

# **Engineering the ZPE from a Post-Cartesian Unified-Field Idealist-Monist Perspective**

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## **Introduction:**

This interdisciplinary paper provides a model of how the so-called zero point energy vacuum (ZPE) can be embedded within a multidimensional post-dualistic, essentially idealist mental monist, cosmology that reframes contemporary notions of the internal, subjective, experiential, mental-spiritual domain, on the one hand, and the domain of external, objectively real objects, events, and energies, on the other. It is argued that how we may be able to engineer the ZPE must be looked at in new, more inclusive top-down consciousness-centric ways. Rather than consciousness being an emergent epiphenomenon of brain/body physicality, physicality is reconstrued as being an emergent epiphenomenon of the underlying all-constituting consciousness field. The unified-field character of the model draws from the meaning of Carl Jung's term "psychoid," as that which possesses the characteristics of simultaneously being both internal/subjective and external/objective in nature. Further, and especially, the philosopher Hegel's concept of "Absolute Spirit" and an extension of the psychological concept of dissociation are used. Within this model, local sentient beings, seats or foci of consciousness and intention, and groups of such beings state-specifically sufficiently similar to each other to give rise to and maintain shared consensus realities, interact with each other and with their common ground of being, which is partially comprised of the ZPE (supplemented by higher-dimensional, higher-frequency, more-consciousness-characterized superordinate components), in a variety of modes that reflect different levels of evolution of consciousness and resulting technology with regard to the local environment. Some beings, and entire consensus realities of them, are already elsewhere in the universe, and someday will be here on Earth, capable of what could be considered feats of post-dualistic unified-field engineering as seen from the frame of reference of the consensus reality of the mostly physical-reductionist-oriented inhabitants of present-day Earth. What may be deemed paranormal or miraculous in one context may be normal in another more-inclusive one. What the field of parapsychology terms anomalous cognition, telepathy, clairvoyance or remote viewing, and pre-or retro-cognition may be the norm for how more evolved beings within a higher-dimensional, non-locally correlated experiential domain communicate and access information from their environment. What parapsychology considers to be the still-rare psychokinetic anomalous effects of mind on matter on Earth may be at the heart of how beings interact with and effect their environments by way of the ZPE in more evolved consensus realities. What parapsychology deems to be the mysterious and rare out-of-body

experience on Earth may be the dominant in-subtler-body mode of movement in a higher-dimensional reality. What today's parapsychology considers to be the hypothesized non-physical afterlife realm our still conscious and experiencing essences go to after the deaths of our physical bodies on Earth may be the normal experiential realm for countless beings more advanced than we.

In this modeling, the ZPE will be portrayed as the domain with respect to which all particles (or as I will tend to call them, wavicles) comprising all current Earthly spatiotemporally contained mass and energy emerge, are maintained, and may be transmuted into one another, from heavy mass hadrons and fermions to electron and related leptons and massless light-type bosons, to superluminary tachyons and excitation pattern wavicle systems closer to pure living consciousness itself. Higher dimensionality, higher vibratory frequency, and the more mental/consciousness/spiritual character of the psychoid unified field are argued to be deeply interrelated and maintain a superordinate relation to what we think of at present as physical reality. This presentation asks: How is our species changing and learning with regard to our own birthright potential and how we relate to the ZPE, to higher-dimensionality, and to the post-dualistic unified field?

[Note: The present article stems in part from (among others) the following five earlier publications by the author: "Cosmological Dissociation: Toward an Understanding of How We Create Our Own Reality," Paranormal Research '89: Proceedings of the 2nd International Conference on Paranormal Research, Colorado State University, Fort Collins, CO, June 1989; "Overcoming Cosmological Dissociation," 1989 Annual Conference Proceedings of the U.S.P.A.; "Toward a Universal Grammar," 1996 Annual Conference Proceedings of the U.S.P.A.; "The Role of Consciousness in Emerging New Paradigm Science: Toward an Idealist Paraphysics," 2000 Annual Conference Proceedings of the U.S.P.A.; "Otherworldly and Interdimensional Realities," UFO: The Science and Phenomena Magazine, June/July 2001, Vol. 16, No. 3.]

### **What is the Zero-Point Energy (ZPE) Vacuum?**

As an extraordinarily energetic latter-day all-pervading all-constituting ether, the seething creational cauldron of quantum potential, of random self-cancelling stochastic energy of the electromagnetic field in the vacuum averages to zero over long periods, but fluctuates wildly on very short time scales. It fluctuates with the presence of virtual photons and the creation and annihilation of electron-positron pairs out of and back into what has been called the "Dirac sea" surface of the ZPE. The ZPE (also termed the ZPF, or zero-point frequency) exists in a vacuum, in which all known extant particles and forces have been extracted, and even at absolute zero temperature this vacuum is homogenous, isotropic, and Lorentz transformation invariant. Calculations show that there is virtually infinite energy in each cubic centimeter of this vacuum; but, due to the extremely varied fluctuations and wave-cancelling negative interference of resonant frequencies of the oscillations within this ZPF field, and due to the continuous changes in energy state of particles, and of particles moving from actual to virtual states and back again within a minute Planck's constant interval, according to Heisenberg's uncertainty principle, there

is very little to detect or measure, let alone to access or manipulate. Yet what a ground of being--at least of physical-level being-- it is! It is comprised of endless quantum-level virtual states transforming into locally objectively real states and back again; ground states moving into excited states and back; potential energy states into kinetic ones and back. The ZPE energy is being constantly absorbed and emitted by local wavelike matter and energy excitations in an endless dance of the ZPE appearing to be the womb, preserver-sustainer, and destroyer (dissolver and absorber) of all components that make up what we know as locally real, as it makes up the underlying ground for all that can possibly locally exist and be objectively real.

I

Let us try to get a better sense of this ZPE. Under emptied, laboratory-controlled ZPE conditions, the space or cavity between two electrically neutral close-together metal plates introduces an anisotropy of the ZPE, with certain ZPF resonant modes being excluded in the cavity but not outside of it, with less wavelike excitations between than outside, resulting in more pressure from the ZPE being exerted against the outside of the plates than between them, giving rise to a force attracting them together, which is known as the "Casimir" effect or force. At the same time, there is an interaction of the underlying ZPE with the proton-and-neutron-constituting quarks and the electron-type leptons, together comprising what we know as matter, giving rise to the changes in resonance and a "zitterbewegung," or vibrating, buffeting, buzzing jitter, in a quantum-level micro-version of the more-macro-level Brownian movement arising from minute particles knocked around randomly by the movement of neighboring air molecules. As a result, changes in mass result from changes in the amount of energy involved in the ZPE-quark interactions brought about by changes in resonance.

Any symmetrical or spin movement of a homogenous portion and aspect of the ether field upon itself gives rise to inertia and hence mass. Simple rotation, revolution, or spin about an axis is one such endophasic, intrinsic, intra-field motion. More complex movement gives rise to the basal building blocks of orbital paths, curved vectors and geodesics, vortices, toruses, and plasmoids. Theosophy's heart-shaped many-layered "fundamental atom," the "anu," is a still-more-complex recursive flow system of basal substance on itself. Other physical or mathematical self-contained forms may also be related, such as solitons, twistors, flexors, torsion fields, et al. All could be seen as potentially local inertia and mass generating wavelike systems of contained excitation (and/or quiescence) out of a process of a kind of cosmological "incestuous intercourse" within the basal ground, such as the ether or ZPE in motional self-interaction. As surface waves modulated out of their carrier background, as in-turning centripetal convolutions, conscriptions, and scriptings of local form writ out of the undifferentiated underlying waters. Chladni and Jenny vibratory excitation patterns created by the most-manifest node points of standing wave systems out of the same underlying waters are another version of this process. All inward turnings of the underlying fully open, unconstrained, and radiant pure creational field are responsible for all local existents, forms, patterns, and manifestations, and, more densely, for all inertial, mass, and matter systems which we currently deem necessary prerequisites for being objectively real. Then, there is spin-spin and other isomorphic relations among such internal flow forms of the basal ether operating co-extensively within its different carrier-wave-like differentiated strata, and

across such strata, operating by harmonic resonance coupling relations as well as by the ubiquitous non-local correlatedness always the case with respect to the relations among all creational sibling offspring of the common quantum ZPE field.

