<u>White Paper #XXXVI</u>   (02/15/15)

What is Human Consciousness and How Do We Significantly Increase Its Magnitude in Our World?

by

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Some Relevant Background

Most dictionaries of this distance-time world provide an overly-simplistic definition of the word **consciousness** as "the quality or state of being **aware** or **awake**". This definition seems so bland and insignificant for something that we all intuitively know to be extremely important to humankind. Let us look deeper for a more meaningful description.

In Aurobindo's "The Adventure of Consciousness"[1], he stated that "a change of consciousness is a major fact of the next evolutionary transformation, and the consciousness itself, by its' own mutation will impose and affect any necessary mutation of the body." These words suggest that we are dealing with **a process** of **nature**, a dynamic developmental process, perhaps even one driven from a genetic level that creates structural changes in the various subsystems of our "total self". **These manifested changes in human appearance and human behaviors we label as developmental changes in human consciousness.**

From a somewhat different perspective, in the early 1960's, the Greens[2] seriously investigated **voluntary controls** of **internal** human states, both psychological and physiological, and strongly promoted "the psychophysiological principle:

> Every change in the human physiological state, conscious or unconscious, is accompanied by an appropriate change in their mental-emotional state and, conversely, every change in the human mental-emotional state, conscious or unconscious, is accompanied by an appropriate change in their physiological state."

Subsequent research by themselves and many others showed that the instrumental monitoring and visual display, continuous in time, of a particular human physiological **parameter** (for which we have some unique measurement instrument) can allow an **attentive** human to voluntarily and **intentionally** modify the **magnitude** of this parameter, thereby altering one's own physiological activity, one's own

behavior and the process of one's own consciousness! This work has led to the significant use of **biofeedback** as an important medical therapeutic in today's world.

From the foregoing research, we learn about the existence of both (1) **conscious** and **unconscious** states in humans. We also learn about (2) the focused application of their own intention can alter the magnitude of these states and thus the **materialized** level of consciousness of such humans.

The Danish author, Torr Norretrander[3] reminds us that the human **conscious mind** can only process **less** than 50 bits of information per second while the human **unconscious** mind can process **more than** 50 million bits of information per second. Thus, it is the latter that actually gathers the multiple data streams of information flowing through a human at any point in time. It **appears** that our unconscious system gathers such information, organizes such information and refines such information. It then **appears** to create small kernels of prepared relevant information to send to the conscious mind. However, it **appears** to do so **only** if the conscious mind has previously given **meaning** to that topic. If the conscious mind has not given serious meaning to that topic, such information kernels appear to be "dumped" by the human unconscious mind.

From the previous paragraph, this suggests that giving **meaning** to specific information is a very important aspect of/to materialized change in human consciousness.

Further, this author would propose that it is not just an **intellectual awareness** of such specific information that is needed to generate a materialized change in human consciousness but, it is the **incorporation** of a critical dose of such information into an appropriate structural level of the **self** so as to constitute "a **new** information creation, ΔI^*, in the "self"; then, from the ground-breaking discoveries of Shannon[4] and later, Brillouin[5,6], a quantitative equivalent change in **negative entropy**, $-\Delta S$, is created in our world. This, in turn, increases the thermodynamic free energy per unit volume, G, of our local system where, now, G should be written as[7]

$$G = PV + E - T(S_0 + \Delta I^*). \qquad (1)$$

In Equation 1, P=pressure, V=volume, E=internal energy, T=absolute temperature, and S_0 is the local entropy state **before** the new ΔI^* creation[7].

Since it is well-known that human consciousness manipulates information in nature which, in turn, affects thermodynamics, we need to introduce another aspect to the consciousness story. This involves the different statistical distributions of different entities found in nature, of which we will consider human consciousness to be one.

The Energy/Consciousness Differentiation[8]

First, we begin by considering a box at a fixed temperature, T_1, which contains a large number, N, of gas molecules. For our present purposes, these molecules can be thought of as being like marbles (of extremely small size) that are constantly moving about in straight lines until they interact with and

bounce off another molecule or the walls of the box (see Figure 1). Thus, these molecules are in ceaseless motion, continually exchanging energy with each other. One might think that after some time these molecules would all have the same energy, but not so; the energy distribution among these molecules, after a long time, is as illustrated qualitatively in Figure 2a. We see that the number of molecules, n, having a particular energy, E, varies strongly with the energy. We see that the molecules exhibit a wide range of energies, a few molecules having a very small energy and a few having a very high energy, with most having an energy slightly smaller than the **mean** energy, kT_1 (k is called Boltzmann's constant).
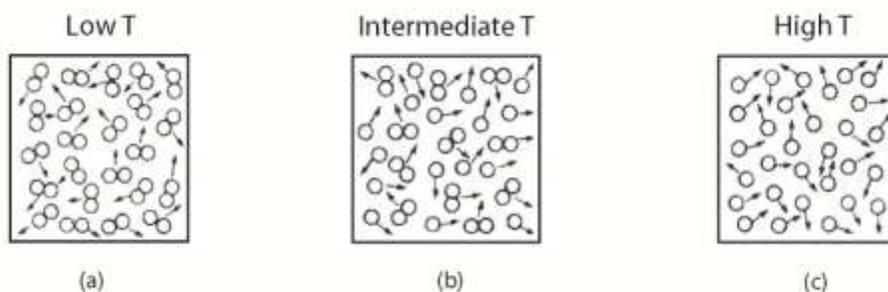

Figure 1. Pictoral representation of molecules moving about in a box, (a) undissociated state, (b) partial dissociated state and (c) completely dissociated state.

If, for example, we open a small window in the box and inject a quantity of heat, ΔQ, into the box via a beam of light, the mean temperature of the box will be increased from T_1 to T_2 ($T_2 > T_1$). The new energy distribution for the molecules in the box is caused to shift up the energy scale compared to the old one since $kT_2 > kT_1$; however, it exhibits the same general shape and we still have N molecules in the box. This is illustrated in Figure 2b where we note that the **mean** energy, kT_2, has moved up scale. In a real situation, the box cannot be completely isolated from its surroundings relative to heat losses so we can expect a general heat loss rate, q, to occur from the box to its surroundings. Thus, if we do not inject heat into the box at the same rate, q, we will be unable to maintain a constant box temperature, T_2.
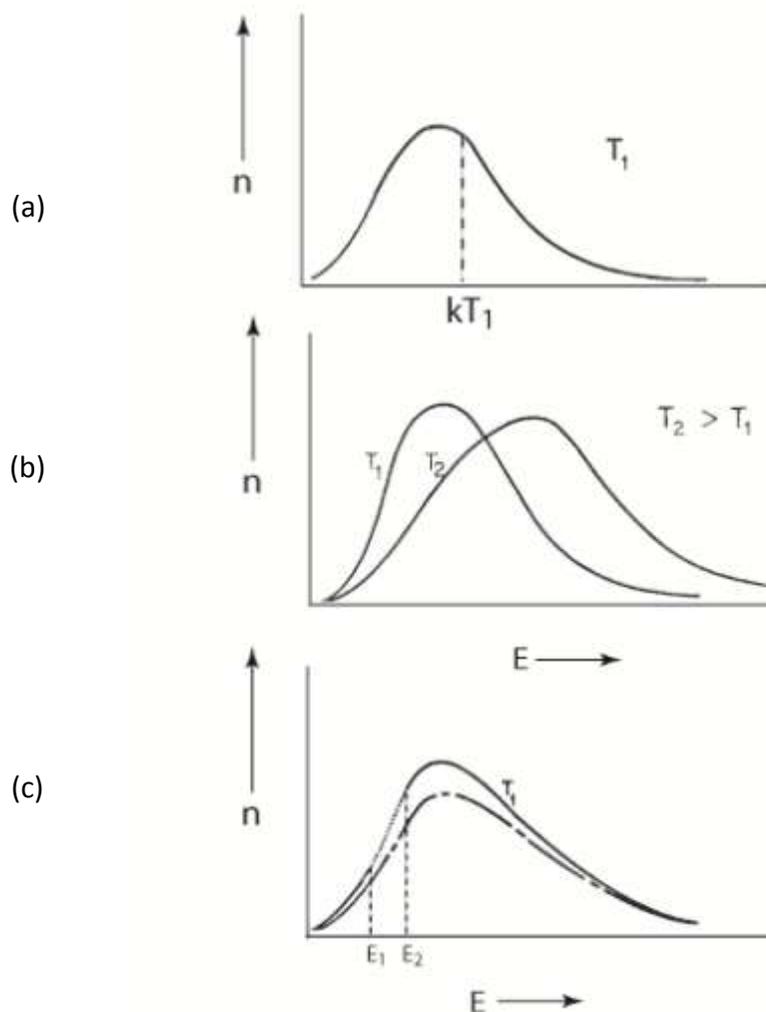
Figure 2. (a) Distribution of energies for molecules in a box at temperature T_1, (b) shift in energy distribution for molecules due to a change in temperature from T_1 to T_2 and (c) illustration of distribution changes associated with the extraction of the group of energy states between E_1 and E_2 at temperature T_1.

