

Dr. ADRIAN KLEIN, Ph.D.

THE REINCARNATION PROCESS

A SCIENTIFIC PERSPECTIVE



PUBLISHING HOUSE POD LTD.

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Tel Aviv
2020

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Publishing House POD Ltd.

Cover design: EIC Garus

Printing: McANATICULA

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A VERY FEW INTRODUCTORY WORDS OF THE AUTHOR

Let's put it straight forward:

I am nothing of a physicist, a biologist or a geneticist. Therefore experts in these domains may find many weak points in my exposition, and I would highly appreciate any CONSTRUCTIVE criticism if addressing such topics.

Nevertheless, I have some formal education in medicine, cognitive neuropsychology and metaphysical sciences, attested by the Ph.D.s I've earned in these branches of scientific profile.

The topic addressed in this work requires from the readers some background formal education. At the same time, they are expected to read this work with an open mind, as it might seem to have still many controversial concepts if seen from the perspective of current mainstream materialistic thinking.

Yes, it is a piece of post-materialistic scientific orientation superposed upon last-minute acquisitions of conventional research protocols. Being fully aware of the conceptual jump in both materialistic and post-materialistic thinking pathways, I've did my best to offer our readers a thorough chance to get familiarised with an „out-of-box” paradigmatic perspective, before immersing them in the depth of our main topic. This wide attempt runs along many chapters and is inspired from some of our past publications and lectures at high-level international conferences. My hope is that reaching the main topic in the book's last chapters, our readers would be already prepared, and the conjectures suggested in them would be more easily assimilated.

The topic we address here is at the very edge of parapsychology and even of its conjectural acceptance of the survival hypothesis as a valid topic for scientific inquiry. I've had many opportunities to achieve certainty of the Ego's survival after the biological death of its physical body – in my capacity as coordinator INIT (International network for instrumental transcommunication), which before dissolving had as affiliates individuals with high scientific credentials from 42 countries – besides my private enormously successful experimentation.

But limiting myself to this experimental line became unacceptable for me. Reaching my conviction in the survival of personality after its disconnection from the brain's quantum sufficiency, I felt the irresistible urge to understand the HOW and WHY of this highly elusive truth. Therefore I've turned to explore the theoretic aspects related to my field of interest during the last 60 years of my life. Progressing in my study, I've reached a stage where addressing reincarnation became inevitable. This work reflects my humble attempt to suggest one of possibly many tracks able to lead toward a scientifically acceptable hypothesis regarding the mechanism of the Self's reembodiment in the physical world of matter/energy.

My concept is based upon both, the new Subquantum physics as well as the time-symmetry derived from Cramer's transactional interpretation of Quantum Mechanics. A priority reading of the Annex at the end of this book would be a good Idea for getting more familiarized with these novel perspectives. It is the lecture I've delivered at the second „Science and Scientist“ Conference in Bangalore, India, 2017.

Allow me to repeat my sincere desire for constructive comments for any of the book's different chapters. My e-mail: a0544636651@outlook.com.

At the same time, please **categorically refrain** from any criticism originating in mainstream materialistic dogmas. Such remarks would be neither be considered nor replied.

Thank you for your time invested in reading this pioneering work.



Dr. Robert Neil Boyd, Ph.D.

SPECIAL ACKNOWLEDGEMENT

For this chapter (and some further fragments of similar conceptual content) the author's grateful thanks go to his close collaborator and friend, Dr, Robert Neil Boyd, Ph.D. - eminent American quantum physicist, for more than a decade of sustained joint efforts done in exploring hitherto uncharted waters of edge-science, a work that offered at last a reliable compass for this first navigating challenge toward a more accurate understanding of the human being's hyperdimensional Informational essence and its cyclic projection into our well-known physical reality. Some if not most of the stuff hereby disclosed is inspired from previous lectures and publications we signed together.

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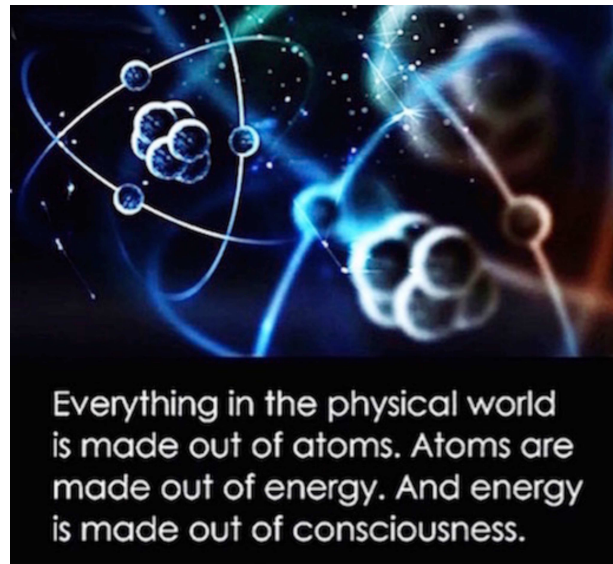
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TOWARD A NEW SUB-QUANTUM APPROACH IN SCIENCES



Source: <https://themindsjournal.com/everything-physical-world-made-energy/>

I-1. THE SUB-QUANTUM REGIME — *Shifting away from mainstream paradigmatic worldview. — Matter, energy and information brought to a common denominator. — The Sub-quantum approach and a fundamentally information-driven reality. — Sequential orders of subtleness. — Space/Time and consciousness. — Mind/Brain interaction in the Sub-quantum paradigm. — Legitimacy of "paranormal" phenomena. — Philosophical implications of the Sub-quantum integration model for consciousness studies.*

Recent experimental results have proved intractable to explanation by resorting to existing physics paradigms. This fact, along with certain fallacies inherent in mainstream physical-cognitive theories of mind, have encouraged us to transcend the currently operative limits of investigation, thus to explore the abyssal depth of the still uncharted, but highly rewarding, Sub-quantum regimes. The Sub-quantum is herein assumed to co-existentially accommodate proto-units for matter, energy and Information, which are thereby brought onto an equal ontological footing, in the Sub-quantum domains.

Devolving its argumentation and orientation from the Nobel Prize winning Fractional Quantum Hall Effect, which opened the perspective toward a further divisibility of the Quantum domain, hitherto considered as an irreducibly fundamental description of nature, our hereby proposed inter-theoretic model (first proposed at the Salzburg International "Quantum mind" and Budapest "JCS" Conferences, 2007) claims to satisfy advanced scientific and philosophic requests as reformulated for a conceptually new working hypotheses. Sub-quantum potentials evolving in the Prime Radiation Matrix result in organizing functions able to interfere with classical local determinacy chains, operating at the Quantum levels of randomness inherent in space-time-like matter configurations, leading to highly complex representational patterns, linked to their phenomenal correlates in macroscopically detectable systems. Our model has been proposed as one strongly rooted in an overwhelming experimental evidence derived from multidisciplinary contexts of scholarly pursued exploration tracks.

Our basic understanding identifies the Quantum Potential (Quantum Field Theory) as a superluminal Sub quantum Information-carrying aether able to interact with matter and physical forces at well defined Space-time positions injecting their Information content into our world of observables by modulating the event potential. This interaction is possible as soon as matter is defined by an n-degree entanglement state of SQ complexity. Absolute void refers to lack of matter which equals to a space-time sequence contending Information in its nascent, non-aggregative form (the Sub-quantum plenum) as observed from our Space-Time perspective. It contains implicated layers of increasingly subtle pre-quantum domains, which each one at its manifestation range may be organized in complete worlds of the kind our own is, each one of them ranging till its own "absolute void" as transition state to the next implication level of reality.

Introducing a quite innovative approach to the most controversial nature of Brain/Mind interaction, the pre-quantum tenets rely upon experimentally testable assessments. Our concept has a strong outreach into unprecedented explanatory options for anomalous output data distribution in non-conventional exploration fields, whose statistically significant results become logically integrated into epistemologically sustainable blueprints.

Constructively debating reasoning tracks suggested by eminent scholars with most impressive credentials, we emphatically challenge the current paradigmatic tenets that are obviously inspiring endless sterile controversies disseminated in widely accessible and mass-media supported literature. We have to persuasively reverse misleading ontological tendencies relying upon their disqualified metaphysical backgrounds by asserting an upside-down epistemological approach for the primary determinism that Information structures have upon their physical counterparts.

The novel views here introduces are perfectly consistent both with conventional empirical treatment of space-time defying representational variables, and their causal primacy upon Quantum implementation systems of their content, in the integral range of their polyvalent manifestation. Detailed descriptions of mind/matter entanglement patterns will be supplied, as running in the holistic superimplicative sentient reality domains, under the overarching regulation of Cosmic Harmony, underpinning a continuous creation cosmogenetic process.

As our analysis addresses a pre-temporal range, the thus defined endless time vector allows ab-initio existing inherent resonance links in any SQ subtlety domain to turn into fluxes and organization effects leading to sequential entelechial self-contended worlds. These primeval harmonic SQ resonances are the very pattern of our overarching cosmic harmony just mentioned, the source of all conceivable manifestation and interconnectedness.

At Lebedev University in Russia, there arose a series of experiments by Gariaev et al., which proved that the vacuum has a memory. This vacuum memory appears to be holographic in form, supporting K. Pribram's holographic model for the human memory, as obtained from neurological studies. It's not widely known that these vacuum memory results were replicated at Heart Math Institute in Arizona, again proving that vacuum has a memory of the physical states which arise in a given volume. Subsequently, a member of Gariaev's Lebedev team went to China, where he succeeded in utilizing the memory capability of the vacuum to cause a chicken to turn partly into a duck. The chicken, in this experiment, after exposure to the vacuum memory, had its beak turn into a duck-bill, and grew webbed feet. Remarkably, all of this chicken's offspring came into the world with duck bills and webbed

feet. From these results, Gariaev and his team in Canada were able to succeed in turning a salamander completely into a frog, by similar methods. Gariaev and his team have recently succeeded in causing the regeneration of missing or destroyed pancreatic organs in laboratory mice, by related techniques. Gariaev's team has also, by similar means, caused the regrowth of a missing tooth for a gentleman volunteer, who was missing that particular tooth. Related to these results, Shpilman and Boyd succeeded in copying the information of alcohol into water. Consuming quantities of this treated water results in a condition analogous to inebriation, but without any resultant "hangover". Recent experimental results by Hu and Wu, et.al., have proved variations in the measured weight of instrumented objects, across large spans of distance, by similar methodology. As remarkable as all these irrefutable experimental results have been, within the confines of our well-known and standard physical treatments, there is no viable explanation for any of these experimental results.

Unfortunately, the very limited effective range of the spin-spin interactions evoked by the aforementioned experimental team requires for a more consistent explanatory attempt, just as their quantum entanglement model that fails as per Eberhard's proof. The Sub-quantum interpretation for the Hu/Wu experimental results circumvents the aforementioned deadlocks, while referring to them as a strong experimental evidence for its own claims.

We have determined that the common theme in these empirical results, is one of information, and information transport. What is urgently needed, is to understand the actual mechanisms of information storage and information transport, as related to these experiments, and as related to consciousness.

The new approach to sentient information processing systems comes as an attempt to reformulate prevailing representations of reality, addressing fundamentally irresolvable topics within classical scientific criteria, while suggesting a seminal rendition of a new general interpretation devolved from late developments in Physics, neurosciences and cognitive research. It tries to satisfactorily cover seemingly disparate aspects of reality, in a quite consistent picture, somewhat contrary to colloquial scientific knowledge, nevertheless reaching out far beyond currently accepted limits into the wide array of

seemingly anomalous phenomena which are brought into the normal range of validation in this new ontological system. Hoping to provide incremental understanding for them, we intend to challenge their biased exclusion from established channels of scholarly dissemination. We are refraining from addressing a rigid preconceived matrix of questions, which at this early stage of understanding might lead to delusional data interpretation.

The novel basic assumptions unfold both from traditional knowledge with deep historical roots as well as from leading edge theoretic and experimental data lately supplied by individuals bearing impressive scientific or philosophic credentials. We owe a deep gratitude for their work and their personal help in our decision of challenging the mainstream paradigmatic views regarding the fundamental nature of reality. In the form they are now, the various sciences have dogmatically perpetuated, and forced upon the community, ontologically incompatible concepts, which furthermore prevent any real progress. As we hope to persuasively assess, Information processing systems work far beyond the outreach of currently accepted conceptual limits, where relativistic constraints contradict basic Quantum Mechanical principles while mezocosmic reality escapes the explanatory range of both.

We have found at last in the depth of the pre-quantum realms, the target of our investigations, a useful preliminary mapping for the shared underlying reality of matter, energy and Information structures, which expectedly will provide a more useful investigation tool for further scholarly quests for the truth.

A few years ago, Nobel prize winners in Physics, H. Stormer, D. Tsui and R. Laughlin discovered a new form of quantum fluid with fractionally charged excitations, known to physicists as the Fractional Quantum Hall Effect. It opened the door toward an infinite divisibility of the Quantum parameters beyond the Planck limits, down into the fundamental constituent entities of reality as a whole. These results, which proved the existence of the Sub-quantum, had previously been pointed to by the works of Bohm, DeBroglie, Kaniadakis, Krasnoholovets, Soucek, Valentini, and others.

The domain of Sub-quantum infinitesimals is coupled to the absolute void, the primary

source of virtual potentials for manifestation. The existence of a Sub-quantum reality was long ago postulated by proponents of ether-related cosmology. The concept can also be traced back to the concept of the "Bhutattmas", the infinitesimals of the Vedic tradition, described in terms strongly analogous to our own concept of Sub-quantum entities.

Unfortunately for the development of scientific knowledge, this kind of view was for a long time discredited, due to interpretations of relativity theory which did not appear to require any particulate vacuum medium (aether), while the null results of the Michealson-Morely experiment seemed to mitigate against the static model of aether, and its being entrained by the motion of the planet. Eventually the null result of the Michaelson-Morely experiment resulted in the abandonment of all types of aether models. Whittaker (1951) shows how all aether models were replaced by appealing to Quantum models, evolving along mainly counterintuitive and paradoxical tracks.

For example, to simply say that there exists a quantum potential, is an insufficient explanation. What is the quantum potential, actually? Why is there a quantum potential? How does the quantum potential manage to do all that it observably does, especially with regard to information transport? How can it be that the quantum potential observably acts superluminally, experimentally falsifying the "sacredness" of relativity theory? As we know, non-locality has been irrefutably proved by a variety of experimental evidences, the most recent of which were the Hu and Wu (2002) experiments. We know, based on experiment, that information can pass non-locally through space, and across time to influence our observable world directly, without violating causational orderings, by way of the quantum potential. The quantum potential is actually detailed in both mechanism, and form, by the Sub-quantum model, which relies on Superluminal Sub-quantum Information-Carrying Entities. This model accounts for all the known and mysterious properties of the quantum information field.

The Sub-quantum plenum is a motional, active, aether-like media having characteristics of an exceedingly fine gas composed of infinitesimals with superfluidic properties, and/or the properties of a perfect fluid, which infinitesimals have inherent abilities to both store, and transport information, superluminally. The high mobility of these infinitesimals and the

sometimes superluminal intrinsic velocities which can be developed by these particles is important to our understandings. Viewed as a gas, this gas is considered inherently inert, while its high mobility and small size can make it hard to detect, especially since such small particles would rarely interact with existing matter, somewhat similar in this regard to the transparency to matter associated with various difficulties associated with the detection of neutrinos. These Sub-quantum superluminal information transport expressions, answer directly, all of the questions regarding the how, the why, and the what, of the quantum potential.

According to the currently re-awakening Sub-quantum view, at the background of all manifestation there is a universal fundamental media of primary entities displaying an omnidirectional complex vector inside an infinity frequency range. They are embedded in Bayers' fundamental pre-energetic Prime Radiation Spectra and are able to propagate at any velocity ranging from zero up to superluminal and infinite values, existing and operating beyond the Planck limits, where relativistic and Quantum constraints break down.

The experimental evidence for superluminal velocities is amply supplied in the Cherenkov radiation, the Podkletnov's gravity-like beam measurements, the experiments of Alan Aspect and other similar demonstrations of the fact of quantum nonlocality. (In recent results from Podkletnov (2001), light from a laser was carried out of its expected path by the gravity-like output beam of his apparatus, to be deposited far away from the original expected ray-trace, perpendicularly, along the line of the gravity-like beam. Such events were subsequently used in measurements which demonstrated the superluminal propagation velocity of the gravity-like beam emanating from the apparatus.)

Sub-quantum Information carrier systems operating below the lightspeed value may complement the aforementioned explanatory background involving strong analogies to pertinent data metaphorically quoted from classical gas and fluid dynamical analysis, as well as specific combinations of symmetries and resonances supplied by the Fermi-Pasta-Ulam lattice Hamiltonian.

It is suggested that the SQ domain displays a multi-layered telescopic structure of sequential orders of subtleness. For descriptive convenience, such a fundamental pattern can be referred to in terms of an infinite dimensional manifold, closed upon itself in a self-consistent loop, able to accommodate a holographic Information flux network of infinite complexity. This endless repetitive matrix of serial interconnected but parametrically definable pre-quantum domains, allow ascribing to each one of its constituent ranges of manifestation, a hyper dimensional structure reflecting their fundamental embedding implication system. There is also the possibility that the SQ particles themselves may actually be hyperdimensional objects, so as to further account for the fact that the “vacuum” has a memory which records information regarding all events and forces in the environment, as experienced by the Sub-quantum particle, which memory was first reported by DePalma (1991).

The universal character of sentient reality expressing itself at the integral range of conceivable manifestation regimes is a direct result of the Sub-quantum holographic matrix of Information storage and propagation, embedded, as just mentioned, in the primary radiation matrix. As just argued, it can suggest a hyperdimensional extension of SQ entities themselves. This assumption is strongly supported by the Hut-Shepard polidimensional manifold proposal which includes sentience as a third reference coordinate of reality, beyond space and time) as is the comprehensive work done by Prof. V. Neppe & E. Close related to a similar 9D frame of universal reference. The concept has been nevertheless proposed for the first time by the author of this book back in 1990, recently published in Bucharest (*The Polidimensional Holistic Paradigm*, 2019). It may be expressed also in a more formalistic way by a mathematically acceptable organizing function that operates upon the n-dimensional Hilbert space of Quantum physics. This interpretation relies on a statistically compulsive unfolding in the regimes of information transport, able to associate incremental information density and complexity patterns.

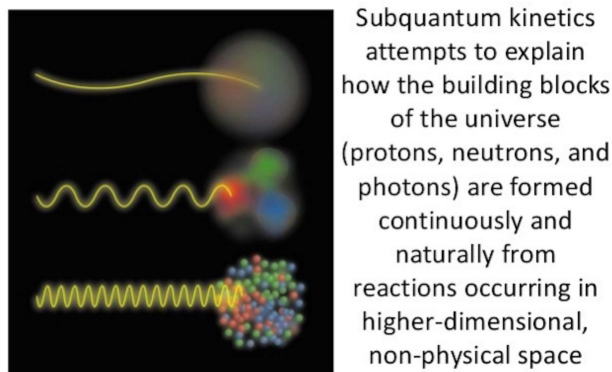
Space may not be detected in the awareness field, neither in the Euclidian sense, nor in any other sense. The spatial aspects of direct perception are derived entirely from outside the conscious domain itself. However, in perception processes, mental structures may become

entangled with spatial representations, coupled to the processed external stimuli. Any conceivable contention or extension of the mind is excluded by its fundamentally pre-space-time Sub quantum nature.

Moreover, there can exist in the Consciousness experiences of spaciousness, which do not arise as the result of mental correlations with physically perceptible structures. Such direct, physically uncorrelatable experiences arise as the result of the ether-information flows, which are available directly to the Consciousness, at every instant, regardless of the physical limitations of the perceptive apparatus relative to the immediate surroundings. Such perceptive incidents are commonly classified as "paranormal" or even delusional. This is because, drastic conceptual limitations regarding our understandings of such events, have been imposed on our reasoning by the existing dogmas and commonly accepted paradigms of the cumulative and colloquial sciences. In other words, the commonly held and unfortunate idea that some amazing intrinsic abilities of Consciousness may be misleadingly labeled as anomalous ones, is the result of hundreds of years of attempts to exclude Consciousness entirely from the sciences, resulting in exponential accumulations of error, arising from the various built-in indoctrinating dogmas and unfounded historical assumptions of the sciences, regarding the fundamental nature of reality, which assumptions are entirely wrong, and provably so. Asomal self-conscious structures are able both to accede Information that is not physically originated in the conventional sense, and to convey it efficiently to neurally connected ones, as amply documented in ADC literature items of different kinds piled up during the last few decades.

Conformal gravitonic Information carrier systems operating across the Bergson-Shilov classical interdimensional boundaries may be invoked by representatives of more conservative minded scholars for modeling the Sub-quantum/Quantum interface of the ontological junction between essentially cognitive and essentially energetic regimes. Information propagated across Space and Time results in a fundamentally sentient Quantum behavior, implementing Bohm's implicate cosmic order.

Subquantum kinetics



Source: <https://www.slideshare.net/SaigonNewEnergyGroup/new-energy-part-3-the-science-Sub-quantum-kinetics/7>

The information density present in resonant networks can influence the Quantum potential to evolve along selective tracks according to their Informational circumstances, thus shifting some SQ species away from the more undifferentiated underlying group behavior.

These networks may operate informatically, coupling successive layers of Dirac's invariant stochastic SQ "aether". This coupling process occurs along a transentelestial syntropic gradient by temporal symmetry, displaying the ability of preserving coherence over extended ST spans thus underpinning Quantum resonant entanglement distribution vectors. As A. Detela suggests, SQ toroidal knots of increasing complexity have a stabilizing effect (along an evolutionary line) by superposition of nonlocal states, defining Information-charged morphogenic fields, able to interact with the molecular structure of biosystems. Also, it is well known that variations in gravitational flux result in variations in the resistivity of carbon, which results direct influences on biological systems.

The all-pervading Informational systems are obviously involved with all forms of Life and Consciousness, extending beyond the Quantum-related energy domains into basic interference patterns inside the pre-energetic Prime Radiation spectra. The SQ domain works as an efficient storage and transportation media for the holographic super implicated orders of Universal sentience, far beyond the space-time or Quantum constraints that are

seen as its ancillary emergent features. Sub quantum units are constantly radiated and absorbed by normal matter in a ceaseless Information exchange which steers Quantum observables into manifestation. The energy content in this entropically open system, results from the motions of SQ entities, reflecting in their own existential regime the essence of the Cosmic Harmony thus embedded and physically conveyed throughout the Universe by the prequantal Information-charged flows. These are affecting Quantum behavior from outside the system per para-holographical resonances. Hence energy and Information have to be approached on different ontological lines as fundamental aspects of reality.

Energy and matter in the Sub quantum regime yield the huge random space-time curvatures at the Planck scale (the "Quantum foam"), which, under the effect of the SQ-mediated and stored sentient functions are able to modulate along purposeful selective resonance blueprints of metastable Information structures, carried at superluminal velocity toward replicable Quantum fields of increasing complexity. This process is amply documented in Gariaev's recent perplexing nonlocal biophotonic genetic regulation experiments resulting in the by now famous DNA Phantom effect, as well as in the Kaznacheyev Mirror Cytopathogenetic Effect or C. Backster's elusive nonlocal death signals, where causation of Informational consistency couples to locally active physical deterministic chains.

Quantum-coherent organizing interaction functions compete with Quantum-decoherent random ones and affect any given Quantum system via a set of basic properties of Information structures defined in our analogical terminology as Intensity (SQ density index), Complexity, Coherence, Content and Intent.

We ascribe a most salient role to these parametric values in our new Brain/Mind paradigm, involving a transient Sub quantum holographic interactiveness that affects the Quantum critical brain in the neuro-cybernetically connected mode of self-conscious manifestation. This thesis has to be brought into analogical alignment with the originating SQ source, that is granted the ontological proactive role in this interaction.

From a physical perspective, the implicating potential of sentient SQ flux systems operates

by the fundamental homogenous transmission medium invoked in recent explanatory attempts for Ken Shoulder's Exotic Vacuum Objects (EVO) or R. M. Kiehn's (2006) nanometer vorticity distribution patterns. Aether-bound information flow as self-consistent ontological system was experimentally proved by biasing the SQ "Potentum" (J. Firmage) with an asymmetrical charge distribution - be it done by fast explosive electrical discharge applied in high voltage environment or keeping EVO in EM field-free space - which will result in an EVO charge variation gradient reflecting the Information flux potential decoupled from any background of classical matter.