Recently, Haisch, Rueda, and Puthoff have made a case for how inertia, mass, and even gravity, stem from the effect of the background ZPE, due to the kinetic energy that fluctuations in the ZPF induce on the quarks and electrons comprising matter. Also, the changes in oscillation of matter particles effect the adjacent virtual particles of the ZPE which in turn influence the matter particles. The rest mass of an otherwise massless particle would then come from interaction and energetic exchange with the vacuum. Any accelerated motion through the zero-point field of the quantum vacuum would therefore result in a reaction force, with mass and inertia being a kind of electromagnetic drag force. And, due to relativity theory's equivalence principle between inertia and gravity, gravity could also be seen to arise from this interaction of matter systems with the ZPE. The subcomponents of any mass-possessing frame of reference on a Poynting vector accelerating with respect to the quantum vacuum will generate interactive friction with the local "Planck oscillators" of the vacuum and will create a "Rindler flux," asymmetrically scattering them in a bath of radiation known as the "Unruh effect," and will experience radiation coming at them from in front and providing a retarding force against their accelerated motion proportional to the acceleration and creating what we know as inertial mass for that system moving with respect to the ZPE. Also, since Einstein pointed out that light follows curved space-time geodesics in the presence of matter, objects within a gravitational field will experience a similar flux and asymmetric behavior.

Stable electron lepton and proton-and-neutron-comprising quark elementary particles, and the massless energetic messenger boson (photon, gluon, graviton, Higgs, and other) "gauge" particles mediating their interactions, are all seen as local excitations, standing wave systems, or wave packets, arising out of, being sustained by, and interacting back with the background quantum ZPE field. These fluctuations of the quantum vacuum field are irregular, but are averaged out using quantum field theory. The interaction of electrons with photons are studied by quantum electrodynamics, and gluon/quark interactions studied by quantum chromodynamics. One theory for how massless particles acquire mass, or how immaterial substance becomes material, is a form of what in grand unified theory (GUT) is called spontaneous "symmetry breaking" of the vacuum. As a result, hypothesized "Higgs bosons" are said to arise in the ZPE and cluster around matter particles creating the "color field" force of gluons binding quarks and giving rise to the property of mass out of lepton-quark and boson source force fields. The summation of the energy density of this entire quantum vacuum is called the "cosmological constant."

Also, the nature of local particle or wavicle systems arising from and maintained within the quantum field ZPE, due to their common quantum ZPE origin, are in a state of quantum entangled superposition and coherence such that all probabilistic states of such particles are simultaneously coexisting until a conscious observation or measurement collapses the wave function representing those states (except in Everett's Many-World's theory of quantum mechanics), which renders decoherent the formally quantum-coherent

state, creating a single concretized, singularized version that can be experienced and measured as objectively real. Part of this picture includes what is called nonlocality, meaning that there is a now empirically proven nonlocal correlation found to exist between individual wave systems sharing a common quantum system origin. Nonlocality means that there is an instantaneous causal or measurement relation between any two such systems no matter how spatially separated. This appears to violate the Einsteinian limit that the fastest correlating, causal, or informational linkage between any two physically real systems must be limited to speed-of-light signal propagation. Nonlocality is another way of looking at the essentially non-separated nature of components within the quantum field, including the ZPE. For example, the geometrodynamical shaping of the space-time metric through controlled quantum action at a distance would be possible through nonlocality. Also, if information could be modulated on one of a set of quantum entangled nonlocally correlated systems, that information would be instantly available anywhere else in the set if it could be successfully demodulated and decoded.

### **Selected Currently Understood and Hypothesized Modes of Interaction with the ZPE**

Some of the modes to be described here are as yet only theoretical, but are generally receiving increasing acceptance in the mainstream physics community, while a few modes to follow have actually been successfully applied. Probably the best known mode is the ability to be able to engineer the ZPE through the earlier-mentioned Casimir effect by placing two uncharged metal plates very close together so that the subtle pressure of the background ZPE on the outsides of the plates is greater than on the insides. This gives rise to an exceedingly subtle force, seen either as a pushing pressure against the outsides of the plates or as an attractive force between them. Currently this force is too weak to work with in any realistic engineering way, but its proven existence may someday be usable. For example, very small, perhaps nanotechnology-scale objects, including curved ones, in sufficiently close proximity to each other could experience the Casimir effect and be spun in a kind of generator-type energy-creating, or cohering, polarizing manner. Cavity quantum electrodynamics is another somewhat related way of working with the ZPE. A small enough cavity can suppress the natural inclination of the ZPE, getting the trapped excited particles to give up some of their energy as they drop to a lower energy state, as the cavity partially controls the ZPE vacuum fluctuations and allows a tapping of the change-of-energy-state emissions. Also, the Casimir effect, by attesting to the existence of the ZPE, makes a strong case for resurrecting the concept of an all-pervading underlying "ether" that earlier was supposedly disproven by the Michelson-Morley experiment. Working both theoretically and empirically with a real ether, banished for the past 100 years, may prove revolutionary in our understanding of the universe and our place within it. So, the ZPE can now be accepted as a real, Lorentz-transformation-invariant ether capable of exerting pressuring or attractive force on the matter-possessing objects arising from and sustained within it, by means of the Casimir effect, and within which any accelerating body with respect to it requires properties of mass, inertia, and gravity as a function of asymmetrical interaction with it. The question then becomes how to interact with the ZPE in order to interact in turn with the matter and energy systems that have and maintain their existence in interaction with that ZPE?

Miguel Alcubierre's hypothesized "warp drive" starship propulsion system is one of many examples of trying to engineer the ZPE and its additional relatively-theory-based geometrodynamics gravity-space/time relations. From Alcubierre's metric engineering perspective, the region directly in front of a ship could hypothetically be contracted, while the region behind could be expanded, propelling the ship in a weightless geodesic path through space-time. The fabric of space-time would push the ship away from its origin and pull it toward its destination in a kind of relativistic geodesic version of the ZPE's push-attraction Casimir force. This is a subtler variation of the hypothesized engineering tactic of generating a cosmological black-hole-out-into-a-white-hole-type wormhole that could join our location within four-space (three spatial and one temporal) dimensionality with another location within it or joining our location in 4-space with a location in a higher-dimension, allowing for shortcut hyperspatial leaps out of and back into the constraint system of our known space-time reality. If, as Haisch, Puthoff, and Rueda postulate, mass, inertia, and gravity all stem from the Unruh radiation and Rindler flux frictions and drag relations of the interaction of material systems generated from the background ZPE and interacting as accelerating frames of reference back with respect to it, then there may be related modes of working with the ZPE that might be able to manipulate and reduce, or cancel entirely, the properties of mass and inertia, and the presence of and relation to gravity for the matter particles comprising a spaceship and its passengers, for example.

Current GUTs work with anywhere from six to dozens more dimensions than the four currently familiar to us (our 4-space). Those higher dimensions lie somehow within, by way of, or through and beyond the extraordinarily dense, opaque seething plenum potentiality of the ZPE. These higher dimensions tend to be depicted as being incredibly compacted, curled up into domains smaller than the less-than-atom's-diameter Planck length where our usual understandings of space, time, and causality break down entirely. Essentially, with higher dimensions come higher degrees of freedom. An inhabitant of a higher-dimensional world than ours would be able to do more within his world than we can within ours, and he would be able to know more about and do more within our world than we can. As pointed out by physicist Michio Kaku in his book Hyperspace, "The laws of physics appear single and unified in higher dimensions." Edwin Abbott's 1884 novel, Flatland: A Romance of Many Dimensions by a Square, has long been helpful for speculating on higher dimensional reality in relation to ours. For example, a sphere slowly moving through two-dimensional flatland is experienced by the flatland inhabitants as a slowly expanding and then contracting circle, beginning and ending with a point. How can the person in Flatland know that the four separate circles he sees before him are actually the four legs of a three-dimensional creature standing in Flatland? In that next higher dimension, what was locally separated in Flatland is joined as part of a single coherent body. In this sense, lower dimensional domains in relation to adjacent higher-dimensional ones may serve as projection systems, with the lower dimensional world comprised of shadows cast, as in the parable of Plato's cave. We in our relative three-dimensional flatland, related to the experience of the shadow projections on the wall, are as yet developmentally unable to turn around and see the higher-dimensional cave with people moving freely around the fire carrying objects and what we can know of them

only by way of their lower-dimensional shadow aspects. The question then remains for us: if there are higher dimensions within or beyond the ZPE, what goes on within them and what relationship, if any, do they have to what is going on within our lower-dimensional world and its physical reality environment ongoingly riding the womb of the underlying ZPE? Some reported extraterrestrials have been said to move freely through homeland higher dimensions and to project at will into our lower-dimensional world so that we can experience them and their ships alongside the other shadow-level objects and events available to our current consciousness and environmental dimensionality:

Abbott's Lord Sphere as ET visiting our flatland. Then what is objectively real, and to whom, and what is only imagined or dreamt? "I see them coming through the solid wall of the bedroom," reports the abductee. "They are now levitating me up and I pass right through the ceiling, with their reassurances telepathically resounding in my head."