If we were able to take the equilibrium distribution of molecules at temperature T_1, and remove all of the atoms having energies between E_1 and E_2, as illustrated in Figure 2c (call this number, ΔN), we would find that this gap in the distribution would not exist for long, but that the molecular collisions would allow the distribution to relax and give the dashed curve which is an exact replica of Figure 2a but with fewer total molecules ($N - \Delta N$ molecules). Thus, no matter what arbitrary change we make in the distribution of molecules, when the system is allowed to relax, it quickly recovers its **equilibrium** statistical **distribution** of energies. Thus, the equilibrium **statistical** distribution is an important **unique entity** of the molecular ensemble. This unique form of statistics is called **Maxwell-Boltzmann** statistics.

This does not mean that things are static – far from it. Any particular molecule exchanges energy in each collision it makes with the other molecules and moves up or down the scale of energy so that, over a long period of time, any such molecule appears to experience **every energy state** in the system. In this example, we have invoked **conservation** of energy in each collision. Thus, if one molecule gains energy by the interaction, the other loses an equal amount of energy. From this example, it should be clear that it is not particularly meaningful to talk about the characteristics of a single molecule (because they change energy so quickly with time); it is only meaningful to talk about the characteristics of **the total ensemble** because that may not change with time.

If the temperature in our box is quite high, the molecules will probably have dissociated into atoms whereas, if it is low, we will find most of the species bouncing around in the box to be in the associated or molecular state. In this state, the electromagnetic nature of the individual atoms, leading to an attractive force between them, is on average sufficient to overcome the collision force of other molecules so that they remain strongly bound together. Thus, if we think of the marbles in the box as being covered with a coat of glue, they will stick to each other if they collide at a small velocity (low temperature). Further, a combined molecule colliding with a wandering, high velocity atom or molecule will generally be split up into its atomic constituents. At any particular temperature of the box, those molecules having kinetic energy greater than E_B, the electromagnetic binding energy, will be dissociated. As the temperature is raised, the fraction of marbles having energy greater than E_B is increased.

If, instead of gas molecules in a box at some unique temperature, one considers the situation of electrons in a metal, which exhibit a similar type of qualitative behavior, the quantitative behavior for the electron ensemble conforms to a very different type of statistics. These are called **Fermi-Dirac Statistics**, named after two major scientists who deeply investigated such electron behavior.

Let us now turn to humans and consider the above discussion as an analogue. In this case, the important measure is not energy but **consciousness**. For our present purposes, we will lump all aspects of consciousness, denoted by the symbol C, together on one scale instead of discriminating physical, etheric, emotional, mental and spiritual scales. In this case, if we take a society of N people (N is large) and we plot the number of people, n, having the level of consciousness, C, at time t_1, we obtain a curve similar to Figure 2. We find that we have a few individuals with a very low degree of consciousness but most have a level of consciousness near the mean consciousness, C^* (see Figure 3a).
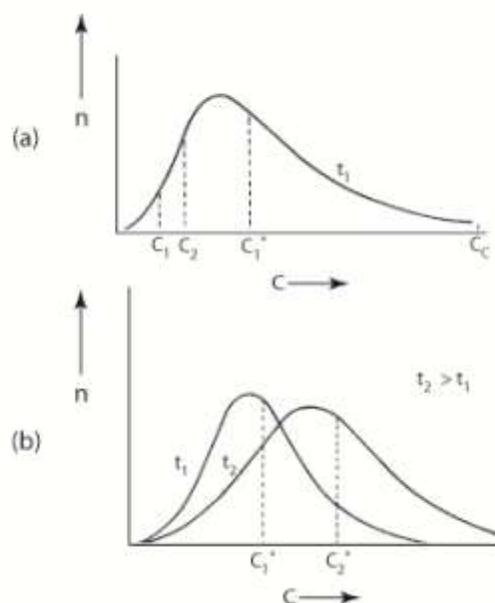
Figure 3. (a) Distribution of consciousness, C, for a human ensemble at time t_1 and (b) a shift in consciousness distribution to a higher mean value, C_1^* to C_2^*, as time grows from t_1 to t_2.

However, several important differences between the molecular and the human ensembles must be noted. First, a human entity has free will and can move either up or down the scale of consciousness as he/she chooses (of course, because we humans tend to polarize our attitudes around some focal point, it would take many lifetimes to span the entire consciousness distribution, which is probably a supportive factor in the need for human reincarnation if one accepts the postulate that **all states** of consciousness must eventually be sampled by each member of the human ensemble). Next, for gas molecules, energy had to be conserved during an interaction, but for humans, **consciousness is not conserved**. When one human entity meaningfully interacts and communicates with another, new information is exchanged and additional consciousness may be created.

Perhaps it is best to think of this in terms of a receptivity influence. As one meaningfully interacts with another, one's receptivity opens and radiation seems to pour in from some other dimension of the cosmos. This seems quite analogous to adding a quantity of heat, ΔQ, to the box of molecules. Thus, as time passes, with meaningful human interactions, the total amount of consciousness shared in the system (the human ensemble) grows so that at time t_2 greater than t_1 ($t_2 > t_1$), the average consciousness of the collective ensemble is greater than it was at time t_1 (see Figure 3b). Of course, various physical, emotional and mental practices on the part of the human entities can lead to a type of forgetfulness and an overall loss of consciousness. Thus, we can expect that some **positive rate of creation** of consciousness is needed to maintain the ensemble at a constant C^* level.

The correspondence between Figures 2b and 3b is made more complete by recalling that, when we took our box of gas atoms at temperature T_1 and injected energy in the form of heat into the box, the molecules absorbed the energy and attained an average heat content characteristic of temperature T_2. Likewise, in Figure 3b, time grows from t_1 to t_2 as this newly created consciousness content is meaningfully developed by the people.

Once again, each part of the ensemble distribution is dependent on all the other parts. This is because, at the physical level, we sense only by contrast and, if entities are removed from the segment of states between C_1 and C_2 in Figure 3a, other entities would soon develop those levels of consciousness because there is no awareness, or sensing ability, to keep them from occupying those states. Thus, it is with a broad spectrum of the distribution that an entity needs to meaningfully interact in order to enhance his/her consciousness. Again, one part of the system is dependent upon the others and **collectively we form a species**. The important thing to remember is that all members of the ensemble are part of the **One** – the whole system is **ourselves**. In part, I am you and you are me. That which I do reflects your growth and that which you do reflects mine. When we see something in our individual entity (our personal selves) that we do not esteem, we cannot disown it – we must work on it until we have mastered and perfected it. Likewise, if we see something in another human entity that we do not esteem, we cannot disown it and thus must find a suitable way to lovingly work on it until it is in harmony – for we are perfecting ourselves. And this we do by increasing the mean consciousness, C^*, of our ensemble, while maintaining our unique form of statistics (yet to be articulated and understood).

Perhaps a useful analogy here would be a laser system comprised minimally of (1) a suitably doped host crystal, (2) a suitable pump source and (3) suitable mirrors. It is the cooperative action of these three elements that leads to the lasing action and the resulting high intensity beam of coherent light. One cannot endow ownership of this new quality to any one of the three elements because **all** are necessary to achieve this result. Often it is the same with humans, someone occupies the role of coherent host, someone else acts as a broad band pump source while still someone else acts as a kind of mirror to produce a resonant system. In such a case, abundant new creative expression is often manifest and, even though it issues forth from the coherent host, the ownership belongs to the group because all three elements were necessary for the manifestation.