Hence, the self-conscious structure's natural ability to preserve its total cognitive complexity range in its own SQ regime, after decoupling from physical brain's coherence range, and after recoupling to it during the metempsychotic cycling in order to gain further experiential increase. A similar explanatory track would describe its instrumentable quantum modulating efficiencies on non-linear, chaotic, or random systems, resulting in orderings thereof.

It has frequently been suggested that the global coherence, the threshold effects, and the binding properties of the brain, are consistent with classical nonlinear dynamics rather than nonlinear Quantum Mechanical theories. This view obviously overlooks that Quantum Mechanics consists not only of the mechanical processes expressed by the Schrodinger equations, but includes a fundamental experiential aspect of nature which needs to be brought into alignment with the physical part of the theory. The actualization of physical states derives from the actualization of experiential components that have a clear-cut determinacy upon the selective orientation of the Quantum Event Potential toward the implementation of singular sequences of events guided by higher-order implication levels.

Elementary bioexcitations may thus condense into macroscopic Quantum effects resulting in Quantum actualizations of experiential structures as a fundamental process occurring in the Hilbert space, in which the Quantum analogue of matter, and analogous phase-states of quantum matter, become statistically observable in quantum systems, especially over larger spans of time.

The brain's physiological insufficiency vs. its information processing capacity enables experiential patterns to select preferential pathways for the implementation of a given cognitive event. This choice between macroscopically distinct alternatives, such as neural firing/not firing, can be interpreted only by space-time transcending actions. Obviously, this global process can't be described as localized inside the brain or physical body, but arise in the extended Informational space that implies both of them.

Modular space-time dependent cortical distribution blueprints of Quantum-triggered action potentials enter infinitely complex interference patterns in Brain along ipsilateral and contra hemispheric callosal connectivity pathways. Nevertheless, neurophysiologic evidence shows that detection of retinal stimuli arriving to a damaged spot of primary visual cortex via Lateral Geniculate Nucleum can scarcely be ascribed to extrastriate bypass afferences toward the inferior temporal and parietal lobules, as these alternative tracks are not supporting visual awareness in the absence of the striate primary cortex contribution. Residual performance in blind sight cases is strongly suggestive for a direct Sub quantum bypass operating beyond the routine Quantum mediation that is disabled by the damaged brain tissue.

Similar SQ-mediated bypass events may be fairly recognized in extrasensory or asomal perceptual modes, where damping neurotransmission processes "normally" leading to quantum superposition states of cognitive templates are excluded. Contradicting current dogmatic assumptions, Qualia are to be seen neither identical nor epiphenomenal to neural states. They represent rather experiential units in the Sub quantum mind.

According to most recent studies, the synaptic application of the output of a bi-neuronal set upon a third neuroceptor unit is modulated by intermediate Quantum noise superposition of stochastic resonance that may affect the synaptic time constant. Moreover, recent neurophysiologic findings suggest that increased activation of specific neural correlates of attention, sensory processing and sensitivity to stimulation originating within the body may alter key electrical impulses within the brain, thus resulting in altering the rate of age-related brain deterioration (Lazar, S.).

Facial recognition performance in low-level neural equipment of invertebrate bio-systems (bees) reported by G. Dyer's as a result of methodologically valid experimental protocols point to a neural spatial pattern-detecting representational process bypassing hitherto held assumptions related to a required involvement of the fusiform gyrus in this particular processing event. Similar findings regarding paraneural complex signal processing and transference abilities in ants were reported by T. Richardson.

In all the above mentioned randomly selected examples, Quantum event potentials of sentient SQ determination are causally implied in the physiological efficiency of neural systems, strongly supporting our ontological reversal of determinacy in favor of Information control upon Brain vs. mass/energy origination of consciousness.

Neural network-related components of cognition are proved to have an increasingly low-level causal significance, paving the way for our ontological reversal of causal primacy that is still finding wide academic preference based on false theoretic assumptions and subsequently misleading biased interpretations of experimental results.

Quantum mechanical states of brain are able to react both to Sub quantum originated cognitive modulators as well as to Qualia of environmental origin.

The local Quantum indeterminism, in our view, is fundamentally a misnomer, as it favors a "blind chance" interpretation for basically Information-controlled systems.

The Heisenberg choice leads to a specific Dirac response reflecting a selection of a higher implicate order acting upon the already inherent information content of the quantally perceived superposition states. Nonlinearities and deviations from the expectancy output values unfolding from hidden Sub quantum variables and organizations basically defining the system result in a secondary statistical effect rather than expressing a misleading underlying uncertainty-bound random non-determinacy (Boyd, R. N.).

Both the hitherto misinterpreted quantum-uncertainty data (Boyd, R. N., Dehmelt, H.) and H. Stapp's action-template superposition states reduced by the Dirac response originating in higher control levels of Information content are to be seen as sequential organizing

effects run and made possible in principle by the active Information inherent in the system's deterministically changing Quantum states, pointing toward the collapse of the probability spectra describing the system's concrete manifestation at different points in time. Quantum mechanical effects are but expressions of underlying Sub quantum purposeful determinacy chains functionally linking different sets of deterministic Information control via the "Quantum jump" suppression of nonconformal components to the overall "sense" of the process at key neural positions.

This important insight leads to a highly sensitive epistemological position of Brain at the crossroad of physical reality and the differential Information complexity gradients ascribed to non-identical cognitive implication orders.

From this elevated analytical perspective, Brain works as an information-transduction system coupling classical matter to various implicating orders of Sub-quantum Information consistency inside the efficiency range limits of its own phylogenetically determined coherence regime.

Brain acts as a statistical operator by its reduced density matrix able of averaging over all non-brain degrees of freedom resulting from interacting decoherence effects of environmental origin. The von Neumann boundary shift between the observer and the observed system allows for a psychological description of the experiential side's stream of conscious data in a complementing frame of reference to the neural correlates of the same. The von Neumann Quantum state is a purported Informational reality, where any given Brain state is described as a probabilistic cloud-like structure embedded in higher-dimensional cognitive environment.

Overlapping coherence bands mainly in affective spectra allow for EEG synchronizations of the kind reported in Montecucco's experimental evidence for empathic macroscopic resonance effects occurring in transpersonal overlapping affective connections. Such results together with the Nathal synchronous four-band EEG activation techniques resulting in the extension of coherence domain over different naturally uncoupled or non-contiguous bands, as well as the Hemisync induction by external frequency modulations imposed upon

the electric activity of Brain - are strongly supportive for our interactive view between Information coherence domains and macroscopic EM-encoded correlates of neural activity. This contention is strongly supported by E. Jovanov's ascribing higher levels of integration to lower EEG frequencies based on experimental evidence for prefrontal and frontolateral transpersonal EEG pattern synchronizations in delta and theta range.

According to the Neumann/Stapp approach, the activating "Heisenberg choice" is not subject to any known statistical or deterministic condition. The motion rules in this domain are derived by a quantization procedure from classical approximation equations while setting the Planck constant's value at zero. The spreading out of possible options by expanding some microscopic uncertainty effects is in due time blocked by the Dirac choice response, which, obeying the Pythagoras computation of the orthogonal basis vectors, allow only limited possible feedback options to the Heisenberg choice, summing up to unity.

A sufficiently rapid sequence of consciously selected probing events, reflecting a high SQ density level of action may stabilize the associated pattern of Quantum activity by activating the Quantum Zeno Effect until a specific task-oriented action template is formed. Libet's experimental results confirmed by cortical Readiness Potential measurements are consistent with the just described Quantum duality that will subsequently collapse per Heisenberg Choice intervention into H. Stapp's informatically induced selected options for action templates. The random additive superposition thereof is eliminated at the level of the Brain's quantum state by the quantum jumps fixing the orientations of the basic vectors in their Hilbert space. This Quantum jump is associated with discrete increments of complexity values expressed in subjective knowledge, leading to a sequential adjusting of the hereby described Information/quantum loop in proportion to the progressively acquired Sub quantum complexity gain.

Brain accepts clues both from its environment via sensory channels including hidden variables as superposed inhibitory signals or active proxy attractors, and from its SQ cognitive trigger in order to issue the proper sequence of neural signals to an appropriate action template. The choice-induced Quantum jumps reduce the alternative coexisting conflicting action potentials, injecting into the system, discrete cumulative amounts of new

experience, together with their neural correlates.

At the overall modular cortex activation level, Sub quantum determinacy of the exocytosis/not-exocytosis options are expressed in the quantum effects upon the ion channels in the synaptic clefts either by the Eccles-type dendronic activation or its Electromagnetic counterpart, extending the global intermodular pattern-generating abilities of the underlying Information-charged initiating system. Our choices are to be treated as empirically specified and consciously controlled input variables in accordance with the implemented biophysical protocol of interactions.

This view compensates for widely criticized aspects of the Penrose-Hameroff Quantum mind theory, because the reduced density matrix of the modular subsystem limits the possible effects to variables of the subsystem, itself enhancing the crystallization of two alternative states to be selectively suppressed by the Dirac choice, according to strong interactions with its preceding underpinning Sub quantum Heisenberg probing.

The Sub quantum deterministic discriminator's active selective organizing function leads to the collapse of the system's randomness and thus supplies an acceptable explanatory option for the implementation of Penrose's quest about when - and to which state - the Quantum Jump occurs. Psychological conditions are amenable to both informational and neurobehavioral analysis, yet primary Sub quantum determinacy strongly supports Harnad's hermeneutic mentalist request to interpret observable events not merely as mental, but explicitly as CAUSALLY mental ones, in a most fundamental sense.

The hereby asserted suggestions seem to have a quite strong potential of remodeling the bridging laws connecting mind to matter. Altering the basic assumptions of the way Quantum mechanical tenets relate to Brain and supporting H. Stapp's description, incremental Information is injected into an information bearing mathematically described physical state, without implying epistemologically uncomfortable changes at the pragmatic level for almost all of the classical and conventional Quantum physical laws. Both mind and matter are causally tied to the agent's free choice of acting by the conscious experiential increment of knowledge (increasing Sub-quantum complexity index inside an information

defined sentient structure) and the physical actualization of the neural correlates of the thus experienced increments. Therefore, the SQ model we propose presents promising advantages upon hitherto similar attempts.

At an evolutionary philogenetical perspective, paleostructures of the neural system are placed into a priority response regime, if compared to more recently developed neocortical discrimination efficiency levels, by conversion of the experiential feelings and reasoning modes to a conscious intention-charged operator which will quantally select its appropriate neural activation track. The passive attending of an impending command will result in a different action template if compared to a reappraisal request, where aference is led toward prefrontal neocortical processing mechanisms by suppression of the Limbic/hypothalamic response via the Quantum Zeno Effect. Passive attending expectancy is channeled to the aforementioned paleostructures as proved by consistent functional MRI experimental evidence. Conventional Quantum Theory may explain apparent causal effects of the conscious choice upon the brain activity, but no explanation of any causal effect can be derived from it for the reciprocal process. Our Sub-quantum model replaces speculative and unstable concepts about conscious choice phenomena by knowable and experimentally testable omni-directional input parameters. This of course implies time-symmetric events related to retrocausation.

By the regulating increment induced in the SQ matrix field by the sentient function that operates in the n -dimensional Hilbert space of Q. mechanics, a monovectorial tendency toward complexity gain is gradually emergent in the system, leading to resonant and symmetry mediated deviations from the averaged group behavior in the prime radiation field, under the overarching harmonization function of the axiomatically acceptable Cosmic Harmony inherent in the reality hereby defined as a sentient notion.

Kozyrev's time density fluctuations along the causal vectors may be tightly related to our SQ density concept as applied to the Informational parameters of different cognitive implication levels functionally interconnected by the uncertainty-suppressing Quantum jump.

From a wider noospheric perspective, the sequentially implied super implicated orders of Information content and complexity can be described as scalar components of a wide array of epistemologically consistent and interrelated levels that for analytical purpose may display a sequential distribution chain as follows:

The Gariaev/Sheldrake morphic causation that results in the physical formation of brain, leads, by genomic interactions of holographic consistency, to the Brain's integration into the overall organism level of coordination. This stage corresponds to Sheldrake's morphogenic fields sharing their essence, similar to quasicrystals constructed by Penrose tiling principles, applied in biology as Winfree's DNA Wing tiles. As Space-Time distribution patterns obey an underlying PreQuantum determination rooted in implicated Information fields and fluxes, at the next step, Brain tunes into its ambient signals by polyvalent coding resonance systems, then converts the already acquired harmony patterns into meaning and rationalization units of organism survival value. The subsequent higher integration of thus acquired complexes into abstract mentalisation patterns, by reflective screening of contents, allows still higher levels of integration for the embedding of self-conscious structures, into transpersonal patterns of social group behavior (consistent with the interpretation of PEAR's "Global Consciousness project").

This is a fundamental component in the planetary pan-biospheric Informational connection, both to the mineral kingdom, as well as to (conceptually still rather elusive) superhuman evolution potentials. The planetary sentient network gets coupled to its cosmic equivalents toward an open multiverse type of holographic information system expressed in our Cosmic Harmony. The fundamental global guiding principles contained in the Cosmic Harmony and holographically expressed across its multilayer SQ constituent parts, can be seen as leading, via Quantum Potentials, to the information-determined Quantum phase states - which at their turn act as switching units in the key positions of the probability reduction process.

In this overall scheme, Brain is a product of a morphogenetic effect of the first-degree information complexity, its work being quantally adapted for processing higher orders of information complexity than its own.

From this perspective, self-conscious structures will logically preserve their cognitive functions in integral range, regardless of their time-bound neuro cybernetic connections to Brain.

Biological life is to be understood as a particular blueprint, where a transient coupling occurs between its different levels of implication, that are capable of being preserved in their individual holographic Sub quantum storage systems, hence their implied manifestation potential after the dissolution of the transient binding implication constraint.

At the group-behavior level of biosystems, incremental complexity in phylogenetically acquired regulatory principles lead, per Sheldrake's morphic resonance, carried along informatically established chreodic channels, to the evolutionary potential inside biologically defined homogeneities. It seems to be conceivable to relate SQ density fluctuations to the widely debated time density orders across sequential divergent time-line vectors resulting in physically definable entelechial spectra derived from frequency break points related to time flux differentials. The resulting topological distribution in manifestation bands might be invoked for a future more accurate description of the environmental coherence regimes ascribed to self-conscious structures by traditional esoteric knowledge that becomes fully consistent with recent experimental evidence still hold in controversial regime by defendants of old scleromorphic paradigmatic views.

Entelechial manifestation levels might get accommodated into a mathematical formalism similar to the one underpinning Kaivarainen's (2000) resonant bivacuum-mediated interactions for virtual structures. Seen as embedded in an infinity of different "imaginary time lines" (Hawking, 2001), the entelechial domains may be conceived as sharing the same Space distribution without observable interference effects. Such a conjecture might supply a new approach to the many worlds interpretation of QM, if multiple S-T universes were conceptually replaced by multiple probability-triggered Information domains distributed upon individual time-lines in conventional space, which at a proper resolution of analysis proves to be nothing except its very concrete SQ content (Pre-quantum plenum, Potentum).

In misleadingly labeled "paranormal" investigations, the anomalous distribution range of

output experimental data has to be reformulated as a deviation from experimenter's expectancy regime values, based on previous mean values derived from different sets of discriminators in his (and his collectivity's) past exploration record. Such deviations are nevertheless perfectly consistent with the specific given set of assumptions, as soon as deterministically different SQ input complexes are invoked, which, interfering in their own regime with experimenter's expectancy choice parameters, result in the unexpected statistical shift. It is a testable prediction that at the case limit, where experimenter's SQ contribution drops below a critical efficiency level, the result will be increasingly consistent with the external configuration of Information choice systems that are affecting the Quantum determination of the observable output.

In physiological and clinically induced ASC conditions, just as in neurotic and psychotic cognitive disorders, a coherence-shift range is to be considered. Delusional and hallucinatory contextual conditions may be described as preserving internal coherence in spite of their phase disentanglement from ambient stimuli inputs. By placing the cognitive loop beyond space and time constraints our model offers a non-contradicting logical treatment for anomalous deviations from "normal" statistic causal expectancy may be accepted, without appealing to Eccles/Beck kind of quantum tunneling properties, underpinning metastable electronic pre-exocytotic configurations, in order to admit backward time vectors in diachronic Information processing situations.

The idea that discontinuity states of consciousness arise during cortical hypoxic conditions, is frequently invoked as proof for the neural origination of such conditions. This idea is losing phenomenal significance, as such conditions merely reflect memory recollection failures, regarding events related to the relevant time span. Just as in hypnotic suggestion procedures, the mnestic data are stored in an out-of-phase Sub quantum matrix as related to brain's current coherence range, thus simply blocking subsequent recovery attempts.

Our model's predictions are experimentally testable in the framework of Schrodinger's equations, since quantifiable detection of shifting tendencies in random regimes, under Sub quantum information control, can be detected thereby. The seminal range of applicability that our model has, bearing on future genetic engineering protocols, resulting in a concrete

means for altering various malignancy patterns, and other abilities to intimately alter genetic systems, such as the aging-related Hayflick limit, can hardly be overestimated. The same genetic systems are already "engineered" at their maximum plasticity levels by nature itself, as we shall see later on in this work, resulting in pre-conceptional and prenatal individual configurational patterning of the brain's ontogenetic development.

Our main tenet describes Information as a fundamental constituent of reality, thus able to manifest both in our world of matter/energy, or beyond it, without contradicting any scientific rigor in the explanatory range.

Information structures are constituents of the physical reality, and at the same time, their ontological autonomy from matter and energy is acceptably conjectured by extending the current paradigmatic limits of reality beyond both the energetic and representational domains, into an all-pervading, nonlocal and atemporal regime of determinacy where classical relativistic and Quantum tenets break down. By introducing Sub quantum concepts, we are contemplating reality from an unprecedented observation spot, where epistemological paradoxes dissolve, and behavior patterns of reality, hitherto misleadingly labeled as anomalous or rejectable, both in conventional physics and cognitive sciences, become logically sustainable and perfectly normal blueprints.

Our SQ view, though not explicitly contradicting some late representationalist, cognitive, neural, Quantum and Higher Order theories of mind, transcends their respective limits and paves the road toward a synthetic pluralistic approach that will allow for incremental future progress. It circumvents the "explanatory gap" in Chalmers' "hard problem" while transcending fundamental, emergent and neutral monist property dualism limitations by its strength to describe Consciousness as derivative from a more basic level of reality where mental and physical properties are co-present. An "either/or" ontological exclusion is conceptually bypassed while protomental micro constituents of reality are seen as proactive transdimensional extensions of pre-quantum entities and the various flux patterns thereof. Some controversial puzzling aspects of panprotopsychism are solved in the superimplicated order of sentient data unfolding from the presence of protopsychic properties at the very fundament of reality.

A wide range of conceptually coherent physical and representational systems lead to an epistemologically new, nonreductionist and inter-theoretically consistent view. Matter is divisible while mind is not, as mind is introspectable while matter is not.

The physical, mental and the Platonic world of universal truths are homologated into a single paradigmatic concept where Sub-quantum structure parameters equally apply to the three of them.

The theoretically assumed connections between Quantum Mechanics and Mind are reviewed as a connecting principle that addresses integration aspects of Information into the world of space-time defined matter-energy. This position reflects an efficient relay of interconnectedness between different implicated orders of the sentient reality.

A new cosmogenetic approach related to Sub-quantum Prime radiation matrices ascribes universal sentience and organizing potentials to reality, opening a window toward a continuous creation process overarched by the axiomatic Universal Harmony request. Our model strongly supports B. Josephson's suggested juxtaposition of the Whiteheadian philosophy of mental states to theoretic predictions of Quantum Physics, where abstract Quantum concepts may apply to different ontological regimes.

Sub-quantum determinacy, in defining reality, emphasizes the fundamental misleading potential in Chalmers' "hard problem", putting an end to the fruitless continuous controversies around its essence and opening a radically new exploration context for the experiential observables and their time-bound correlation to the physical world, brain included.

In our perspective, the physical brain's ontological value shrinks to a balanced set of reciprocal integration vectors of Sub-quantum cognitive essence with Quantum mechanical systems, defining an option that emphatically ensures the integral cognitive and intercommunication autonomy of self-conscious structures from their neural anchorage requirement.

In our model, high-level systemic features of Brain are seen as an intricate canvas of specific

structural and functional properties. Kinsbourne's global integrated fields relate to thalamic cortical activation pathways, where various reentrant cortical loops of action-prediction-assessment type occur between mezencephalic and frontal areas of Brain. Interpretative processes with left-hemisphere correlates or frontal-limbic mediated emotive somatosensory haemostatic processes can result.

According to our assumptions, transient synchronous modular Quantum assemblies may be related to the intentional unity of phenomenal consciousness operating in time-validation domain of Brain.

The Sub-quantum regime supplies the holographic storage and dynamic media of Information-charged fundamental entities, evolving by a gain in complexity that occurs under superimplicated orders of integration inside the global overarching fundamental Harmony of ALL.

In the framework of conventional mind-related formulations, the obvious multiplicity of distinct neural theories underlying partial understanding fragments of fundamental links, operating at the holographic implication order of Brain programs, fail to present a reliable explanatory system for the infinite range of conscious activity, or alternate Information processing options operating at non-conscious levels of the Self. The isolating resolution for the "minimally sufficient" neural correlates of consciousness involved in specific kinds of phenomenal content is, per-definition, blurred by interfering classes of internal and external conditions, thus excluding a justified assessing of any causal determinacy. At the best, we might postulate some causal interaction systems between ontologically distinct domains that loose sharpness if under SQ scrutiny that allows for contingent identity spectra between given physical and cognitive representations.

Epiphenomenalism was disqualified for long as a doomed reductionist approach and as such it may be for strong reasons excluded from modern scientific analytical thought related to Information processing systems. At the same time, SQ Theory of mind is perfectly consistent with valid correlation aspects established between different ontological systems, however weak their explanatory potential would be at their own excessively limited

application range.

It's useless to emphasize that mental coherence patterns may be related to Bose-Einstein condensates (as suggested by Marshall & Zohar, 1990), at best, in only a metaphorical sense. A far more suitable feature along this line is to be found in the holistic Quantum entanglement, which in the extended perspective of SQ behavior is a most promising candidate for a possible psycho-physical interconnectedness. Quantum entanglement is due to the non-local information transports by the vehicles of the SQ entities, which transports are identically the quantum potential.

The prevalent Quantum theories of mind prove to be but a more subtle reductionism model for conscious states. When compared to classical neural theories, their explanatory potential has a similar range of limits, to physicalist/neural concepts. The Penrose-Hameroff model of objective collapses of quantum superposition states leading to coherent neuroregulation activity as well as to non-algorithmic mental processes has no suggestion for solving the high-order correlation patterns between both. The suggested Quantum effects related to intracellular microtubulinic mechanisms may well affect subtle Information dynamics but are well below any acceptable solution as far as derivative complex Information structures and their infinite sophistication range across superimplicating mental phenomena are concerned.

Tenets of panpsychist consistency, tend to rigorously adequate physical reality with the Information spaces that are assumed to unfold from. Interesting enough, there is little, if any, reference made in the literature, to the double-aspect conceptual deadlock relating Chalmers' "hard problem" to his panpsychist attempt to overcome it. Both are blind-ended in the same paradox, eluding a logically consistent model for transitions between conscious and unconscious elements at both empirically supported directions.

The SQ theoretical basics are effortlessly circumventing Chalmers' paradox at both of its ends: SQ theory replaces the emergence of conscious structures from non-conscious background by an original synactivation process, while the unfolding of energy/matter from the background of pure Information, becomes an implicit feature of reality. This gain

in understanding relies upon postulating a hyperdimensional unit assumed to carry information content toward different degrees of complexity throughout infinite manifestation domains, possibly relying upon its own context-related mathematically acceptable ability of exhibiting non-zero space-time values.