Also interesting to note is the equivalence relationship long intuited to exist among velocity, vibrational frequency, and dimensionality. Physicists today tend not to include frequency vibration in their multidimensional formulations; but Tesla-era early-20th-century physics and more-recent perennial philosophy and New Age literature, with its channeled and ET experiencer messages and insights, is filled with references to how frequency is the key to cross-dimensional relations, and of how processes within, or more likely beyond, the ZPE effect the local physical systems arising from it. One way to consider frequency is as the measurement of how many moving waveforms pass a fixed point in a given amount of time. One can put an enormous number of vibrations in a very small space and time. There could be an informationally rich world, even an experienceable world, residing in regions smaller than the Planck length, if basic frequencies of the carrier being modulated were high or fine enough. There may be a relationship between velocity with respect to a point of measure and frequency. For example, there has always been speculation about how ETs, or us someday, need to be able to break through the barrier of the speed of light for our mass-possessing bodies and vehicles to be able to bridge the light years of distance. Once they have broken through, they are probably operating within a superluminary or hyperspatial domain. Maybe then, the particles comprising their bodies and ships have been turned into tachyons (superluminary or hyperspatial wavicles); or, in reverse, perhaps they originally have evolved to be made out of such stuff and have developed the post-dualistic unified-field technology to phase or state shift the macro aggregate system of particles/wavicles to enter and be co-extensive for a time with our level of reality made out of mass-possessing quarks or near-massless leptons and massless bosons.

### **Supersymmetry and Symmetry Breaking**

This brings us to what is called supersymmetry, which is broken by the strong dynamics of gauge (mediating force particle) theory, with supersymmetry relating, and theoretically allowing transformations across, particles of different spins. Supersymmetry needs a balance of massless light-force bosons and mass-possessing fermions, which can be invariant under exchange for the two into each other. For example, quarks (three of which comprise each of the protons and neutrons in the atomic nuclei of matter) and leptons (comprising electrons, neutrinos, and other small mass, 1/2 spin wavicles

incapable of strong, nuclear interactions) can transform into each other by the exchange of gauge bosons (massless force-mediating wavicles); and different kinds of quarks, such as "up" and "down" ones, can transform into each other through charged-current weak interactions mediated by a somewhat different kind of gauge boson (called W), which can potentially thereby change the fundamental nuclear nature of the mass-possessing world. The question then is: who or what can purposefully control and manipulate such systems of gauge bosons so as to alchemically work with physical reality in a more direct reality-creation way? What is the mechanism of coupling interaction with respect to gauge bosons to control them? Simply other coextensive, same ontological-level bosons? Or could do they be potentially directly controlled by wavicle fields of ether excitation superordinate with respect to them that we would tend to currently construe as being coextensive with and nonlocally coupled to a consciousness field characterized by such qualities, and possibly causal energies, of thought, ideation, desire, belief, intention, expectation, et al? I believe so.

The gauge principle allows change of phase of quantum-mechanical wave functions or quantum fields locally. Such modern-day GUT transmutational alchemies depict spontaneous symmetry and local symmetry breaking processes that can generate massless bosonic field oscillations out of the quantum vacuum, which in turn could be symmetry broken to generate fermionic mass-possessing field oscillations or wave systems, in a kind of local physical-reality-creation out of the ZPE. Then, more speculatively, further symmetry breaking might, in reverse, generate hyperspatial superluminary tachyons out of bosons, and perhaps even oscillating wave packet systems beyond tachyons more in the region of a pure consciousness realm comprising things such as "thoughtforms." In cross-dimensional trans-octave harmonic, cascading, downstepping, entraining relations, such thoughtforms may give rise to their counterparts in lower-frequency, yet still higher-dimensional, vibratory form, which, in turn, give rise to "light body" bosonic versions, which, in turn, give rise to mass-possessing fermionic wave systems. Then, the reverse process could be conducted, moving from extremely physical to extremely mental/consciousness-appearing versions of whatever localized, individualized informational, organizational pattern, template, signature, or identity print. But what might then account for such transmutations, translations, or transformations from one kind of a relatively objectified and localized wave system to another? It might be that we change the orientation of the particle-like individual waveforms with respect to a dimension higher than the one in which they exist. Changing orientation, spin state, rotation, frequency or velocity, hydrodynamics of the flow patterns comprising an individual complex waveform, changing chirality or handedness of orientation or flow, or changing the scalar or vectoral relation of local dimensional system with respect to a higher, subsuming, embedding constituting frame of reference, all could be ways of looking at how manipulation of ZPE-based components can occur. Generating or changing symmetry fields moving on themselves in charge-generating asymmetric flows and flows between fields in the ether that constitute charge is another mode. All of these modes of interaction presuppose superordinate dimensions, forces, and wave systems capable of effecting and manipulating lower-dimensional and more constrained wave systems. Implied in these speculations is that processes construed as originating ontologically more on the consciousness end of a post-Cartesian unified field monist



spectrum would exercise a non-locally correlated, probably directly causal, relation to processes existing more on what would be traditionally construed as the physicalist objectively real end of that same psychoid spectrum.

### **Superstring Theory**

In contrast to supersymmetry theory, superstring theory sees the underlying ground state riding and moving in and out of existence on the surface of the ZPE giving rise to an infinite number of infinitesimal-length mathematical strings that vibrate according to discrete resonances. Combinations of such vibrations then give rise to all the mass and energy particles responsible for our level of reality, with the higher the frequency, the more massive the particles. Superstring theory can in turn be extended into what is called "d-brane theory" where strings are seen as connected to "world sheets" and hyperspatial membrane-like "branes." The presence of open strings attached to d-branes gives rise to gauge fields living on the brane. What is called a Higgs field breaks the vacuum symmetry, which corresponds to separating the branes, and higher dimensional objects are comprised of such branes to which are attached the variously vibrating strings comprising matter and force wavicle systems. Pure energy force mediating bosons are depicted as closed loops of superstring that do not and cannot attach to such branes. Only recently have string excitations and extra dimensions been brought out of hiding from the incalculably tiny and short Planck domain. All gauge (mediating force) and matter fields in such latest thinking inhabit the inside of 10-dimensional hyperplanes.

As an aside, we can ask: Do our reported extraterrestrial visitors now-- or will we in the future-- see things in such a GUT-type engineerable way? Do the strings on their level of reality simply vibrate at a different, much-higher octave than ours do? Have they found a way to raise or lower the superstring frequencies responsible for their bodies and ships so that they can move at will between the higher octave carrier wave their reality is modulated within and the one ours is modulated within? Can they simultaneously phase shift the open string brane-attached superstrings of their more-fermionic more-matter-type local systems into closed-loop more-light-type bosonic ones not attached to such branes, to free the internally consistent variegated aggregate of their string frequencies and interrelations from local quantumly decoherent constrained frames of reference, activity, and manifestation? Have they learned to carry out transubstantiations with respect to the ZPE, and of the ZPE extended and embedded in a more consciousness-characterized underlying potentiality that all beings are given to work with, so that they can turn mass-possessing quarks and fermions into leptons and bosons of the essential light, and then translate such in turn into superluminary tachyons, and on even higher? A true post-Cartesian monist unified field technology probably will involve such conversion abilities whereby what we have thought of as mind and its ilk, as creator mode, is more nonlocally entangled and coherently superposed and at one with the negotiable artist's clay of creation and its underlying ground of being.