Returning to Figure 3a, at the very high end of the consciousness scale ($C > C_C$) there have been a few special entities like Buddha, Krishna, Mohammed, Jesus, etc, who all become Christed, at whose level of enlightenment enriches all the rest of us and who communicate so meaningfully that we are shown a more effective way to grow in consciousness. As time passes, the mean consciousness, C^*, generally increases so that the number of entities endowed with the level of consciousness $C > C_C$ increases. If we knew the exact mathematical shape of the distribution curve in Figure 3a and knew the ratio of C_C to C^*, we could calculate the probability of such an entity being born at any time or the length of time humankind would have to wait for such a birth event to occur by the physics involved. Certainly, one point seems clear from this model, the rate of growth of consciousness depends upon how meaningfully each of us communicates in each human interaction with another entity. If, through fear or insecurity, we shield (or screen) ourselves with an idealized image, then image communicates with image,

meaningful **receptivity is absent** and very little consciousness is created in the interaction events, so collective humanity's consciousness does not increase and, indeed, may even decrease with time. Thus, we must learn to communicate fully, meaningfully and honestly.

We must also learn to abandon judgment of others because they are constraints that reduce the degrees of freedom and thus the possible creative expression available in an interaction. To illustrate the relative, rather than the absolute, scale of our judgments concerning good versus bad (or good versus evil) behavior, consider Figure 3b. At time t_1, the mean (at level C_1^*) look "up" the consciousness scale to $C > C_1^*$ and proclaim that in that direction lie "good" states of consciousness. They then look "down" the consciousness scale to $C < C_1^*$ and proclaim that in that direction lie "bad" states of consciousness. At a later time, t_2, the mean consciousness (now at level C_2^*) again look up and down scale and make similar pronouncements. However, there are now a set of states between C_1^* and C_2^* that are pronounced "good" at time t_1 but "bad" at time t_2. So much for the absolute nature of judgments!

From the modeling of this section, we see that there is a natural inequality between humans taken as individuals. However, our states of consciousness are generally interdependent and it is much more meaningful to consider the average or mean of the total ensemble when one wants to assess the growth (meaningful communication) or the decay (forgetfulness) of humanity.

Recalling the association-dissociation reaction in the molecular ensemble, let us now consider the analogy in the human ensemble. Here, the counterpart to molecule formation would be the dimer unit (man-woman, etc, pair), the family unit, the partner unit and other major cooperative human institutions. Treating the dimer unit as our simplest example, the major attractive force binding them together is "love" (although very strong forces can come from other chakra-chakra interactions as well). It is the love force, in all its various manifestations, that creates this important bond. The stronger is the love force between the pair, the greater will be their binding consciousness and the more will they be able to resist the dissociation forces of their environment. In the molecule ensemble case, it was the kinetic energy of the impinging molecules at high temperature that created dissociation. In the human ensemble, it is the frequency of, and degree of, consciousness impacts between the pair and their surroundings (other people, situations, stresses, etc) that determines the probability of dissociation. If life is allowed to become so hectic and stressful, with little attention being applied to vitalizing the love bond, then, after a period of time, even a trivial impact can precipitate a chain of sequences that end in dissociation of the pair.

The important concept expressed by this section is that we humans act as both individuals and as parts of the human consciousness ensemble, whatever unique, presently unknown form of statistics is involved, and we can expect the ensemble to conform to this new type of statistics with some **average scaling parameter** eventually identified with some **measurable quality** that drives the average ensemble consciousness changes. In addition, the performance of human groups like businesses, sports teams, nations, etc, are expected to depend upon the unique spectral distribution of the consciousness ensemble for the specific human group. An example of this characteristic is briefly discussed in the next section.

A Seven Level Model of Personal Consciousness[9]

In Barrett's model[9] every human on the planet evolves and grows in consciousness in seven well-defined stages wherein each stage focuses on a particular existential need that is common to the human condition. These seven existential needs are the principal motivating forces in all human affairs. The level of growth and development of an individual depends on their ability to satisfy these seven needs.

The seven stages in the development and growth of personal consciousness are summarized in Table I and described in detail in the subsequent paragraphs. Table I should be read starting from the bottom and working up.

Table I, Focus and Motivations

Level	Focus	Motivation	
7	Service	Devoting your life to selfless service in pursuit of your passion or purpose and your vision.	
6	Making a Difference	Actualizing your sense of purpose by cooperating with others for mutual benefit and fulfillment.	
5	Internal Cohesion	Finding meaning in your life by aligning with your passion or purpose and creating a vision for your future.	
4	Transformation	Becoming more of who you really are by uncovering your authentic self and aligning your ego with your soul.	
3	Self-esteem	Feeling a sense of personal self-worth	Underlying anxieties about not being respected and not being enough
2	Relationship	Feeling a sense of love and belonging	Underlying anxieties about not being accepted and not being loved
1	Survival	Feeling secure and safe in the world	Underlying anxieties about not being safe or secure and not having enough
		Healthy Motivations	**Unhealthy Motivations**

The first three levels of consciousness focus on our personal self-interest in satisfying (a) our physiological need for security and safety, (b) our emotional need for love and belonging, (c) our need to feel good about ourselves through the development of a sense of pride in who we are and (d) a positive sense of self-esteem. Abraham Maslow referred to these as "deficiency" needs with no sense of lasting satisfaction to being able to meet these needs; however, we feel a sense of anxiety if these needs are not met. When these needs are paramount in our lives, we are conditioned by the expectations of those around us; by our social environment (the family and the culture we are brought up in). We are loyal to the groups with which we identify.

The focus of the fourth level of consciousness is on **transformation** – learning how to manage, master or release the subconscious, fear-based beliefs that keep us anchored in the lower levels of consciousness. During this state of our development, we establish a sense of our personal authority, and **our own** voice. We are able to let go of our need to identify with our social environment because we have learned how to manage our deficiency needs. We now **choose** to live by the values and beliefs that resonate deeply with who we are. We begin the process of self-actualization by focusing on our individuation!

The upper three levels of consciousness focus on the need to find **meaning** and **purpose** in our existence, actualizing the meaning by making a difference in the world, and leading a life of selfless service. Abraham Maslow referred to these as "growth" needs. When these needs are fulfilled, they do not go away. They engender deeper levels of motivation and commitment. During this stage of our development, we increasingly develop an ability to stand back and reflect on the strengths and limitations of our own ideology. We learn how to become our own **self-witness**, and develop an inner compass that intuitively guides us into life-affirming decisions.

Individuals that focus on the satisfaction of the lower needs tend to live self-centered, shallow lives. They are significantly influenced by the anxieties and fears they hold about satisfying their deficiency needs.

The most successful individuals are those who balanced both their "deficiency" needs and their "growth" needs. They operate from full spectrum consciousness; they are trusting of others, are able to manage complexity and can respond to and rapidly adapt to all situations. Table II defines the full spectrum of positive attributes manifested via the seven levels of personal consciousness.

Table II, Full Spectrum Consciousness

•	They master survival consciousness by developing the practical skills required to ensure their physical security and safety
•	They master relationship consciousness by developing interpersonal relationship skills required to engender a sense of belonging and being loved
•	They master self-esteem consciousness by developing a sense of self-worth and a personal sense of pride in who they are and how they perform
•	They master transformation consciousness by learning how to manage, master or release the subconscious and conscious, fear-based beliefs that keep them anxious about satisfying their deficiency needs
•	They master internal cohesion consciousness when they uncover their sense of purpose or personal transcendent meaning for existence
•	They master making a difference consciousness by actualizing their sense of meaning by collaborating with others to create a positive contribution in the world
•	They master service consciousness when making a difference becomes a way of life and they embrace the concept of selfless service.

> The successful mastery of each level of consciousness or stage of development, involves two steps: (1) first, becoming aware of the emergent need and (2) next developing the skills that are necessary to satisfy the need.