The Sub-quantum approach brings a significant contribution toward closing the endless open controversy, raging in Consciousness Studies for years, around the explanatory gap extending between the various philosophical megatrends briefly mentioned here, especially as it is far above the metaphoric consistency of most seriously considered options in current academic literature. Our model relies upon strong experimental footing at its basic tenets, and a wide array of further experimental protocols are currently designed for an increasingly comprehensive proof of its correctness. Moreover, the SQ model of reality is of an unprecedented theoretical elegance and reliability, able to render the limitless complexity that is inherent in sophisticated reference frames of mathematical formalism into a complete, self-sufficient and coherent simplicity. Obsolete analytic criteria relying upon the false objective/subjective dichotomy have to begun fade out under the heavy pressure of evidence, accumulating in shared dreams, collective hallucination, and shared Induced After-death Communication reports (Botkin, 2014). Causality and synchronistic chains cease to be orthogonal mutually exclusive ones, both finding a common language of expression. The holistic causation vectors embedded both in S-T and the Informational components of reality, escapes, per definition, entropic time vector constraints. Hence non-orientated causation theories that apply in Q and SQ ranges may be logically consistent with both nonlocality and diachronicity, under experimental conditions.

I-2. ONTOLOGICAL PRIMACY OF INFORMATION IN SENTIENT REALITY — *Acausal determinism. — Formative causation. — Free will. — SQ perspective on biofields. — Primacy of information processing upon neural correlates. — Matter/Energy and Information as ontological primes and their universal spectrum. — Information in the mineral regime. — Brain and Schumann resonances. — SQ genetic patterning. — Information matrices in quasi-crystals, FPU solitons and lattices. — Brain in the Informational plenum.*

We live in a sentient reality and are part of a sentient and deterministic, apparently acausal, Universe.

No comprehensive understanding of Reality may be achieved relying exclusively upon causal connections. We will argue here, not only the active existence of acausal processes, but their phenomenal primacy upon causality, also.

Our readers are certainly familiar with the acausal concept of Synchronicity, whose full statement has been done by Jung in his *Eranos lecture*, 1951, just one year before his famous *Synchronicity-An Acausal Connecting Principle* has been published as the product of his fertile collaboration with the Nobel Prize winning physicist, W. Pauli.

At a quite fundamental level of definition, synchronous events are experienced as causally unrelated ones, occurring together in a meaningful way and defying chance expectation. In such simultaneous occurrences cause and effect seem to be superimposed and interchangeable. This feature differentiates them from "incoincidental" events, which at retrospective analysis may be traced back to causal determination chains, or as obeying some statistical requirements of the kind expressed in Littlewood's Law.

Moreover, genuine synchronistic effects have little similarity, if any, with Baader-Meinhof phenomena, which are special (bias confirmation) variants of serendipity. According to the Ocam's Razor principle of explanatory parsimony, the Baader-Meinhof effect is dependent upon a recency requirement for acquired Information. This prerequisite is totally missing for synchronistic phenomena, which can be accurately detected as present in all the describable levels of Reality.

Genuine acausal connections do not obey the standard, cause and effect, precedence requirements which define classical causality. Nevertheless, at a very careful analysis, causality principles may be detected as operating in the background of synchronistic phenomena, provided any requirements for precedence are ignored. This is exactly what happens in Information-driven processes, as a consequence of their SQ essence, which essence transcends both space and time constraints. In the Informational realm, determinants (causes) may well either precede, or follow, effects. This occurs due to the suppression of vectorial time, for the infinite velocity species of SQ entities, and their intrinsic combinatorial information patterns. Retro-causations in Time may easily be implemented in synchronistic aspects, thus displaying an apparent "acausality" (in its conventional meaning), which apparently implies anterograde (backwards in time) time vectors.

An easy exemplification of this expression may be found in Sheldrake's hypothesis of "formative causation", which suggests a conformal structuring of shape-forming morphic units, according to their "surrounding" Information fields, and according to the specific functional pattern expected from the completed structure. A bivectorial morphic resonance is established between the Information field, and the corresponding potential forms produced by morphic units. This resonance results in an increasing stability for the morphic (shape-forming) fields. This process is thus increasing their potential to be "tuned into" by any newly formed organizing Units. Such a morphic resonance loop shares the chicken/egg paradox regarding its origins. This situation implies that some sort of starting blueprint must have been externally imposed upon the system, in the first place. These blueprints themselves, are originating from higher enfolded domains, in the hierarchical Informational complexes, according to the conceptual frame of the SQ.

Embryogenetic fields, with patterning potentials upon mass/energy backgrounds (evolving in their own physical domain), couple, by Quantum superposition effects, to these blueprints. This coupling is made possible by the hyperdimensional coupling of the SQ constituents, into the proactive Information fields. The reductionist concept, that a merely genetic programming might be capable of supporting the entirety of the embryogenetic

processes, is untenable - as Sheldrake has correctly put it - since the DNA structure remains widely identical throughout the entire organism, throughout the entire process.

Recent experimental confirmations of Sheldrake's expressions have been supplied by Gariaev's research team, with physical experimental results which strongly support the understanding that information field activities are actively mediating all genetic processes. This understanding supports Crick's hypothesis that the DNA system is merely a factory which is producing all the materials which are used to fabricate the cell, and that this factory must be told what to construct and when, by some externally-driven information-based process. These Gariaev results are supplying the, hitherto considered missing, falsifiability requirements, as misleadingly invoked in attempts to contradict Sheldrake's brilliant insights. By the actual physical evidence, Sheldrake's accurate expressions, and Crick's hypothesis, are vindicated.

The twilight zone between the causal and acausal, extends also upon D. Lewis' counterfactual theory of causality. Translating causal into counterfactual statements, implies introducing conditionals and causal preemption factors, all of them originating in the Information regime.

We have to keep in mind that at its most fundamental level, existence implies acausality. The very existence of our Universe is a basically acausal process, seen from the perspective that the "origins" of the Universe are lacking any time-alignment. No conceivable cause could precede the existence of the Universe without accepting the faulty assumption of an infinitely regressed chain of causation, extending beyond both Creator and its creation. Nevertheless, our SQ model admits a perpetual, "beyond time" cosmogenetic process, thus circumventing previous unsolvable paradoxical creation deadlocks, by reformulating the principles related to the logic of causality, and the causality of logic, itself. The efficiency of our conceptual framework constructively applies to this highly sensitive philosophical range by transcending the probabilistically-determined randomness (PDR) conjectures of classical Quantum interpretations. Our proposals are beyond both classical and probabilistic determinism, transcending both by enfolded informational interconnections which result in a hybrid form of an acausally-backed, Information-caused determinacy.

Reality and manifestation become the complex result of an interwoven, mutually sensitive, an interdependent synchronistic causality texture, composed of interacting temporal and atemporal informational components.

No reference to an acausal determinism would be complete without implying the ontological particularity of the free will, as opposed to an exclusively causal determinism. This Universal ingredient, of uttermost philosophical importance, is worthy of a few explanatory lines.

Free will implies a non-random and non-deterministic (herein, rationality is comprised!) selection from a given array of options, which are detectable at some decision point. These requirements turn free will into a randomness-contradicting, radically acausal phenomenon, one which is inherent in the Universe. Free will is contending the ability of self-expression, in all the layers of enfolded information levels, down to the energetic/material regime - and originating in the physical world, the set-up of a physical Brain (or its various Quantum equivalents) which is able to function as manifestation media of the faculty of free will.

In this perspective, free will is a phenomenal category not bound to Quantum probabilistic constraints. Therefore, free will may be seen as the general case of which Quantum probabilism is a special case. This novel vantage point has tremendous implications in understanding the asymmetric Brain/Mind dualism, from a universally valid, advanced paradigmatic synoptic view. Free will initiates phenomena that cannot occur in a purely Quantum Universe. Free will transcends the Quantum physics, as a choice-making phenomenon, thus free will becomes a uniquely qualified agent, able to collapse the probabilistic wave function. All forms of Consciousness possess this faculty of free will. Thus any event which involves free will, stands as non-predictable, relative to any possible view of any purely deterministic or probabilistic physics. In other words, any act of free will, violates all physics.

According to Wheeler, by operating in an extra-temporal condition, a free-willed consciousness may retroactively draw an entire Universe into existence, by a retrocausal effect. We need to keep in mind that rationality is not a fundamental

ingredient of free will. Were rationality actually a prerequisite of free will, free will would then become a purely causally determined process - which it is decidedly not. The higher cognitive functions ascribed to consciousness (emotionals, intuitionals etc.), must be involved in the Quantum collapse of multiple-choice states. This view supplies the solution for the philosophical conundrum of free will, at the high, but decidedly worthy price, of giving up all physically reductionist, and mechanistic/atheistic inferences, as are presently applied in consciousness studies. In our SQ model of Sentient Reality, both the origination of Quantum PDR (probabilistically-determined randomness) and an Information-related, acausal free-will, are placed at their common SQ denominator. The new physics we propose is able to encompass, in an extended conceptual spectrum, domains hitherto widely separated by the Cartesian gap.

With all this said, free will's ability to inject its apparently random modulating effect into short and long-range chains of events, though consistent with the agent's own subjective perspective, is a quite delusional one. As we shall understand later on, its input is a predetermined condition in the wide array of future sequences of events that lead to equally sequenced nodal points in future chains of retro-causally induced manifestations and instances. Free will is the patent nature needs for prompting self-conscious structures into action along predetermined evolutionary vectors.

But our new insights into the physics of consciousness are no way serendipitous ones. Our SQ plenum strongly reminds the monadic plenum advocated by Leibniz (*Monadology*, 1714), as composed by infinitesimal dual structures, connecting a mathematical point to its "physical" equivalent. The "primary matter" in Leibniz' metaphysical "point", is described in terms of an aether (*Hypothesis physica nova*, 1671), able to propagate by cascades of "effulgurations", an initial monadic essence, which is coincident with the spatially unextended mathematical point (which, in our concept, lives in its own "entelechiial" domain of Information). Our hyperdimensional SQ Unit has thus been pre-acknowledged, in the form of Leibniz' dual monadic structure, back in the 17th Century!

Recent studies have amply confirmed the accuracy of our assumptions, regarding the essence of conscious experience, and its causality-violating transactional interpretations, casting a new light upon Libet's "delay-and-antedating" paradox.

A few years ago, F. A. Wolf (1998) published, in the prestigious *Journal of Scientific Exploration* a comprehensive essay on the two-time observables (TTO) required in a causality-violating new transactional interpretation of Quantum physics, as applied to consciousness-related neural functions. Relying upon Libet's experimental results, Wolf suggests that the collapse of the probability wave (corresponding with incremental Information storage in the Self) occurs at the intersection point of two opposed, Information-carrying, time vectors. Libet's ground-shaking experiments were performed by applying time-markers to peripheral, thalamic and cortical components of the sensory awareness, which subsequently proved that "*events in the brain, eliciting consciousness of passive sensory occurrences, occur after the apparent awareness of these events and not before.*" (Wolf, 1998: 513).

While the neuronal adequacies involved in data processing require a 500 msec delay, following the peripheral stimulus, the actual projection of stimuli into the actual awareness does not exceed the 10-50 msec range. Awarenesses of passive peripheral sensory inputs, take place before the sensory cortex has achieved any processing, of neuronal adequacy, while the actual awareness of its neurally processed phantom "fill-ins", happen later. This is after the instant when a subcortical time marker (one originating during the involvements of the Thalamus and the medial lemniscus) has reached the somatocortical structures. The fact that the stimulus penetrates into the awareness field, before any time markers can arise in the somatosensory cortex, in Libet's experiments (negative time deviation in the 15 msec range), imply the fundamental antecendence of Information processing, as compared to the neural correlates of information processing. This places objective experience at the crossroads of, anterograde and retrograde, Information-carrying vectors. This interaction map coincides with Cramer's transactional interpretation of Quantum processes, which later inspired Kurakin's model of a "hidden time" sort of retrocausation.

Relying upon Libet's and Kurakin's experimentally supported tenets and Wolf's related works, we can safely assume that the primary awareness coincides with the collapse of the probability wave, seen as an interference event between opposite Information-carrier time-vectors, which are occurring in the SQ. The Information potential is projected from such Quantum singularity events, and their combinatorial patterns, into space and time, subsequently expressing in the matter and energy domains of Quantum processes, in the brain.

From this experimentally supported perspective, the Information-selected Quantum wave-collapse option couples in a similar way, both the upward sensory signals and downward free-will connected intentional ones, to the Quantum probabilistic world, which proves thus to be a non-random, fundamentally acausal, information-deterministic system - a holographic representation of the essence of our sentient Universe.

This affirmation implies that a reality has to exist at first place. Circumventing the endless philosophical and metaphysical intricacies related to this fundamental question, we postulate here that a definable reality may be conceived in terms of an ontological prime underlying any conceivable Universe and exhibiting properties of formation, alteration and annihilation. This prime defines matter according to the Merriam-Webster dictionary as a potentially existing formless substratum upon which "form acts to produce realities". This means that reality is a hybrid manifestation of at least two different ontological primes, the matter and its form that gives him a structure by way of a guiding non-material essence, identifiable to Information. But while matter is a fundamental modulable entity, Information acts upon it in an endless array of complexities, form being one of the most basic and simplest one. Formed (structured) matter at all its scales of manifestation is embedded in sentience, itself exhibiting an endless array of complexities as an immaterial gradient of interconnectedness, both passive and active, between the components of the already structured elemental essence we understand under the generic term of matter. We can follow its organizing and integrating effects from chemistry-based physical reactivity of minerals to various energetic interferences they enter, to the biological reactiveness to ambient triggers and further on to the intelligent behavior patterns exhibited by

philogenetically highly evolved life forms. And all this, as a manifestation of an overarching cosmic harmony, an infinite guiding intelligence that operates beyond space-time constrictions at each and every one of its expression levels in and beyond matter. This Informational essence is responsible both for the setup of digital biological structures (DNA, RNA, proteins) and their integrating messaging functions into their hosting structures of increasing complexity. Hence our proposal widely disseminated in various written works as well as public scientific events, of referring to Reality as a multidimensional megastructure of Information essence, extending into and guiding the space-time confined material world. We clearly differentiate between matter's essentially quantifiable nature and an equivalent analytical tool that applies to Information, namely degrees of deviation from absolute randomness.

Let's briefly discuss first the quantifiable (measurable) component of Reality, the material one.

We can easily follow its manifestation modalities at its different orders of structural magnitude, from the subatomic, across the atomic, cellular, human to astronomical values. Metric evaluations range from yoctometric to yottametric units, encompassing all that is. Or almost all, as below of the hitherto described observable existential spectrum and above its wrongly assumed limits, new scientific discoveries allowed for a wide extension of our insights into the small and large infinity, where everything tends to reach out.

Matter and energy are interchangeable terms at all the conceivable resolutions and scales. Classical matter is related to quantum energy, its extended spectrum to Sub-quantum configurations leading down through subtle energy variants (treated later in this work) toward the infinitesimals (the Bhutatmas in Hindu philosophy) where Information couples to space-time defined material structures - and up to infinity where any conceivable energy form ceases at the upper interface of space-time with pure Information.

Let's briefly follow the way Information-based sentience may be detected beginning with the anorganic world, and let's find out how human brain may interfere with this kind of information storage systems.

The Information storage capacity of stones, minerals, and crystalline structures is overwhelmingly documented both in folklore and scientific studies. Stones are able to beneficially or adversely affect their environment according to the kind of Information they radiate.

Among the best documented cases of this kind, are incidents involving the 1800 year old Celtic-carved Hexham Heads stones, first exposed in 1972 and extensively investigated by Prof. Anne Ross (Southampton), who reports many extremely strange incidents, directly related to the stones' malefic radiation. The famous Koh I Noor diamond's long and weird history, spanning centuries-long interferences with its various owner's fates, is another similar case. There are more recent incidents, such as the events surrounding the Carlisle "cursing stone" (2001).

Certainly not all such radiations are malefic. In the Celtic tradition, the presence of true ruler of Scotland is marked by the "Wailing Stone" parked under the Scottish Throne. When the correct person sits on the throne, all those present distinctly hear a clearly audible wailing sound, easily discovered as emanating directly from the stone. Also related to Scottish tradition, is the famous Stone of Scone, long held in high regard as bringing forth good luck, prosperity, and true love, to all who will dangle over the cliff where it dwells and bestow a kiss upon the rock.

The lore of remedial gems is rooted in practical astrophysics and Vedic astrology. Ancient sages of India and China referred to the ability of high-quality gems (above two carats), that are touching the skin, to be efficient in counteracting malicious influences, by their harmonic balancing of disturbing or potentially destroying tendencies, some of which originate as planetary and cosmic energy influxes. White Argon Phantom crystals are frequently used to balance subtle energy flows correlated to the Crown Chakra, having thus an awareness expansion effect. Similarly, "Laser" quartz crystals are used for energy clearing purposes, associated with the various aetherical energy centers of the human body. These crystals are believed to contain Lemurian healing Information.

At a macro-physical level, magnetic interactions of different ordered magnetic states seem to explain the formation of energy/Information-encoding magnetic contours, inside crystalline lattice structures, with such contained ferromagnetic islands acting as memory cells, storing Information. When acoustic pressure waves are incident on the surface of such stones, electron discharge effects result at the magnetic nodes of the mineral, which are coupled to the soliton-acoustic waves set up in the crystalline lattice. Potential wells of energy trapped in lattice defects of ionic mineral arrays, may release pre-encoded Information patterns, provided the energy input exceeds the energy of the information trap. The required input may be implemented in the form of a Quantum entanglement, by focusing attention targeting the crystalline lattice (a form of psychometric detection).

In spontaneous cases of specific Information recall, there is no need to apply the Spearman-Brown prediction formula in order to assess the reliability of the given Informational output.

Of course, such macro-physical informational contexts, directly reflect informational patterns already present in the Sub-quantum fluxes, which are - as we clearly postulate - at the background of any form of quantized energy.

Crystalline structures, quasi-crystals, and any kind of material structures, are able to store complex Information matrices, which at proper quantum tuning instances, can be released and transferred, to equally quantum-driven bio-systems.

Specific Information-related Quantum potential entanglements of stone and Brain, act as a composite transmission link of the given Information, linking with the individual's detecting/processing awareness field, where the nonlocal and atemporal replications of the Information's comprehensive parametrical data occurs.

The stone/brain quantum-coupled system of replication processes, results in the totally symmetrical presence of the same Information content, at both ends of the Information chain. Hence, ascribing identically complex consciousness features to both mineral and bio-energetic mediators, at the given instant of the Information replication, is fully justified. The

same conclusion applies to vacuum-stored, and vacuum-mediated Information fields. Such Information-driven Sub-quantum flux phenomena are widely enhanced by the natural embedding of all the components in the Information chain, into multiple scales of energetic environmental integration systems, which operate on a planet-wide scale.

As a next step in our exploration, let's take a brief look into some aspects of the Brain's vibrational interconnectedness into its energetic environment. The various biological structures present on Earth, are embedded in a highly complex and energetic, vibrational network. The ionosphere, our planet's outside boundary, acts as a spherical-shell electromagnetic waveguide cavity, whose inside boundary is the Earth surface. The fundamental frequency of this spherical shell, known as the "Schumann Resonance" (SR), is easily computable to be at the frequency of 7.5 Hz. In actual instrumented observations, Schumann resonances occur in a wider range of frequencies, specifically at 7.8, 14, 20, 26, 33, 39 and 45 Hz. Schumann Resonances provide orchestrating pulses for life on our planet.

The solar 11-year sunspot cycle, electromagnetic storms from the Sun, and electromagnetic properties of the Earth, may modulate these frequencies between large-scale geomagnetic reversal intervals, such as those which have occurred about 120.000, 1.8 million, 6.5 million and 11 million years ago. At the other hand, a daily periodic variance in the East/West and North/South magnetic-orientation components of the Schumann Resonance has been recorded. Some of the geomagnetic fluctuations of this kind occur in the Brain's natural activity range (1-14 Hz). Obviously then, Schumann resonances couple to neurological activities. Brain, as physical integration tool, has been originally structured for its various tasks by higher-order enfolded fields of Information (known as morphogenetic fields).

Let's deepen just a bit more our understanding of the aetheric plenum and its work modalities inside the biosphere, in order to have a more accurate grasp on its morphogenetic and brain-activating abilities.

It is widely accepted that the optimal geometry of the bioenergetic fields is the torus, an imploded sphere into a doughnut-shape, which is highly efficient for memory storage structures. In our context, it should be remembered that the human zygote reaches this

toroidal shape after 512 cell divisions. Plato equated the dodecahedron with the aether, suggesting its - by then unknown - hyperdimensional nature. Scientists believe in our post-materialist era, that the aether is a subtle energy that permeates all material structures, conveying to them Information. Our Sub-quantum concept is perfectly consistent with this new - but also old Platonian view. The results of the Michelson-Morley experiment have been misinterpreted, and the flow of accurate physical thinking shifted away from its previously accepting the aether as a physical media for electromagnetic wave propagations.

Earlier to the aether concept, Milo Wolf & Geoff Haselhurst have proposed the theory conceiving matter as having a wave structure, setting the stage for conceptualizing solidness and separateness as illusory aspects of reality. A similar view has been proposed 130 years ago by Clifford, too, but widely rejected by his physicist colleagues of his time. Lately, the string theory tried to replace the wave structure of matter concept, paving the way to our modern Sub-quantum understandings.

The aether (the Sub-quantum plenum) is animated in vortical structures, first described by D. Thomson and J. Bourassa in their Quantum Aether dynamics as "Toroidal Aether Units" (TAU). According to their concept, mass is the expression of the inertia created by these TAU.

But what could generate such vortices in the aether at first place? This question was left unanswered at that time. An undefined "G-Force", with strong theistic connotation, has been proposed as an explanatory option (G stands for God). Today we refer to this elusive patterning agent as Information contended and carried by Sub-quantum entities of various complexities, acting from a transcendent level on the polidimesnional reference frame upon the aether dynamics. Such high level interferences result in specific patterns studied by sacred geometry, which points to a closed link between vibrational aspects and geometric forms, especially the ones contended in platonic solids. An increase in the pattern complexity results from the infinite nesting of thoroidal aether structures inside each other, such way that the flat bottom of the vortex cone should touch the face of a Platonic solid. Repetitive fractal patterns are created by nested Platonic solids, extending the Information amount stored and carried by these aetheric (Sub-quantum) structured entities with

supraluminal velocities up to infinite velocity (relativistic constraints do not apply in higher dimensions). Electrons are themselves the result of vortexes nested in Platonic symmetries. Moreover, atomic nuclei are coincident with the still point in the nucleus of the aether vortex, reached by its Golden Mean spiraling tendency. Superluminal velocities may be also reached by implosion effects of the Golden sine waves toward increasingly small wavelengths. The whole Universe at the other extreme, may be seen as a super-hologram based on the self-similarity of fractal representations at all scales. This reminds of one of the seven Hermetic principles "as above so below". Recent astrophysical research showed that the clustering of galaxies follow Platonic solids' geometric particularities, too.

In their paper, Meijer & Geesing (2018) postulate that the fabric of reality is guided by a semi-harmonic toroidal background field, that may reflect a discrete pilot-wave structure that can be interpreted as a, so called hidden variable in Bohm's causal interpretation.

Brain considered as embedded in a holographic structured field which interacts with resonant sensitive structures in various cell types in our body. In order to explain ultra-rapid brain responses and effective operation of the meta-stable neural system. A field-receptive mental workspace was proposed to be communicating with the brain. It is integrating discrete pattern of Eigen-frequencies of photonic/solitonic waves, thereby continuously updating a time-symmetric global memory space of the individual.

In this concept, the supposed field-receptive workspace generates self-consciousness and is conceived as operating from a 4th spatial dimension (hypersphere).

This brain-supervening workspace is equipped to convert integrated coherent wave energies into attractor type/standing waves that guide the related cortical template to a higher coordination of reflection and action as well as network synchronicity, as required for conscious states. In relation to its scale-invariant global character, support was found for a universal (cosmic) information matrix.

Bottom-up Information flow from the Planck scale, combined with top-down information conjugation from the ZPE field constitute the event horizon of the brain, also integrating gravitational and dark energy related force fields, and supervenes the physical brain.