### **Superconductivity**

Creating quantum isolation in a system sufficient for quantum entanglement,

superposition, coherence, and non-locality to occur within it can lead to a variety of desirable results and uses. However, the wave function representing any system will automatically be collapsed not only by any intervention of conscious observation or measurement, but also by macro-level near-enough ambient decoherence environmental effects on it. That is, the presence of nearby physical systems, already wave collapsed to their currently focused states, can collapse the quantum wave function for a neighboring system just as much as the more-familiar process of this version can occur from observation or measurement. Even an atom or photon colliding with another can constitute a wave-collapsing act of measurement, collapsing the superposition of quantum mechanical states into one objectified, delimited and constrained, experienceable state. To get the benefits of using a maintainable isolated macro-level quantum coherent system is not so easy therefore, but it is already being explored in the development of quantum computers. Such quantum computers must be separated from their surroundings to maintain quantum coherence. Magnetic fields can trap and cool charged particles into pure quantum states for use as computing q-bits. A thimbleful of liquid brought to the right isolated coherency conditions could be used for quantum computation, programming initial conditions and conducting logic operations on the quantum entangled superpositions to get the result.

So, superconductivity and superfluids are potentially very useful ways of cohering or polarizing local portions of the ZPE vacuum. Superconducting systems offer no resistance to current flow, and although it was once thought to be possible to attain only at very stilled, near-absolute-zero temperature conditions, there is now evidence that superconductivity is possible in high-temperature systems, including living biological systems such as the human brain. In this regard, we may discover that the experienced qualities of our own subjective consciousness is associated with conditions sufficiently coherent to allow a superposed sensation of flowing and changing possibility structures accounting for the rather vaguely experienced only partially quantumly decohered contents and objects of our ideation, mentation, intention, imaging, desiring, et al. Superconductors and superfluids possess giant quantum wavefunctions allowing their separate subcomponents to be quantum entangled, superposed, nonlocally correlated and acting essentially as a single entity, rather than myriad separate micro-level entities each with its own quantum wave function. The so-called Bose-Einstein condensate is another example. And there are a number of other attempts to engineer with superconductivity, only one of which is now being able to partially levitate heavy trains. Also, certain gravity shielding experiments have been done, placing small weights on very sensitive strain gauges with rapidly rotating super conducting ceramic disks underneath which are capable of levitation because of the superconducting "Meisner effect."

### **The "Scalar" Domain**

As Tom Bearden has pointed out, when Oliver Heaviside tried to simplify and make more-wieldy Maxwell's original, demanding electromagnetic "quaternion" equations, he deleted the complex-number scalar part, leaving only the vectoral components. Thereafter, for a long time researchers tended to ignore the possibility of there being standing and longitudinal scalar stress waves with respect to the ether or to what could be

approximately conceptualized as the-- or a-- membrane of the ZPE, and clearly related to relativity theory's view of how "flat" space-time can become geodesically deformed, curved, or locally convoluted inward upon itself. E.T. Whittaker, Bearden and others have theorized about how to work with the ZPE using scalar engineering. For example, it has been found that "bucking" or "zero-summing" two rhythmically varied traditional vectoral, transverse Hertzian electromagnetic wave sets that are 180 degrees out of phase with each other will cause negative wave interference cancellation, leading to no remaining electromagnetic energy/force; but in the process scalar waves or potentials are induced with respect to the ether of the ZPE. Perhaps even more interestingly, conversely, superimposing and interfering such scalar potentials can in turn generate vectoral fields. That is, vectoral EM waves can be replaced by scalar interferometry and EM waves can be used to produce standing wave force potentials. In this way, manipulation can translate into and out of the ether ZPE background with respect to the local space-time vectoral/Hertzian EM energy domain we normally operate within. This is now a proven process for manipulating local available vectoral forces to reach up into, couple and work with, the locally underlying ether ZPE to generate causal forces to bring back into our own familiar experiential regions, which themselves are locally generated and sustained by that same ether ZPE, and by what, I believe, lies superordinately beyond the ZPE, in turn. In addition, what Bearden calls "Whittaker" structures or potentials are conjectured to be two-way, bidirectional, harmonic pulsed vectoral EM wave sets wave-interfered into rhythmic force-field-free standing-wave potential or scalar systems that can then be worked with back in relation to the vectoral fields of our local reality. Such "Whittaker structuring" of the ZPE vacuum potential thus structures the vacuum's virtual particle flux exchange with local-reality matter systems and this process can be purposefully engineered as well.

In such thinking there is a more-varied relationship between our local space-time matter-energy domain and a transcendent adjacent region giving rise to and maintaining or changing it. Bearden and others speak of a process of hyperspatial cross-dimension "cross-talk" energetic local virtual photon flux that flows rotatingly, spinningly, in and out between the quark/nucleon wavicles of our local domain and related hyperspace dimensionalities by way of, or through and beyond, the ZPE. Each wavicle in our local region, riding and fed by the underlying ZPE, experiences an "orthorotational" flow-through between itself and the creational ground. Nuclear wavicles stemming from the ZPE can then be "pumped" via their derivative relation to the potentials of that ground. Also, there are nesting virtual levels within the vacuum that can be structured and, in turn, accessed. There is a tuning relation between ground and local configurations that maintains-- and is capable of being worked with to change-- discrete wavicle forms in our local space-time region. Potentials within the ZPE can cohere or constructively interfere to breach the quantum threshold, moving from a virtual to a locally objectively real state. This breaching is another perspective on moving from quantum coherence to delimited, constrained, and localized decoherence, from a state of quantum entangled superposed co-existence of many probabilistic states at once to a focused, finite local manifestation. It is also a re-framing of the traditional notion of the process of "collapsing the wave function," that represents the underlying probability distribution, by an intervention of consciousness, an observation, a measurement, or even the effect of nearby already-

decoherent, seemingly already collapsed, existents.

In addition, a time-reversal and back-tracking, mirroring "phase conjugate" relation is hypothesized to exist with regard to mass-possessing (fermion, hadron, and some lepton) wavicles that emit and absorb photons with other such locally reality occupying wavicles and that emit and absorb virtual-photons with the underlying ZPE vacuum. A nonlinear material may emit a photon signal and can also emit a phase conjugate replica of the photon it absorbed through reflection back from its own signal emission. This conjugate process involves signaling waves and their reflections, time reversal signaling, 180-degree-out-of-phase relationships, and being in or out of phase relation with the underlying time flow. A phase conjugate replica wave can be in phase spatially with a signal wave, but 180 degrees out of phase with the underlying time flow, and a usual vectoral force wave gets translated into a scalar stress wave on the time flow parameter. This gives rise to a variety of kinds of electrogravitational, spacetime geodesic curving, and related GUT-type engineerable relationships. Bearden points to the former Soviet Union having learned to engineer such phase conjugate relationships, along with being able to interferometrically add and manipulate both EM fields on our physical-reality level and scalar ones in the vacuum so as to program the ZPE and then target cascadingly downstepped collapsed quantumly decohered potential systems into actual locally real ones, though unfortunately usually done by the Soviets only for weapon-creation purposes. But one can see the potential positive uses of such ZPE engineering tactics.

Nikola Tesla was certainly the father of this realm of thinking and doing. Much earlier, he conceptualized similar engineerable systems that could tap and download local vectoral, usable force field energies from potential, scalar, longitudinal, standing-wave, or hyperspatial states or realms. More recently, James Wheeler and Richard Feynman conjectured about "advanced waves" that can propagate backward in time from their own future absorption point to their past emission, and how consciousness may operate backward in time by effecting photons and other wavicles that will act in the past-- which could be construed as one's own present at the time one thinks about this-- as a function of the future choice made by that same conscious observer. So we can add this rather mind-bending thought experiment to the rest of our "mirror" and "phase conjugate" type thinking. Still more recently, W. Schemp, Edgar Mitchell, and others, have developed a sub-field called "quantum holography, where the experiencing observer is pictured to be in "phase-conjugate-adaptive-resonance," or "PCAR," with the object he is observing within the quantum hologram. Such resonance requires a virtual path that is mathematically equal but opposite to the incoming sensory information about the object being perceived, with the phase conjugate reversal mirroring path of perception flow going from the object to the observer and the attentional/intentional flow going from the observer to the object.