When we first become aware of a need, we are generally unskilled at satisfying it – we are consciously incompetent. We know we don't know how to successfully manage the need. As we gain an understanding on how to manage the need, and develop the skills that are necessary to satisfy it, we become consciously competent. We know how to manage the need but we have to concentrate on what we need to do to satisfy it. Eventually, when we have developed the understanding and skills that are necessary to satisfy the need, we become unconsciously competent. It becomes second nature to us, like driving a car.

Learning how to manage our needs is a life-long process. Even when we have learned how to become the author of our own lives – to become a self-actualized individual – we will find situations arising where we discover that we still have limiting beliefs that keep us anchored in the lower levels of consciousness – situations that frustrate us or cause us to feel anxious and bring up our fears. It is vitally important, therefore, to develop a deep understanding of yourself and to learn the skills and techniques that allow you to manage your own transformation if you wish to find personal fulfillment in life.

Human Subtle Sensory Systems and Applied Kinesiology

The acupuncture meridian system, illustrated in Figure 4a, can act as a **superlative** antenna system in our biobodysuit for both transmitting and receiving information signals[10]. All that is necessary is a source of energy (EM for example) and a waveguide whose dimensions are first smaller and then finally larger than a half period length of the traveling wave. For a receiving antenna, one just needs to replace the energy source by a detector/amplifier system. The human body has this capacity in the autonomic nervous system (ANS) as a signal carrier, via both the sympathetic and parasympathetic branches of the ANS. This influences secretion, smooth muscle response, blood vessel response and electrocardiogram, heart rate variability, respiration, etc, responses. It also serves as an excellent waveguide via the myelin sheath surrounding each nerve axon to conduct traveling waves to a multitude of end points just under the surface of the skin (see Figure 4b[10])
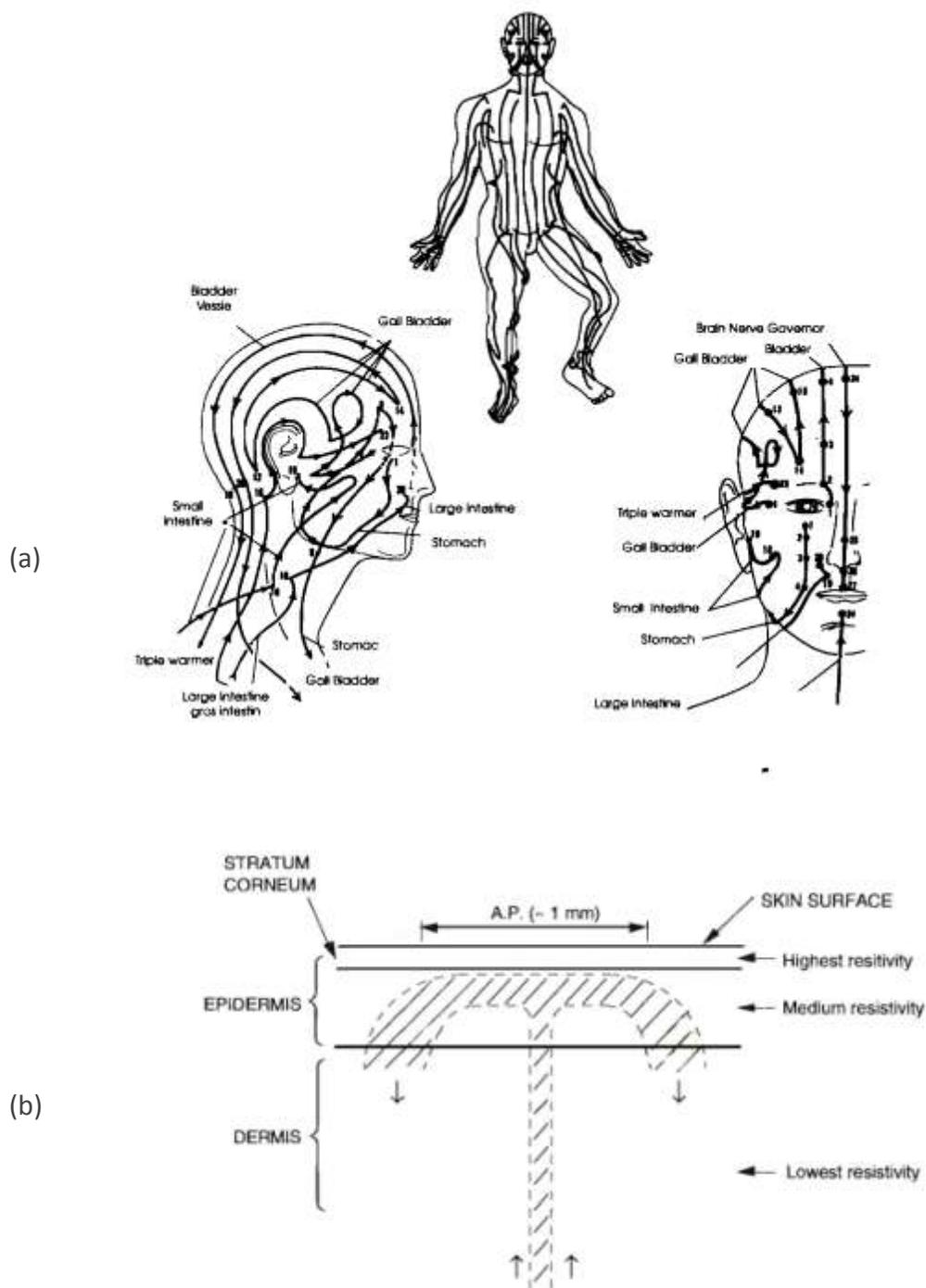
Figure 4. (a) Some meridian circuitry and some acupuncture points in the body. (b) Schematic illustration of ion pumping along the meridian locus via chi-induced AP-field followed by fountain-like broadening of excess ions at the skin surface. This broadening of the high conductivity zone at the A.P satisfies the conditions needed for antenna transmission/reception at the AP.

One set of antenna elements in the system is thought to be the acupuncture points (A.P.) of the body. Since these number in the thousands for a human, they would provide an exquisitely rich array with capabilities exceeding the most advanced radar system available in the world today. These sensitive points are coupled to the ANS via the fourteen known acupuncture meridians (see Figure 4a)[10].

It is well-known that an electrical resistance of about 50,000 ohms exists between any two A.P.s while, over the same length of normal skin, the equivalent resistance is a factor of ~20 times higher. Most of this resistance is in the outer surface layer of the skin called the "stratum corneum" (see Figure 4b). The A.P. resistivity changes strongly with a human's hynogogic state, increasing by a factor of ~2 x during sleep and, in the case of emotional excitation, the A.P.s have been observed to increase in area to the ~5mm^2 range (as revealed by the area of high electrical conductivity). The A.P.s appear to be situated in surface depressions located along the cleavage planes between two or more muscles (see Reference #10 for more details).

Some osteopaths and chiropractors have observed that distinct muscle reactions are found to be observed by placing small D.C. magnets over specific A.P.s. They have begun to use this technique to diagnose specific organ conditions and to treat various human ailments with the analgesic effects of D.C. magnets at A.P.s. It is the field of **Applied Kinesiology** that has done the most to evaluate **body function** through the dynamics of muscle testing[11]. It has been clinically found that structural, chemical and mental factors can be detrimental to muscle function. In applied kinesiology (AK), a clear association exists between specific muscle weakness and specific organ involvement. It appears that the human nervous system controls the strengthening and weakening of muscles in an organized manner. From AK studies, Goodheart[11] found that (a) when the energy level in a particular meridian was low, an associated muscle would test weak and (b) when the energy level was excessive, the muscle would test excessively strong.

Muscle proprioceptors are somatic sensory organs located at strategic points in the muscle to secure unique information to effectively bring about **cooperation** and **coordination** between muscles. For the proprioceptors and the interconnecting nerve network, it is physiologically necessary to consider **arrays** of several types of sensor endings **which act in concert** to provide information about the forces and influences acting upon a particular locality to be analyzed together in the central nervous system. The function of the neuromuscular spindles (a major part of the muscle proprioceptor) is entirely on a **subconscious level**, giving no **conscious** perception. They have both afferent and efferent nerve communication which proceeds to the spinal cord and cerebellum for control of the muscle in which they reside as well as for integration of the muscular system in general[11]. The foregoing is an important extension of the human "dowsing" response[12,13,14] which is also an **unconscious** human sensory response to operationally visible energy/information fields in nature!

