

White Paper IV

It Is Time for a Consciousness-Inclusive Science

by:

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The William A. Tiller Foundation

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Introduction

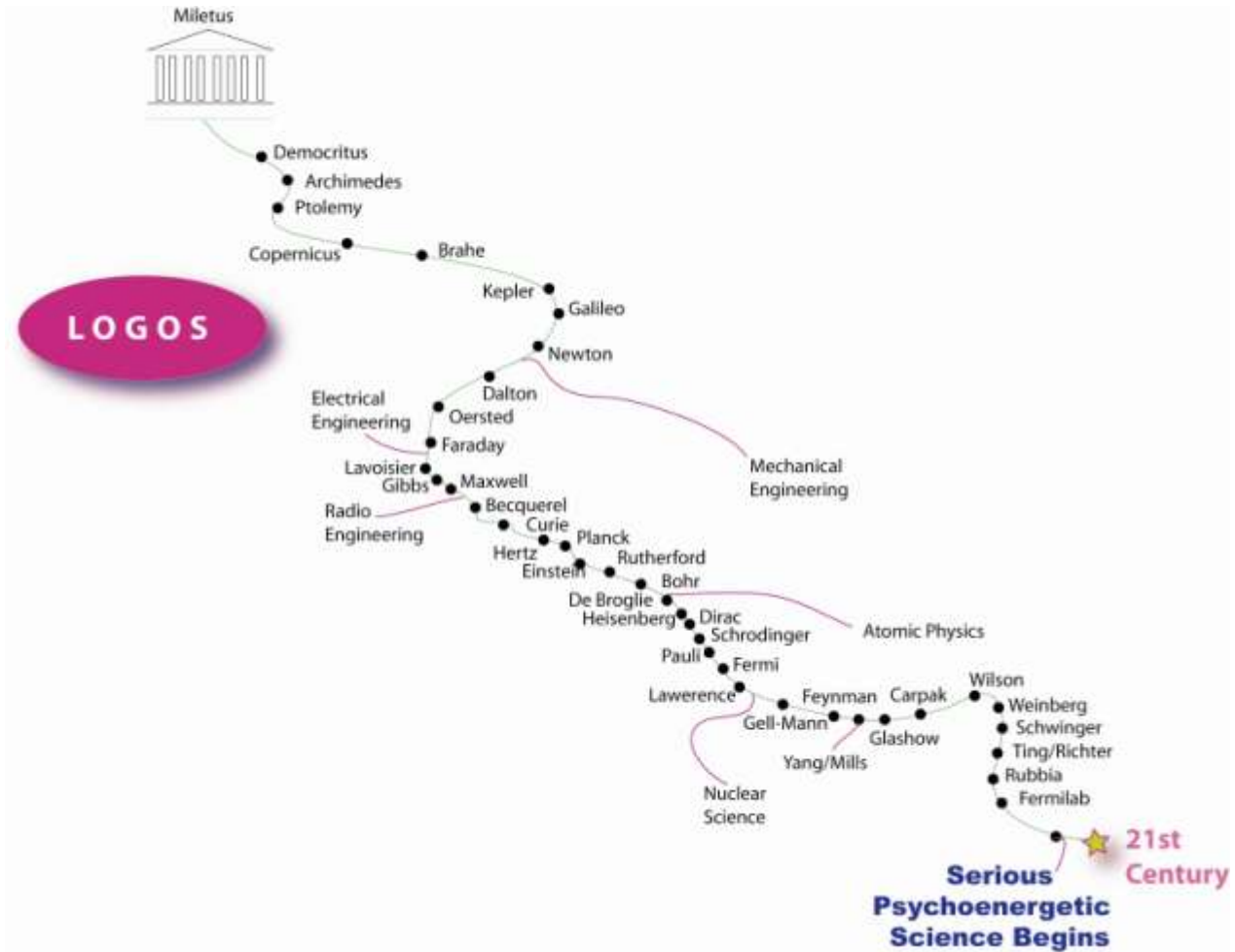
A long, long time ago in human history, there were two accepted and compatible pathways to the acquisition of knowledge. This applies not only to the historically well-known cultures but also to the not so well-documented indigenous cultures of the world. These two pathways were called Mythos and Logos⁽¹⁾, with the former designating the human inner path of revelation and the latter designating the human outer path of logic applied to external observations of Nature. For the many separate indigenous cultures an intimate inner connection appeared to develop between the humans and the Earth prior to any massive cultural transformations that took place. However, in those early days, these two paths might have been looked at as two loosely intertwining and meandering rivers of thought.

During the subsequent human evolution and culture formation processes, as a consequence of the emergence in the far-flung human family of a number of avatars such as Krishna, Melchizedek, Moses, Lao Tzu, Confucius, Buddha, Jesus, Mohammed, etc., a wide variety of religions came into being. Some of these became very powerful, political and dogmatic. In the large cultures, both Mythos and Logos were submerged and exploited for centuries to millennia in this very powerful pathway of human behavior called religion. In these cultures, it dominated human experience, human thought and the human world-view. Here, the priests took a lead role as privileged dispensers of knowledge to the human populace. For most of the smaller indigenous cultures, this did not happen.

For the major cultures, the first Copernican revolution, of 1600 AD, initiated a serious emergence of Logos from the pathway of religion to contest the long-held centrist view of the priests that both our sun and the other planets revolved around the Earth. The subsequent experimental and quantitative theoretical findings by Kepler, Galileo and Newton, etc., underscored the substantial truth of the Copernican observations and thought. This led to the industrial revolution with all its human benefits and horrors. The classical mechanics (CM) paradigm was born and the pathway of Logos morphed into the pathway of science, in serious opposition to the pathway of religion.

Humankind has always been concerned with scientific enquiry because we really want to understand the milieu in which we find ourselves. Our mindset is that we also want to engineer and modulate as much of our environment as possible to sustain, feed, enrich and propagate our lives. Following this path, the goal of science has been to gain a reliable description of natural phenomena which eventually allows accurate quantitative prediction, within certain error-bar limits of Nature's behavior as a function of an ever-changing environment. As such, past and present science is incapable of providing us with absolute truth. Rather, it seeks to provide us with relative knowledge, but internally self-consistent knowledge, about the relationships between different phenomena and between different things.

The goal of engineering, on the other hand, is to build on this fundamental understanding in order to generate new materials, devices, attitudes, moralities, philosophies, etc., for producing tangible societal order, for harnessing the various potentials in Nature's many phenomena and for expanding human capabilities in an ever-changing environment.



1a. Illustration of many major pioneer explorers who transformed the pathway of Logos into the pathway of Establishment Science.