Some of the frequencies occurring in nature, which correspond to Brain's Delta (1-3Hz) and Theta (4-7Hz) frequency waves are related to the Earth's Plasma sheath and the magnetopause (0.8 Hz); the radius of geosynchronous orbit (1.4 Hz), the Van Allen belt (2-4 Hz), and the Inner Van Allen proton belt (5.7 Hz), etc. The 0.125 Hz frequency, as associated with the Moon's orbital radius, can be safely related to an observed 5 second delay between the onset of 1 to 2 milli-Tesla Lunar magnetic field emanations, and corresponding bursts of brain activity, as the brain responds to lunar-radiated magnetic field variations. Microscopic crystals of (bio)magnetite are evident in dolphin and human Brains, and in birds. This substance is obviously involved in providing a physical link between individual life-forms, and various electromagnetic phenomena, well beyond Schuman Resonance frequencies.

The Earth's ionosphere system is resonant at specific Brain frequencies in the theta, alpha and beta bands. These are bio-electrical domains, geared to the brain's (thalamocortical) generations of rhythmic activities. Such brainwaves and biorhythms may be entrained by strong external ELF signals, such as stationary waves in the Schumann Resonance, which lead toward the observed coherent large-scale activities, internal to the Brain's structures. Resonant standing waves emerging from this brain activity, result in internal and external, nearly instantaneous, bio-information transfers, by way of ELF connectivities.

Though the alpha rhythm is so placed that it can suffer no extensive perturbation interference from naturally occurring signals, Schumann Resonances can amplify brainwaves in the alpha range, by entrainment, enhancing their peri-neural transmissions, via ELF pulses (This is known as Frohlich excitation). As a result, by reconfiguring the liquid crystal orientations of certain cell membrane components, specific intracellular responses are triggered. Further on, interhemispheric connections in the Brain allow, by rapid cycling of resources between the hemispheres, a down-shifting of the normal 10Hz olivocerebellar frequency, thus facilitating waking dreams. This observation is related to the fractional

hyperspace components of the emotionally-indexed holographic memory functions of biological entities.

Frequencies related to the Schumann Resonance frequencies, act as a substrate for Extra Sensory perception mechanisms, where Extra Sensory information is absorbed, stored, and re-radiated, in unique Sub-quantum and Quantum informational patterns, by all objects and by all physical fields. These patterns can be frequency modulated by conscious intent, in order to yield specific information matrix blueprints, which are quantum-decoded by a transduction mechanism in the brain. Mental intention, coupled with attention, acts as a transmission/reception window in such Extra Sensory information exchanges. From there, by subsequent frequency relations to the Schumann Resonances, bio-regulating Information can eventually be conveyed to distant targets, by way of intervening chreodic channels of SQ non-locality.

The body's ubiquitous liquid crystal arrays, with infinite configuration possibilities, may function as a primary Information detection system - all the way down to the genetic units of the DNA. By phase conjugation properties, the DNA can function as a multimodal antenna, transmitting and receiving the surrounding signals and fields of the environment, according to implicate regulatory environmental informational programs. DNA has to be understood as a holographic projector/receiver, where genes are encoded via light, radio waves and acoustical holography. DNA can also function as a liquid crystal, emitting a weak laser-like light which is subsequently converted into electro-acoustic signals. The delocalized interference patterns of these signals create calibration fields for our body's space-time organization. Liquid crystals in brain ventricles, and in cellular structures, are capable of detecting and decoding, global and local Quantum correlates of Information-carrying ELF signals. Proteins are extremely sensitive to ELF in the 10Hz region. Let's mention that the brain wave activities of healers, show identical EEG signatures (7.8-8Hz), phase and frequency synchronized with Schumann geoelectric micropulsations.

M. Pitkanen's Topological Geometrodynamic Theory (TGD) allows for the possibility of assigning to someone's body-field, a topological field quantum-identity. His notion of topologically quantized dipolar magnetic fields, which embed the personality's

(sub)Quantum identity, in the form of ambient Information fields, supports our expressions of information-enfolding mechanisms in the Informational domains.

Keeping in mind that any quantifiable energy is coupled by its Sub-quantum structure, into Information fields, we are becoming increasingly more familiar with the fundamental concept of Information-driven phenomena, in the physical world.

Let's now make a further step down into the more subtle background of the connections that matter can establish to the Information realm, by way of microphysical structures, where the actual energetic coupling modalities reside.

The crystalline structure of matter itself (which we previously referred to for exemplification purposes) is defined in terms of an advanced ordering of its atomic "cell structure", seen as periodic arrangements at the microscopic level (known as the atomic lattice structure). Where does such order in the atomic lattice (an Information-related concept par excellence) come from? Are crystalline structures to be seen merely as objects displaying flat surfaces, intersecting at some characteristic angle? Even were we to limit our understandings in this manner, a given crystalline angulation constant, specific for each kind of "regular" crystal structure, inevitably requires that some definite Informational background, must already be in place.

In 1982, on observing a new kind of diffraction diagram, Shechtman put in evidence an internal crystalline structure with icosahedronic symmetry along with 10 axes of threefold symmetry and 15 axes of twofold symmetry. Such quasiperiodical crystals possess an aperiodical rotational symmetry yielding 5, 8, 10 and 12-sided prisms, with such crystals displaying unique physical properties, which properties are obviously directly related to the underlying Informational blueprints which are producing these discrete diffraction patterns. In a quasi-crystal there are more than three basic wave vectors, which act together to index all the internal diffraction peaks. Quasicrystals are thus physical manifestations resulting from a different degree, or type, of Informational matrix, being distinctly differentiated from regular periodic crystals.

In matter, wave trains propagate in the infinite one-dimensional Fermi-Popov-Ulam (FPU) lattice, creating branching patterns. Using invariant theory as applied to different symmetries in the FPU lattice, mathematical bifurcation equations may be found for these branching patterns, where a generic nonlinearity selects a specific pair of two-parameter families of mixed-mode wave trains (Guo, S. et al.). Such selection occurs at the background of Information control, supplied at the Sub quantum level of the given vibratory event. Information gradients appear as basic proactive agents in structuring matter at its fundamental levels. This gets still more evident when we examine the symmetrical arrangements of chiral compounds.

Non-superimposable stereoisomers (enantiomers), result in complete mirror images of each other. In symmetric environments, they rotate polarized light by equal amounts, but in opposite directions. If in equilibrium with optically active isomers, enantiomers yield a "racemic", producing a zero-value net rotation of interacting plane-polarized light. Such fine-tuned equilibrium states, obviously require that an exceedingly accurate Information control, must already be in place, before the fact.

Homochiral, enantio-enriched or heterochiral variants of chemical compounds are at the basis of various enantio-selective preparations, with different medical applications at organic level, which vary according to discrete Information parameters. It's well known that Thalidomide's antiemetic effect, as related to one of its enantiomers, may be downgraded by another one's toxic, terratogenic side-effect.

Nevertheless, the Information-controlled mutual interconversion effects of these enantiomers in vivo, efficiently reduce the biotoxicity of the compound. Obviously, organic survival interests are able to Informationally control (at least in part), subtle microchemical features at their fundamental level, per a Bohmian implication mechanism of downward informational regulation. Such Sub quantum control mechanisms can be followed all the way down, starting at their cosmic source.

Huge electric fields with very high dv/dt are created by separations in the stellar plasma, leading to atomic and subatomic particle dissociations, which produce aether fluxes. Similar

atomic dissociations occur by impacts of gamma radiation along resonance parameters with the given atomic structure. A slightly off-centering of the gamma ray from the photoresonant frequency of the atom will result in its dissociation into a shower of subatomic particles, while a perfect tuning will disintegrate it totally into Sub quantum units. Proper combinations of aether fluxes and photonuclear resonances will find an endless field of applications in a new energetic technology, once the required funding for such developments would be achieved.

Aether particle fluxes, when involved in Reichenbach's Odic energy, appear to be the fundamental constituents of biofields and bioenergy, which evolve according to the Informational gradients carried by these Sub-quantum dynamics. Life and Information are thus ontological correlates, just as the Informational and energetic backgrounds of observable reality (as implemented and modulated under Information control), are correlated.

At a still deeper level of analytical resolution, let's contemplate some pertinent data regarding vibration aspects as related to self-reinforcing solitary wave pulses, resulting by cancellations of non-linear and dispersive effects in transmission medias - the solitons.

Pressure solitons have been recently associated to neural signal conductions because of their specific stability features, which are due to topological constraints. Soliton descriptions are highly relevant for all consciousness-involving systems, large scale material structures included (such as rocks, mountains, stars, etc.) - especially the ones implying Fermi-Popov-Ulam lattices.

They are closely coupled to the sentience operating in aether flux organizations, as we shall see along our scientific adventure, and are manifesting in a wide range of physical and non-physical events (screw dislocations in crystalline lattices, Dirac strings, magnetic monopoles in electromagnetism, cosmic strings as domain walls in cosmology, and so on).

Since the FPU lattice is a multidimensional Hamiltonian system of nonlinearly coupled oscillators, the holographic FPU soliton displays a hyper dimensional freedom of

movement, and thus can't be specifically related to any particular location in the 3-D space. Under certain energetic conditions internal to the structure, the FPU soliton can relocate over large distances. The multidimensional structure of the FPU soliton results in its coherent features, regardless of any environmental disturbances which may be influencing a particular set of internal dimensions. The long-term memory of Space itself has been instrumentally determined to be directly related to these solitonic features, as we mentioned previously regarding Gariaev's DNA Phantom experiments.

There are also certain kinds of multidimensional non-coherent low-energy Solitons, which are evanescent over time, or upon disturbances. Such "short-term solitons" are involved in the short term memory of the physical vacuum, as experimentally shown by Gariaev's "DNA Phantom" effect. All these considerations lead to a fully justified conjecture of a sentient Universe, possible connected by the Quantum Potential, with multiple parallel universes (Hawking, 2001). All of this together is working as an endless loop of Information, governing the All under the umbrella of the overarching cosmic harmony, through the physical vacuum's short-term, and long-term memory programs.

Mathematical analysis confirms such conclusions, showing stable and robust embedded solitons resulting in the third-order nonlinear Schrödinger equation.

Technology brings in further confirmation standards. Besides Quantum Information transport by single-photon or single-spin implementations, optical solitons can be experimentally handled due to their single-quantum like behaviors. For example, solitons may supply specific Quantum signatures in Information transmission chains. Further on, an entanglement effect between Solitons, or correlated information transmissions and receptions produced by propagating Sub-quantum entities, being mutually absorbed and radiated by far-distant objects, leads to quantum-mechanical nonlocal correlations, as established between distant objects. Here we have the physical basis for instant Information transfers, and the basis for complex Information matrix replications, as observed in Extrasensory transmission tracks, bypassing Brain mediation.

Further on: An electric charge radiates, but does not absorb, light waves, despite the fact that the Maxwell equations are invariant under time reversal. This is because electric charge is constantly being replenished by subquantal entities from the vacuum, which entities are then coherently integrated and re-emitted as observable photons. Coherent integration of such subquantal "virtual" energy, evolves under Information control, which resides at the next implication level. Observable photons are emitted when the ceaseless perturbations of charged particles by vacuum fluctuations (*zitterbewegung*), reaches the Quantum threshold. At this point, both the undifferentiated and the organized Informations, of Sub quantum origins, enters the realms of normal matter and energy. Subsequently, this information is carried along, for example, by photons, towards the infinite possible energy configurations we know of as our physical world.

This understanding is of a crucial value for our hereby suggested model of the conscious Self's coupling to matter/energy domains by way of a photonic bridge. In this context, may be relevant also that in Leyton's "hierarchy of symmetries", a broken symmetry at a given level preserves the Information in order to regenerate the symmetry at the next higher level, thus increasing the total symmetry in the system along negentropic (organizing, ordering) lines. This process allows permanent transductions of previously unorganized "virtual" Vacuum energies, at the Sub quantum level, into observable organized electromagnetic energy quanta. The ultimate physical source of charge - hence of energy - proves to be the Information itself, at the deep Sub quantum levels of the vacuum. As we will see in due time, complex nonlocal subquantal Information fields may result in, and purposefully modulate, Brain's Quantum activity, thus coupling to neurally mediated environmental energy patterns in the bio-structures-correlated *modus operandi* of the Self.

Quantum Potential directly affects permeability and permittivity of free space via hyper-dimensional magnetic fields related to Sub quantum vortices. As gravity is a gradient of the combination of these space properties, it has to be controlled by hyper-dimensional Informational components, inherent in the Sub quantum, via the Quantum Potential.

If gravity is seen as a gradient of aether density, weird Informational effects easily find their proper explanatory framework, as Podkletnov's amazing experiments, displaying the

impact of a "gravity-like" unshieldable, superluminally proceeding beam. This was produced by a high-powered electrical pulse, impacting on a superconductor. The Podkletnov apparatus also produces a back-acting ray, involving a certain time-delay (in the millisecond domain) due to the "Vacuum compensation effect". ("Vacuum compensation" is just a deeper understanding of Newton's 3rd law of action and reaction, where the physical vacuum is acting on disturbances of the aether media (previously in equilibrium), by producing compensating aether motions, which motions act to produce physical fields and forces, such that the original perturbations of the media are exactly compensated, after some small time delay, restoring local equilibrium.)

Podkletnov's back-acting beam produces extremely weird effects on matter. For example, technicians unwittingly caught in the back-acting beam emanating from Podkletnov's device, found themselves embarrassingly "welded" to whatever object they happened to be touching at the time the back-acting beam passed through them, presenting one of the clues whereby the back-acting beam was first discovered. These effects are similar to the several odd effects reportedly witnessed during the famous "Philadelphia Experiment". (Which, though strongly denied by officials, is disclosed to be still running today in the "Montauk experiments" framework). Similarly, many other experimentally supported insights strongly support the LaPlacian model of gravitation, where a superluminal Sub-quantum Aether is the originating cause of gravity. Such understandings meaningfully meet our pan-energetic Sentient Sub-quantum tenets.

Sentience IS ultimately a branch of physics, though not one exclusively limited to matter. It can be defined only transcending the conventional 3-D Minkowskian perspective into the infinite Sub-quantum plenum, where time constraints are suppressed.

I-3. TIME IN THE SUB-QUANTUM PERSPECTIVE — *Experimental and spontaneous time anomalies.* — *The chronovisor.* — *Vardogr.* — *The anniversary effect.* — *Geometrical Time.* — *Time symmetry and CTP invariance.* — *Subjective and objective Time.* — *The psychotemporal wave.*

We will introduce now our readers in a non-classical realm of Time analysis, from a novel perspective supplied by our Sub-quantum approach (quite similar to the inerton radiation concept recently proposed by Krasnoholovets). Let's consider now a few counterintuitive aspects of reality that defy canonical physical interpretations, but find a logical context in the new conceptual frames we defend - as we'll see later on.

Physical time-shifting gates are not to be found only in Castaneda's travel reports into the "Nagual" under his benefactor's guidance. A few years ago, an American-British expedition headed by physicist M. McLein reported an experimentally confirmed puzzling time gate above the South Pole, where a chronometer installed in a weather balloon, and subsequently recovered from a mysterious foggy structure floating above the spot, repeatedly displayed a negative time-shift of 30 years. V. A. Chernobrov's experiments in the late 80's succeeded to alter physical time flow at a rate of up to 4 minutes per day. In other early Russian investigations relating the pace of Time to EM field manipulations, by way of embedded layers of ellipsoidal electromagnets, a resultant time difference of 0.011 sec/sec has been recorded. Experimental time translations have proved to have devastating effects on biosystems, providing further evidence for the infamous effects reportedly described as related to the crew members involved in the Philadelphia Experiment, 1943 (our readers might be familiar with its currently running classified research sequels known as the "Montauk Project", with its intriguing Time superposition effects).

A special attention seems to be deserved by Ken Webster's sustained contacts across time, with Lukas, an individual living in the 16th Century. The linguistic particularities in the Lukas messages, transferred both by electronic, and precipitation means, in the receiver's real time, clearly attest to their genuine across-time origination (*The Vertical Plane*, 1989).

Webster's experiential range also apparently includes personal physical projections into the remote past. This is strongly reminding us, in its details, of the famous Moberly-Jourdan incident at Versailles, Aug. 10 1901. Interestingly enough, such spontaneous time-travel instances seem to lack the bio-destructive effects that their experimental counterparts generate, such as the biological disasters which accompanied the so-called "Philadelphia Experiment". Such observations point to a still incomplete understanding of the actual nature of Time, at least in terms of the assumptions involved in some of the experiences just mentioned.

An interesting spontaneous projective Time displacement report has recently been archived by the New York City Police Department. This report concerns an intrusion into the busy New York traffic of our times, where a citizen suddenly popped up "from nowhere", and was subsequently killed (while in a reportedly disoriented condition), by being hit by a car. Subsequent police investigations were performed, based on the identification documents found on the deceased, which succeeded in tracing the time-intruder's life-story, back to the point of his sudden disappearance, more than one hundred years ago, when he was taking a walk in exactly the same spacial location! Similar time-slip events abound in empirical records, understandably dismissed by "official" science as anecdotal nonsense, however reliable the credentials of the witnesses and whatever their objective observational training might prove to be, in most of the cases.

A well-documented instance of this kind relates to the time-superposition of disparate two airplanes, meeting in a time-connected event which involved a time-gap of several decades... In this situation, both pilots were able to mutually describe the presence of the other "strange intruder" in their air-space. An amazing collaborative effort followed, apparently involving a WW1 aircraft, which unfortunately crashed soon after the strange mutual encounter. A WW1 aircraft was subsequently discovered, residing at exactly the same location as the reported encounter between these two aircraft, on the ground, with a recently deceased pilot still inside it.

Countless unexplained physical disappearances of persons "into thin air" are carefully archived all over the world. Perhaps the most baffling instance of this kind refers to the

strange disappearance of the nearly 3 000 Chinese troops at Nanking, 1937 - or similar multiple vanishing cases, such one regarding 145 British soldiers who vanished during the Gallipoli campaign of WW1, or the similar "Hill 60" disappearance incident during 1915. Both these cases were followed by reports of the slopes being "wrapped in a strange and unnatural mist", according to the witnesses. Such "wrapping" effect is strongly reminding of more recent similar cases of aircraft vanishing while crossing the "Bermuda Triangle" while surrounded by a "bluish-yellow radiation envelope" or a "green fog", as subsequently reported by the air crews.

Are such field effects explainable by a mere "dimensional" approach to Time? Hard to believe.

Let us consider the amazing "chronovisor" reportedly set up by Padre Ernetti (Venice), as vouched for by the high reputation paranormal investigator and theologian Francois Brune. This device was capable of transposing into the observer's field of current sensory awareness, concrete and detailed events which had occurred centuries and even millennia ago, enabling the user to actually and directly and instrumentally record (photograph, etc.) actual historical events, such as Christ's Calvary and crucifixion, and ancient Roman theater performances. This apparatus has been, unfortunately, recently disassembled. Any pertinent information about this apparatus has been highly classified by the Vatican. Why? Obviously because such past-information transferences, as produced by this device, were recognized as representing a hazard to the "normal" fictions and dogmas as commonly propagated by the historical "status quo".

A somewhat less quoted phenomenon in this category is a temporal duplication effect known as "Vandogr", which is a Norwegian term for present-time experiences regarding future events (most frequently reported in Norway). Perhaps the most famous case of this kind, is the one reported by the German poet Goethe, who - on the road to Drusenheim - met his own double, dressed in a garment which Goethe was to wear by accident, some eight years later, while on the same route. Except a brief Vardogr - related publication in the *Norwegian Journal of Psychic Research* (1917), this kind of time-phenomenon has not been seriously addressed, until more recently, by L. D. Leiter (*Journal of Scientific Exploration*

16/4 2002). In his conclusions regarding such time phenomena, the author remarks that, *"...those persons directly involved are forever convinced that a purely materialistic worldview is untenable."* (Leiter, 2002: 621).

Facing such a wide range of temporal anomalies, for one to question the significance of "normal" chronometric time-flow, is quite natural. Nevertheless, more careful studies have brought to light, that many weird trans-metempsychotic correlations, are also occurring in linear time flow, as well. In his detailed report about diseases associated with psychic perceptions, Dr. A. Guirdham describes the well-documented "Anniversary effect", which effect is describing the psycho-physiologically influence of a group of individuals who have shared a series of simultaneous common incarnations, in the historical past (Dr. Guirdham himself, being one of them). These particular set of group-shared incarnations occurred in fourth Century Rome, seventh Century Celtic Cumberland, thirteenth-century Cathar Languedoc, in the late eighteenth and early nineteenth-century, in French incarnations, and finally, during our present lifetimes. Visual recollections of an exceedingly traumatic execution event, which occurred to a subject on May 3, 1211, spontaneously and inexplicably, popped up into the memory of Dr. Guirdham, this event occurring on exactly the same date, during 1972... It can occur that events from remote incarnations, in the past, may produce depression states lasting for weeks - as proved by the sensations experienced by those unfortunates who found themselves reacting, in the present day, to the death agonies of Montsegur, the last great spiritual redoubt of Catharism, during March 1244.

It seems that cross-millennium Information replicating effects are preserving identical positions on the linear time-line (perhaps after required adjustments for calendar resets). From a dimensional perspective, empirical observables strongly suggest that events are ordered in a poly-dimensional Time reference system, reminding us of the early Ouspenskian view, of an orthogonal extension sent to infinity, from each "moment" on the chronologic time line. In this view, eternity is not some infinitely remote "future", but a co-present All-time Information Pool, encompassing the totality of all possible event configurations, which configurations are actually unrelated to any axial distribution along a chronological time-vector. From this universal pool of co-present potentialities, selected

configurations may be injected into linear time from any point of cosmic history to any other one, by essential symmetries ...

Such observed events as reversed causality chains, and mysterious synchronistic alignments of material condensations and disappearances, become easily explained by Kozyrev's remark (1991: 343), that there is no time lag between the forces of action and reaction, so cause and effect are acting on each other simultaneously. (This isn't always true. But that discussion we'll reserve for a later time.) This brings into focus the teleological attractor which is operating in the hyper-dimensional connection layers of the SQ configurations, those which produce Information fields. Fundamentally this is describing a reversed-causation principle, a concept of paramount philosophical implications, for our correct understanding of Reality. The "directionality" of Time gets a confused meaning from this perspective, suggesting the need for a radical reevaluation of hitherto canonically perpetuated fundamentals.

Seen Kozyrev's "course of Time" equation:

$$c^2 = d^2/dt$$

together with the density of Time (the 6th Kozyrev postulate), Time can display an organizing effect, one which is counteracting the increasing thermodynamic entropy vector in biosystems. This understanding (among others) prevents an imagined cosmic "thermal death catastrophe", an imagined entropy-based thermodynamic eventual "winding-down" of the physical Universe. (This unfortunate concept is arising from incorrectly applied thermodynamics principles, which are ignoring even the simple, gravitational fact, that there can never be any such thing as a "closed system", since gravitation, for one example, is unshieldable, meaning the system cannot be energetically closed. This "thermal death" concept is also forgetting the fact that thermodynamics considerations can only be properly applied to closed systems.) In our meaning, "geometrical" Time, as an event-reference, is assumed to have a multidimensional essence, coupling Time into the hyperdimensional Informational components of the SQ configurations. All the presently known physical properties of Time, are consistent with such a description. Event-duplication phenomena,

reversed time-orientation effects, etc., become legitimate descriptions in such a holistic hyperdimensional framework, where agents for such events are stored, and carried around at up to infinite velocities, by the Sub-quantum entities, in their infinite event configuration spectrum.

As we previously mentioned, infinite velocity SQ structures, with intergalactic plasma physics originations, fill out all of space as an Information matrix, beyond Time constraints ("All-time" concept). Time appears as a consequence of these structures' slowing down from their original infinite velocity by probabilistic mutual interactions, leading to disparate velocities and thus to their shearing turbulence effects - holographically replicated as vortex structures at all the implication scales of enfolded and unfolded order domains. Consequently, laws of physics change at the various scales of physical manifestation: At the scale of Pendry structures, at the Planck limit and down through the next phase state change at the Kolmogorov (10^{-58}m) scale toward the infinitesimals we are concerned with. (We have seen some mathematical theoretical considerations, which imply that there may well be even further changes in physical behaviors, at certain discrete size thresholds, as we approach the infinitely small, in much the same way we now see evidenced by the known changes of physical properties, which are occurring at specific size thresholds in the so-far explored regions of the small.)