As a type of closure to this second part, one must not neglect to mention the very important research in this area by John Diamond[15] who, among many other practitioners, showed kinesiology to be an important and reliable diagnostic technique for accurately monitoring a patient's response to treatment. Diamond[15] was a psychiatrist who used AK for diagnosing and treating psychiatric patients' in both

beneficial/adverse effects from psychological stimuli such as different art forms, music, voice modulations, emotions, stress, etc.

A Useful Scale for Measuring Human Consciousness

In David Hawkin's book "Power Versus Force"[16], he seriously utilized the experiment results of Diamond[15] and earlier authors[11] on the use of kinesiological investigations of human arm muscle responses to uniquely-phrased questions that required only a **yes** or a **no** answer. In this way, Hawkins firmly established AK as a useful tool for a beginning exploration of **human consciousness**!

Using this particular tool, Hawkins developed what he labeled as a "map of consciousness" via which he probed many hidden determinants of human behavior. In this way, he correlated well-defined behavioral qualities of humans on a numerical scale that ranged from 1 to 1000. Plotting these on a logarithmic scale to the base 10, (as in Weber and Fechner's classical law for ordinary physical sensations), he was able to encompass an extremely wide variety of human behaviors within this 3-decades-wide numerical range.

Hawkins[16] found that the kinesiological calibration of **200** was a unique transition point separating the power of human **courage** (200) from pride (175), anger (150), desire (125), fear (100), grief (75), apathy (50), guilt (30) and shame (20). He considered that, **all** levels **below** 200 were destructive to human life in both an individual and a society at large, and that **all** levels **above** 200 were constructive to human life. In particular, point 500 represents u**nconditional love**, point 600 represents **peace**, while points 700 to 1000 represent **enlightenment** (see Reference 16, Chapter 4)!

A Human Consciousness Raising Experiment Utilizing Both A Specific Intention Host Device (IHD) Broadcasting Tool plus the Hawkins Kinesiology Evaluation Tool

From the foregoing sections of this White Paper, one sees that humans are very malleable to change as they develop higher and higher levels of conscious intent in their lives. From References (17), (18) and (19), one learns that highly inner-self managed humans can utilize their focused intention to (1) modulate specific physical processes in nature, (2) imprint, from a deep meditative state, a simple electrical intention host device, (IHD) to robustly change the properties of materials; organic and inorganic plus in vitro and in vivo and (3) **broadcast** specific intentions via these IHDs simultaneously to both small or large groups of humans located anywhere on the earth using only their names and postal addresses being continuously scrolled through a computer in association with a specific activated and imprinted IHD[20] (See Figures 5 to 7).
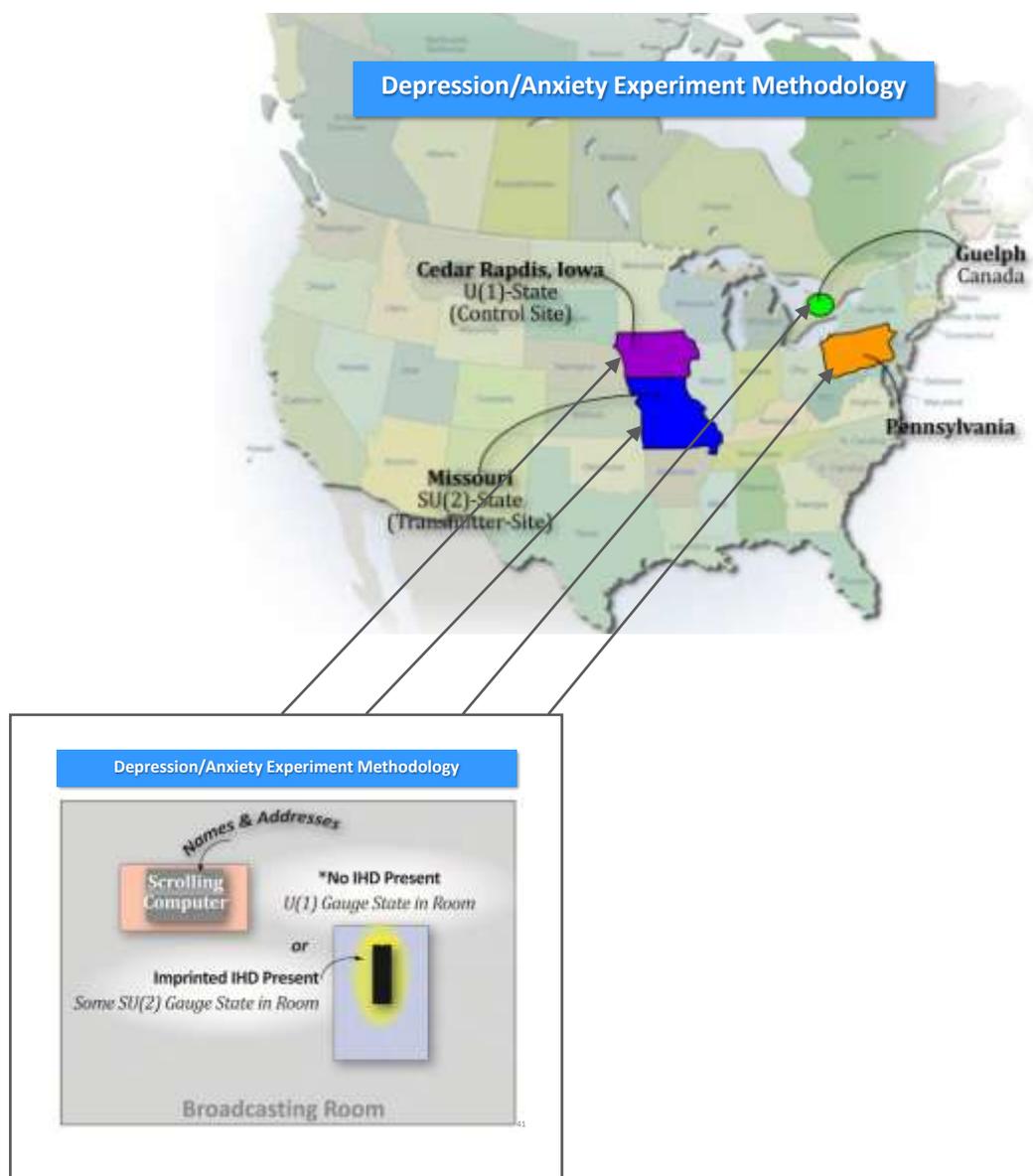
Figure 5. 2004-2005 Depression/Anxiety broadcast experiment map
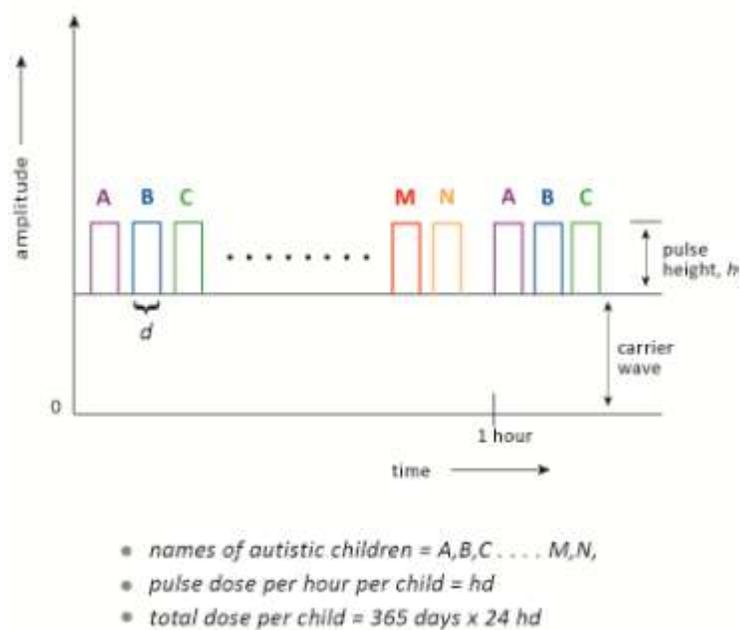
Figure 6. Broadcasting subtle energies concept