Recently, biologist Glen Rein has taken this scalar context and successfully brought it to bear experimentally on living systems, showing the efficacy of laboratory-generated scalar systems on local standing and vectoral wave force fields comprising targeted biological systems. Rein does his Whittaker-type structuring of the ZPE vacuum by zero-sum bucking rhythmically pulsed normal EM waves nearly 180 degrees out of phase with

each other through using a helical "caduceus coil" electrical wire-winding system, and then under controlled conditions exposing biological systems to the result and noting the changes that occur that are not attributable to any other forces. Again, it is conjectured that in such processes, the tuned balanced destructive wave interference in turn generates ether/ZPE stress standing scalar potential waves that can be manipulated to interact back with our EM vectoral level of energies and constituted structurings of such out of the vacuum ground. Or, we can talk in terms of higher-dimensional quantum-conceptualized subtle or potential fields residing within, or by way of, through, and transcending the ZPE vacuum, in superordinate relation to forces, wavicles, and fields comprising our physical-level reality. Created scalar quantum systems that can interact with EM ones, can interact, in turn, with what Rein and so many others today refer to as "biofields," or "bio-energy fields"-- the subtle or pre- or trans-physical organizational fields that are responsible for the structure and function of living systems. Change the quantum/scalar superordinate system and you change the system based on it stemming from the ZPE that, in turn, effects the biofields similarly originating, and thereby you can maintain or change living, and for that matter non-living, systems. Healthy structure and function is a probably God- or at least "Nature"- given tuning relation between the ZPE and the local system, from the platonic or "thoughtform" higher-dimensional ideal that can be cascadingly downstepped or resonantly cross-harmonically attuned to move orthogonally through the ZPE and into our local space-time matter-energy domain drawn from and based on such superordinate systems. Hopefully we are in a state of normally being resonantly entrained to, in phase with, coherent, aligned, and attuned with respect to the natural or "God-given" optimum functioning health-providing informational patterns or organizational fields responsible for organisms on our physical-level reality. But when we fall out of such alignment with respect to certain aspects of healthy structure and function, it would be good to be able to trace back up the aforementioned causal or nonlocally correlated chain to a point where, top-down, change could be engineered with respect to the living system to bring it back into alignment. Virtually all alternative approaches to biomedicine, healing, and wellness maintenance today use some version of this process either directly or indirectly, with the developmental paradigm-shifting flow moving toward ever more direct versions.

### **The "Fallacy of Misplaced Locus"**

Finally, before leaving this area of considering some selected existing and hypothesized modes of interacting with and engineering the ZPE vacuum, I want to make an observation that may also provide a segue to the remainder of this paper. It involves what I call "the fallacy of misplaced locus." That is, we are putting the eye on the ball of, and as, where the action is because we are used to looking at ball-like things with our usual ball-based eyes and thinking; but what might be a more direct and veridical view? There is a strong disposition or conditioning, even in much forward-edge new-paradigm, as well as more-mainstream post-classical quantum physics, thinking to still retain a physical-reductionist-type Newtonian causal "billiard ball" approach to construing reality. For example, gauge theory and related GUT thinking seem to need to picture virtual particles being emitted and absorbed by other particles in locally linear vectoral mapping connectivity paths in a busy and ubiquitous swap-meet process of exchanging particles. Each of the four known forces needs to have its own respective "gauge particle" to run

back and forth, being emitted and absorbed, mediating the respective electromagnetic, strong nuclear, weak radioactive decay, or gravitational force with respect to the other systems they are respectively coupled with and effect. All force needs to be quantized into such "force carrying" particles. Also, objectively real mass-possessing particle-wavicles seem to need to be pictured as experiencing constant interactive exchange of "virtual photons" or virtual wavicles. That is the nature of the quantum world, I suppose, to quantize, quantify, pin down, and trace everything into discrete, discontinuous bits or particles (or at least wave packets or "wavicles") that then interact with each other in mini atomic billiard-ball-type depictions, including "spooky" at-a-distance" versions where we picture two separated particles (ala the Einstein-Podolsky-Rosen/Bell/Aspect modeling) that are nonlocally correlated and coherently quantum entangled though still thought of as separate. The anchoring, delimiting, focusing, reifying disposition stolidly maintains itself, localizing process and event, choosing the particle rather than the spread-out diffuse not-as-easily-localizable and identifiable wave version that may scare us and seem to be impossible to live with unless one's lives within, or from, a place (an ontological locus) that is itself in a non-focused uncollapsed, relatively all-containing, quantum superposed coherent entangled ubiquitously nonlocally correlated at-one-ment unity state. Pilot waves, quantum waves, quantum potentials, vector potentials, magnetic vector potentials, and related hypothesized billiard balls or manipulatable local fields of force, or at least informational or probabilistic influence are pictured to nudge, push, steer, guide, dispose, delimit, inform, or in other ways causally or a-causally influence, or even constitute, all real-world building-block particles or wavicles. Why the need for this doppelganger twin relationship? Why the need for this one-to-one bit-to-bit "big brother" type shepherding of real-world local micro systems by hypothesized systems one or more hyperspatial or ontological removes from them? Fallaciously, the locus of control, responsibility, and causality, is placed in such hypothesized quantized billiard-ball pairings.

Another version of what I'm calling this fallacy of misplaced locus can be found in some of the late Marcel Vogel's work, which can also be used to represent a number of other new-paradigm thinkers' modeling before and after him. Vogel would say that he intentionally would put information from his own system into a quartz crystal. He would then see the crystal lattice structure of the quartz as being modified and modulated by what he put into it, such as by causing or modifying the subtler higher-harmonics of phonons or other oscillating systems already indigenous to the lattice structure. Thus the crystal had been causally transformed and informed by what he put into it. Then he would, say, circulate water around the crystal and then see the water as having causally or in other ways by contiguous association taken on the information that had earlier been in the lattice and before that had been in and of himself. Next he would look at the tetrahedral lattice structure of the water molecules and see the water as having been structured or informed as part of this increasingly passed-on causal chain. Then he would treat a human subject with the water and see this as a process of the informed, structured condition of the water effecting and structuring/informing the water-based person or in other way effecting his/her system. The misplacing of locus here, for me, is tracing the locus of causal action, the local placing of effective information and structure variously in himself, the crystal, the water, the client, et al. The information, for example, was seen as

being in the piece of quartz, not as always or only in his own consciousness, or by way of his own mind nonlocally correlated with and quantum coherently entangled and superposed with a larger, less constrained, more inclusive, and more knowing and containing consciousness. What if the true locus of all was in such a place, consciousness, or being? Endless little pilot waves (et al) matched up with having to steer endless little real-world wavicles, or mad-scientist movements of globs of information, invariant local structure, or configured local causal force fields from one receptacle to another like a stage magician and his hidden rabbit, once more, for me at least, continues a kind of antiquated Newtonian causal chain way of thinking.

But what, then, would be a possible alternative view that would not be, in my terms, fallacious? To answer this, we must move to the rest of this paper. But, suffice it for now to say that, in what I call a post-Cartesian unified-field idealist-monist view, everything may be embedded in the one underlying unity state of one Universal Being and we and all we can interact with, work with, think with, think about, and experience, is part of a single continuous, living, nesting, self-creating, maintaining and changing infinite unity system of ideas in the mind of God, to cite the philosopher George Berkeley. So, for example, Vogel's passing on the locus of causal focus across different "things" "out there" in the world is a function of his frame of reference only. It is actually occurring simultaneously "in here," within an extraordinarily higher-dimensional universal Mind/Being subsuming interiority and is being tracked, localized, quantified, quantized, tracked pulled apart and mapped back together solely as a function of how we causal, consciousness subsets of that Universal operate with respect to its own larger being grounds and creative self-possibilities. I will try to spell out this perspective in a little more detail in the remainder of this paper.