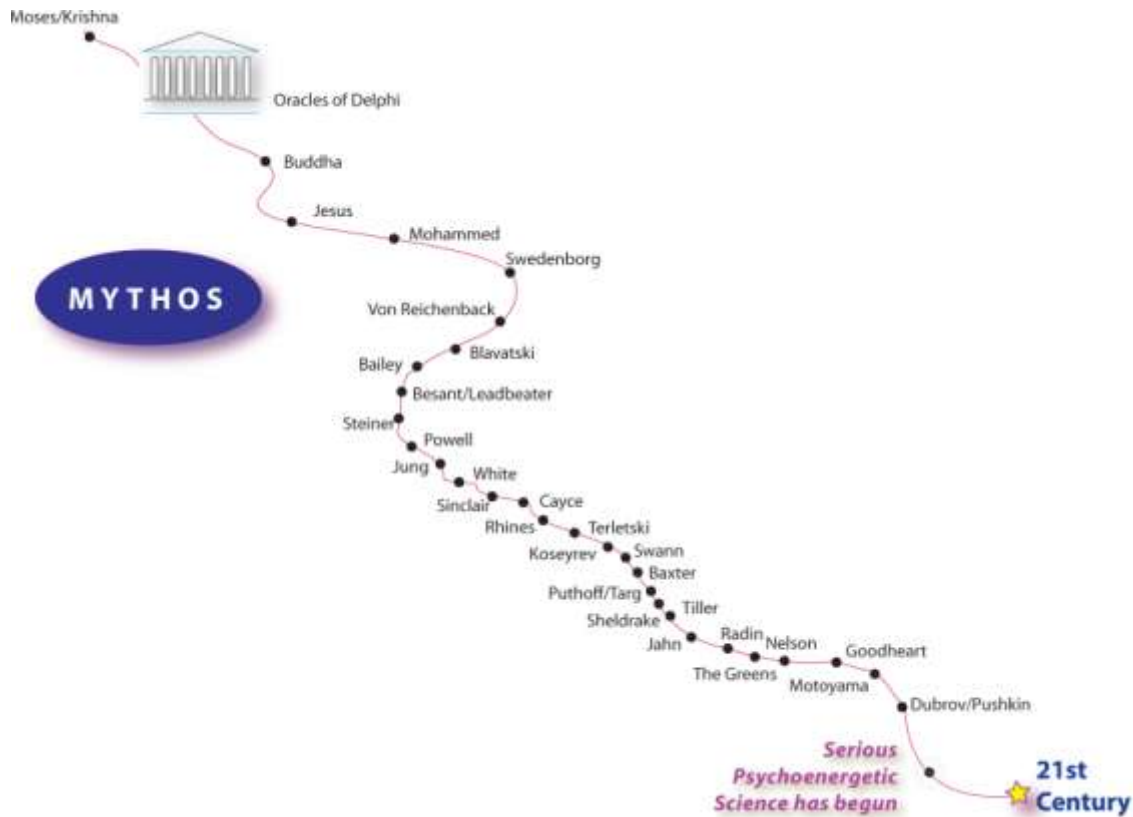


Figure 1b Illustration of many major pioneer explorers who transformed the pathway of Mythos to the pathway of Psychoenergetic Science.

In this quest for understanding and its utilization, we typically generate models or “visualizations” of the phenomena as aids to our efforts or, rather, as temporary vehicles via which we gain fuller understanding. They are like the rungs of a ladder via which humankind climbs from one state of understanding to another. In any new area of inquiry it is valuable to have a model with which to make quantitative prognostications that may be compared with the reality of experimental results. It is also important to remember that any model, no matter how seemingly successful, will eventually be proven incomplete in detail and that its primary purpose is to act as a vehicle which gives one a sense of understanding but which also triggers a proper set of questions or experiments that allow one to probe deeper into Nature's secrets. Just as the classical Newtonian model had to eventually give way to the classical Einsteinian model, the latter is giving way to an evolving relativistic quantum mechanical (QM) model which, in time, will be replaced by a more inclusive model of Nature. In such a fashion, science slowly evolves.

Modeled after Lederman⁽²⁾, figure 1a provides us with a snapshot of some major players and major events, that appeared along the evolutionary path of Logos Science up to the present. Since this chapter started out by mentioning both the Mythos and the Logos paths to the human acquisition of knowledge, it is perhaps fitting that this introduction be closed with a companion snapshot (see figure 1b) to represent some of the key individuals who have attempted to morph Mythos into a science that meaningfully utilizes human consciousness as a key experimental variable in the study of Nature. I have labeled this path as “Psychoenergetic Science”.

What is Psychoenergetic Science?

The term Psychoenergetics was coined by the Russians in the Soviet era of 1950 – 1970. This was done to provide a strongly materialistic flavor to the fields of parapsychology, psychophysiology and spiritual-related phenomena in order to make research in these areas palatable to the communist party's world-view.

From an overly simplistic viewpoint, one could say that, for the past 400 years (since the time of Descartes), establishment science in the west has dealt with multiple aspects of the metaphorical reaction equation

$$Mass \leftrightarrow Energy, \quad (1a)$$

with each term being convertible to the other via Einstein's $E=mc^2$ equation (where m =mass and c = the electromagnetic light velocity in vacuum). In the first half of the 17th century, Rene Descartes, a great philosopher of the new science, realized that a clear division between matter and mind or between body and soul was needed in order to gain a system of fundamental knowledge about the outer world. Thus, he proposed a real compartmentalization of thought between natural philosophy, wherein human consciousness was not an experimental variable of relevance, and theology where it was! Over time, this became an unstated assumption of science that

“no human qualities of consciousness, intention, emotion, mind or spirit can significantly influence a well-designed target experiment in physical reality.”

Thus, in equation 1a, consciousness has not been allowed as a significant experimental variable, even though the experimental data leading to figure 1b would indicate otherwise.

This was a very useful assumption in the old days because we learned how to develop a reliable methodology and set of procedures for the conduct of scientific experiments in the simplest of cases – where the biofields of the experimenters were relatively weak and thus only negligibly perturbed the experimental outcomes. One of the upsides of this assumption was the discovery of many natural laws that were linear relationships between various thermodynamic potential differences applied to a material and responses from the material (e.g. Ohm's law, Hooke's law, Fick's law, etc.). This produced great engineering utility for such materials and greatly benefited the development of reliable technology. However, one of the downsides of almost total acceptance of this assumption by scientists is that their philosophical world view has generally become very reductionistic and materialistic.

Returning to equation 1a and figure 1b, human biofield effects no longer appear to be of insignificant magnitude and, today, equation 1a needs to be expanded to the form

$$Mass \leftrightarrow Energy \leftrightarrow Information \leftrightarrow Consciousness . \quad (1b)$$

The term consciousness, here, is used by this author to mean a unique quality of nature that is

ultimately convertible to energy although it also conforms to the typical dictionary usage of being awake, aware, etc. Today, there is no adequate and generally accepted definition of the word consciousness. However; if instead of asking what consciousness means, one asks what consciousness does, we almost immediately see that consciousness manipulates information in the form of numbers, alphabet letters, jigsaw puzzle pieces and , most generally, symbols.