Superluminal gravitational aether fluxes (Jefimenko, 1966) appearing immediately below the infinite velocity Information transport (the "All-Time" pan-comprehensive pool of virtualities, the Akashic Records), result in Keihn nanovortex configurations. Such specific behavior modalities are responsible for apparent time-reversal trajectories, as presently ascribed to antiparticles, by some authors. The pace of physical time becomes a function of charge gradient variations and their interaction with the given permeability and permittivity of the media, as involved in SQ-mediated Informational dynamics.

Newton's second law is quadratic in time and is invariant under time reversal. This holds true for gravitational and electromagnetic forces. Small violations of CP symmetry suggest departure from Time symmetry in some weak interaction processes. Charge conjugation /

Parity / Time reversal (CPT) Invariance principle doesn't apply in closed systems involving delta grad E interactions (Boyd, R. N.).

The fundamental link between Time and Informational phenomena, found a special treatment in Carlo Trajna's "psychotemporal wave" model, which model translates to "psychic world" events, operating in and influencing the physical world. Following the requests of the Weber-Fechner law, and Piaget's concepts of time, Trajna defines the subjective time flow as a differential perception of the velocity psychic Information signals propagate with, upon the background of biological Information ones, as a ratio expressed by the logarithm of the imaginary flow-speed of psychic time vs "normal time". Though Trajna's view has the limitation of referring to the light-speed "c" as to an "upper limit" of the speed of psychic time-flow (which limitation is strongly transgressed in our SQ model), it goes far beyond the reductionist implications of Stevens' power law, which exponentially relates the strength of a physical stimulus to its subjective perception as:

$$? (?) = ??a$$

where ? is an elusive psychophysical conversion factor of "a" and "k" type stimulus' magnitudes.

Trajna's psychotemporal concepts thus extend into extrasensory Information dynamics, which have been ignored by Stevens.

As we shall see in further upcoming installments, there is a vastly more complex SQ integration of biological phenomena (sensory transmission included) at work, much more intricate than the reductionist linear amplification suggested by the Stevens equation.

Brain's Quantum activity provides the Time conversion of Informational stuff operating beyond Time. This is not random, but is a deterministic process obeying the retrocausation principles hinted to in this paper. Details of this hyperdimensional conversion process will be highlighted in due time.

But to be sure, no serious scientific approach to the Reincarnation hypothesis may be conceived without a reliable and fundamental description of nature. Such a description is expected to express, on an equal ontological footing, all of the experimentally provable facts, smoothly including the survival hypothesis of Human Consciousness along with all the rest of the phenomena hitherto wrongly labeled as "paranormal" ones.

As a most unfortunate feature for the philosophy of science, Information-determined events and systems have been somewhat excluded from the "officially acceptable" list of investigation topics, as a result of their essentially transcending our habitual mechanical means of exploration and their reluctantly defying the laws which apply to the matter/energy regimes normally accessible to detection by our routine instrumentation.

I-4. SOME NEW PHYSICS — *Beyond the Planck limit. — The Fractional Quantum Hall Effect. — New solutions for the Maxwell equations. — Sub-quantum vacuum fluctuations and Quantum potential. — Fractional charge and mass. — Beyond relativistic and Quantum constraints. — Information-driven patterning of brain.*

In order to attain a more accurate, all-encompassing description of sentient reality, we decided to transgress the dogmatic limits of existing Quantum modeling attempts, diving deep below the contemporary view of Quantum activity of neural networks in Brain, into the, physically speaking, "no man's land" of the Sub-quantum, by examining the diverse Information-driven infinitesimal events which constantly arise in the Sub-quantum (smaller than the Planck length) domains.

Yes, we are crossing the very borders of matter and energy, diving into the abysmal processes occurring deep inside and beyond the physical vacuum.

Investigating the Sub-quantum world deeply, with scientific responsibility, might turn out to be the most rewarding scientific enterprise in the history of mankind's innate exploration drive.

It was long ago concluded by quantum theorists that quanta were indivisible, that nothing could be smaller than a quantum. From that physically unsupported assumption, many theorists reached the view that the Planck length must represent the lower limit of smallness in our Reality.

Contradicting this assumption, the existence of quantum fluctuations in vacuum has been long ago described in terms of the "Zero Point Energy".

From this, many have proposed that such quantum fluctuations must be the result of processes occurring at some finer level of Reality, as being caused by particles smaller than the Planck length, similar to the way in which the Brownian motions ("random behaviors") of dust motes in our atmosphere is direct physical evidence of the activities of the much smaller entities of atmospheric molecules and atoms.

Because of such understandings, a Sub-quantum picture of the world has been repeatedly proposed by many serious researchers in the past. Such second-order physical events - if true - seem to imply that there can be entities smaller than the quantum, that quanta can be subdivided, and that there may exist somewhat "counterintuitive" charge values, smaller than the so-called "elementary" charge.

A decisive experimental proof for fractional charge was provided by Nobel Prize winning experiments, resulting in what is called the "Fractional Quantum Hall Effect", during 1998.

Since then, further evidence has emerged. For example, we have experimental evidence supporting the presence of fractionally charged quasi-particles and composite fermions in an electron gas, under Fractional Quantum Hall Effect conditions. At the same time physical evidence has come from collider experiments which indicate that even so-called "quarks" must have substructures, indicating that quarks are composed of many much smaller entities. The existence of spherically symmetric stationary fields of charged sub-currents and subfields inside the electron, has been already suggested by some proponents, in increasingly convincing Sub-quantum representations.

More recently, designs for microscopes capable of imaging entities smaller than the Planck length have been validated, and such instruments are in the making. The Quantum/Planck barrier has actually long ago been successfully pierced, and many new horizons have thus been opened to our views and for our physical investigations.

As pointed out by Dr. R. N. Boyd, the Moebius transformation solutions of the Maxwell equations lead to an understanding of various entities which can travel with any velocity from zero to an infinite velocity, this understanding leading to an infinite fineness of the vacuum's structure, pointing to Sub-quantum entities with the same propagation properties as those indicated by the nonlinear projective Moebius transformation solutions of the Maxwell equations, as opposed to the more commonly understood Lorentz transformation solutions, where propagation velocities are limited to the speed of light, in the given media.

The Maxwell Equations describe hyperbolic motions of field sources (such as the Electron). There is no self-radiation event associated with an electron in hyperbolic motion. Radiation results from perturbations of atomic orbitals, or from deflecting an electron away from a strictly linear path in "free space". When radiation rates are averaged over undisturbed hyperbolic motion periods we find a direct correspondence with how the Lamb-Rutherford shift occurs, inescapable evidence that vacuum fluctuations originate in the background, due to Sub-quantum activities.

The physical vacuum is a Space-Time sequence contending both aggregative and non-aggregative, nascent Information sources, where such information is stored and carried by superluminal aether fluxes leading to n-degree entanglement states at the level of the matter/energy domain. These Sub-quantum fluxes result in the Quantum Potential, and the Quantum Information Field, of standard Quantum theory.

The same system also produces quantum entanglements, since all ponderable matter is constantly both radiating and absorbing mutually interactive information-carrying Sub-quantum particle fluxes, such that information from each entity instantly influences every other entity nonlocally, given that the radiated SQ entities are propagating superluminally, due to energetic circumstances at the origin point of the information flux. (In relativistic terms, an infinitely small mass is allowed an infinite velocity.)

Electromagnetic vacuum waves are formed in the Sub-quantum background - where infinitesimal SQ entities with fractional charge and fractional masses are supplying the physical environment which the "elementary" particles and forces are operating in, according to Sub-quantum tenets of collective behavior principles (as described for example, by the Fermi-Pasta-Ulam lattice model).

Such Sub-Planck behaviors are not detectable by standard instrumentation, but they are still effecting, in a deterministic way, all our presently accessible observables, such observable events attesting to the event-controlling information-based potentials which are ubiquitously present in the SQ background, which comprises the actual substance of the physical vacuum. In fact, all the physically measurable properties of the "vacuum", are the

direct result of the physical behaviors and properties of various SQ entities which inhabit "free space", which when averaged produce the accustomed measured physical values associated with the "physical vacuum", such as the permittivity and permeability values of the media.

Information driven, fractionally charged SQ aether fluxes, displaying group behavior features, obey harmonic tendencies, clustering into composite stationary fields of marked stability, while aggregations of fractional charges result in integer charge values corresponding to our accustomed particle-mass expressions. These aggregates result in the customary elementary particles, so fundamental to our familiar concepts of matter. These elementary entities are living in a SQ environment, and exhibit permanent bidirectional Information-driven exchange properties, with other sub-atomic environmental components. Sub-quantum entities have the ability of aggregating, and replicating into matter/energy domains, an endless number of combinatorial options, as derived from their background informational matrices. This process sets up, in the Time regime, many complementary, causal and teleological, dynamic event chains. At the same time, upward Information flows originating in Space-Time-like events, exert modulation potentials, feeding back into the origin, resulting in subsequent, ever more refined, Information-controlled events.

We should permanently keep in mind that we are by now moving in a pre-temporal Information space, where neither relativistic nor Quantum constraints apply. Relativity and QM are describing organized and subsequent behavior patterns in space, which are implementing the original Sub-quantum informational tendencies, by their resulting space/time manifested forms.

Convectional propagations of Sub-quantum fluxes at Faster-Than-Light velocities are consistent with DeBroglie waves, implementing yet another link to "conventional" physics, as well as agreeing with DeBroglie's original convictions regarding the existence of the Sub-quantum. Convectional fluxes in the Sub-quantum Regime supply reliable links for non-locally connected entities, without violating any of the rules which might apply beyond the Sub-quantum. The same compelling conclusion derives from the a-temporal framework

these fundamentals operate in, since Time itself, and Gravitation, are derivative epistemological events, resulting directly from the dynamic behaviors originating in the Sub-quantum plenum.

Non-local and diachronic connectivity patterns are well documented, not only in the physics (Bell's theorem, etc.) - but especially in the various "paranormal" phenomena our readers are most probably already familiar with. Such events are known to occur beyond space-time constraints and other theoretical limitations. Such events underline our personal first-hand-experienced, undeniable reality, being the instrument of human consciousness during its neurally-connected manifestation.

Importantly, as we will amply document in future articles, there is absolutely no ontological difference between a Brain-bound, and a free (or asomal) self-conscious structure.

Both the brain-bound and the asomal conditions of Consciousness, have reference to the same Information matrix, and undergo ceaseless dynamical modeling processes in the direction of incremental gains of complexity and perception, similar to the processes we have already physically ascribed to Sub-quantum structures and dynamics, as being proactive precursors of all quantifiable and "ponderable" forms of matter and energy.

Regretfully enough, the incompleteness most of the existing Sub-quantum models resides in their failure to address exactly such Information-related processes, a failure which is even more blatant in the "officially approved" versions of physics.

We are probably facing the ultimate gap that theoretical physics has to solve, by casting an experimentally consistent and physically falsifiable bridge, from the already achieved Sub-quantum paradigm of Reality, to the originating Information Source(s).

We are currently investing all our efforts in this challenge.

In our model, increasingly fine Sub-quantum entities and their composite structures are the general Information Field and its specific components, this view adding an "extra

dimension" to our understandings of what are the fundamental building blocks of our Reality.

Information structures operating in an infinite array of implicate orders, as described by Bohm, are turned into non-physical, and physical, manifestation patterns by superluminal information-based connective behaviors, originating in the Sub-quantum domains.

Organizing functions originating in, and evolving through, the Sub-quantum realms, are the inner workings of the actually endless, Creation Process.

The apparent Quantum randomness of space-time manifestations is actually due to an induced determinism, reflecting the great overarching harmony of All, in an infinite array of manifestation levels, as proceeding from the small, into our normally familiar physical world.

In this understanding, the brain, and so on, are directly designed and constructed by direct and adaptive morphogenetic SQ information-field influences, which are in turn under the direct control of Harmonious Cosmic Intelligence, rather than through some Darwinistic "evolutionary sequence", a concept which has been physically proven false by the observations and experiments of the Nobel laureate, Crick, and by various other information-related experiments.

How this revolutionary approach will change the current fundaments of the Brain/Mind relationship hypotheses, pointing to a scientifically acceptable metempsychotic process, will be highlighted in further chapters of this work.

I-5. A SUB-QUANTUM BACKGROUND OF BRAIN'S QUANTUM EFFICIENCY — *Transcending both relativistic and classic Quantum theories. — Prequantum wave functions and holomoments. — Event-modulating property of Information presets. — SQ/Q morphogenesis of brains a fine-tuned quantum resonator. — The holonomic principle.*

For now, let's take a closer look at how the invisible realm of reality connects to Information fields, in order to store and carry this information in holographic patterns - the fundamental elements of Reality. While the prevalent physics fails to account for, in any regard, Information-driven processes, Sentient-Sub-quantum understandings have already successfully and easily accomplished this task. The concrete and unprecedented potentials that these understandings provide will open many doors to vast arrays of new, and previously undreamed-of beneficial technologies. What were thought to be the absolute scientific limits of technology, based on previous limited and limiting understandings of the foundations of physics, are being superseded by enormous gains in our understandings of the inner workings of the Universe, based on the experimental results which are already arising from applying the principles of Sentient Sub-quantum Information physics.

Applying these new discoveries and facts is already producing new technologies. Some of these technologies have already been physically demonstrated, such as the "Wave Genetics" researches of Prof. Gariaev, which provide complete control of the entire DNA sequence of all organisms, by the use of Information-driven radiative processes, rather than presently used, dangerous, unpredictable, and obsolete recombinant DNA techniques, which are unfortunately based on an incomplete understanding of only 5% of the DNA sequence, while Wave Genetics techniques have already established 100% complete understanding, and 100% complete control, of all DNA sequences. The implications of this single new technology alone, are vast. The potentials awaiting us from deeper studies of the Sub-quantum and Information physics are amazingly vaster.

It's widely known that in the last few decades, mainstream physics has been struggling to reach a still most elusive Unified theory of matter, hoping to reconcile mutually

contradicting relativistic and Quantum aspects. For illustration purposes, it's enough to mention that in Relativistic frameworks movement is a well-defined, causally initiated continuous process - while in Quantum theory, motion is a discontinuous, acausal, poorly defined process.

Standard quantum events are isolated instances just "happening" by chance in a probabilistic mathematical abstraction, resulting in physical objects and events which are completely and irrationally disconnected from anything else, effects without causes. In order to achieve a more reliable picture, science may be constrained to give up its commitments to such concepts. This does no way mean deleting all the experimental evidence supporting such understandings as Quantum Mechanics. This means only ascribing to relativity theory and QM, a well-defined range of validity. Their "unification" can be achieved only by transcending both, from a more elevated perspective, addressing their common source.

Nonsensical assumptions in both relativity theory and quantum theory (absolute speed limit, uncertainty principle, etc.) have to be dropped, together with the rest of the bulk of not-overlapping components erroneously built up in the aforementioned basic world-views that dominated the 20th Century. Such experimentally unsupported discordant components have to be replaced by new understandings streaming from the Information-coupled Sub-quantum regime.

I also wish you make me "complete" by adding one more sentence at the end as I have written in blue. Otherwise, it is my feeling that I am represented in an INCOMPLETE way.

We are not an exception to the general awakening of the post-materialistic world-view that includes a new approach to the unimaginable quantum complexity of the brain hitherto seen as a biological object working on electromagnetic principles.

We recommend to all the keepers of this view the pioneering work of Prof. Dr. A. K. Mukhopadhyay, an outstanding scientist living and working in New Delhi, - *The Millenium Bridge*, Conscious publications, 2000.

Here just a small quotation from this valuable book (Mukhopadhyay , 2000: 128):

"That the brain in certain states of consciousness can also behave in a macro-quantum way has been evidently proved by Grinberg's experiment in Mexico, where two brains at a distance kept in Faraday cage, show quantum correlation. A stimulus given to one shows similar kind of response in both. This is an example of EPR paradox in human brain. Within the micromilieu of brain quantum events are observed in neural synapses and even in microtubules of neurons, in isolated or in coherent way. In a quantum-integrated brain, coherence of al quantum events is said to lead to a sense of unity. Consciousness collapses quantum probabilities into actualities by choice and recognition. A quantum-integrated brain, is primed to explore the thick forest of phenomenology. The author goes on with two more integrations of brain: Phenomenological Integration of Brain and Integration which makes the brain transmissive organ of Mother Nature."

The novelty of our approach resides in an experimentally consistent blending of Sub-quantum physics, Bohm's Implicate Order (inherently antithetical to reductionism), and Information as prime source and fundamental "stuff" of both quantum theory and relativity theory.

Let's try better understanding how Bohm's ontological holism has an unprecedented revolutionizing potential, not only upon Standard Quantum physics, but especially upon various Informationally-consistent phenomena, the field of our general inquiry, and in particular, regarding the survival hypothesis of human Consciousness, after its disconnecting from Brain, and its sequential re-connecting to it by the reincarnation process.

Without conflicting with ordinary concepts of causality, Bohm's model of implicate order (implied or potential reality), actually addresses the Information contained in the Quantum wave, which Information is efficiently stored, amplified, and carried at superluminal velocities by complex Sub-quantum particle flows. These information flows exist both external to, and internal to, our familiar elementary particles. The resulting Pre-Quantum Information-charged wave functions have an organizing effect on the Quantum wave, as

related to the elementary particle.

This organizing potential originally emanates from the infinite Information pool. This Information pool is an expression of an overarching cosmic harmony (whose epistemological fineness is beyond the scope of this current stage of our analysis). From this pool, information is cycling forward in a ceaseless, feedback-supported, unfolding and enfolding process, which process runs constantly, between endless implication layers. This process corresponds directly to the potentials for physically observable events and physically observable objects, to actually manifest, as proceeding from, and contained in, the All.

At the explicate (what we see) level of Quantum processes, all the known fields and forces are engaged in the same basic "all-as-one" holomovements which implement our known Quantum-mechanical features, seen by quantum theory as discontinuous events, non-local events, and time-excluding events. Actually, these features arise due to superluminal interactive gradients of Information, which produce additive combinatorial informational stances, which produce observables in the Time-like explicate (observable) domain. Here, measurable physical manifestations are the result of highly complex combinations of synordinate, and asynordinate, Sub-quantum information vectors.

In this context, Time itself is seen as related to changes in the numbers of layers of implication, where variations in the informational structures, at a given instant, will produce variations in the observable results. Such guiding information is a formative wave, with event-modulating properties, which directly influences the given particle's asynordinate Sub-quantum conditions. This process decides what are the best variants of individual structures and events, at the given time and place, as related to the contents of Information Pool (as constantly and non-locally provided by the great Cosmic Harmony).

Due to such processes, the proper event always occurs at the proper location and time. This process operates exactly according to an information-resonant tuning control, which control is always present during such interactive Informational interplays, which are always running between the various layers of implied potentials, and as related to pre-

determined events, such as those events already "preset" in the Information Pool, so as to produce certainty in selected manifestation potentials, thus a certainty in the occurrence of specific manifested events.

Feedback regulatory signals are originating in Space-Time environmental fields, as carried by Sub-quantum configurations. Non-local connections are easily explained as superluminally conveyed informational injections of control vectors (by way of Sub-quantum entities), into our familiar world. Moreover, the present formative fields are influenced by past actualizations, as kept in the Cosmic memory pool.

Quantum mechanical "randomness" effects are but blurred perceptions of the underlying enfolded order we are currently dimly aware of. Any explicate (observable) structure is directly tuned to the relevant active Information layers, which already exist in the enfolded information realms. Non-local causation operates at the basic levels of a Bohmian information radiation-and-absorption system. Mere "probability" considerations are upgraded to Information-controlled actualization events.

The collapse of the probability wave function turns out to be the deterministic result of such preselection, performed at deep implicate layers of Information, according to Sub-quantum-mediated tuning effects, which are then implemented as an interplay between different domains of complexity, under pressure gradients. All this will obviously apply to neural network activity patterns, as during the Brain-connected "normal condition" of the Self.

Quantum probability distributions are actually "non-physical Information" fields with non-local space-time properties. This has been eloquently proved by PEAR Lab's RNG experiments at Princeton University. Information proceeding from human beings directly and dramatically alters any event which involves probability, as was experimentally proved in a series of rigorous experiments at PEAR, lasting over 30 years, producing a data base much larger than the one which was used to prove Quantum Mechanics in the first place. Information fields also directly interact with human energy fields, producing selective Quantum maps in the Brain, as we shall see later.

Projections of the potential of the "Whole" eventually reach the observable realm of micro-physical entities via their more abstract correlates - the Quantum states. (This occurs at various Sub-quantum scales, with many possible, infinitesimal-carried, combinatorial informational options).

Within certain suborders of the Implicate Order, there arise structures which have a certain recurrence, stability, and separability - resulting in the apparently tangible matter manifestations of our world. In the model we propose, Brain is such an object, the result of highly complex morphogenic (form originating) field interactions, which mediate between the Information domains and observable physical structures. Such morphogenic interactions constantly occur in the observable environment. They also occur internally, in the form of personality, species related, and societal, "awareness complexes".

Information conveyed by motions of Sub-quantum Units is the common ground for both matter and life. In this context, there is no difference between life and matter, as both prove to be the observable results of Information drivers. These factors are equally present in "inanimate" matter, and in non-corporeal forms of intelligence, and so on, in various forms, parallel to human intelligence.

Information folds and unfolds in a multidimensional reality, the dimensionality of which is effectively infinite. Information as described by Bohm, is an "inwardness", appearing in sequential time-windows of Consciousness, as observable instances of SQ fluxes in the underlying implicate order. Such Information inputs do not require a physical Brain, though neural networks (when available!) may react to them by fine-tuned Quantum orchestration.

The "Quantum potential" actually refers to such Sub-quantum Information-driven matrices, as are ready to enter the explicate (observable) realms, in the form of specific Quantum maps. These maps then appear to produce electromagnetic and ionic correlates in neurological networks (brain). Because information transfers can occur with any velocity from zero velocity, to an infinite velocity, any response-time differentials in this functional coupling, typically derive exclusively from the very slow information transport rates observed in neurological networks, given that non-local information-based correlations are

well known from Quantum Mechanics experiments. Unfortunately, a wrong causality has been concluded from such effects. A view which obeys informational enfolding and ordering laws, and which matches the "unexpected" results of the many information-driven experiments which have been performed during the last decade, and more, must replace the current tenets of Consciousness Studies.

Beyond time, the egg/hen paradox, is no longer a paradox. Intelligence has to be seen being at the very core of the information which produces the Universe and influences human Consciousness in the process of his interplays with the very content of his consciousness - the manifest environment. "Things" - just as thoughts, form and dissolve in a ceaseless holographic flux of Sub-quantum structures reaching far below the Planck "limit", toward vortices of infinitesimals, forming at the Kolmogorov scale (10^{-58} m), and beyond.

Infinite combinatorial properties are at the background of all entelechial dynamics, which dynamics have strong similarities to Bohm's Implicate Order model. Numerous hints as to this ultimate modeling of Reality are to be found in Eastern philosophy. Our Sub-quantum Units (the "Bhutatmas" in the initiatic folklore of India), display an intrinsic ability to aggregate into pre-Space-time Information vortices composed of infinitesimals, which vortices we are considering as particles, living at the Kolmogorov limit, with implications of yet smaller entities, arising from mathematical explorations. These Sub-quantum entities are reliable candidates for an all-comprehensive explanatory system. This system is capable of addressing the origins of the Universe (as a Continuous Creation process), producing a more complete description of all physical manifestations (including the actual origination of the physical properties of the atomic elements). It is also capable of addressing, Life (in all its forms, biological or not), and Consciousness (in all its forms, physical or not). These are all encompassed in a holistic Bohmian model, by including the concrete Sub-quantum stuff of our interest. By extending the "physical" approach into the Informational domains, we are transcending Searle's concepts of intentional and extensional "aboutness", as well as Popper's "three divided worlds" view, by emphasizing, in the form of Bohm's theoretical "wholeness", the constituent superluminal Sub-quantum structures which actually produce such wholeness.

This reflects the "holonomic principle", which brings to an equal footing, the Sub-quantum and the Cosmic Plenum, the infinitely small and the infinitely large. A malleable determinism occurs within the ceaseless Creation Process.

Quantum Brain contacts the content of an ontologically distinct, Informational environment, which content Brain has been exactly created to process.