(a)
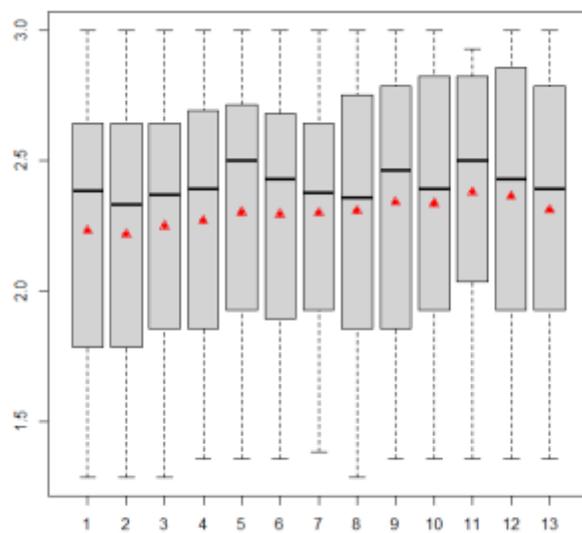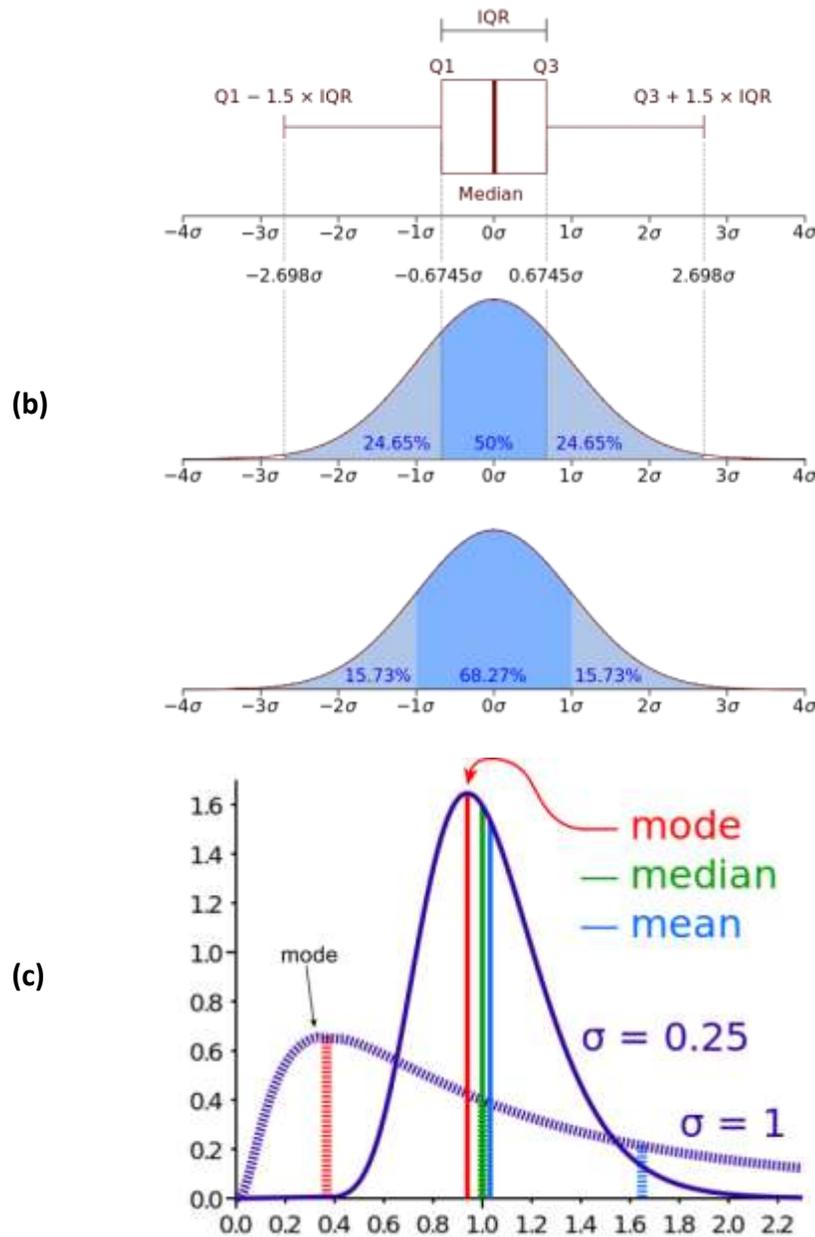
Figure 7. Examples from the Autism Broadcasting Experiment (a) box plot ATEK score vs. month, (b) relation between probability density function and box plot for a symmetrical distribution (normal population), (c) two log-normal distributions with very different skewness.

In the **simplest case**, where both the names and addresses of the participants being broadcast to are known, Table 3 and Figure 8a provide average monthly data from 02/01/2014 to 01/31/2015 for (a) α = the 48 autistic children currently enrolled in our autism broadcast program[20] and (b) β = the 58 parents of these particular autistic children participating in their Zung depression program. Figure 8b provides log (averages) ($\log_{10}(\alpha)$ and $\log_{10}(\beta)$) versus month for the same data.

Table 3, Average Consciousness Kinesiology Results for Autistic Children (α) and their parents (β)

Month	α-data	Log$_{10}$(α)	β-data	Log$_{10}$(β)	Probe
February	332	2.5211	378	2.5775	P
March	342	2.5340	367	2.5647	P
April	274	2.4378	373	2.5717	P
May	325	2.5119	333	2.5224	P
June	375	2.5740	380	2.5798	T
July	427	2.6304	404	2.6064	T
August	418	2.6212	417	2.6201	T
September	463	2.6656	437	2.6465	T
October	459	2.6618	451	2.6542	T
November	453	2.6562	444	2.6439	T
December	465	2.6675	461	2.6637	T
January 2015	462	2.6646	466	2.6684	T

Table 4, Average Consciousness Kinesiology Results for 33 Anomalous Humans in 33 of the U.S. 50 States (γ)