### **The Need to Add Consciousness for Any Truly Efficacious GUT ZPE Manipulation**

Current science has three presuppositions that make it difficult to accept the reports and claims of ufology, for example: 1.) nothing possessing mass can ever reach the speed of light; 2.) nothing, not even light, can go faster than that; and 3.) it would take a prohibitively huge amount of energy-- such as existed in the first few seconds of the hypothesized big bang origin of the universe before the initial "singularity" that was all there was, spread and cooled-- in order to alchemically engineer at will state and phase shifts of wave system subcomponents out of the ZPE so that they could transform into one another across the mass macro-level aggregate systems that comprise human bodies or space ships. Yes, conceptually we can see how we may be able to change the frequency, phase, or state of constituent subcomponents by manipulating local symmetry breaking, changes in resonance of the underlying superstring raw material of local creation, engineering transductions and translations across local wavicle characteristics out of and upheld by an underlying ZPE, and any number of other related approaches; but we have not reached a true post-Cartesian unified-field understanding and technology until we have brought in the other half of the traditional Cartesian, dualistic, equation: the realm of what we have traditionally termed the inner, the subjective, mind, consciousness, intention, etc., even, dare we, say it, spirit.

Quantum physicist David Bohm was unusual in his attempt to picture the universe as being comprised of an underlying "implicate order" (and nesting "super-implicate" orders within that) that gives rise to an "explicate order." This implicate order lies outside of all time and dimensionality and is the grounds not only for all objective realities but for all local consciousnesses that can experience such realities. Therefore, his implicate order is a non-dualistic unified-field ground of all subjective and objective being. He pictured the implicate order as a pure "frequency domain" made out of all building-block pre-spatiotemporal waveforms and their phases. This is essentially the picture of the underlying nature of the universe as being a holographic-process reality prior to any local holograms being generated by it. What he calls the explicate order is the generation of all local spatiotemporal, dimensionally constrained, mass-and-energy-containing realities as well as the local, individuated consciousnesses to inhabit and experience them. There is also a "holomovement" process whereby explicate-order local realities can be generated out of the underlying implicate order, maintained with respect to it, and returned back into it. What are called "Fourier transforms" allow for the adding together or superimposition of simpler waveforms (which may include sinusoidal waves, vortices, toroids, plasmoids, et al, of the universal ether moving with respect to itself across different velocities, vibratory frequencies, densities, temperatures, charges, phases, viscosities, and other qualities, qualifications and quantifications of itself). Also, such Fourier transforms can break down into, or tune for, separate componential waveforms that make up any complex wave system. Bohm's system is closer to helping us find a true unified field technology because of its inclusion of consciousness along with the objects, events, and world such consciousness may experience, and by introducing, in his later work, a domain of experiential subjective meaning-making to place in working relationship with the objectively real system known to physics from which such meaning is made. But we do not really have any more of a clear idea of how explicate-order systems are created or changed from and by implicate order systems, or where the latter reside in relation to our own human intention and causal efficacy, than we do about exactly what goes on in the process of collapsing the quantum wave function, who or what collapses it, and from where that collapsing is taking place with respect to the level of local physical reality comprised of the products of such wave function collapse.

It was quantum mechanics itself in the 20th century that started this paradigm shift toward a post-dualistic unified field by pointing out that any "real" particle, or real-world aggregate of them, is really only in a virtual state of probabilities of local experienceable existence. This virtual probabilistic state associated with any potentially objectively real thing is depicted in terms of the "wave function" representing it. Any observation or measurement, any decisive intervention of consciousness, to determine the local objectively real nature and properties of a thing causes what is called a "collapse" of the wave function. This is said to instantaneously replace the spread-out probability distribution of all its possibilities with a single concretized, focused, experienceable version. Quantum physics no longer allows consciousness to be left out of a unified field view; and yet it is still struggling to understand the relation between consciousness and the seemingly objectively real objects it experiences. If there is this ongoing quantum interaction between consciousness and what it is experiencing as objective and separate



from itself and its kind, then there may be some kind of continuous process of collapsing the wave function responsible for maintaining, or changing, what is experienced. The psychokinesis phenomena studied by parapsychologists may involve ways of collapsing the wave function done differently than normal, giving rise to non-ordinary data and experiences. Perhaps extraterrestrials have become, and we in the future will have become, adept at changing the parameters of the process of continuous wave function collapse in order to engineer shifts in phase and state between local consciousness and its experienced environment.

We still must figure out the inter-relations among velocity, frequency, dimensionality, consciousness, and what that consciousness experiences. Is operating at a sufficiently higher frequency the same as operating within a higher dimensional system? Can you increase dimensions by increasing frequency? Can shifting the phase relationship of the constituent components of a lower dimensional system raise it into a higher dimension, by transforming fermions of mass into bosons of light into superluminary tachyons of ever higher octave until one reaches the domains of living, causal mind/consciousness itself? Recall that with higher dimensionality come higher degrees of freedom for anyone or anything operating within it. The higher the frequency of a carrier wave of energy, the more quickly and efficaciously modulations and operations may occur because of and with respect to it. But how do we increase frequency? Probably by bringing to bear superordinate forces capable of driving or resonantly entraining the system into the rarified octave of its own higher, top-down causal harmonics. What are the forces available to us that lie outside the box of our "four space" of three dimensions in time and of the four forces in nature we currently understand? We are going to need to examine the "inner" side of our traditional dualistic pre-unified-field perspective.

### **My Own Post-Cartesian Idealist-Monist Unified-Field Perspective**

In closing this consideration of speculations on how to manipulate the ZPE, with its related inter-dimensional, cross-octave, and cross-world relations, I want to briefly share my own view, which I have published elsewhere. Recall that in psychology the term "dissociation" means any experience of disconnection or lack of flow with respect to conscious awareness, cognition, information processing, or causal or motor control. The left hand doesn't know what the right is doing; someone's left hand can be taking part in automatic writing while the person is totally unaware or is doing math problems with the other hand. Within the larger consciousness field of which I am comprised, which my consciousness can access or of which I am a part, part of me is not aware of what another part of me is thinking or doing. Part of me has ideas or consciousness this moment that the part of me that is writing is not aware of or does not have access to. I cannot access the contents of most of my own unconscious right now, but it is still there and maybe is even cooking away and effecting conscious me this moment, for all I know. I am dissociated with respect to myself, intrapsychically, in such ways. And there is certainly the dissociation we all experience inter-personally, inter-psychically, between each other as separate-seeming consciousness- and body-possessing beings. Now let us take this process or condition of dissociation to a universal level. Consider the metaphor that the Universe, or All-That-Is-- creator and creatable aspects both (what I call "Absolute

Spirit," based on the philosopher Hegel's thinking)-- is something like a vast dissociated multiple personality, as experienced from our frames of reference as Its own sub-or alter-personalities. Because we are dissociated away from this host all-containing, all-creating all-sustaining Personality/Being, we tend to only be able to experience It as dissociated as well, as a function of our own dissociation. We experience the Many, not the One.

There seems to be this presenting problem for us humans: we seem dissociated on three levels: 1.) we are dissociated intrapersonally, across levels of ourselves, conscious with respect to the unconscious, mind with respect to body, et al; 2.) we experience dissociation interpersonally, between ourselves and others like us, and even others not like us (e.g., human spirits who have survived physical death, extraterrestrials, other dimensional or parallel-universe beings, or beings from the future), and, except for occasional ESP and more familiar compassion, empathy, and love, it is difficult to make the normally impermeable membranes surrounding each of us more permeable to better share our own respective inner states and experiences with another, to be more in a kind of identical-twin identity (or supposed ET telepathic "hive mentality") condition with each other; and, most relevant to this discussion, 3.) dissociation is experienced by us with respect to the Universal, the one all-uniting, nonlocally self-correlated, self-entangled, superimposed, and coherent Being or ground of being-- God, if you wish, or my Hegelian Absolute Spirit.