However, brain is not required for Consciousness. Direct experience has proven over this over centuries of human experience. Centuries of human experiences of interacting with various non-physical forms of Consciousness, are empirically verified by our contemplated future instrumented experiments, as soon as funding allows.

The topic of the Cosmic Apex, the primeval Source of Information and the Cosmic Play emerging from It is beyond the scope of this work. A new Philosophy of Science will have to account for this new world-view, one which is gradually unfolding from the experimental data that back our approach. Our current concern is in how Informational structures cascade across sequential enfolded orders toward explicate processors (brain, memory, consciousness), where in the past, the physiological correlates of informational events have been so unfortunately misinterpreted as being the "origination" of Consciousness. In actual fact it is the Consciousness which is producing the physical responses. Consciousness exists beyond the physical.

Whether the fundamental generative order backing this endless enfolding/unfolding process implies holofractals or is related to some mathematical constant, such as the Golden Mean ratio, is the object of further investigations, dependent upon advanced instrumentation that hopefully will allow us to see into hitherto hidden ranges of the Sub-quantum, which conveys the implicate order. The Golden Mean Ratio (1.618) is present in the DNA, and is considered by some proponents as the most efficient energy and Information transfer ratio between scales and harmonic series. Future investigations will shed a new light upon various mathematical expressions which may be able to describe the presently intangible operators in the implicate order.

I-6. NONLOCALITY & QUANTUM FIELDS — *Flowed materialistic dogmas. — Einstein's errors by using altered Maxwell equations. — Nonlocality of both relativistic and Quantum theories. — Trans-H elements and divisible electron. — SQ origination of Time. — No "Big-Bang". — Quantum field redefined and divergences in the Quantum potential. — Syntropic Quantum states. — Brain as an EM/Quantum processor.*

Obviously, no successful approach to the mechanism of the individual personality's survival of bodily death and capacity to reincarnate into new space-time defined material existence can be argued from the standpoint of obsolete dogmas entertained by currently challenged mainstream scientific worldview. We have to transcend it in order to get rid of its frequently absurd and paradoxical tenets, highlighting the informational background operating at our world's very background, though a wide array of increasingly complex, programs that operate in the Sub-quantum plenum.

Energy, in our physical world, is traced back to its originating Informational background. Energies, as we know them, are controlled and originated by Sub-quantum activities, with inter-dimensional coupling modalities. The problem is that standard Quantum descriptions of energetic phenomena, totally ignore the Informational aspects of energetic behaviors, thus often reaching incomplete, or straightforwardly erroneous conclusions regarding the actual physics involved. Such flawed conclusions are defended by counterintuitive absurdities, often derived from abstract mathematical speculations, which are deprived from any concrete footing into reality. In such mathematical abstractions, reality is often expected to obey artificial, or arbitrarily imposed codes of behavior. Then, just as energy is derivatively linked to matter, Brain is expected to secrete Consciousness as a by-product of its quantum activity.

Tons of "scientific" papers have piled up along the path of this futile search, leading to nothing, while recurrent empirical observations are ignored, or dismissed as fraud or hallucinatory events, as soon as such observations defy any of the "officially accepted" canonical constraints, or dogmas, as commonly imposed upon sponsored academic research programs. It seems that thinking about observable facts is prohibited by such

academic "ethics" and unspoken "laws". At least, such behaviors appear to be banned from some Conference halls. As famous neuroscientist K. Pribram, conspiratorially whispered into our ears, during our discussions in the lobby of the Salzburg World Conference on Quantum Mind, *"Independent thinking about the observable facts is not allowed here."* (And not only thinking about the facts, it seems, but remembering them also...).

Nevertheless, let's remember that, as repeatedly emphasized, our current mainstream scientific orientation has been intentionally misguided by devious and purposeful alterations, as done upon Maxwell's original quaternions, by suppressing the scalar components which describe potentials (Heaviside, Gibbs & Hertz). This original and deliberate exclusion of the fifth dimension from the equations as related to electromagnetism, has resulted in 22 fundamental errors in the current electromagnetic theory. Relying upon the resulting heavily mutilated variant of the Maxwell equations, Einstein later unwillingly perpetuated the chain of errors, by assuming that a Lorenz frame must be attached to any local event, its thus being apparently constrained to obey certain, circumstantially questionable, conservation laws in physics. (Oddly, it turns out that this artifice actually serves to violate the conservation laws, when theory is compared to actual experimental results.) Later on, Hertzian wave behaviors were ascribed to the whole of the electromagnetic spectrum (ELF and ULF included) - a further basic error.

Compounding these errors, Einstein further relied on Minkowski's mathematical abstraction called "space-time", where a 4-dimensional, complex, pseudo-manifold is mathematically created, with the 4th dimension being time, which enters into the system as iCt , which term is called "imaginary time". This construction falsely links the pace of time, t , exclusively to the speed of light, C , then enters time as a dimension of equal rank to the 3 normal Euclidean space dimensions, by way of the imaginary number i . This is the actual origination of the false assumption that nothing can exceed the speed of light, as caused by the foregoing unjustifiable, untested, and unquestioned assumption of iCt , which is linking of the pace of time, with the speed of light.

This mathematical construction is subsequently considered as a 4-Dimensional non-Euclidian pseudo-manifold, one which can be finite or infinite in volume. (This depends on

the type of curvature of the resulting pseudo-manifold, which is resulting from combining of space and time in this particular way, as based on the unwarranted and unproven assumption that the pace of time is actually caused by, and linked to, the speed of light.) It should be mentioned that no new technologies have ever resulted from relativity theory, and that the theory itself can never be physically proved, as according to Einstein himself. A theory which cannot be proved and which fails to produce any conveniences, deserves to be ignored, or at least revamped to agree with reality.

In the first place, so-called "imaginary time", is just that. Imaginary. Time is, in actual fact, caused by infinite velocity ether fluxes (Kozyrev). Also, as we have previously mentioned, the primary cause of gravitation is the infinite velocity variety of the ether fluxes, as well. So, we see from this, that there is actually a link between time and gravitation, while there is no demonstrable link between time and the speed of light. Thus, time t , should actually be introduced into a Minkowski space (for example) in the form of iVt , where V can represent any velocity up to infinity, since time is actually originally produced by propagations of infinite velocity Sub-quantum infinitesimals. (This kind of construction is, of course, assuming that we can fully and physically justify, our reliance on such abstract mathematical fabrications.) Now we have arrived at an appropriately non-local basis for relativity theory!

When we plug in the corresponding infinite velocity terms, we discover that we do not have any "light cones", nor any "null vectors". Now we can reconcile our new non-local relativity theory directly with the non-locality of quantum physics, without any undue stresses or histrionics. (At present, reconciling relativity theory with quantum theory is very much like trying to mix oil and water. They don't mix very well.) This also links the Maxwell equations to relativity and quantum theory directly, as well, because of the several infinite velocity Mobius transformation solutions to the Maxwell equations (Fock, V., Kiehn, R. M., Smith, T., Boyd, R. N.). Now the Maxwell equations, relativity theory, and quantum theory are all living in exactly the same non-local, infinite velocity Sub-quantum basis!

Similar destructive mutilations have also been seen in chemistry, where Mendeleev's original "Zero group" gases - having atomic weight values on the order $10e-8$, as compared

to the Hydrogen atom, have been completely excluded from the periodic chart. These nearly massless trans-hydrogen elements, having a kinetic velocity of 2 500 000 m/sec, allowed Mendeleev to publish his chemically-based concept of an Aether-filled interstellar space (1904). The existence of Mendeleev's trans-hydrogen group gases was subsequently experimentally confirmed by N. Tesla's explosive unidirectional electrical discharge experiments, with discharge parameters approaching the ideal of the Dirac delta function, which resulted in the electron's dissociation into its constituent aether sub particles. These discharges displayed spectra with no known equivalents in the classical electro-luminescent discharges.

An infinite supply of anisotropic infinite velocity Sub-quantum entities are produced by similar plasma dissociation events, occurring internal to stars, and at cosmic scales, as first suggested by Mendeleev. Entering into different interactions at the projective space (whose vanishing point is infinitely remote), these entities are slowed down by various interactions with pre-existing matter, thus eventually becoming trapped in vortex configurations, first at the Kolmogorov scale, then in the form of the subatomic particles existing above the Planck limit.

Space-sourced aether pulses (Kozyrev's astronomical "matter waves") are traveling at infinite velocity. These are implementing non-local Information transferences in zero-time, since time ceases to exist only at infinite velocity. (Contrary to the commonly held assumptions associated with relativity theory, Time arises for the SQ particle, only when SQ particle velocities fall below an infinite value.) Aether fluxes are slowed on encountering the resistance of the Earth's crust. Some of the thus-slowed Sub-quantum entities are eventually captured and converted into various elementary particles, which particles will now contain the Information originally conveyed internal to, the now constituent, aether entities. (The resulting Sub-quantum configurations continue to store the original Informational content.) At the sub-atomic level, the constituent SQ entities are organized in the form of Kerr-Newman Compton Radius vortices (Smith & Sidharth) - complex structures behaving as though in a fluidic media, while evidencing both wave-like and particle-like manners.

Information thus gets trapped into the increasingly complex energy/matter structures, evolving from the various elementary particle creation events. Obviously, over vast periods of time, such considerations lead us back to the cosmic scale, where astronomical objects are involved in huge energy discharge effects, resulting in the plasma dissociations which are originating these infinite velocity SQ entities. This is the starting point, in the ceaseless process of the creation (and destruction) of matter, as resulting from the thus-carried Information fields. In our Sub-quantum cosmogony, there is no need for any starting "Big-Bang" event, as the requisite Infinite velocity transferences of Information, occur beyond Time. The embarrassing paradoxes of "pre-Big-Bang" states, together with the need for some sort of "creation instant", all vanish without traces, as seen from this perspective. In our model, physical Creation is a ceaseless process, implemented by the Sub-quantum by infinite velocity, bi-directional, interactive loops of Information flows.

This is reflected by the experimentally observed irregular and complex fluctuations in the strengths and directions of actual field structures, as well as by variations of the gravitational "constant" (which, at accurate measurements, turned out to be but an "average" value). Such irregularities, together with the periodicities observed in the dynamics of field structures, and the (poorly reported) variations in the speed of light, as found in the Michaelson-Morely experiments (up to fluctuation values of the order 3 000 m/s!), find an elegant explanatory model in the vast streams of infinitesimals of cosmic origin - the matter creation/destruction loop, as explained above.

Let's now return to some fundamental errors, by which modern science is stubbornly perpetuating and consolidating its dogmatic approach - which, fortunately enough - is increasingly challenged by experimentally supported new insights. Inspired by the aforementioned incompleteness of the Maxwell field theory, T. W. Barrett (1995) proposed a new version of EM concept based on the non-abelian symmetry group $SU(2)$ replacing Maxwell's $U(1)$ abelian group. An extended Lorenz invariant form of Maxwell's equations has been developed also, which allows for longitudinal space charge waves, with independently modulated parameters, thus making possible superluminal Information transferences, hitherto wrongly excluded by the relativity theory.

The Maxwell equations keep valid only in a physical media with inertial properties, such as an aether. The motion of a Quantum scalar or pseudo scalar field (whose quanta are considered to be spinless particles) in such media, is possible in both time directions, according to the Klein-Gordon equation - which in the Y. Nambu interpretation allows for an infinite range of particle masses, down to the Infinitesimals of our concern, operating at Sub-quantum resolution level. This allows us to describe the transference of fractional quantum subunits between different Quantum systems at superluminal speeds, up to infinite velocity. Such Information transports actually define the Quantum Field. Similarly, the vector potentials are described in terms of streaming Sub-quantum-related Information flows building up and interacting with the energy fields.

From the perspective offered by this approach, experimentally confirmed non-local violations of Bell's inequality (Freedman, Aspect, the PEAR research program) may be traced back to Sub-quantum-related hidden variables, as originating Quantum activities. Hyperdimensional dynamic patterns which are beyond standard Einstein-Podolsky-Rosen (EPR) connectivity, are at work in the Sub-quantum regime, and are directly influencing Quantum system behaviors, in both isolated, and entangled configurations (of the kind associated with Brain activities). These hidden variables, operating at SQ levels, still far beyond the range of capabilities of our present instrumentations, decisively influence the observable outcomes of all Quantum processes, in a most deterministic and instrumentable way. Our still blurred comprehension of such infinitely complex Sub-quantum Informational interaction processes (hidden variables) is partly due to previous erroneous misapplications of the Heisenberg Uncertainty Principle, now experimentally proven to be situation-dependent. (Uncertainty cannot be applied, in any regard, to a beam of monochromatic photons, especially coherent ones, for example).

Information driven tendencies (including emotional conditions, attention, intention etc.) result in divergences inside the Quantum Potential, orienting probability distributions according to implicate Information control mechanisms with teleological properties. The macroscopic consequences of this Sub-quantum regulation effect are well known in both "inert" and living systems that exhibit nonlinear, random or stochastic components.

Information density gradients, accumulating over time in such media, explain the various memory functions of these media, functions which are transferable from one location to another, either by SQ information transports internal to the media, or by displacements of the media itself. Seen in this light, Quantum superpositions are but secondary statistical effects of the active Information dynamics inherent in the system.

Our Sub-quantum Information model is also able to supply a most elegant solution to the puzzling Quantum Tunneling effect. The structural Information related to the particle; does not vanish at the barrier it encounters. The SQ informational components of the now-defunct particle, keep flowing through the barrier, along the initial vector of the movement. These informational components serve as a ready-made blueprint, resulting in structure's exact replication (re-setting), at the other side of the barrier.

The Nobel Prize winning exact measurements carried out by Hans Dehmelt upon an electron trapped (in a Paul trap) for three months, along with similar results as related to monochromatic photons (R. N. Boyd), have brought about a refutation of previous conceptions of the universality of the applicability of Heisenberg's Uncertainty Principle, as well restructuring the regimes of the applicability of the concept of the mutual "complementarity" of inherently imprecise pairs of physical concepts, in quantum state descriptions.

Further on, the Quantum Electrodynamics (QED) proposal of "virtual photons" involved in inter-electronic repulsion mechanisms, contradict Newton's Third Law. These virtual entities are replaced in our model by Informational resonance effects of holographic consistency, implying superluminal causations, governed by the Sub-quantum regime (beyond the validity range both of relativistic and Quantum tenets). From this, all "virtual" activities are actually intermediated by the activities of the Sub-quantum entities.

One by one, the standard Quantum model's paradoxes are vanishing under the magnifying glass of our Information driven reality model, making room for rationality to be restored in physics as well as in the ontological description of sentient phenomena.

We strongly agree with Prof. Andrej Detela (1998) when pointing to the evidence for a self-organizing inherent active information system in complex Quantum states, expressing their informatically coherent essence. They build up syntropic systems where dynamics follow not a physical gradient, but the aforementioned meaning-charged negentropic vector of self-organization instead. Experiments of the kind reported by Aspect clearly suggest that only free information travels in an entangled Quantum state, without any energy or mass components. Syntropic flux lines evolve in Quantum states following an odd time symmetry matrix, in a spatial reference frame of intersecting axial and polar vectors with complex resultants in biomolecules, able to be subsequently delocalized over the living cell's integral volume. Moreover, Detela suggests that identical energy states between stable, and non-stable protein configuration patterns, confirm the assumption that morphogenetic fields are directly related to active information fluxes, operating in syntropic Quantum states. A similar vector acts in neural microtubuline structures, displaying internal coherent, space-oriented microwave radiations.

Brain boils down to the electromagnetic apparatus it really is, activated by the self-conscious syntropic Information structures and correlations (the Self) which reside in the hyper-dimensionally coupled Sub-quantum domain.

Standard quantum descriptions of Consciousness fall short of encompassing all forms of Qualia and intelligent contents, which actually form, and are processed, deep inside the Sub-quantum realms, being the actual originating source, which controls the Brain's Quantum activity. Fueled by Infinite velocity units which are operating beyond time constraints, this source proves to be the actual independent and proactive agent, which is periodically activating given Brain structures, which structures have evolved under SQ morphogenetic regulation principles, for just this purpose.

The Brain is here to express and integrate the Self, not to produce it.

Conscious Self doesn't need a brain.

I-7. INFORMATION AND ITS NON-PHYSICAL EFFECTS — *Unification of Time with Gravitation and Electromagnetism UPT, conscious time and metabolic time. — A personal initiation experience in universal Information connectedness. — Non-physical forms of Consciousness. — Recombinant DNA as storage for super-encoded Information potentials. — Informational radiation of biosystems. — Wave genetics. — Solitonic background of morphic causation. — Context-dependent Quantum de-coherence by nonlocal interactions. — Gravispinoric cavity effects.*

For a scientifically acceptable framework able to allow the reincarnation process of personality into its energy-c controlled physical vehicle, which in its turn has to function according to the physical laws of terrestrial conditions, we have to briefly consider the way time, gravitation and electromagnetism are coupled into a quite self-consistent system embedding the metempsychosis process.

Atemporal (diachronic) events had always a baffling effect on their observers by their counter intuitiveness and defiance of "normal" commonsense related to the linear time flow as routinely experienced by all of us. Any experience involving "time anomalies" has been quickly related to "experimental flow", "fraud", or repelled into another similar delusional category by orthodox science. As only alternative, such phenomena have been simply labeled as "paranormal" - expression meant to vouch for their defying conventional tenets of science, falling beyond its current explanatory range.

All this has to change by now from the new perspective we offer. A correct understanding of the essence of Time as physically describable entity - closely connected to fundamental energies and forces operating in nature - will bring to an equal phenomenal footing "normal" and "anomalous" time-related events, connecting both sets to their common Information-charged Sub-quantum background.

We have earlier mentioned that time is caused by the infinite velocity variety of the aether fluxes, and has nothing to do with the speed of light, to get the simplest understanding of what is time across to the readers. Now we are going to explore time and its effects a little more deeply.

The propagation velocity of the general time-flow is infinite. Given this, organization and information can be transferred by the time flow (a fluidic flow composed of infinitesimal infinite-velocity particles), to infinite distances, instantly. Time (aether flows) thus emerges instantly at every location, simultaneously throughout the entire universe. This behavior is called Universal Physical Time (UPT). We also know that the same flows are the primary causation of gravitation. Simply put, both time and gravitation are resulting from flows of the same substance, the infinitesimals.

According to Kozyrev's astronomical and laboratory observations and experiments, the aether flux which causes time has "active properties" which produce many physical effects on physical systems, including us. By using instrumentation to fix the "time flow" (actually aether flux) from stars, thus fixing the star's position at the present moment, the star's position in the past, the star's position in the future, and the actual proper motion of the astronomical object (its trajectory), Kozyrev and Nasonov (1980) were able to fix the true positions of astronomical objects, relative to their optically apparent positions. (In astronomy, this measurement is called the "parallax" of the astronomical object.) By measuring the angular distance between the true and apparent positions of the given object, the parallax of an object is determined by simple trigonometry.

We also mentioned earlier that all subatomic particles, including so-called "quarks" have substructures, being composed of yet smaller particles which are composed of yet smaller particles, and so on, down to the infinitesimals. This understanding changes things. Simply stated, all subatomic particles, including the electron, are resonant systems of orbiting smaller electric charges of opposite polarity, which sum to the observed charge on the given particle. These smaller electric charges are due to the various Sub-quantum entities, in our view, such as the Kolmogorov vortex particles mentioned earlier. We have spoken earlier about the origination of the constituent aether fluxes as being due to plasma dissociation events internal to stars.

In this model, the electron is never treated as a point-like particle. (Experiment and observation have demonstrated that the electron has a finite and measurable extent, unfortunately for existing quantum theory.) The electron, and the other subatomic

particles, must have substructures, in order to have an angular momentum and in order to demonstrate a preferred magnetic orientation (vaguely known as "spin"). There must be motions of subentities (K-vortices) circulating internal to the electron, in order to generate the observed electrical and magnetic dipole moments of the electron. The transfers of energies between these sub-entities which are moving internal to the classical electron radius, for example, must be resonant and near instantaneous, in order for the electron to remain a stable particle. This kind of perspective leads to a vast simplification of existing particle physics, one which is philosophically agreeable and easy to understand.

What does all this have to do with time, the informed reader asks? The reader may recall from our previously discussions of the direct relationship between gravitation and time, that both are the result of infinite velocity propagations of Sub-quantum particles. There is also a direct relationship between gravitation and the electric field, and a direct relationship between the electric field and time.

The relationship between gravitation and the electric field was first observed experimentally by Dr. Francis Nipher of France. Dr. Francis Nipher conducted extensive experiments during 1918, on a modified Cavendish experiment. He reproduced the classical arrangements for the experiment, where gravitational attraction could be measured between free-swinging masses, and a large fixed central mass. Dr. Nipher modified the Cavendish experiment by applying a large electrical field to the large central mass, which was shielded inside a Faraday cage. When electrostatic charge was applied to the large fixed mass, the free-swinging masses exhibited a reduced attraction to the central mass, when the central mass was only slightly charged. As the electric field strength was increased, there arose a voltage threshold which resulted in no attraction at all between the fixed mass and the free-swinging masses. Increasing the potential applied to the central mass beyond that threshold, resulted in the free-swinging masses being repelled (!) from the fixed central mass. Nipher's conclusion was that shielded electrostatic fields directly influence the action of gravitation. He further concluded that gravitation and electrical fields are absolutely linked.

The pace of Time is directly linked to electric field gradient variations by the mathematical function known as " $\Delta \text{grad } E$ ", which function is simply describing variations in the gradient of an electric field. Experimentally, such electric field variations measurably and instantly result in changes in the pace of time, variations in the measured force due to gravitation, variations of inertia, variations in the speed of light, and variations of the measured permittivity and permeability of the physical vacuum, all at the same time!

Further, the electrical resistance of carbon changes in direct correspondence to the aether flux density at the given moment and the given location, which fact has profound implications in studies of the behaviors of biological systems. This fact has also led to the development of an instrument known as an Aether Flux Density (AFD) meter, which can be used in any study of Aether actions. When the AFD is applied as a gravitometer, it demonstrates a sensitivity to gravitational variations thousands of times greater than standard 4 axis gravitometer systems, and is capable of measuring gravitational transients as fast as 20 nanoseconds. (Needless to say, the force due to gravitation is never a "constant" value.)

From the above considerations, time is linked to gravitation, through the electric field. All the items in the preceding discussion (and many others) are linked by the unifying precursor activities of the infinite velocity infinitesimals. Based on instrumented astronomical observations and laboratory experiments, Kozyrev computed an infinite velocity of propagation for the "time substance", which corresponds with the view that there is an infinite velocity involved in gravitational aether fluxes. Thus, both time and gravitation are due to the same superluminal aether flows. Additional properties of the time flux are involved with information flows, information densities, information content (such as the quantum potential), and so on, which add together to result in variations in the pace of Consciousness Time (CT). Kozyrev also discovered that the aether fluxes which cause Universal Physical Time (UPT) are also responsible for producing Metabolic Time (MT) in biological entities.

Variations in aether flux density have been experimentally connected to biological and electrical transmutations of the atomic elements, variations in the rates of chemical

interactions, variations in spring stiffness, variations in mechanical tolerances from day to day, variations in elasticity, non-locally correlated variations in measured weight, non-locally correlated variations in measured inertia, information-correlated variations in the measured PH of remotely located substances, and a vast array of additional and surprising physical effects, none of which may be attributed in any way as being due to any manner of Heisenberg uncertainty. Aether fluxes are also responsible for many after-effects and precursor events associated with physical events. For example, there inevitably arises an aether precursor to any explosive event, which is measured as an aether flux density pressure wave, which aether density variation always precedes the physical shock-wave event itself.

Now, I ask my readers to allow me introducing my close years-long friend and collaborator, Dr. Robert Neil Boyd, Ph.D. - whom I pass here the word, giving him the opportunity to deliver a first-hand personal witness of non-biological and non-physical forms of consciousness, by his special training in non-conventional variants of interfering with them. From an epistemological perspective, such first-hand experiences are of a tremendous importance for understanding the human soul's very spectrum of manifestation abilities in nature.

We are sure that keeping in mind a few exemplification data in this regard will enhance the readers' further receptivity for our explanatory theoretic model.

Let's give the word to Dr. R. N. Boyd, Ph.D, for a brief recollecting of his start on the amazing way of interconnectedness with All Life.

Dr. Robert Neil Boyd (<http://www.victorzammit.com/articles/Klein5.htm>) writes ...