For the past 60 years, establishment science has recognized the existence of a quantitative relationship between information, I, in units of bits and the thermodynamic quantity entropy, S, in units of calories per unit temperature. If I increases in a natural process then S decreases. For the past 150 years, entropy has been known as a very important contribution to the Gibb's thermodynamic free energy function, G, given by

$$G=PV+E-TS \quad (2)$$

where P = pressure, V = volume, E = energy, T = temperature and S = entropy. It is changes in G, ΔG , that drive all processes in Nature and the TS – term in Equation 2 is comparable in magnitude to the E – term in equation 2. Thus, all terms in Equation 2 are equally important in producing significant changes in our world, so a change in information content, ΔI , translates into a change in entropy, ΔS , which means a change in $\Delta G=T\Delta S$, which is, in turn, equivalent in thermodynamic force to a change in E, ΔE ; proving that energy and information in equation 1b are intimately connected.†_a

Putting Equation 1b to Work

This author's long-term experimental and theoretical research goal in the psychoenergetics area for the past 40 years has been to help build a reliable bridge of understanding for humans that seamlessly joins the foundations of traditional science on one end, extends through the domains of the psyche, emotion and mind and is firmly planted in the bedrock of spirit at the other end. And further, that this bridge be made strong enough and reliable enough that, eventually, both normal folks and traditional scientists will joyfully walk across it.

As I reflected on this bridge construction for the past four decades of personally “tilling” the soil and “planting” seeds, I realized that (a) four psychoenergetics books had been written⁽³⁻⁶⁾, (b) about 150 articles and scientific papers had been published⁽⁷⁾, and (c) about 500 general public lectures had been presented. The mass of the work showed, unequivocally, to anyone who wished to look with an honest eye that:

1. Psychoenergetic phenomena were real in nature,
2. Such consciousness-related phenomena involved new categories of energies (subtle energies) beyond those of the four fundamental forces of traditional science,
3. A simple, low-tech, electronic device had been invented that could be imprinted from a deep meditative state with a specific intention and shipped to a distant site such that, when plugged into an electric power source and switched on, it was able to both (a) lift the fundamental symmetry state of the space by activating the indwelling-consciousness of that space to a higher level of physical reality⁽⁴⁻⁶⁾†_b and (b) tune that intention-host device-conditioned space to manifest the material property changes consistent with that specific intention,†_b
4. we have designed and conducted four unique and successful intention-modulated target experiments,⁽⁴⁾ which prove to the world that human consciousness can significantly influence physical reality,

† At the end of this White Paper (see Collected Notes”), a set of collected notes has been gathered to

rationalize, in some detail, brief text statements made by the author with which a reader might disagree or agree.
 †_a The major players identified in Figure 1b have all appreciated the importance of human consciousness in their studies and upon the importance of their own “inner” work on themselves as a necessary condition for such studies to be successful.

5. we have successfully replicated one of these four experiments in ten laboratories located in both the U.S. and Europe⁽⁵⁾,
6. a unique detector has been invented to continuously measure the degree of thermodynamic free energy change, $\delta G_{H^+}^*$, for the aqueous H⁺-ion during the “space-conditioning” process by the “source” intention-host device from the normal, uncoupled state of physical reality to the coupled state of physical reality⁽⁷⁾.
7. we have successfully collected $\delta G_{H^+}^*$ -data from all ten laboratories in the U.S. and Europe⁽⁵⁾, plus several complementary and alternative medicine (CAM) offices and also several Eric Pearl Reconnection-healing workshops⁽⁶⁾, all with great results,
8. we have experimentally demonstrated⁽⁵⁾ that the human acupuncture meridian system is already at the coupled state of physical reality, and that the human biofield is capable of revealing very significant benefits when humans choose to put their focused and sustained intentions to work on their own bodies and
9. a robust, new theoretical model of Nature and a new reference frame for viewing Nature's manifold expressions has been developed that are internally self-consistent with all of this new experimental data⁽³⁻⁶⁾.

From the foregoing nine points, our last decade of experiments have revealed that there are two unique levels of physical reality⁽³⁻⁷⁾, not just the one associated with our normal, electric atom/molecule level of substance. The second level consists of information wave substance occupying the highest band of energy states in the physical vacuum. However, under normal, every-day conditions, these two very different kinds of substance occupy the same general space but do not interact with each other. We label this the uncoupled state of physical reality. In this state, our traditional measurement instruments are unable to directly detect the information wave substance.

Via the use of an intention-host device^(4-6,7), an intention-imprinted electrical device (IIED) from a deep meditative state, indwelling consciousness present in the experimental space can be activated. This, in turn, with sufficient activation induces indirect, macroscopic interaction to occur between these two uniquely different kinds of substance. This type of event leads to what we label the coupled state of physical reality.

When the coupled state has been achieved in the experimental space, the specific intention imprint, information-entangled with this device, begins to materialize in the physical property measurements being carried out in that space. Calling $Q_M(t)$ the total magnitude of the material property being measured as a function of time, t , one typically finds that

$$Q_M(t) = Q_e + \alpha_{\text{eff}}(t)Q_m \quad (3)$$

In equation 3, Q_e is the normal value of the property being measured when the experimental space is in the uncoupled state, Q_m is the contribution from the information wave level of substance and α_{eff} is the

coupling coefficient associated with the functioning of the intention-host device. Our experiments have indicated that the human intention primarily alters Q_m and not Q_e . When $\alpha_{\text{eff}} \approx 0$, the second term on the right of equation 3 disappears and one obtains the normal property measurement value (so the data seamlessly joins that for traditional science). At the other extreme, when $\alpha_{\text{eff}} \approx 1$, equation 3 represents the fully coupled, macroscopic state of physical reality and Q_M either increases or decreases.

When the experimental space is in an appreciably coupled state, and the IIED intention is to significantly change the magnitude of the pH (up or down) in the measurement vessel, one finds that the alkaline/acid balance of a vessel of water is decreased when the north pole of a DC magnet, placed under the vessel of water, points towards the water but is increased when the south pole of the same magnet points towards the water (see figure 2). However, when the experimental space is in the