This metaphor of what I call a state of experienced "cosmological dissociation" gives rise to two related concepts. The Universe, or Being, is a unified field comprised of both Creator aspect and Creational grounds for all that can be created; is comprised of being both ultimate experiencer and meaning-maker and of being all that can be experienced and from which all meaning can be made. This Universal Being is a living, conscious house of many mansions, the ultimate ghost infinitely and eternally imbuing, constituting, and experiencing the machinery of its own creating. This Being is filled with endless varieties of what I call relatively dissociated "cosmological sub-personalities." Each individual sub-personality, and each consensual reality comprised of sufficiently similar such sub-personalities, live with their own degrees and kinds of cosmological dissociation across those three levels just mentioned. Because we're talking about everything, in a way similar to Bohm-- with his super-implicate order giving rise to all local implicate and explicate systems of experiencers and experienceable and objective realities-- all cosmological subpersonalities of the One are "psychoid" in nature, to use Jung's term: there is always some local ratio of phase relation between psychological, inner, consciousness characteristics and objectively real, external and seemingly autonomous aspects with respect to attending consciousness. So cosmological subpersonalities range across the old inner-outer, subjective-objective, mental-physical spectrum. Cosmological subpersonalities can then include physically embodied human beings on Earth; other physical-level plants and animals, and even rocks; non-physical-level human spirits who have survived bodily death; physically based extraterrestrials; non-physical-level extraterrestrials, those living in other dimensions, times, parallel universes; ascended masters, light beings, gods, and angels-- all explicated variously out of the underlying super-implicate order, or, for me, Absolute Spirit, responsible for all that is or could ever be. We are all sibling beings, sons and daughters (and others)

stemming from and sharing identity and efficacy with a common Creator, all of us taking our bodies, our vehicles, our daily lives and environments from the underlying ground of all Being; and the essence of the Infinite Creator in those of us with a higher consciousness-to-material ratio is the in-kind creator spirit core that uses the denser lower vibrating sheaths of body, vehicle, and local dimensional environment in which to operate and through which to experience, learn, create, and make meaning. And this includes all the ZPE-engineering possibilities mentioned earlier in this paper. So I call this first concept the presenting problem of the condition of "cosmological dissociation" that gives rise to the activities of all religion and science.

The other related concept in this extended metaphor involves the related process of what I call "overcoming cosmological dissociation" across all three earlier-mentioned levels. For example, the more dissociation is overcome on the interpersonal level, the more telepathy and other ESP anomalous cognition and shared mental space and its contents can occur. The more dissociation is overcome between oneself as an individual cosmological subpersonality and the parental Creator-Creation underlying ground of being-- only one thin stratum of which is the currently understood ZPE-- the more, for example, one may engage one's individual consciousness and intention in psychokinesis-seeming activity with regard to the surrounding environment; the more one can consciously exercise causal efficacy with regard to one's surrounding in a truly local reality effecting and creating manner.

As one overcomes the presenting problem of one's (and one's species') kinds and degrees of cosmological dissociation, accessing of the Universal Being's, Absolute Spirit's, omniscience, omnipotence, omnibenevolence, omnipatality, and omnitemporality occurs until eventually one reaches, essentially, identity condition with the Universal, or God. One can only wonder how much more some of our extraterrestrial cosmological subpersonality siblings have overcome their cosmological dissociation than we have. They may have been able to engineer the ZPE to transmute mass and exceed light speed; they may have become able to move in and out of our lower-octave dimensionality and frequency domain through apparent superluminary or hyperspatial shortcuts and materialization and de-materialization processes involving post-Cartesian unified-field technologies related to adjusting particle-pair creation, engineering local symmetry breaking, changing the resonant modes of underlying superstring frequencies, or other related GUT tactics, but none yet may evolutionarily involve the direct use of superordinate, causal mind/consciousness. Or, if they have learned about and use more of this latter domain, they may have become able to pull us telepathically into their mental space where they co-dwell among themselves in their own hive mentality, having increasingly overcome their level of interpersonal cosmological dissociation; or they can create and mentally control their vehicles that are living in-kind extensions of their own psychoid level which has a higher mental-to-physical ratio than ours. And some ETs appear to overcome their cosmological dissociation, especially on the third level with regard to our common source, that they communicate to us, as contactees, abductees, and through channeling, experiences and knowledge of a much more spiritual nature. How we learn to bootstrappingly overcome our own individual and species-specific kinds and degrees of cosmological dissociation, including to be able to catch up technically to our

extraterrestrial siblings, will include learning to engineer the forward-edge of present-day GUT-oriented theoretical physics approaches to working with and through the ZPE. And, eventually, I believe this will have to include opening to, accepting, and learning to control, our own local relatively dissociated consciousness fields which I believe to be superordinate and causal with respect to the fields comprising the creational ground and responsible for our local individual and consensual-reality shared experienceable reality.

The process of overcoming cosmological dissociation will also manifest in higher-order telepathic connection and at-one-ment of local mind with (in Huxley's terms) "Mind-at-Large" omniscience through dilating the reducing valve, in a mode of personally reclaiming quantum coherence out of a prior constrained, dissociated, quantum decoherent, and thermodynamically branch-systemed state, returning to experienceable and accessible states of quantum entanglement, superposition, coherence, and non-separated, non-local correlatedness. The process of overcoming cosmological dissociation will also involve higher-order psychokinesis experience as perceived causal self-efficacy transmuted and transubstantiated as a function of individual will, consciousness, and intention, for example aggregate Hamiltonian-type phase shift of states of particles/toroidal anu from fermionic/quarkian to leptonic/bosonic to tachyonic and beyond toward being objects and contents in and of the pure causal consciousness field entertaining them.

### **"The Hard Problem"**

As I have written elsewhere (USPA 2000 article), consciousness is held by the vast majority of scientists attempting to study it today as being only an emergent epiphenomenon of living brain/body. What is called "the hard problem" then becomes how the entirely physical domain of known biological matter and energy can be solely responsible for giving rise to human consciousness as we are each the case of it and experience it with awareness in all its ideational qualia (experienced qualities) so difficult to reduce to the realm of artificial-intelligence-type material and analytical relationships alone. How can something so non-physical, so Cartesianly unextended, or, conversely, so infinite-seeming in what it is capable of extending into experienceable existence out of and for itself to experience, how can this immaterial consciousness come only out of a purely material womb of non-conscious matter and energy? How can consciousness as we know it arise from pure, non-conscious physicality?

One of the most sophisticated recent attempts to address this hard problem has been conducted by scientists such as Roger Penrose, Stuart Hameroff, Jack Sarfatti, and others. They picture the locus of dualism-bridging activities lying, along with other similar-size places, in tubuline molecules only a few nanometers long, only slightly larger than the crucial Planck length. These tubulines comprise the inside walls of the hollow microtubules that lie in turn within the elongated axon portion of the body of brain neurons. These molecules, packed like corn kernels on the concave "cob" of the microtubule interior are small enough and numerous enough, millions or billions of them within each of the billions of neurons within each brain, to constitute wave-function-collapsible fire-or-not-fire binary bits, or "q-bits" in a quantum-level biocomputer.

Hameroff and company then add further related concepts, such as higher dimensional configuration space, a quantum information field, quantum pilot waves, magnetic vector potentials, emergent self-organizing systems, feedback and reflection processes arising from the detection of phase changes in the interpretation of arrays of the microtubule molecules acting as phased nanoantennae, et al. The concept of computing waveform phase changes adds interferometry and the holistic notion of quantum holography to the picture as well.

But all this just sends me back to my earlier sense that the fallacy of misplaced locus is at work here once more. For, what, who, or where is it that is responsible for throwing the q-bit switches in such a quantum computer? What is the causal lineage and ontological locus of current information and intelligence that is the ghost that runs the machine? Is it totally coextensively within and operating at the level of the machine? It seems that we continue to fight the cultural and paradigm-specific disposition to always slide down the gradient toward physical reductionism capable of satisfying causal and critically analytical and quantitative parsing deep-seated programs and allegiances. Thus we can be relieved when everything can be traced back, for instance, to a ZPE that has no subjective or living, conscious, creative intelligence aspect to it other than emergent negentropic nonlinear far-from-equilibrium emergent self-organizing systems and made from the known forces, fields, and particles that can bootstrappingly be cooked up out of the ZPE alone. Even Bohm's supposedly all-containing, all-generating superimplicate order seems reducible to a simple vibratory phase-relation frequency domain.