"More than 25 years ago, a Cherokee (Native American) Holy Woman of my acquaintance decided to start blessing me with some of her vast knowledge and abilities, deeming me a suitable candidate for eventually realizing some of the amazing understandings which have followed on her guidance's.

Early on, we used to play a game together, a variation of "hide-and seek". The first time we did this, she got in her pick-up truck and told me to count to 100 and then come and find her. Then she drove away. That first time, I didn't even bother to count to 100, as I knew that the task of finding her was impossible, especially after a one hundred second head start, since there were so many intersecting roads she could have turned on, and gone down, in the direction she'd gone, with further bewildering array of intersections available after any first turn.

After about 15 minutes, she returned to her home, to find me waiting, right where she'd left me. She said with a smile, "Couldn't do it, huh?". I said, "No. How could I? It's impossible!". She said, "OK. We're going to try again. Only this time, pay attention to the birds." With a teasing smile on her face, she said, "Don't forget to count to 100!" And she drove away again.

For some reason, I didn't think it was so impossible anymore, and dutifully counted to 100. Then I got in my car and drove in the same direction I had seen her go. When I got to the first intersection, where she could have turned left, or right, or gone straight ahead, I was stopped at the red traffic light, trying to guess which way she might have gone. It was intellectually hopeless. Then I remembered her saying to "pay attention to the birds". So, I started looking around for some birds.

Eventually, I spotted one on a telephone line, across the road from me. It just sat there on the wire, seemingly oblivious to my presence. Not knowing what else to do, and helpless otherwise, I had an instinct to send a mental picture of her, to the bird, along with the request that, if it had noticed her, would it be so kind as to point its beak in the direction she had gone. I decided to try the experiment.

To my surprise, the bird turned on the wire, to face towards my left, where before, it had been pointing exactly straight ahead. Thinking that maybe this was merely a coincidence, I searched for another bird, and repeated the procedure. I got exactly the same result. The birds seemed to be responding to my picture-sending methods and to my request. Thinking that, at worst, I might be in for a long and random drive, I decided to turn left, in the direction that had been indicated by 4 separate birds, by the time the light had turned green.

As part of the experiment, I decided to repeat this procedure at each and every intersection I came across. After about an hour of this sort of thing, I eventually found her, parked in a corn field, many miles away from where we had started, by a route that had involved many turns. I was amazed beyond words. "It worked!" I exclaimed to myself, with a happy smile.

I eventually realized that the birds always directly responded to my projected mental pictures and to my projected emotions. We did this game for several weeks. I got better at it with each repetition.

Then one day she changed the rules. She said, "We're going to play the "find me" game again. Only this time, you won't be able to use the birds. You're going to have to find some other way to find me this time. And don't forget to count to 100.", she said with a smile. And off she went.

She went off in the same direction she usually did. So, as a matter of habit, when I got to that first intersection, I immediately started looking around for birds to point the way for me. I rapidly found some birds. I performed my usual sending of pictures and the polite requests. And the birds ignored me. All of them. None of them would change their facing, at my request. I was crestfallen. It wasn't working. Then I remembered that she'd said I wouldn't be able to use the birds today. So, I started wondering about what other resources I might be able to use, since I couldn't use the birds for guidance this day.

Across the intersection was a gasoline filling station, which displayed a large boulder in front of it, as part of the landscaping. For some reason, it crossed my mind for the first time, that maybe rocks might have some sort of awareness. Since the birds weren't working for me, I decided to go across to the gas station, and park, so I could get close to that big rock and try some experiments along the lines of what I'd been doing with the birds for weeks-on-end.

I parked at the neighboring pizza shop, so as not to cause any inconveniences at the gas station. Then I walked over to where the boulder was in the gas station lot. Instinct had me go to the boulder and arrange to place both feet and both hands on it, so that I was completely off the ground. Having accomplished that, I then wondered if maybe the boulder might be able respond to me in some way, like the birds were accustomed to respond. So, I sent out a feeler

message, an emotion of directed inquiry, similar to what I'd done with the birds. To my utter shock, I got an emotional response, from the rock! By this time, I was used to having emotional interactions with birds. But never in my wildest dreams had I ever imagined I could get the same kinds of responses from a rock! So, I started projecting mental images, and to my complete surprise, got mental pictures back from the rock, in response.

Well, upon realizing that the rock I was on, actually had Consciousness, my curiosity was aroused. I started thinking about what I might be able to explore this way. Then I made the mistake of asking the boulder to tell me its Life Story, its history. It started sending me pictures of how it had once been part of a magnificent, tall, ice and snow-covered mountain. How then after thousands of years of snow and ice and water and wind, cracks started splitting the mountain face. Until one day it parted from the mountain, to fall to the ledge below. Then from there, this and that and the other happened and happened and happened and picture after picture after picture, until I was overwhelmed. Not wishing to be impolite, I stayed with the barrage of information for quite some time, until I was eventually forced to interrupt its cascade of information, just to get a break. It stopped. Thank goodness.

"Whew! Well, that worked." I said to myself. Then my curiosity got started again, and I started wondering if it recorded any living things in its memory. I made another mistake of asking for its history of observations of Biological Life. Picture after picture after picture of living things, including dinosaurs and mastodons, to deer to lizards to birds and on and on. After my curiosity was more than satisfied, I asked it to stop, since I was still involved in the "hide and seek" game, and still wanted to find my Spirit-Teacher/Friend. It obligingly stopped for me.

Then I asked if it had ever seen any people. I got its entire history of its observations of various human beings, including the first Native Americans it had ever seen. I said, "Stop. What about today?" And I got pictures of cars and people and cars and people, in an endless stream, passing before the rock's inner vision. On realizing it could see this way, I said, "Stop. What about this one?". And I sent a picture of my friend to the rock. It sent me back an exact copy of her face and her pick-up, and I saw that she had turned left at the last intersection. I said "Thanks!", to the rock, with a great big delighted smile, and went back to my car. I eventually

found her by using the rocks, similar to the way I had previously found her, by using birds (though not as convenient).

I got good at this, as we repeated the practice. Then one day, she said, "Today, you're going to have to find another way. None of those material things are going to work for you." And off she went. I got to that first intersection and tried the usual birds and my boulder-friend. Nothing. Not even from my rock friend. How could this be? But I'd realized at that first intersection that I'd gotten an urging, from the very air, that she had gone straight ahead this day. A very mysterious feeling it was.

I decided to go that way, since nothing else was working, and look for more such urges from out of the air. As I proceeded along that road, unsure of myself, I eventually came across a very strong sense of energy in the air. As I was driving, I could sense an energy in the air, well before I got to it. When I got there, a very clear mental picture came to me, of her being at a specific restaurant, in a specific shopping center. I could see the name of the place, the advertising sign, displayed clearly in my mind's eye. I selected to go straight there, rather than look for any more signs from her. We had lunch together that day, in that very restaurant. She had placed the information about it, into the air along the road, the vision of which had appeared in my mind's eye, as I was seeking after her. So I found her.

Later on, she and I made adventures of finding haunted houses and unhaunting them. This was all in preparation to have many future encounters with many varieties of Non-Physical beings, such as Dralas and Devas, and Angels.

Or example, eventually, by exploring the non-physical forms of Consciousness, for many years, I discovered exactly how crop circles are made, by Devas. This has been substantiated by a German researcher who has published a peer reviewed article in a respected Journal, regarding instrumented observations made during the actual formations of crop circles.

I have discovered over the years, that without the proper prep work, as given above, personal interactions with Non-Physical Beings are difficult-to-impossible, because the proper openness and sensitivity will be lacking. Due to more than a decade of such interactions, the principles

Klein and I have been expressing have been developed on an empirical and scientific basis, supported by many years of innovative physics research. This basis will become even more empirical as our new SQ information-based instrumentation packages come available."

A few years ago, an exciting communication popped into the general public's awareness:

"NASA's Phoenix Mars Lander has found snow falling from clouds on Mars. Spacecraft soil experiments have provided dramatic evidence of past interactions between minerals and water, processes that occur on Earth."

Science evolves by experimental evidence, dropping previous erroneous assumptions. This process occurs not only in mankind's Space adventures, but here on Earth...

At this stage of our Odyssey toward a new understanding of the human consciousness and its total autonomy from Brain, we decided to spend a few minutes in some exciting scientific data strongly supporting our model of sentient Reality.

Broadly speaking, at this point we already cracked some of the physical vacuum's mysteries. From its Sub-quantum structure as described, it can be safely concluded that Information structures, in both their dynamically changing and stored forms as memory patterns, arise from and live in infinite combinatorial resonance patterns that are stored and carried across increasingly fine Sub-quantum regimes according to their enfolded parameters. Providing that strong experimental evidence can be invoked for such Information fluxes operating in physical vacuum, a giant step toward dropping the incorrect view which causally ascribes cognitive phenomena to neural functions, will be accomplished.

So, what does the experimental domain have to say regarding information and its influences on various physical processes?

One of the most outstanding scientific research teams, coordinated by Peter Gariaev (University Lebedev, Moscow), provided experimental evidence for the physical vacuum having a holographic memory, thus supporting Karl Pribram's tenets about the human

memory, in the form of a holographic model, which were derived from clinical neurobiological studies.

DNA Information signals have been proved, being emitted from vacuum chambers, long after previously resident DNA samples have been physically removed.

Using an advanced laser photon correlation spectrometer, the Gariaev team had the opportunity to study the vacuum substructure on strictly quantitative grounds, made possible by the "phantom field's" ability to couple with conventional electromagnetic fields.

Gariaev's findings allowed for a fundamental redefinition of life, now defined as a dynamic exchange of energy and information, between a physical system, and its Information counterpart, which counterpart does not obey the physical structure's space and time parameters. The paradoxical "95% garbage DNA" in the genetic sequence, which had previously defied all "recombinant DNA" interpretations, has turned out to contain super-encoded potentials of Information, which exist at a much higher level than the information contained in RNA and protein sequences.

Due to this newly discovered wave-level of DNA Information-encoding, the planetary genome has turned out to actually be an intelligent and aware system, able to program the space-time organization of all organisms, ensuring that the given organism interacts in harmony with all the other resident life-forms on this planet.

Gariaev's team, using Vacuum memory features, succeeded to bring about the unbelievable genoplastic effect of turning a living chicken, partly into a duck, by exposing the chicken to the informational radiation associated with the DNA of a duck. The offspring of this Informationally-engineered creature preserved the same duck bills and webbed feet features of their genetically modified ancestor.

By similar procedures, a salamander has been turned into a frog. By Informatic radiation applied on mice with destroyed pancreatic tissues, regeneration of new organs has been achieved, before the animals could die from missing these organs.

Along similar lines, Boyd and Shpilman achieved a successful alcohol-Information transfer into water, with obvious technological potential to suppress tissue damage in alcohol addiction cases, without withdrawal efforts, or the need for abstinence.

Gariaev's experiments strongly suggest that genetic strands are transmitting very specific holographic blueprints, in a way which extends superluminal interactive communications pathways, between the given DNA strands, and the global environment. These holographic blueprints are provided by solitonic nonlinear superpositions of standing sound and light waves, and are implementing quantum non-locality at the molecular scale.

From these experiments, Sheldrake's earlier "morphogenetic field" expressions have received unexpected experimental confirmations.

Wave genetics has an unprecedented application potential, since these techniques provide complete knowledge of the DNA, and thus complete control of the DNA sequences, by information-based techniques, completely replacing old molecular chemistry manipulations.

Upon our suggestion, the Gariaev team achieved a successful interference with the Hayflick Limit, a counter in the DNA which stops the cell from copying itself after a specific number of replications, this being the primary cause of aging. These results have opened unbelievable perspectives for impending life-span prolongation procedures for humans.

Also, at our suggestion, Gariaev's team has caused the regrowth of specific missing teeth in volunteers in Moscow, providing further experimental evidence supporting many other information-based possibilities, such as the periodic regeneration of various body parts.

Gariaev's famous "DNA phantom" effect challenges the basics of hitherto uncritically perpetuated paradigmatic fundamentals. The direct link of Gariaev's experimental work to Pribram's Holographic Brain model is obvious. Pribram achieved the formulation of his model by utilizing Fourier analysis on neurobiological phenomena, related to the Brain's ability to resonate with vast memory engrams stored and operating in the Sub-quantum environment.

Further experimental findings have revealed an amazing fractality is inherent in electromagnetic noise, as proved in frequency transposition effects (J. M. Brill) - pointing to fundamental Information structures which operate in language-like ways, connecting not only different species with one another, but interacting with the biochemical level of human DNA, and the environment, as well. Human speech patterns, when transposed into the microwave ranges of DNA oscillations, have shown similar effects. Considerations of such results, point us to a linguistic code, embedded in an Informational wave format, which spans across all physical scales, non-locally.

This brings us back to Gariaev's holographic soliton projection model, where resonant nonlinear wave combinations result in standing-wave blueprints involved with the generation of matter, at scales ranging from "virtual particle" fields operating in the physical Vacuum, to the formations of galactic clusters. Dimensionally encoded solitons may generate from these ambient fields, creating exact replicas of themselves in the cellular range, this process implementing Sheldrake's morphogenic causational principles.

Further on, non-local Information transfers, circumventing biochemical chains, have been amply documented in recent explorations reported by Huping Hu et al. (2002). The Hu experiments efficiently strengthen our view that Quantum entities inside the Brain may Informationally interact with various external information structures. Though our interpretation of Quantum Entanglement slightly differs from the Hu team's "spin-spin interaction" chain, Quantum Entanglement connects system to observer, achieving decoherence by non-local interactions with the ambient environment. Such context-dependent coupling implies new types of non-local information connections, which are much stronger than standard quantum correlations.

From this perspective, no truly random sequence can exist, and no recursive random sequence can be considered truly random. These interactions are more complex than any recursive mathematical sequence. This complexity derives from higher orders of universal implication levels, where hidden determinism and "hidden variables" are observable, as per the PEAR results mentioned earlier. Information conveyed by the superluminal SQ particles which produce Quantum entanglements, may explain how pharmacodynamic chemistries

are actually causing neural correlations in the Brain, as well as properly explaining the previously wrongly-interpreted synchronizations of cognitive effects, relative to the applied mechanical neural-triggering procedures, when such triggering procedures are applied to selected neurological configurations.

By applying magnetic pulses passing through anesthetic solutions to the Brain, the Hu-Wu research team succeeded to transfer the narcotic effect without the agent's physical inhalation of the narcotic. Such results are an extension of previous physical observations into clinical application ranges, where the instrumented pH values of far-distant liquids have been remotely and non-locally directly influenced, by manipulations performed on local, and isolated, water samples. In all these research programs, Information transfer has been decoupled from normal considerations of matter and energy, forcing researchers to consider other options to explain their undeniable instrumented observations, such as the SQ view. The brain's biochemistry is excluded from most, normally physical processes, either partially or totally, in such experiments.

Informational structures operate in their own Sub-quantum regime, be it temporarily coupled to the brain's Quantum activity or not ... Similar aether-bound Information flux systems are involved in Shoulder's Exotic Vacuum Objects (EVO) and in Keihn's nanometer vorticity patterns. According to J. Firmage's experimental results, applying an asymmetrical charge distribution to the Sub-quantum plenum results in an EVO charge variation gradient, reflecting an Information flux potential decoupled from ANY background of classical matter.

Such events may follow abstract mathematical pathways, such as those experimentally proved by Kozyrev, in instrumented observations. According to Kozyrev's ground shaking findings, a ceaselessly spiraling form of intelligent energy leads, at all scales of manifestation, to expanding proportions, related to the Fibonacci/Golden Mean ratios. An impulse of "time energy" in Kozyrev's view, is traveling through the Sub-quantum stuff, resulting in fields which do not have electromagnetic qualities. Static and dynamic torsion fields, active beyond the original proposals of Einstein/Cartan theory, were experimentally detected and studied by Sciamia et al. Such fields, created from spinning sources that do not

radiate any energy, are able to travel at superluminal velocities in the physical vacuum, resulting in Information-driven non-local connection events with diachronic properties.

Related to this, collective consciousness can detect, at subliminal levels of pre-awareness, significant impacts, well before their concrete implementation in time. Tremendous changes in RNG behavior patterns were recorded by Dean Radin both immediately before and after major world-events (as the Sept. 11, 2001, terrorist attack on N.Y.). We know from such instrumented studies, that such perceptions precede the actual manifested event. From this, we know that information can arise to Living Beings in manners that are not related to normal linear time, such information often preceding the actual events.

Later attempts to link Kozyrev's SQ "time waves" to gravitational energy (gravispinorics) have suggested that human energy fields may be seen as SQ field components of our physical bodies. Such mediating fields may be sensitive to various degrees of information pressures between space-time integration attractors, and the brain's Quantum activities. The "Aspden effect" confirmed Kozyrev-type latent forces in physical systems and has experimentally verified the predictability of Kozyrev-type interactions in dissipative processes, as has been well established by the Russian Academy of Sciences.

Not less perplexing experimental data of biological antigravitational effects and invisibility experiments were reported by V. S. Grebennikov. They are to be traced back to the Information-mediated Cavity Structural Effect (CSE). Grebennikov's CSE field behaviors, strongly resemble Gariaev's DNA phantom effect. A similar vector alignment, along gravitation flux lines, has been experimentally detected for the CSE-ray, in the aforementioned gravispinoric data. Ghost fields in residual "phantom locations" are amply documented in Grebennikov's research data, strongly supporting the ontologically autonomous behaviors of Information fields as disconnected from the normally-considered matter/energy backgrounds.

Recent experimental data in neurobiology is consistently supporting similar tenets. Neuronal spiking in the visual cortex has been shown to relate to the perceptual interpretation of the stimulus, rather than to the physical properties of the stimulus (Maier

et al., 2007). Such observations strongly support a derivative consistency of neural events from Sub-quantum mediated Information fields, impacting Consciousness via both sensory and extrasensory channels.

Interested readers may correlate this context with Kaznacheyev's "Mirror Cytopathogenic Effect" or Backster's elusive "nonlocal death signals" - where Informational causation is actively coupled to physical chains of determinism.

A new and correct understanding of the originations and operations of Consciousness, as discussed above, has to be accepted in the light of the increasing amount of experimental (and experiential) evidence. For obvious reasons, we've touched here on only a very limited selection of recent experimental data, suggesting the need for a radical epistemological shift in our current understandings, as related to Informatically charged contexts. Self-organization proceeds along Informatically induced preferential vectors in syntropic Quantum states (Detela, 1998).

These processes are universally isotropic, omni directional, have an infinite frequency spectrum without mass or inertia, with self-interference and polarization abilities and propagate at superluminal velocities. As we stated earlier, information is constantly being radiated from everything, and constantly being absorbed by everything. Our readers who are somewhat familiarized, at this stage, with holographic transpositions of logical inferences, will easily observe that these aforementioned fundamental principles apply directly to Mind/Brain connectedness issues.

The hitherto "scientifically unproved" - or even denied hypothesis, of snow on the Martian surface, has been experimentally proved, just as the Informational structures' ontological autonomy from matter/energy has been proved, both by instrumented direct observation. Both are by now hard facts, that Science has to accept.

Recent attempts to canonize Consciousness expertise, are the swan's song, the last resistance that the defenders of this obsolete reductionist view, can try to put up, as barriers against free penetrations of such "heresies", as discussed above.

These pitiable attempts to curtail those experimental and instrumented facts which contradict the "status quo", represent the ultimate proofs of the failures of the present dogmatic versions of consciousness studies to successfully define and describe consciousness, in all its processes, and in all its forms, especially the non-biological and non-physical ones. Consciousness does not require brain.

Reality does not follow dogmas. It follows truth. This truth is unfolding right now.

In an undeniable form, just like the snow on Mars ...

I-8. INTRODUCTION TO SUBTLE ENERGIES — *Pendry structures.* — *Mass loss at physical death.* — *Subtle energy bands.* — *Non-neural information transfer.* — *Focal dissociative and wave-guided subtle energy vectors.* — *The Kolmogoroff vortex.*

Together with Dr. Boyd, we reached the unavoidable conclusion that standard physical theory, as commonly accepted today, is based on a series of unproven assumptions and numbers of vast and cumulative errors which have, from time to time, been deliberately inserted into its fundamental tenets. Similar events have resulted in many paradigm-based limitations and walls to progress, in all the sciences. Due to decades of failures to implement any resemblance of scientific method, along with an utter avoidance of Popper's criteria, at this point, unfortunately, all the sciences need to be drastically changed, in terms of their paradigmatic fundamentals, simply in order to accommodate decades of accumulations of wrongly rejected experimental results, empirical observations and experience-backed evidences, however contrary such evidences might appear to be in the limiting mirror of current explanatory systems.

By embedding new concepts related to Bohm's genial concept of "implicate order", a wide range of smooth transitional domains between pure Information, matter, and energy, are provided with consistent, testable, and logical descriptions. The interposition of a wide array of subtle energy (SE) patterns between their vacuum-originated field sources and our currently instrumentable energy phenomena is the object of sustained recent studies, often reminding us of well known esoteric trends from the Eastern philosophies. (We assume here that our readers are quite familiar with the various expressions of Eastern philosophies.)

As our readers may have noticed, many of the commonly accepted views of the physics, which have recently been met with embarrassing and expensive failures, such as those of the LHC and LIGO projects (such failures being due to commonly held, incorrect, and limited understandings), are readily transcended by the methodological frameworks inherent in our conceptual approach and in our models.

Since we have reached to the infinitely small, we are more concerned now with the originations and synthesis of observable reality, rather focusing on any obvious failures of previous theoretical approaches, since theoretical processes are often filled with a history of unsupported assumptions and unexamined beliefs, leading to failed conclusions and to more beliefs stacked on more assumptions, producing a vast facade of dogmas, apparently designed to obstruct all scientific progress in specific directions and in specific areas.

Science is not meant to have all the trappings of a religion. The scientific method is meant to discover, understand, and have an ability to explain, all available direct experiences, and all observations of fact, to the extent that the present status of verifiable observations will allow such explanations. From there, such explanations are to be physically verified, or refused, by rigorous experiment and empirical observation. When results and observations arise in opposition to the explanation given, the exploration and investigation process starts anew, seeking ever more accurate and deeper understandings. This process of observation-based adjustments of our understandings of the inner workings of Creation is an ongoing, never-ending process. Simply given an infinite volume universe, it is easy to see we can never know all of it.

We are digging this tunnel beginning from its other end, the small, where the infinitesimals are arising from stellar and cosmological processes, to subsequently aggregate into various compound structures of increasing complexity. There is a long array of intermediary matter/energy entities to be crossed through, before we reach the currently available regimes of the instrumented observations which have so far produced and supported Quantum theory. All along this path, the Sub-quantum units preserve their ability of carrying Information into sequentially coarser mass/energy forms, by dint of their inherently hyperdimensional essence. All SQ Informational complexes are eventually space-time located. At that point they proceed to display specific mass/energy equivalencies, a feature which doesn't apply to Information while it is in the infinite-velocity-infinitesimal background condition.

These linearly increasing informational complexes are described in terms of interpenetrating entelechial domains, storing and dynamically processing their common

background of Informational components and structures, according to the specific physical parameters and behaviors which are present at the various microscopic thresholds, with varying physical behaviors arising at such thresholds, as we approach the infinitely small by way of exploring beyond the present limitations of quantum theory.

Such thresholds are resulting in changes of the measurable qualities of physical and energetic systems, as we move in the direction of the small. For example, observations of comparatively large, periodic nano-fabrications known as "Pendry structures" (well above the Planck length in size), are resulting in completely unexpected physical behaviors, where Pendry structures are acting to alter, and even perfectly reverse, our normal expectations of physical behaviors as commonly associated with the known physical laws regarding ponderable matter and energy. These well-known laws, it now appears, are only applicable under specific circumstances and only at the larger scales. The numbers of, and the various kinds of behavioral qualities which are to be associated with the various observed behavioral thresholds which arise as we aim our explorations towards the small, represent vast and uncharted frontiers, at this point in our collective scientific researches.

