely that even a molecule of the original substance is present in highly dilute homeopathic remedies. Yet clinical experiences show that the greater the level of dilution, the deeper the action of the remedy -- i.e., the remedy becomes more potent. Although this result is contradictory to our knowledge about body chemistry in the 3-dimensional world, it makes a bit more sense if the reality of the energy-body is acknowledged. Perhaps homeopathy is actually a quantum or even a higher-dimensional form of medicine [Gerber]. Recent physics research [Lo] is also beginning to provide a possible physical explanation for the efficacy of homeopathic dilutions. Characteristic lattice structures in the hydrogen-oxygen bonds between water molecules have been observed in homeopathic solutions. The act of succussion breaks up this lattice, allowing it to reform in the newly diluted framework. In any case, whatever the mechanism of these dilutions may be, a growing number of scientific studies have proven the efficacy of homeopathic remedies and -- in particular -- have shown that their effects exceed those of placebo [Linde].

Now let us turn our attention to *psi*. In contrast to *qi*, *psi* seems to manifest more as an exerted force. "Using" it, people have claimed a host of psychic abilities from psychokinesis to vision at a distance. In my view, *psi* simply is the exertion of the force of consciousness. Indeed, many popular manifestations of *psi* can be explained by an energetic-lift into 4-D as described earlier.

What then is the relationship between *qi* and consciousness? Like gravity or any of the other known forces, the consciousness force can be viewed as an energetic field of potentialities. Humans exert consciousness-force by creating a change in the field of consciousness. Practitioners of *qi*-related meditation can attest to the fact that they feel they are using consciousness to feel and move *qi* around. Somehow, consciousness is used to affect *qi*. I would like to propose -- like others have recently done -- that consciousness is the unifying field and that *qi* is just another of the energies within this unity. Of course, if this is true, consciousness (*psi*) should also be able to affect all of the other known fields as well. There is certainly evidence of this -- e.g., research conducted at Princeton has shown that *psi* can effect the outcome of electronic random event generators [Jahn2].

#### 5.5 Where is the seat of human consciousness?

If humans are able to exert changes in the field of consciousness, does the mechanism for this ability lie somewhere in a physical organ within us? Francis Crick has hypothesized that consciousness resides at a specific location in the brain. He also believes that that is all there is to it -- consciousness is simply a property or state of this location and nothing more. Once again, this assumes that consciousness is "awareness".

But if consciousness is an active force that we can exert and that force is ultimately higher-dimensional, it can't be reduced to a blob of 3-dimensional matter. Researchers like Crick, however, may be identifying the key locations that link our brain to our energy-brain (the mind?). For example, Hameroff and Penrose have tried to show how microtubules within brain neurons actually have quantum machinery within them. They have found a precise mechanism in these cytoskeletal microtubules that they believe explains how consciousness collapses indeterminacy into coherent "awareness events". These structures may also be the loci of our exertion of consciousness in addition to the seat of awareness within us. As the linkage point to our energy body and the consciousness field, these structures may also link each individual with the rest of reality.

In any event, the assertion that consciousness operates from specific brain locations begs many interesting questions and potential experiments. Does removal of these locations remove life? consciousness? awareness? Can the exertion of consciousness (e.g., psychic abilities) be blocked by encasing these locations with some other field? Or does the elemental nature of consciousness enable it to penetrate all of the other fields? How exactly does the consciousness force operate? How does it enable us to transcend into higher dimensions? What is the relationship between dreaming and these structures? Or between dreaming and consciousness [Wolf]? There are so many interesting questions to explore here, and consciousness researchers of all philosophical stripes are actively pursuing many of them.

#### 5.6 Can Computers Be Conscious?

If human exertion of consciousness is linked to the brain, we do have some guidance on the question of whether -or-not computers can be conscious. We could, for example, argue that since they don't possess an organic brain, computers cannot possess consciousness.

Yet, the argument of machine consciousness is muddled by **confusion over the definition of consciousness** itself. If consciousness is defined as awareness -- a state of self-knowing -- then yes, I

believe that computers can be conscious. They can be programmed to be "aware" of their internal state (and, of course, their external environment), conduct all kinds of reasoning about what they are aware of, explain their reasoning to us, take actions on the basis of this reasoning, and more. But if consciousness is defined as a higher-dimensional choosing function that can alter the course of 3-dimensional reality through nonmechanistic means, then no, I don't believe computers can ever be conscious-- at least in their current form.

How did humans evolve to possess consciousness? Are other animals conscious? Ongoing research seems indicate that at least some animals are [Animals]. Perhaps consciousness evolved out of the inherent relationship between our physical and energetic forms. According to theories about qi, all living tissues possess linkage between their physical form and their energetic form. Perhaps this is the definition of life: physical linkage to an energy body. As living creatures evolved, they may have additionally developed consciousness — the ability to exert control over their energy-body and, ultimately, over the more global energetic field as well. Indeed, common "New Age" wisdom suggests that humans are currently evolving to possess even more acute and conscious control over and interaction with the energy world. In essence, we are developing new senses in addition to the 5 material senses we already possess [Zukov].

Personally, I believe that computers will not develop consciousness until they first become "alive" -- i.e., until they become linked to the energetic world. If our energy-bodies are somehow related to our souls (in the religious sense), then perhaps a soul may eventually decide to attach itself to a sophisticated machine. Or perhaps someday humanity may discover the mechanism underlying our linkage to the energy-body and how we exert consciousness through it. If this occurs, we could possibly embue a computer or any other machine with life and consciousness.

#### **5.7 God**

The discussion of the previous section touched upon more spiritual issues: the nature of Life and the soul. Clearly, the study of consciousness has links to theology that are more than superficial. The consciousness community would be negligent if they didn't examine the **mystical traditions of the world** -- all of which have remarkably similar messages. All speak of the soul, its attachment to the physical body near the time of birth, its departure upon Death, and its potential reattachment to other physical lives.

In keeping with the rest of this paper, I will conclude with one last bold hypothesis: that <u>God is the field of consciousness</u>, the unity of all things. <u>Each of us -- each energy "soul" -- is a part of this field and we are all co-creators of its evolving destiny.</u> The name of God used in the Torah is composed of 4 Hebrew letters -- Yud-Hey-Vav-Hey (YHVH). This name is often translated as "I am that I am." Yet as some have pointed out [<u>Lerner</u>], the word is more properly translated with a future-tense cast: "I am what I will be." The core revelation here is that destiny is not fixed -- that each individual can create their own destiny as well as affect the collective destiny of the World.

To me, this message is essentially the same as the model of consciousness presented in this paper. Each of us -- through the force of consciousness -- can affect our individual as well as our collective trajectory through 3-D space/time -- our destiny. In the words of philosopher Rollo May, who further identifies consciousness with love [May]:

"For in every act of love and will -- and in the long run they are both present in each genuine act -- we mold ourselves and our world simultaneously."

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