While I suppose one could revisit it and reconstrue all of its wave systems as being panpsychistic or psychoid in nature, there still seems to result thereby only a disappointingly reductionist smeared-out and diffuse subjective, causal, aware, etc., presence remaining. Meanwhile, someone like me is disposed to slide down the opposite gradient toward philosophical idealism and mental monism. There the ultimate locus of explanatory power is pure living, experiencing, meaning-making consciousness itself, ultimately the one Absolute Spirit. There, once more, all physicality can be seen as being emergent epiphenomena arising from and sustained within a universal consciousness field that I admittedly conceptually extrapolate from upwardly and ever more inclusively toward increasingly less-cosmologically dissociated sub-personality anthropomorphizations. I do this until I reach the all-subsuming and embedding Being from whom/which all us cosmological subpersonalities arise and with respect to which our localized beings are maintained, and to which, upon local dissolution, we return into underlying oneness and identity condition that passes all understanding, but which would certainly appear to be the ultimate in having overcome cosmological dissociation on the part of any local being.

But, as I already started to do, let us go now to the opposite end of my post-dualistic unified-field spectrum: to mental monism or idealism, whereby all that exists is seen as being fundamentally comprised of consciousness, even, dare we say, pure spirit. From this frame of reference, physical reality is an emergent epiphenomenon of consciousness. Here, then, a very different, but no less hard, problem arises: How does what we experience as physicality arise from consciousness? This hard problem is 180 degrees out

of phase with our original hard problem of how pure subjective consciousness arises from pure objective physicality. Yet, for me, it is easier to try to explain this new hard problem, based on an idealist perspective, than it is to try to explain the old hard problem, based on a physical monist perspective. I cannot satisfactorily explain for myself how consciousness can come entirely from a non-conscious physical reality, but I can, for myself at least, satisfactorily explain, or at least understand, how what is experienced as physicality can arise from consciousness.

If, in the idealist view, all is consciousness and all is contained within and as part of consciousness, then anything that can be differentiated, distanced, and experienced as physical and other, out of and for that consciousness, will account for a subject experiencing something as physical object, where both subject and object arise from and are held within the one all-inclusive field of consciousness. Accounting for how consciousness is there on the part of the subject in the first place is certainly not a problem, then, since the eternal (or at least timeless) Ground of Being is consciousness itself. So the local experiencing subject as focal self-aware consciousness merely rides and partakes of, is fed by and imbued with, the background reality of consciousness and awareness as the superordinate containment space, living, aware, experiencing semantical or meaning space, not just the lower dimensional syntactical and surface structure space and its contents which the consciousness of the former space creates, contains, and with which it interacts in its awareness-, experience-, and meaning-making. As conceptualized before, each of us as individuals is a relatively cosmological dissociated sub-personality of the universal consciousness field of the one Creator/Sustainer Being. Having to construe and turn a portion of the one consciousness field into what is then experienced as a passive, inanimate, non-conscious object to be experienced as such by another portion of that same consciousness field is not as easy. Consciousness is as capable of experiencing something within its field of consciousness in terms of its being experienced as a physical object, and seemingly external to and other than that consciousness itself, in a state-dependent manner as a function of the belief, expectation, and information processing and experiential-object-generation program that such local consciousness has access to do so with, as it is capable of experiencing remembered, imagined, or dreamt more-interior or subjective objects. Probably how, and what, the local more-subjective, aware, consciousness aspect of the larger field experiences as objects, contents, and events with respect to itself is a function of the post-Cartesian unified-field psychoid phase relations among the oscillating excitation patterns of standing and moving wave systems and basal substance flowing and moving on and with respect to itself within a deeply relativistic manifold supporting infinite frames of reference of localized consciousness and their objects and contents, of localized experiencers and objects and events experienced, of individualized meaning-makers and materials they generate from which all meanings are made.

The conjugate portion of the consciousness field-- what we might call the "objective correlative" or conjugate of the subject's experiencing frame of reference as subjective correlative -- could be seen to cooperate, as self-same consciousness, in and of the same mind, so to speak, to make the dyad of experiencer and experienced be of the nature of the one encountering the other as something we call and know as physical. In this

scenario, all is contained within one consciousness, one multidimensional domain of experience. This is one first-approximation way that the idealist would explain how what is experienced as physical by consciousness can arise from the same non- or trans-physical, pure consciousness field. The object would arise from and be maintained for awhile within one portion of the consciousness field to be experienced by another portion of that same field which/who probably would not have the kind or state of consciousness at the time to be aware that the object came from the same consciousness field that it, the subject, comes from and is made out of as well. This, of course, is a process of cosmological dissociation itself; so it would seem that positive experiential worlds within which life, local consciousness, experience, and meaning can occur must come from a process of cosmological dissociation, or symmetry breaking process also.

Dissociation at the same time then becomes the creative problem to be overcome or solved by Absolute Spirit from its now dissociated endless relativistic cosmological subpersonality frames of reference, to return to full consciousness, self-identity, self-awareness of Itself as Absolute Spirit. Thus the Universal Humpty-Dumpty gradually puts Itself back together again, only to break Itself apart once more, in cycles of self-creation, self-concealment, self-reflection, and self-revelment. So all is Lila, or the one cosmic, divine play of which we are forever a part, even as we are Absolute Spirit in local cosmologically dissociated human mode. But the hardest problem of all-- where the consciousness comes from in the first place-- has been automatically addressed from the idealist perspective that the Ground of all Being is that very consciousness. Then any local consciousness is just experiencing itself, and the contents and objects of its consciousness, within the context of the Universal Consciousness.

So, as each of us is the Universal Consciousness field relatively dissociatedly partially experiencing itself through localized and individualized form and perspective. In my case this moment I am Jon Klimo's consciousness state-dependently experiencing whatever I am capable of experiencing as a function of that state/level of consciousness. To the extent to which local cosmological subpersonalities of the Universal such as ourselves can overcome our kinds and degrees of cosmological dissociation, to that extent can we consciously and at will operate from our parental embedding Creator self-identity and self-awareness and thereby efficaciously interact with the ZPE, or with any other more invariant, constrained, and less-conscious-appearing aspects or substrata of the Universal Being we now recognize as All-That-Is, ultimately as Ourselves, as Myself. Ultimately, at-will conscious perceived causal self-efficacy may then be exercised by us such self-aware seats of Creator identity with respect to the rest of our now-expanded sense of identity as the ultimate ground of Creation with which we, as aspects of the Creator, work. Creator and Creation are spoken of here in this separated manner only as a function of Jon Klimo's present kind and degree of cosmological dissociation. But underneath how we variously experience it through our dissociated lenses, this ultimate ground of our common Absolute Spirit ineffably far transcends what we currently can term and understand as the ZPE. So I welcome all of us to bootstrap ourselves within our relatively dissociated frames of reference to awaken back to those less-cosmologically dissociated frames of reference and possibilities of interaction. Then we may become the ultimate sons and daughters in the image and making ways of our own Creator Self,

alchemists in identity condition with our own Creation ground aspect.

Then I return to Myself through such bootstrapping self-awakening human enterprise. At any point and everywhere, the seemingly passive artist's clay can be returned to the living mind of the artist from which it originally emanated, and within which it is forever held and with which it is created and then further worked. Nothing falls outside the one Consciousness, the one Being. All is within as I/we turn to interact with My/our own surroundings, the larger offspring corpus of my/our own Being. As I feel I am talking to Myself now, I say: let us awaken to ever-increasing lucidity to more consciously interact and experiment with our reality like a lucid dream we share and co-constitute. We are surrounded by the one parental all-containing consciousness and we are one with it, and can potentially create from and with it in ways that put to shame all current relatively cosmologically dissociated quantum notions of coherence, nonlocal correlatedness, phase entanglement, and superposition. All is Lila, our own Divine Self dancing with Itself, dancing with Myself. Let us overcome our dissociation and join the dance, consciously, lucidly.