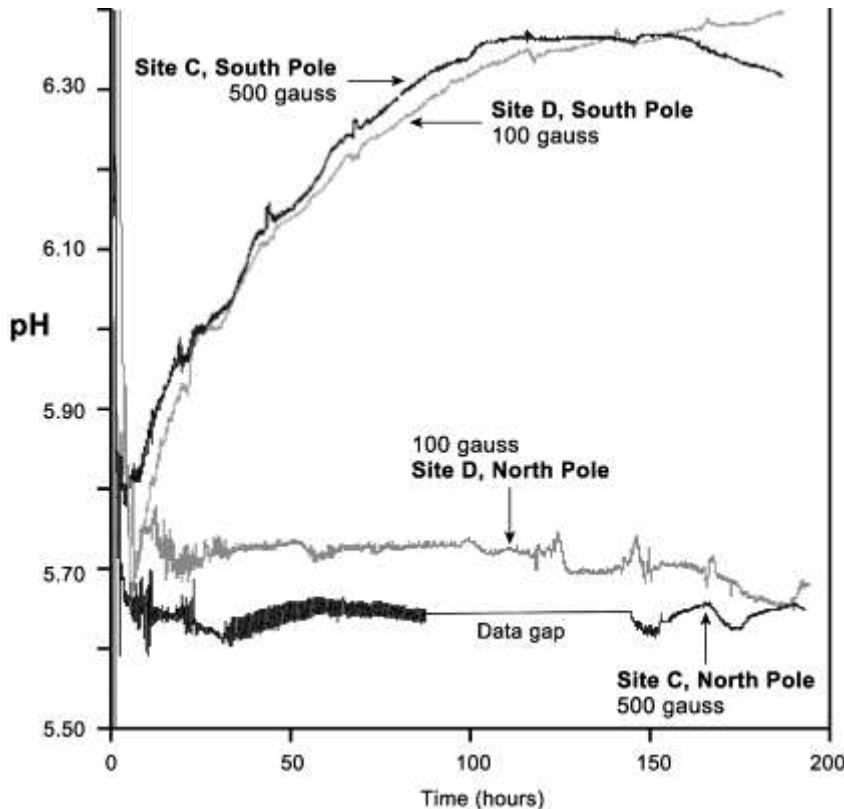


Figure 2

pH changes with time for a cylindrical vessel of pure water, for both N-pole up and S-pole up axially aligned DC magnetic fields at 100 and 500 gauss, when the experimental space is in the coupled state of physical reality and $\Delta\text{pH} = \pm 1$ pH unit for the IIED used in the experiment.

uncoupled state of physical reality, no such pH change is observed when this same DC magnetic field polarity experiment is performed. This latter result is to be expected because, in our normal reality, only magnetic dipoles are experimentally expected and, for such dipoles, both the magnetic energy and the magnetic force are independent of the geometrical orientation of the dipole in space. Using the same DC magnetic field polarity technique as a probe for the human body, we were able to show that the human acupuncture meridian system is already at the coupled state of physical reality⁽⁵⁾. This, in turn, means that both conscious and unconscious human intention can, to some degree, alter both α_{eff} and Q_m in equation 3. This allows Q_m in equation 3 to dynamically change within some limits via human consciousness and human intent. The Figure 2 experimental data strongly suggests that the transition from the uncoupled state to the coupled state of physical reality is accompanied by the appearance of single magnetic charge species in significant numbers as distinct from just magnetic

dipole species

It is this natural human phenomenon that has been significantly manifested by many inner-self managed humans including many indigenous peoples of the world. That evidence requires a major evolutionary change in our current quantum mechanical paradigm of science. †_c

Problem Areas for Today's Paradigm and its Assumptions

- 1 All the waves in Nature accessed by normal human cognition are merely modulations of particle densities and particle flux densities; they are not of the type represented in pictures of de Broglie's pilot waves (see White Papers I and V).
- 2 Schrödinger's wave equation deals only with potential functions that are of the distance and time-dependent type. However, consciousness, intention, emotion, mind and spirit are not distance-dependent.
- 3 The earlier discussion regarding single magnetic charge species substance functioning at the coarsest level of the physical vacuum, with the figure 2 data in strong support, seriously questions that electric charge substance is the only class of substance that exists in nature.
- 4 Today's QM cannot explain any parapsychological phenomenon nor any aspect of human consciousness (see 2 above).
- 5 Both Bell's theorem and Alain Aspect's data on non-local particle interaction supports $v > c$ rather than the loss of causality.
- 6 Applying simple QM and RT theory to de Broglie's concept leads to the conclusion that $v_p v_w = c^2$, where v_p is the particle's velocity and v_w is the velocity of the wave components that comprise the pilot wave of the de Broglie concept. Since $v_p < c$, always, $v_w > c$, always, so that these wave components enter the pilot wave from the left and exit the pilot wave to the right so as to allow the pilot wave to move at $v = v_p \cdot \dagger_d$

Key Assumptions for a Consciousness-Inclusive, Science of Nature, Paradigm

1. That nature consists of many bands of uniquely different kinds of substances and mediators that radiate and absorb energy/information back and forth to/from each other. In this process, individual populations of species change and structural transformations occur. This ensemble can be usefully characterized by Figures 9 from White Paper I wherein the electric atom/molecule band, consisting of its well-known four fundamental forces of gravity, electromagnetism, the weak nuclear force and the strong nuclear force is but one example.
2. That a substance component of the emotion domain band, which I have labeled "deltrons", exists and exhibits a quality which is a form of consciousness (analogous to an electric or magnetic charge on other substances) and which can travel both slower than $v=c$ to interact

with electric substances and faster than $v=c$ to interact with information wave substances, converting some of them to magnetic information wave substances (see figure 3). From these two assumptions, one can see that electric particles, magnetic information waves plus deltrons can interact with each other to produce de Broglie particle/pilot wave complexes which are the building blocks for constructing electric atoms and molecules.

A Work-in-Progress Reference Frame (RF) for the New Paradigm

In the early 1970's a particular duplex RF was selected by this author for viewing natural phenomena associated with physical reality. This RF is, in turn, embedded within a higher dimensional reality illustrated in figure 9b of White Paper I. This duplex RF consists of two, reciprocal four-dimensional subspaces, one of which is spacetime. The three-dimensional spatial part (x,y,z) , called D-space, and its reciprocal, wave number part $(k_x=2\pi l/x, k_y=2\pi m/y, k_z=2\pi n/z)$, called R-space, form a specific member of a six-dimensional space. Here, $l, m,$ and n are undetermined coefficients. The D-space time coordinate, t , has a companion R-space coordinate of $k_t=2\pi/t$ (with no undetermined coefficient). Thus, altogether, this particular duplex space $(x, y, z, t, k_x, k_y, k_z, k_t)$ is a seven-dimensional space.

The 4-D, D-space is ideal as an RF for positive mass and energy, electric particles and electric substances that travel at velocities, $v<c$, as well-treated in classical mechanics (CM). The 4-D, R-spaces are frequency domains and therefore ideal as an RF for negative mass and negative energy information waves (or magnetic information waves) traveling at $v>c$, as well-treated in wave mechanics, a subset of quantum mechanics (QM).

A truly unique property of this particular duplex space is that, because the RF subspaces are reciprocals to each other, mathematics requires that a substance quality in one subspace has an equilibrium conjugate substance quality in the other subspace given quantitatively by deltron-modulated Fourier Transform relationships^(9, 3-6).†_f Without the deltron-modulation aspect, there would be no meaningful coupling between the two uniquely different substances, so no trend towards thermodynamic equilibrium across the EM light barrier, at $v=c$, would be possible. Figure 3 illustrates how, with sufficient deltron coupling, indirect interaction of the $v>c$, negative energy, magnetic information wave substance occurs with the $v<c$, positive energy, electric particle substance.