| Month	γ-data	Log$_{10}$(γ)	Probe	Comment
February	205	2.3118	T	
March	208	2.3181	T	
April	208	2.3181	T	
May	209	2.3202	T	
June *	375	2.5740	P	* T-Check, 313
July	373	2.5717	P	
August	357	2.5527	T	
September	369	2.5670	P	
October	374	2.5740	P	
November	356	2.5448	P	
December	374	2.5687	P	
January 2015	373	2.5717	P	
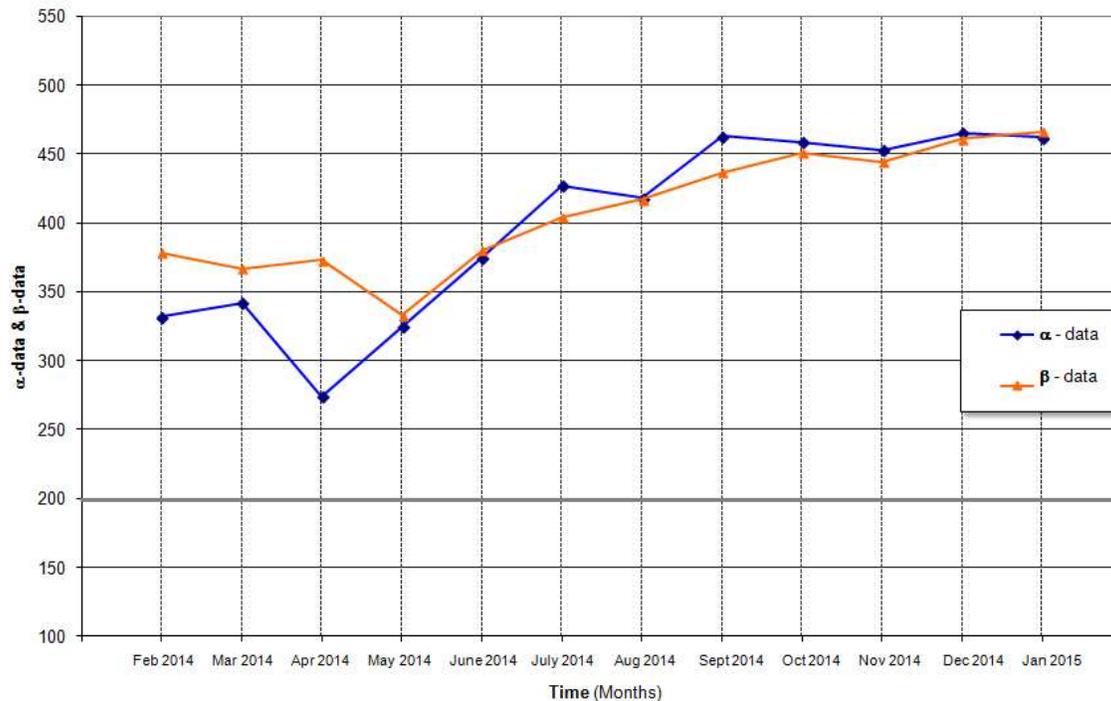
Figure 8a. Average consciousness kinesiology results for autistic children (α) and their parents (β), February 2014 – January 2015.
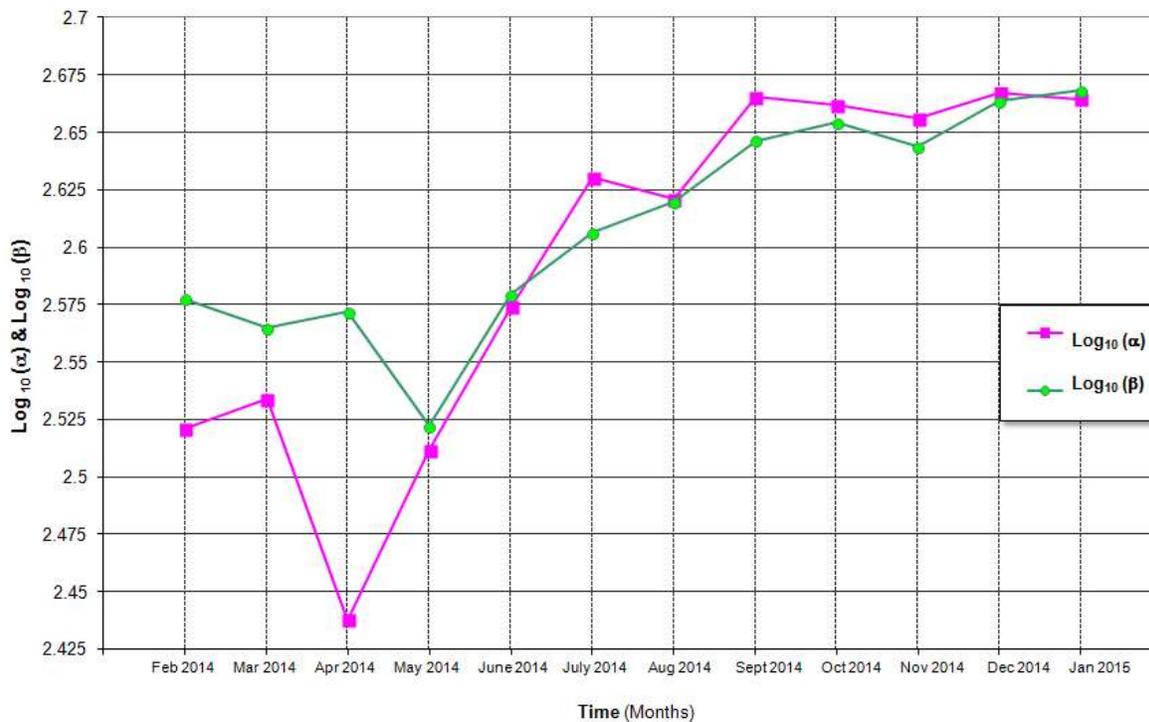

Figure 8b. Average log consciousness kinesiology results for autistic children (α) and their parents (β), February 2014 – January 2015.

In a more **complex case**, which has led to the Table 4 data, we are dealing with the growth of human consciousness in the world but with subjects for whom we know neither their name nor their address (we call them the anomalous group – γ).

We began this experiment by beginning with 33 **unidentified** humans, labeled as the γ-group, with one of them in each of 33 states out of the US's 50 states, however, we do not know which of the 50 states they are in. with only this meager identification, we utilize the **same** kinesiological data-gathering procedure to yield the group γ-data of Table 4.

The first average data-point of February 2014 for the 33 was found to be, **205**. This is interesting because, from David Hawkins' world-average data-point calculation of several years earlier was found to be **200**. He also found that this average-value changed at only about 5 points per **lifetime**.

Our subsequent monthly average changes for the γ-group were about 1 point per **month** average through May, 2014 (see Table 4). However, in June, the average number jumped to **375** (in the same range as found in Table 3)! I immediately suspected that something was seriously wrong with our data-gathering procedures and reversed the kinesiological probe humans assigned to the various groups; i.e., P took over the γ-group from T, while T took over the α and β groups from P. We found that the average data-values were relatively unchanged. Thus, the fault was **not** in the kinesiological testing technique, but in some other assumption we had inadvertently been making in our testing procedure.

On further reflection, we recalled that, in our previous IHD experiments, a state of **complete** "space-conditioning" required about 3 to 4 months to change the Gauge symmetry state to the SU(2) Gauge state[21]. At about the same time, one of our more sensitive group members had a **visualization**, like a nuclear explosion, wherein a vertical column of gaseous products rose high into the air over the detonation area and then spread out laterally like a **mushroom cloud**.

My interpretation of this particular insight was that, at a unique IHD space-conditioning **time**, the 33 anomalous, isolated active consciousness entities began to react (almost like a breeding reaction) on its own to increase the **number** of active consciousness entities as distinct from the initial level of 33 individual, specific, consciousness entities. For example, if we assumed that (a) active consciousness sites cannot grow at a rate of more than **1 point per month,** then the measured "June effect" indicates that 5472 consciousness sites are now active instead of only 33 and (b) that if active consciousness sites cannot grow at a rate of more than **0.1 point per month**, then the same "June effect" indicates that 54,720 consciousness sites are now active by the end of June.

Restating the foregoing in an attempt to clarify our present working hypothesis, let us presume that a consciousness level of 200 is somehow limited to a growth rate of about 1 point per year, but at a consciousness level of about 205 to 210, some type of consciousness **phase transition** occurs so that **these** transformed activated consciousness sites begin to **broadcast** an essential ingredient which quickly lifts those surrounding 200-point sites, into this unique phase transition range so that a rapidly propagating consciousness phase transition ensues in our world.

If this supposition is close to being correct, then our quantitative operational model needs to shift to a "source" driven, diffusion-fed, consciousness phase transformation concept.

It is possible to write down the second-order partial differential diffusion equation in distance and time which includes a term involving (1) an annihilation reaction which extracts laterally diffusing, consciousness-raising moieties from the mushroom cloud at some specific rate, (2) in the source-determined boundary condition, a supply of these consciousness-raising moieties at the IHD location of Payson, Arizona is such as to maintain their concentration at a constant value and (3) in the very far-field of the mushroom cloud diffusion front the concentration of this unique moiety drops to zero until this front meets its counterpart coming from the opposite direction.

An **analytical** solution to this diffusion problem is not practically possible because of the heterogeneous geometry involved (the presence of oceans, lakes, continents, etc). A numerical solution is potentially possible but it would be very expensive to do. However, there is a third approach which will be described and fulfilled late in 2015 as White Paper #XXXVII.

Some tentative observations from Table 3 and Figures 8, in comparison with some of David Hawkins' earlier conclusions[16] are:

1. The shape of the curves in Figure 8 do not support a logarithmic shape prediction for Hawkins'[16] "map of consciousness". Something closer to a linear shape is a closer fit with this data. However, the error bars for this data are too large to make firm conclusive statements at this time,

2. Although the Hawkins' data of Reference 16, at that time (1995) indicated about a 5-point differential change per average human lifetime in the world, Table 3 and Figures 8 indicate that about a 25-point shift per month scatter-band is a more realistic picture for autistic children and their parents in 2014 for the world and it is interesting to note that

3. Although the percentage of autistic children and their parents, who had attained a score at or above 500 (the unconditional love level) was 4% and 5%, respectively, in February 2014, this number had grown to 27% and 33% by January 2015 via use of this particular IHD broadcasting program!