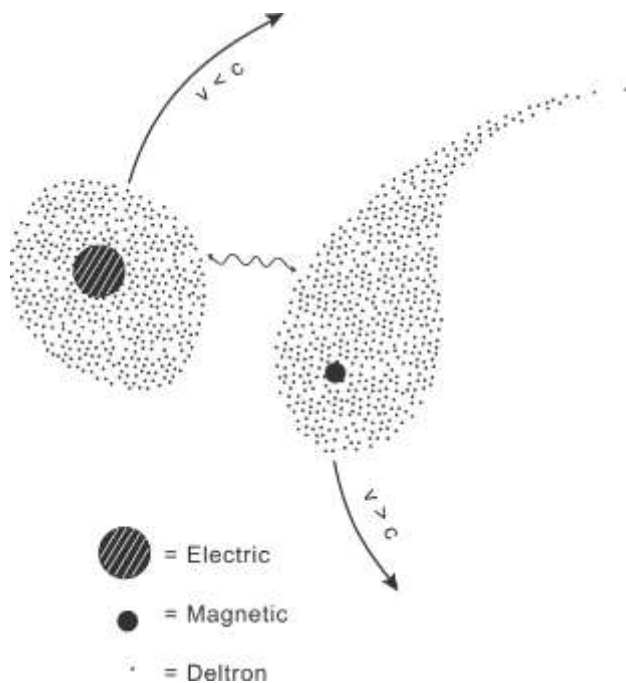


Figure 3. A higher dimensional level of substance, labeled deltrons, falling outside the constraints of relativity theory and able to move at velocities greater than and less than c , acts as a coupling agent between the electric monopole types of substance and the magnetic monopole types of substance to produce both electromagnetic (EM) and magnetoelectric (ME) types of mediator fields exhibiting a special type of “mirror” principle relationship between them.

One quantitative outcome of this Fourier Transform-like relationship between the electric charge and magnetic charge types of substance is that a special “inversion mirror” type of relationship exists between the conjugate qualities of substance functioning in the reciprocal subspaces. This property is illustrated in Figures 4 and 5. In Figure 4, a qualitative plot of relativistic energy, relative to the $v=c$ condition, for a positive mass, electric particle and its conjugate negative mass, magnetic information wave distribution is provided as a function of velocity, v . In figure 5, one sees that a Gaussian-shaped, wave packet of substance half-width $2\sigma^{-1}$, located at coordinate k_0 in R-space, generates, via a classical Fourier Transform conjugate, a Gaussian-shaped, ghost-like magnetoelectric (ME) wave packet centered at the D-space coordinate, x_0 , of half-width 2σ and wave length, λ , proportional to k_0^{-1} . This D-space ME wave packet looks very much like a D-space de Broglie pilot wave but without the deltrons needed to bind it to a D-space electric particle. Likewise as we will see later in figure 7, a D-space electric particle has a ghost-like R-space electromagnetic (EM) counterpart.

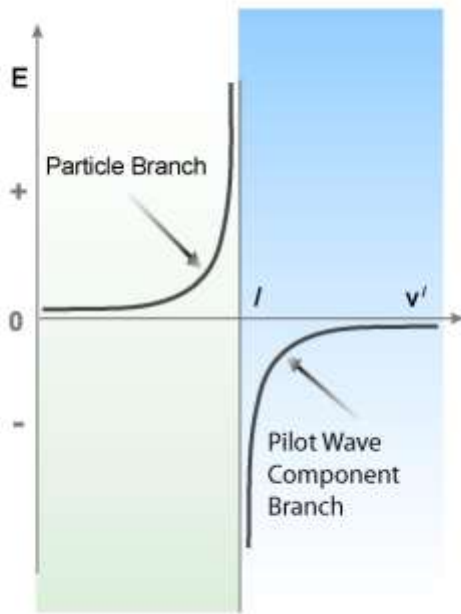


Figure 4.

Energy-velocity diagram for a D-space particle ($v' = v_p/c$ branch) and its R-space magnetic information wave conjugate ($v' = v_w/c$ branch).

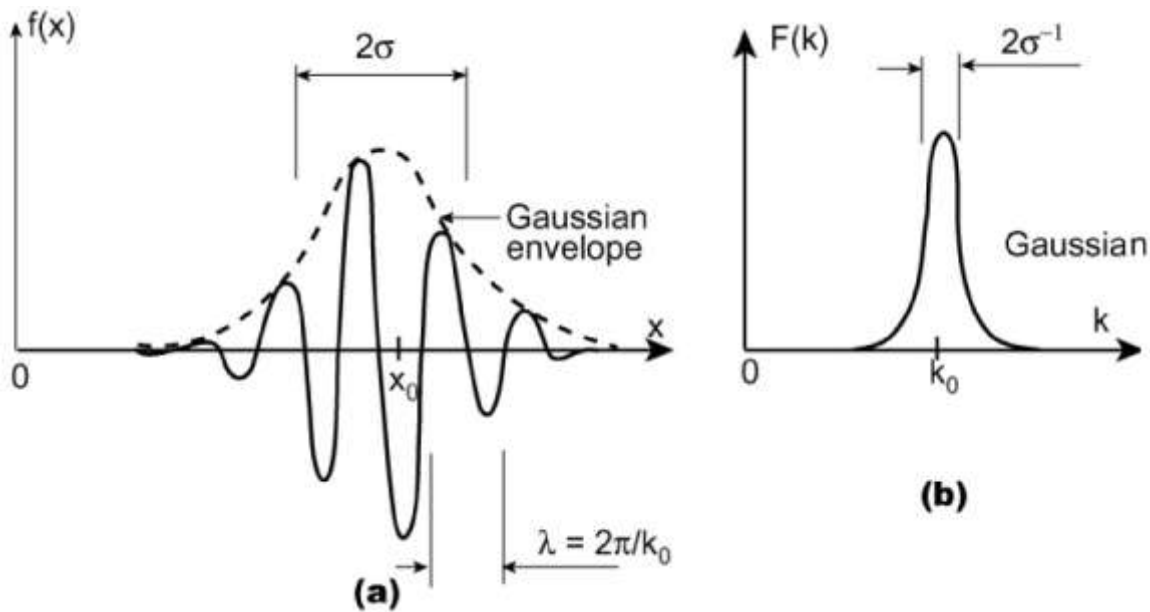


Figure 5. (a) A wavegroup; (b) transform of a wavegroup.



Figure 6. Human consciousness, and specifically human intention, appears to be able to activate this deltron population, and thereby modulate this electric/magnetic monopole substance coupling, so as to alter the specifics of the EM state of the space wherein an object rests, and thus the experimentally measurable properties of that object.

Because the deltrons intrinsically carry a consciousness type of “charge”, latent consciousness exists everywhere throughout this 7-D space and its embedding, higher-dimensional host space. This is why, in principle, focused human intention can interact with and influence their local and non-local material properties. This author's working hypothesis is that all human intentions begin at the level of

spirit which imprints a unique correlated pattern on the nodal points of the mind lattice⁽³⁾. This excites radiation patterns to be emitted from these nodal points that both activate deltrons in the emotion domain and imprints a highly correlated pattern of information on the R-space nodal network. Thus, if sufficient deltron coupling occurs in the duplex RF of physical reality, this information pattern is transferred from R-space to D-space and all the processes of the electric atom/molecule level of physical reality manifest some magnitude of that specific original intention. Figure 6 is an attempt to visualize this multi-band dynamic process. Figure 7 illustrates some calculated D-space/R-space equilibrium conjugate forms of substance without deltron coupling. In the left column, six simple D-space forms are given. In the middle column their two-dimensional, R-space calculated equilibrium conjugate intensity patterns are given and, in the right hand column, a cross-section through each of the middle patterns is given. The oscillating R-space patterns are a consequence of the mathematical details because both constructive and destructive interference of waves can occur between parallel segments of the D-space form.

The final point that needs to be mentioned in this section is that, for the coupled state of physical reality, this particular duplex space RF allows short-range and long-range macroscopic information entanglement both spatially and temporally. Although meaningful discussion of this topic is beyond the scope of this White Paper, it has been partially discussed elsewhere⁽⁶⁾. The important point for the reader to grasp is that (1) for the coupled state, every substance location in D-space is connected to every other substance location in D-space via all of R-space and vice versa. Thus, the further away from our solar system is another solar system of interest in D-space, the closer to the

origin of R-space will its conjugate be found, i.e., the smaller its k -value. In fact, all of the macroscopic D-space galaxies in the cosmos have an R-space ghost-like counterpart representation in the small (k_x, k_y, k_z) - domain. This is just another feature of the “mirror principle” in action.

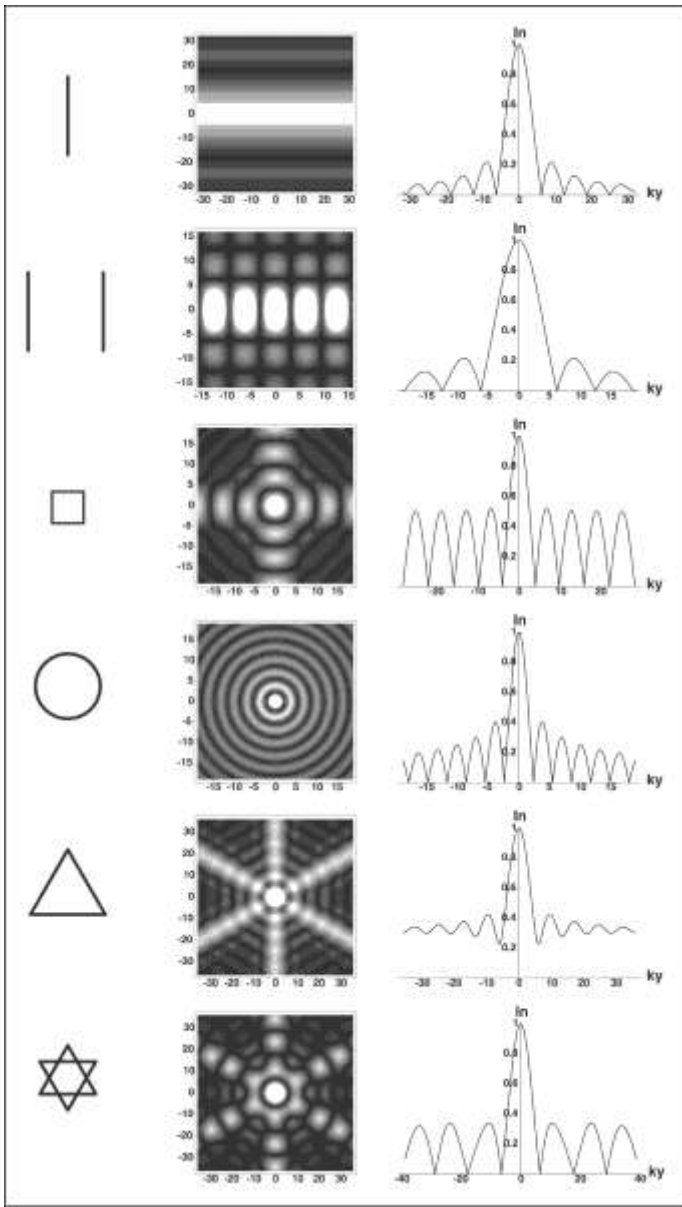


Figure 7. Comparison plots of R-space normalized modulus, I_n , for six, one-D objects (left column) versus (k_x, k_y) maps in the middle column versus a k_y or k_n section plot in the right column.

Closing Comments

From the author's experimental work referred to in White Paper I, one gains the idea that a form of consciousness can be activated seemingly anywhere in D-space (spacetime) and intentionally tuned to materialize a particular property change as illustrated in equation 3 via the use of an intention-host device. This intention-host device appears to be a source of deltrons which allows coupling to occur between our normal, electric atom/molecule level of physical reality and the magnetic information wave level of the physical vacuum identified in figure 9 of White Paper I. The theoretical model developed by this author indicates that the deltrons, a postulated denizen of the emotion domain and a carrier of a type of consciousness charge, is an intimate and necessary ingredient for the formation of de Broglie particle/pilot wave complexes, the essential building block for electric atom/molecule formation and quantum mechanics.

The companion to this deltron Source device, an H⁺-ion Detector device, allows one to measure the degree of deltron coupling present in a particular space during transformation from our normal, uncoupled state of physical reality. Because humans have their acupuncture meridian/chakra system already at the coupled state of physical reality, when this detector is converted to a human biofeedback device, humans will be able to measure their focused intention – ability to transform themselves and their surroundings to greater and greater levels of coupling. Ultimately, such biofeedback devices will allow such individuals to monitor their development towards becoming an adept, a master or an avatar of this planet.

These two devices and their future progeny, used as training wheels by humans for both self and world development, open a new door into a new domain of physical reality as well as still higher dimensional realities that are a part of our evolving future. Such devices will awaken traditional scientists, technologists, business makers and teachers to new opportunities for new discoveries and greatly enhanced capabilities and performance in their chosen fields of endeavor.

Considering the list of both stated and unstated assumptions of our present paradigm, we see that many of them are untenable in today's world and that it is indeed time to shift to a much expanded paradigm that is intimately tied to human consciousness as an important experimental variable in physical reality.

My working hypothesis since the early 1970's is that we are all spirits having a physical experience as we “ride the river of life” together. Our spiritual parents dressed us in these biobody

suits and put us in this playpen that we call a universe; in order to grow in coherence; in order to develop our gifts of intentionality, and in order to become what we were intended to become – co-creators with our spiritual parents!