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Addendum 1 to Free White Paper #XXXVI - The γ-Group Data

This Free White Paper is an extension of the Table 4 data (page 18 of #XXXVI) dealing with the anomalous humans (group-γ). It naturally extends paragraph 3 of page 21 of #XXXVI.

The basic idea here was to look at the adjacent states between Arizona (our IHD broadcasting state) and (1) the north-south direction states between Mexico and Canada, (2) the east-west direction states between the Pacific and Atlantic oceans and (3) all the secondary states in the continental U.S.A.

The anonymous γ-group activated the expanding cloud that extends beyond the borders of the continental US but will be left for another time. However, it is important to know that some of the humans in **all other continents** of our total world will be influenced by this particular Arizona IHD broadcast. In this addendum, **only** the average growth rate of γ-group human consciousness in the total continental US states between February, 2014 and February, 2015, are being considered. Thus, with **this** raw data, we are still unable to determine the **total** rate of supply **to the** γ-**group world** of consciousness-increasing stimulus from the Arizona IHD-broadcasting station.

Figure 1 lists the entire US continental states involved in this experiment. Arizona, Utah, Idaho and Montana with Mexico and Canada as boundaries are also involved in the purely north-south diffusion.

Figure 1. All first-order, *, and second-order, blank, diffusion-states in the US Continent.

California, Arizona, New Mexico, Texas, Louisiana, Mississippi, Alabama and Georgia are the purely east-west first-order diffusion states between the Pacific and Atlantic boundaries. All other states are presently considered as second-order diffusion states.

	Arizona	Utah	Montana	Wyoming	Idaho	California	Mexico	New Mexico	Texas	Louisiana	Mississippi	Alabama	Tennessee	Georgia	S Carolina	N Carolina
February	280	311	305	285	295	310	255	301	311	285	311	291	301	300	302	305
March	285	311	305	285	297	310	256	301	311	285	311	291	301	295	302	305
April	291	312	306	287	299	313	260	303	313	285	311	291	301	296	302	305
May	294	314	307	288	300	314	261	305	315	287	313	293	303	298	303	306
June	309	317	310	291	302	318	267	307	317	289	315	294	305	300	305	307
July	317	318	312	293	303	320	270	308	319	291	318	296	307	302	307	310
August	320	320	313	294	305	322	273	311	321	293	320	299	309	304	309	312
September	322	322	315	296	306	322	275	313	321	294	321	300	310	310	310	312
October	323	322	316	297	308	323	277	314	322	295	322	301	311	310	310	312
November	326	324	317	298	309	324	278	315	324	297	323	302	312	311	311	313
December	327	325	318	299	309	325	280	316	325	297	324	303	313	311	311	313
January	328	325	318	299	309	325	280	316	326	297	324	304	313	311	311	313
February	329	326	319	301	310	326	281	317	326	300	325	304	314	312	312	314
March	331	327	320	302	311	327	282	318	327	301	326	305	315	313	313	315
April	333	328	321	303	312	328	383	319	328	302	327	306	316	314	314	315
May	335	330	322	304	313	329	384	320	329	303	328	307	317	315	315	316
	55	19	17	19	18	19		19	18	18	17	16	16	15	13	11

Figure 2a

	Nevada	Oregon	Washington	Canada	Wyoming	Colorado	N Dakota	S Dakota	Oklahoma	Nebraska	Kansas	Minnesota	Iowa	Missouri	Arkansas	Virginia	Michigan
February	303	310	311	320	295	299	315	295	280	306	311	313	310	300	294	308	315
March	304	310	311	320	295	299	315	295	280	306	311	313	310	300	294	308	315
April	306	310	311	320	295	299	315	295	280	306	311	313	310	300	294	308	315
May	308	311	312	321	296	300	316	296	281	307	312	314	311	301	295	309	315
June	309	312	313	322	297	301	317	297	282	308	313	315	312	302	296	310	316
July	312	314	315	323	299	303	319	299	284	310	315	317	314	304	298	312	317
August	314	316	317	325	300	304	320	300	285	311	316	318	315	305	299	313	318
September	316	318	319	327	302	306	322	302	287	313	318	320	317	307	301	315	320
October	318	320	321	329	304	308	324	304	289	315	320	322	319	309	303	317	322
November	320	321	322	330	305	309	325	305	290	316	321	323	320	310	304	318	323
December	322	322	323	331	307	311	327	307	292	318	323	325	322	312	306	320	325
January	323	323	324	332	308	312	328	308	293	319	324	326	323	313	307	321	326
February	325	324	325	333	309	313	329	309	294	320	325	327	324	314	308	322	327
March	327	325	326	334	310	314	330	310	295	321	326	328	325	315	309	323	328
April	329	327	328	336	312	316	332	312	297	323	328	330	327	317	311	325	330
May	330	328	329	337	313	317	333	313	298	324	329	331	328	318	312	326	331
	27	18	18	17	18	18	18	18	18	18	18	18	18	18	18	18	16

Figure 2b

	Kentucky	Illinois	Indiana	Ohio	West Virginia	Maryland	Pennsylvania	New York	Massachusetts	New Hampshire	Vermont	Connecticut	Maine	Delaware	Florida	Wisconsin
February	305	302	308	315	302	302	306	308	305	310	308	309	310	310	295	303
March	305	302	308	315	302	302	306	308	305	310	308	309	310	310	295	303
April	305	302	308	315	302	302	306	308	305	310	308	309	310	310	295	303
May	307	304	310	317	304	304	308	310	307	312	310	311	312	312	297	305
June	308	305	311	318	305	305	309	311	308	313	311	312	313	313	298	306
July	310	307	313	320	307	307	311	313	310	315	313	314	315	315	300	308
August	311	308	314	321	308	308	312	314	311	316	314	315	316	316	301	309
September	312	309	315	322	309	309	313	315	312	317	315	316	317	317	302	310
October	314	311	317	324	311	311	315	317	314	319	317	318	319	319	304	312
November	315	312	318	325	312	312	316	318	315	320	318	319	320	320	305	313
December	316	313	319	326	313	313	317	319	316	321	319	320	321	321	306	314
January	318	315	321	328	315	315	319	321	318	323	321	322	323	323	308	316
February	320	317	323	330	317	317	321	323	320	325	323	324	325	325	310	318
March	321	318	324	331	318	318	322	324	321	326	324	325	326	326	311	319
April	323	320	326	333	320	320	324	326	323	328	326	327	328	328	313	321
May	324	321	327	334	321	321	325	327	324	329	327	328	329	329	314	322
	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19

Figure 2c

Figures 2a, 2b and 2c and provide first-order and second-order diffusion state, γ-group, data for the entire continental US diffusion-states from February, 2014 to May, 2015. It is perhaps interesting to note that (1) for February, 2014, in the north-south direction, Mexico is the lowest while Canada is the highest. (2) For February 2014, in the east-west direction, North Dakota, Michigan and Ohio are highest while Arizona is the lowest. Not surprisingly, (3) by May 2015, Arizona had caught up with all the other states ($\Delta = 55c^*$ points) since it is the IHD diffusion-source state. What is perhaps surprising is that (4) by May 2015, almost all states in the continental US states had increased by 19 c^* points.

Although different states have different populations, and one might think that the foregoing group-y data is somehow related to the state-x population and, for a nation of about 320 million people, the foregoing data means that the continental US human consciousness has increased via this experiment by almost $320 \times 10^6 \times 19 \sim 5$ billion c^* points. However, this is probably an incorrect assumption when we think of the effect of Germany's Hitler in the 1920s to 1940s and (2) the effect of white/black racial hatred in x-states like Mississippi during the 1900s. Reflections of this sort help us to realize that these c^*-changes involve factors well beyond individual human effects. Much new work will be required to sort out such factors that govern the **statistical ensemble distribution** for nations and worlds.

As a small step towards reaching such a goal, let us review pages 3 to 11 of White Paper #XXXVI.