To effectively have this learning experience, we need a suitable structural interface with the spacetime world. That became a biobodysuit constructed from the substance complex of D-space//deltron//R-space materials. That type of biobodysuit is what we put on when we are “born” into spacetime and it is what we take off when we appear to die in spacetime. In between, when we are manifesting what we call “life”, this biobodysuit contains what I label our personality self. However, I feel that the whole person is much, much more than this!

My current metaphor for the whole person may be visualized as a sphere comprised of three concentric zones that are at least weakly coupled to each other as illustrated in Figure 8. The outermost zone is made of two layers of very different kinds of materials (electric particles and

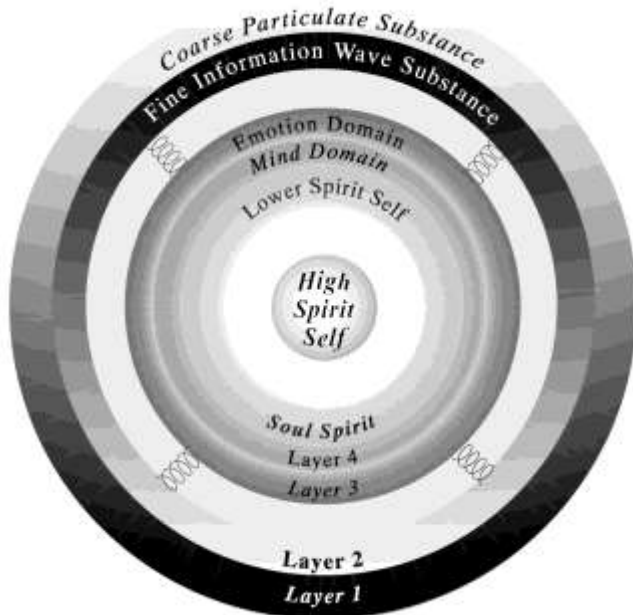


Figure 8. A metaphor for the whole person. I like to visualize a sphere comprised of three concentric zones that are at least weakly coupled to each other. The outermost two layers is the personality self. The middle three layers is the soul self. The core region is the high spirit self (or the God Self).

magnetic information waves) and constitutes the personality self mentioned above. The middle zone consists of three concentric layers, each constructed from uniquely different kinds of materials and is labeled the soul self. The third, innermost zone I label the high spirit self, the “God self” or the source self, whichever label one is comfortable with. Thus, the whole person is made up of three very different selves!

In the personality self, the outermost layer of electric material interfaces, via our five physical senses neural circuitry, with what we call the outer world – the earth, our solar system, our galaxy, the cosmos. In the adjacent, magnetic information wave layer, some type of sensory system must exist via which our personality self interfaces with our soul self. Certainly a part of this system is our acupuncture meridian/chakra system, a part is what we call “the human unconscious” and a part encompasses all the psychic senses. This two-layer body is thought to be an evolved form of a basic animal species indigenous to the planet that, in our case, is from the chimpanzee/ape families.

The soul self, consisting of the still higher dimensional domains of emotion, mind and an aspect of spirit, is thought to be the entity that is importantly evolving in this overall process. It is much more

durable than the personality self and is the repository of all the key experiences from a long succession of personality selves. Interaction between the personality self and the soul self is thought to genetically alter the personality self body making it an increasingly resonant vehicle for the soul self to interface with the spacetime world. However, at all stages of this complex uplift process, vestiges of the basic animal instincts and drives seem to be present to varying degrees in the personality self. The personality self appears to have a somewhat independent will and habit structure that is distinct from the soul self but it can entrain to that of the soul self with ever-increasing degrees of coherence.

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7. W. A. Tiller (2008) An Introduction to Intention – Host Device Research, (42 minute DVD, www.tiller.org).
8. W. A. Tiller (1977) “The Positive and Negative Space/Time Frames as Conjugate Systems” in Future Science, J. White and S. Krippner editors (Anchor Books, Garden City, New York).
9. Bracewell, R. (1965) The Fourier Transform and its Applications (New York: McGraw-Hill Book Company).
10. Reference 3 above, pp 27-31; Reference 5 above, pp 18-20; Reference 5 above, pp 80-81.

Collected Notes

†_a. ”inner” work, usually involving the practice of meditation, altered states of consciousness and other inner self-management techniques, leads to the development of other ways of “knowing” than our standard educational path. Building such infrastructure within the larger Self usually requires decades to lifetimes of patient practice. Scientists who would follow both the Logos and the Mythos paths find that a significant activation barrier exists between practicing the former to practicing the latter. Those who just practice the former have a strong tendency to think that simple extension of the logos path of the prevailing paradigm can answer and explain any phenomenon observed in our spacetime world. To illustrate that this is not so, consider statements by Dr. Paul Werbos, a world-class quantum mechanics practitioner and Director of the Engineering sector of the U.S. National Science Foundation. At a conference with proceedings published in 2001, he stated that:

- (1) All forms of quantum mechanics, Copenhagen, Bohmian, Schwinger-type and Werbos-type yield the same type of predictions and none of them can explain “remote viewing” and
- (2) The world has spent billions of dollars trying to use quantum electrodynamics in the military to see things far away (remote viewing) and has absolutely failed to do so. An entirely different science approach will be needed if we wish to do so! (see: “What Do Neural Nets and Quantum Theory Tell Us About Mind and Reality?” in *No Matter, Never Mind*, Eds. K. Yasue, M. Jiba and T. D. Senta; John Benjamins Publishing Co., Philadelphia, 2001).

The theoretical model that I have utilized in this Chapter seriously began in the period, 1970-1971, first via the Mythos path and then, for the following ~40 years, via a combination of the Logos and Mythos paths. For me, ultimate truth is in the experimental data and, if such replicated (under proper protocols) experimental data confounds the prevailing Logos paradigm, as it clearly does, it is surely time to change the prevailing paradigm. (see: *Science and Human Transformation*, Chapter 2 by W.A. Tiller; Pavior Publishing, 1997; *Psychoenergetic Science*, pp 15-22 and Chapter 5, by W.A. Tiller; Pavior Publishing, 2007).

Orthodox science (physics, etc.) always has trouble changing from being comfortably within a well-defined “box” of mutually accepted limitations to being outside that particular box but still inside a larger one. Such scientists resist looking at the new experimental data for a very long time until the subsequent work of younger generations forces them to do so. This held true in Galileo’s time, in Plank’s and Einstein’s time and it still holds true today.

If one is a scientist and if one understands Werbos’ point, one places oneself in one of two groups (“It is a binary choice” according to Werbos): in Group (1) where preconceived notions about what is and what is not science do not seriously constrain one’s work and one is open to unconventional possibilities, or in Group (2), the denier group. This second group must deny the reality of several empirical/observational/experimental phenomena, some of which are mentioned by Werbos. This dogma includes statements such as “remote viewing does not exist”, “homeopathy does not work”, “cold fusion is a fantasy”, “the placebo effect is unreal”, “acupuncture does not work”, “prayer can do nothing to influence healing”, etc., etc. In addition, the basic assumption (unstated) of this group is that “no human qualities of consciousness, intention, emotion, mind or spirit can significantly influence a well-designed target experiment in physical reality.”

If a scientist is to continue to only use the tools of conventional science exclusively, they must place themselves in Group 2. Since the tools a scientist routinely uses are first picked up in universities where only the existing paradigm is taught, such an education puts the newly trained scientist automatically in Group 2; they are given no other tools with which to evaluate reality.

†_b. The uncoupled state and the coupled state are both examples of unique electromagnetic (EM) gauge symmetry states which relates to the inner symmetry condition of a space relative to its EM nature. At present, the normal EM environment of our world is at the $U_e(1)$ state (the uncoupled state) where Maxwell’s four equations, applied simultaneously, quantitatively define the entire range of electric/magnetic phenomena that can occur. Here, the subscript **e** and the **1** in this Group Theory notation refers to the electric charge-based substance where there is only one internal space variable that needs to be specified, the electron wave function phase-angle, for a complete mathematical description. The proposed coupled state of physical reality is thought to be at the $SU(2)$ -level which is a higher EM gauge symmetry state wherein both single electric charges (+ and -) coexist with single magnetic charges (N and S) and Maxwell’s four equations must now be modified to quantitatively define the range of electric/magnetic phenomena that can develop in a space maintained at this EM gauge symmetry state. When these two unique levels of physical reality are coupled, now the coupled

system has two correlated internal space variables (phase-angles) to be specified so the Group Theory label shifts to SU(2). In much earlier times, the hot universe was in the SU(2) gauge state but, as the universe cooled, a symmetry-breaking event occurred to produce a $U_e(1)$ world and a $U_m(1)$ world that were completely isolated from each other. (see: An Elementary Primer for Gauge Theory by K. Moriyasu; World Scientific Publishing Co. Pte, Ltd, Singapore, 1983).

In our Quantum Mechanical (QM) and Relativistic (RT), $Q_e(1)$ -state world, one very useful mathematical tool has been the Fourier Transform which converts the stationary wave function, $\psi(x)$, for an electric particle, as a function of position, x , in spacetime to a spacetime momentum-space amplitude representation, $\phi(p)$, for the wavefunction, $\psi(x)$. If $\psi(x)$ is normalized, then $\phi(p)$ is also normalized. This mathematical formalism has played an important role in today's QM of our $U_e(1)$ EM gauge symmetry state world. (see: Physical Foundations of Solid-State Devices, Chapter_3 by E.F. Schubert, 2007, <http://www.rpi.edu/~schubert/>).

When we expand our perspective to the coupled state of physical reality, a local SU(2) EM gauge symmetry state space via the application of suitable human consciousness in the form of human intention, we need to expand the simple $U_e(1)$ Fourier Transform formalism to the “deltron activated” Fourier Transform formalism (see later) that now can be used to connect electric particle substance to magnetic information wave substance of the physical vacuum. In this coupled system, using a duplex space reference frame, equilibrium conjugate material properties can be developed between the two subspaces and modified in amplitude via the application of human intention. (see: Conscious Acts of Creation, Chapter 7 by W.A. Tiller, W.E. Dibble, Jr. and M.J. Kohane; Pavior Publishing, 2001).

†_c. The presence of such a DC magnetic field effect, shown via Figure 2 and via the human acupuncture/meridian system, is proposed to be indicative of the coupled state of physical reality where the EM gauge symmetry state has shifted to the SU(2) level with the second internal space variable being magnetic charge. These proposed, present and instrumentally accessed, magnetic monopole moieties appear to “fly in the face” of all the excellent experimental data carried out around the world that did not find accessible magnetic monopoles. However,, this observation can be easily understood when one realizes that all of these experiments were carried out within normal $U_e(1)$ laboratory spaces. Thus, what we really learn from these experiments is that magnetic monopoles cannot be accessed from a $U_e(1)$ EM gauge symmetry state experimental space but may be accessible from a SU(2) EM gauge symmetry state experimental space.

†_d. Because of $v_p < c$ and of the wave components, $v_w > c$, that dynamically pass through the pilot wave as it moves along with the particle at $v=c$, this creates a serious problem for Relativity Theory. Just calling them “information waves” as physicists did in the 1930's, under the assumption that information waves don't transport a thermodynamic free energy change, does not solve this serious problem discussed around Equation 1b. It is also interesting to note that the same simple analysis yields $\Delta x \Delta p_x \geq h/2\pi$, one of the simplest expressions for the Heisenberg Uncertainty Principle. (See: Fundamentals of Modern Physics pp 140-146, by R. M. Eisberg; John Wiley and Sons, New York, 1961). This is undoubtedly the reason why, from the $U_e(1)$ EM gauge symmetry state, our normal instrumentation cannot “see” vacuum level substances.

†_e. Although Dirac's concept is no longer popular in today's physics community, this author thinks that it should be. With respect to the initial Dirac equation for the electron, it gave the correct spectrum for the hydrogen atom at the time; however, there were difficulties when it was applied to more complex problems. About two decades later, more exact measurements were made by Lamb (the Lamb shift)

showing that an indisputable discrepancy of 0.1% existed relative to the spectrum calculated by the Dirac equation. Somewhat later, a similar-sized anomaly was detected in the magnetic moment of the electron. These anomalies arose because Dirac had neglected the electron/photon interaction, which everyone did at that time because it came out to be infinite in all the existing theories of the day. Physically, the Lamb shift is a consequence of the fact that the self-energy of an electron in the Coulomb field of the hydrogen atom is different from its self-energy in free space and depends on its specific quantum state. The difference in these state-dependent self-energies is just the Lamb shift. (see: Science and Human Transformation: Subtle Energies, Intentionality and Consciousness, pp 46-47 by W.A. Tiller; Pavior Publishing, Walnut Creek, California, 1997).

†_f. Mathematically, for the two four-dimensional subsystems of the proposed duplex space with D-space coordinate, s , and R-space coordinate, k , the deltron modulated Fourier Transform relationships look like

$$F(k) = \frac{1}{(2\pi)^2} \int_{-\infty}^{\infty} f(s) C_{\delta}(s, k) e^{ik\Phi} ds ,$$

and

$$f(s) C_{\delta}(s, k) = \frac{1}{(2\pi)^2} \int_{-\infty}^{\infty} F(k) e^{-ik\Phi} dk ,$$

where $C_{\delta}(s, k)$ is some presently unknown functional form for the deltron activation function, without which no electric and magnetic charge substance interactions can occur. This is definitely not the classical Fourier Transform.

†_g. Such a proposed process would, in principle, allow deltrons to react with information wave substance converting it to a magnetic charge-like character that can still interact, across the $v=c$ light barrier, with electric substance.