Regarding the so-called "Subtle Energies", at the beginning of the last century, while performing weight experiments, D. MacDougall reported that a measurable 21 gram mass was irretrievably and mysteriously lost at the death of the human being. Though the exact figure itself is highly controversial, seen the rude experimental settings and equipment of the time, the MacDougall findings seemed to confirm still earlier assumptions (R. Wagner, 1854) regarding certain mass fluctuations which are originating from dissociative events as associated with biological entities. Subsequent measurements have supplied values differing from MacDougall's findings, 2.27 grams for example, without invalidating the principle correctness of the claim, in spite of the enraged criticisms subsequently encountered in conventional dogmatic debate circles.

Whatever the actual measured value of weight loss, as associated with the demise of whatever living being, it is obvious that such instrumented observations are directly related to the mass equivalence of some subtler form of matter/energy, other than those to which existing theories are normally referring.

Under special circumstances, SQ entanglement effects, as connected to Quantum fields, can reach the into the reactive thresholds of normal chemical and sensory detection means. (For example, see these photographic evidences produced by H. Baraduc, with shots taken at 15, and 60 minutes, accordingly, after his wife's death - Fig. 1 and Fig. 2).

AD dissintegration 1



Last scan 2



Source: <https://www.gutenberg.org/files/23660/23660-h/23660-h.htm>

By moving into specific Quantum entanglements and superposition states, Subtle Energy fields may thus implement highly devastating effects upon macroscopic systems, which are out of phase with the effective potentials inherent in such systems, for example, by uncontrolled activations of Quantum fields associated with biological systems ("awakening of Kundalini", etc.). Such activations may be triggered by focused attention and will. These actions result in subjacent Information matrices, via the SQ interconnectedness of various information transport mechanisms. The resulting superpositions find a detailed description

in the entelechial maps of oriental teachings, describing interconnections internal to the etheric, mental, astral, causal, etc., which are resulting in focal Aether condensations at specific points (e.g., the "chakras"). Special training of the sensory apparatus, or of the Consciousness operating the sensory apparatus, may facilitate detection of increasingly subtle energy/information bands (see Dr. Boyd's comments in our 5th installment, astral vision, etc).

Such experiences can be experimentally corroborated with modern technologies. For example, Kronn's "Subtle Energy Field Infusion Generator" (SEFIG) has succeeded in isolating "dark matter related" subtle energy patterns, from the normal electromagnetic energies which exist internal to matter.

As put in evidence from MRI recordings, visual Information transfers to the Brain can occur, which register more than a thousand times faster than normal. These kinds of events can occur when specific acupuncture points (B67) are stimulated by ultrasound (J. Jones, University of California). This points to a direct by-passing of the normally-slow ionic channels which are normally involved in neurological information transmission events (which transmissions are further hampered by biochemical synapse delays). These results clearly indicate that such externally initiated information transfer events, ultimately have very little to do with any neurological considerations, except perhaps as secondary neurological responses which are occurring well after the initiating stimuli has already been registered.

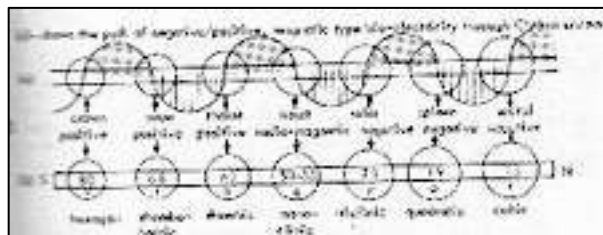
The Subtle Energy systems, when operating in between organized Information fields and quantifiable energies, as related to matter, operate as a specialized mediating network, acting to coordinate the vital functions of biological forms of life, with the environment. At the same time these kinds of events are integrating the biosystem into the wide array of additional aether phenomena which occur in Nature. Behavior patterns produced by these active information-containing Subtle Energies are partly subject to space-time constraints. Thus when such informations are completely coupled into conventional matter/energy events, the resulting behaviors can display semi-stable features. These features, in turn, can allow informational dissociation events to occur, relative to normal informationally

interconnected, holistic, physical networks - of the kind witnessed in materialization phenomena.

In the informational activities of the Subtle Energies, there exists a mechanism whereby SE-originated Informational structures can act to determine the Quantum activities of matter. This mechanism makes it obvious that high complexity personality structures in the medium, will preferentially remain coupled to dissociated fractions, during information dissociation events (per downward information transport effects). The SQ informational contents of the so-dissociated fraction, will thus exhibit an increased degree of freedom during subsequent systemic reconfigurations and during subsequent interconnectivity events. This allows many connection opportunities to become available to such alternative conscious matrices as are able to take over any portion of the original Information-based controls of the given system. From such events, a wide array of "anomalous" events can occur, which will be further referred to in due time.

The Information mediating activity of the SE fields toward the various structures of the biosystem is possible by topological correspondences established in high-density focal condensations of multi-layer SE effectors (chakras). A polarized, apparently magnetic type of bio-electricity, acts as a supersonic wave-guide (in the figure below) traveling through biological systems, activating them into oscillatory patterns which are occurring in specific frequency bands, according to Information-controlled functional parameters.

Chakral wave-guid



Source: <http://www.victorzammit.com/articles/Klein9.htm>

Pre-quantum bioenergetic fluxes of this kind can be experimentally followed, as circulating

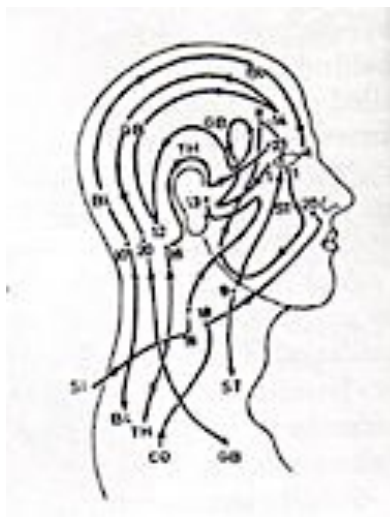
along topologically-favored dissemination vectors that are free of any matter distribution constraints of the living system, establishing an intermediating Subtle Energy network, as well known in traditional Chinese medicine.

Thirty years ago, H. Motoyama first performed a set of serious topographic investigations into the SE system, showing that each "meridian" (SE flow vector) has specific points that most accurately reflect various aspects of its functional condition, and thus possible organic disturbances occurring under the physiological control areas concerning the given meridian. Nevertheless, the Subtle Energy network is no way limited to the major transference apparatus of the chakra chain and its particular connecting pathways.

Motoyama put in evidence two sets of points not located on the meridians themselves, which are particularly effective for monitoring the functional condition of the meridians. He showed that the "alarm" point (located at the frontal toracal midline) measurably reacts to any SE flow disturbances in the meridian, while an "associated" point (along the spine) reflects anomalous effects in the associated organs.

The SE distribution network doesn't follow anatomical organic maps of classical Quantum activity. Brain is not in a favoured position in this regard - as clearly reflected in bioenergy circulation maps which include the brain.

Cranial SE pathways



Source: <http://www.victorzammit.com/articles/Klein9.htm>

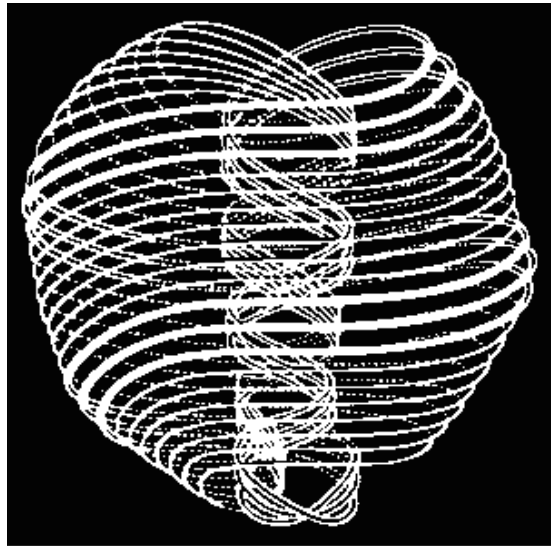
In modern experiments (Kronn, 2009), involving fMRI monitored Heart Rate variability testing, brain mapping and cellular revitalization attempts were performed, while relying on subtle energies equivalent to bioenergetic entities known as "Chi", "Prana", etc., using plasma-based computerized equipment, in conjunction with low intensity alternating magnetic fields. The thus-achieved results, regarding the effects which subtle energies exert upon the physical properties of matter, have since been confirmed by infrared spectrum studies and by charge-density pulse-effect analysis.

Related to this, recent Korean research (Chun Choi et al. 2003) has reported light-tracing mappings of traditional meridian trajectories of bioenergetic transports, data that have been further confirmed by De Vernejoul's related, radioactive tracing experiments. Moreover, using agents with various charge-density pulse configurations, selective stimulations of various rhythmical electrical brain activities, as well as hemispheric synchronization effects, have been achieved. The brain's response to Information impacting directly on it, turns out to be far beyond the range of any neural network biochemistries, even those which are bioenergetically mediated.

This insight opens wide perspectives, not only for theoretical reevaluations of mainstream dogmas, but are useful in many medical applications, as soon as the bioenergy information storage capabilities of various organic compounds, as well as those of specific trace minerals, are properly characterized and categorized. Such considerations are not in the scope of our current presentation, so we will leave it for interested readers to follow along these lines, given the overwhelming quantity of literature available on these topics, at their own convenient pace.

From the perspective of our model, chakra condensations of first order Sub-quantum entities, living below the Quantum level, holographically follow the vortex patterns we earlier described, starting in the Kolmogorov range ($10e-58$ m), up through the scale of Kerr-Neumann Compton radius vortices, with vortex-like structures continuing through the large, up to cosmic scales.

Kerr-Neumann Compton radius vortices



Source: <http://www.victorzammit.com/articles/Klein9.htm>

Per M. Hadley's experimental results, torsion fields are not bound to conventional time or space. This corroborates with Kozyrev's tenets regarding the "energetic aspects" of time, capable of effecting the spins of elementary particles, as well as those of macroscopic bodies. (We will return with more details on this, in our next chapter). This reminds us of R. M. Kiehn's "nanometer vortices" which are coupled metastable symmetric pairs of Falaco solitons.

We are currently investigating the related Kolmogorov vortices which may be involved in some sort of topological connection between Euclidean space, and CP1 complex projective space, which K-vortices are containing Informational structures resulting from the collection of the smaller information-bearing SQ entities which comprise the Kolmogorov vortices. We have earlier established that the Kolmogorov vortices are most likely the smallest of entities which are still influenced by gravitation. Entities smaller than the K-vortex ($10e-58$ m), are considered to be the primary causation of gravitation, in our LaPlacian-type model for gravitation.

As previously hinted to, the emotional conditions, and the faculties of the attention and the volition, of operators of symplectic E/M transmission facilities, result in Quantum field

divergences and fluctuations in the vacuum. (Such observations have been verified in France, regarding normal E/M transmission facilities.) Information resonance effects are configuring subsequent energy configurations at all the available Sub-quantum layers of manifestation, the subtle energy (aetheric) regimes included. Chakra spin effects may well represent a holographic transcription of such topological transforms, putting the bioenergy related to living systems under the Information control supplied from the projective space CP1.

Mathematical analysis addressing Quantum harmonic oscillators excludes zero-energy configurations even at absolute zero temperature levels. Nevertheless, this ground-state energy does not at all derive from the uncertainty principle (whose refutations have been mentioned in our previous installments), as in conventional interpretations. Rather, the ZPE originates from particles living in deeper layers of the Sub-quantum. Macroscopic wave functions responsible for Quantum coherence are guided by Information controlled Sub-quantum effectors that can enter infinite combinatorial configurations in the subtle energy (aetheric) ranges and beyond.

SE (aether) connectivity leads to trans-classical permutation freedom patterns, described as Information-controlled proemial relations (Gunther, 1972), unifying into comprehensive formulations of polyvalent logic, which may perhaps be more deeply investigated by cybernetic system-theory and other mathematical logics.

Interdimensional connections have concrete physical meaning. This connection becomes obvious when observing Information-driven physical effects.

II

BIOLOGICALLY RELEVANT SUBTLE ENERGY FORMS

II-1. ANU — *Hyperdimensional vortical nature of SE. — Nested thoroidal aether structures and Platonic symmetries. — Theosophy in modern scientific terms. — A thoroidal charge topology of symmetrical operations. — The interdimensional tunneling effect. — Isolated aetheric blueprints infused in matter of any complexity. — Imaginary positions inside the 4-D Compton radius vortex. — ZPE vacuum fluctuations as interface between the physical and non-physical domains. — Detection technology of vacuum fluctuations. — The magnetic vector potential.*

Now as our readers are somewhat familiarized with our general conceptual frame of reference, some preliminaries regarding subtle energies included, in order to grasp our hereby suggested mechanism of reincarnation, let's first extend our understanding of the aetheric plenum and its work modalities inside the biosphere.

It is widely accepted that the optimal geometry of the bioenergetic fields is the torus, an imploded sphere into a doughnut-shape, which is highly efficient for memory storage structures. In our context, it should be remembered that the human zygote reaches this toroidal shape after 512 cell divisions. Plato equated the dodecahedron with the ether, suggesting its - by then unknown - hyperdimensional nature. Scientists believe in our post-materialist era, that the ether is a subtle energy that permeates all material structures, conveying to them Information. Our Sub-quantum concept is perfectly consistent with this new - but also old Platonian view. The results of the Michelson-Morley experiment have been misinterpreted, and the flow of accurate physical thinking shifted away from its previously accepting the ether as a physical media for electromagnetic wave propagations.

Earlier to the ether concept, Milo Wolf and Haselhurst have proposed the theory conceiving matter as having a wave structure, setting the stage for conceptualizing solidness and

separateness as illusory aspects of reality. A similar view has been proposed 130 years ago by Clifford, too, but widely rejected by his physicist colleagues of his time. Lately, the string theory tried to replace the wave structure of matter concept, paving the way to our modern Sub-quantum understandings.

The ether (the Sub-quantum plenum) is animated in vortical structures, first described by D. Thomson, D. and Bourassa, J. (2007) in their Quantum Ether dynamics as "Toroidal Ether Units" (TAU). According to their concept, mass is the expression of the inertia created by these TAU.

But what could generate such vortices in the ether at first place? This question was left unanswered at that time. An undefined "GForce", with strong theistic connotation, has been proposed as an explanatory option (G stands for God). Today we refer to this elusive patterning agent as Information contended and carried by Sub-quantum entities of various complexities, acting from a transcendent level on the polidimensional reference frame upon the ether dynamics. Such high-level interferences result in specific patterns studied by sacred geometry, which points to a closed link between vibrational aspects and geometric forms, especially the ones contended in platonic solids. An increase in the pattern complexity results from the infinite nesting of toroidal ether structures inside each other, such way that the flat bottom of the vortex cone should touch the face of a Platonic solid. Repetitive fractal patterns are created by nested Platonic solids, extending the Information amount stored and carried by these aetheric (Sub-quantum) structured entities with supraluminal velocities up to infinite velocity (relativistic constraints do not apply in higher dimensions). Electrons are themselves the result of vortexes nested in Platonic symmetries. Moreover, atomic nuclei are coincident with the still point in the nucleus of the ether vortex, reached by its Golden Mean spiraling tendency. Superluminal velocities are reached by implosion effects of the Golden sine waves toward increasingly small wavelengths. The whole Universe at the other extreme, may be seen as a super-hologram based on the self-similarity of fractal representations at all scales. This reminds of one of the seven Hermetic principles "as above so below". Recent astrophysical research showed that the clustering of galaxies follows Platonic solids' geometric particularities, too.

EM patterns stimulate vibrations in the SE field, as the aetheric field has EM properties by its harmonic resonant frequency range in yoctometer (or less) bands allowed by Sub-quantum interpretation. This has to be kept in mind as of high importance for the understanding of coming exposures.

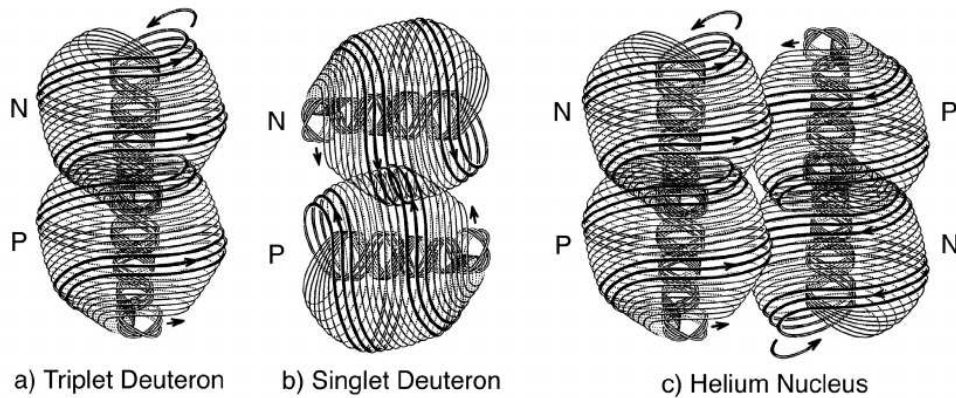
Studying subtle energy structures, a special attention should be focused on the clairvoyantly detected components of the quarks, the Anu sub particle.

Its inaccessibility for today's instrumentation shifted away for a long time the interest of the scientific community not only from its serious study, but from its acceptance as an experimentally demonstrable entity supposed to be at the very foundation of matter as we know it. Yet Anu is the transduction point between instrumentally detectable "normal" physical energy and the subtle variants working at still barely recognized non-physical levels.

Fortunately, enough, modern post-materialistic science displays an open-minded approach to this kind of structures at the limit of our material world. Anu entered the scientific investigation as the supposed fundamental particle of matter in our physical universe.

Described for the first time by theosophy teachers with paranormal abilities to detect structures at this subatomic level, the Anu (or UPA = "Ultimate Physical Atom") is a heart-shaped particle found in positive and negative chiral variants, radiating changing shades of color while actively vibrating. It is a polarized vortex of force lines replicated upon itself, in order to allow a super-physical flux of force to flow through it. This flux was observed entering the Anu at its top and leaving it at its bottom, binding groups of Anu in structures of increasingly high complexity. The very low frequency of the non-physical force traversing the Anu corresponds to structures considered to be at 6 levels below the physical atom. Any increase of this frequency results in an increment in the spacing between these elementary entities, with tendency to link end-to-end forming quantum rope-like chain structures.

Intermingling of the ether diffusive flux vortices of individual nucleons



Source: LaViolette. P. A., 2011: 17

Beyond the Anu, some scholars think to find a so-called "space between space", where the fabric of the origins is made of 12 levels of structure distributed in dimensions, and subdimensions (The features of Anu are suggestive for the symmetry operations of a 3D vacuum wave physics. Thus, it can be addressed as the universal background of life, from photons to cosmic megastructures and ecosystems of our physical universe. P. R. Sarkar's "Microvitum" concept (1991) extends the functional spectrum of Anu beyond its quantizing ability to a qualifying one for internal coherence of all life. Sakar's spiraling toroidal mode of Anu is strongly resembling a toroidal primary charge topology, suggesting an internal space of the symmetrical operations able to transform into physical space contending matter/energy dynamics. Toroidal charge topology is the substrate of intricate electrohydrodynamics at the interface of two different media coexisting in an equilibrium state.

The creation/annihilation of physical matter is a continuous dynamic process, initiated at atemporal levels of existence ("the abstract"). Its origination in atemporal dimensions contradicts any "Big-Bang" cosmogonic model. No beginning and no end for creation/disintegration of matter, but an endless process currently approached as vacuum fluctuations at the zero-point energy level. In a synoptic perspective, all the elements of the periodic table (Mendeleev) are various complex combinations of two immensely subtle substance/energy penetrating in our world from one embedded in higher, non-physical dimensions. This truth is a fundamental one for our topic, as the timeless soul-genome of reincarnating entities enters our biological structures by this interdimensional tunneling

effect. Under Ambient external effectors, unique combinations of Anu chains evolve in isomeric patterns, affecting via quantum interactions at atomic level and thus the molecular structure of a substance. Also, there are experimental observations pointing to physical effects of these subtle energies on UV and IR radiation variants of chemicals, the Raman spectrum of liquids, the water's PH fluctuations (as monitored in a Gas Discharge Visualization (GDV) camera, as well as the changes observed in radioactive decay rates modulated from subtle energy effectors. Electromagnetic vibrations may stimulate also resonant vibration pattern in subtle energy fields. Worth to be mentioned here are the works of Dr. S. M. Phillips from the Cambridge University published in his book *ESP of Quarks and Superstrings* (1999) - pointing to a basic similarity of subtle energy forms with the superstring theory. Our readers are nevertheless advised to show a critical approach to these modern conceptual forms, widely extended and replaced by our Sub-quantum understandings by now. Yuri Kronn (2009) succeeded to realize an experimental equipment claimed to have the ability of generating subtle energy for medical applications. His "Vital Force Technology" based on a tunable plasma-based generator, able to separate Subtle Energy from EM waves and to infuse it into almost any substance. Kronn claims to have generated the energetic blueprint for any element of the periodic table and their combinatorial manifestation forms (herbs, essential oils, gems and minerals), blueprints ready to be infused into other carrier substances. Subtle energy patterns produced and processed in Kronn's VFT instrumentation display controllable properties (referred to in traditional Chinese medicine as "the five elements"). The observed isomer-like changes in matter seem to be at the background of stability in thus infused inorganic concentrated trace minerals. Application of such processed triggers at specific acupuncture points (B67) may lead to excitation patterns in the visual cortex of the brain, as experimentally confirmed in Prof. Jones MRI results.

For more scientifically oriented readers, let's mention a few Anu-related novel descriptions from higher mathematical perspectives (less familiarized individuals with such terms may ignore these short explanations and go directly to the next entry).

According to the Sarfatti group and the brilliant physicist Tony Smith, the vortical Anu structure behave as elementary fermion particles, forming by short range gravity Compton radius vortices. The multi-connectedness of the spatial section of the Kerr-Newman solution allows for a spin interpretable as an internal motion of a singular ring, in itself strongly supporting the fractional quantum Hall effect, the theoretic backbone of our Sub-quantum model. In the range order of the Compton wavelength, large field strengths may result in creation of virtual entity pairs, similar to the Anu's behavioral pattern. It is a normalizable solution displaying a Dirac spinor wave function. In this bound-state representation we find a zero-energy eigenvalue, allowing the curvature of the entity to produce attractive force. Any compactly localized operator applied to the vacuum generates clouds of particle/antiparticle pairs. According to Schroer, we see a controllable nonlocal state, where geometric Killing symmetry in the Quantum setting is associated to a hidden quantum symmetry defined by the modular pattern we describe. Of course, outside the Compton radius vortex, in "real" 4D reference, virtual zero-point energy phenomena are less effective with their superluminal velocity behaviors and negative energy solutions related to non-Hermitian operators. At the vortex boundary, $v > c$ is allowed in Lorenz transformations, leading to imaginary positions inside the Compton radius vortex without disturbing real position coordinates outside. The Sidharth concept is assuming an averaging over a region that is inaccessible to measurement with conventional technology. It is a 4-complex-dimensional Compton radius vortex identical to Bohm's quantum potential (our Sub-quantum plenum attributes Information as background of the quantum potential). Within it, ZPF fluctuations of relativistic virtual ghost particles may be described as a left-handed vortex flow around a ring singularity. This is the Anu of our interest. Chargeless neutrinos do not interact with charged ZPF fluctuations of the aforementioned virtual ghost particles inside the Compton radius vortex, and their massless quality excluding for them the non-local Dirac operator $cA.p + Bmc^2$ which would allow interaction with the Compton radius vortex. Quarks interact at their CRV surface, thus displaying a fractional electric charge (Sub-quantum understandings are consistent with this view, too). According to Tony Smith, this is consistent with the D4-D5-E6 description of first-generation fermions as octonion spin (8) half-spinors. Our 4D material universe from this perspective becomes a perceptible reality only beyond the proton's CRV, emerging from physical particles'

interface with the virtual, non-material realms at the zero-point energy fluctuations in vacuum. A recent experiment performed by Riek et al. (2015) at the University of Konstanz, consisting of an altering the standard deviation of the vacuum fluctuations passing a nonlinear polarizing "GX" crystal in a conventionally measurable range, suggests a first direct detection modality of the otherwise elusive vacuum fluctuations. This is of a considerable importance for science and provides instrumentable evidence for some basic prerequisites that support subtle energy dynamics with crucial functions for an accurate interpretation of the reincarnation process we try to describe in this work.

Back to our subtle energies.

As a matter of fact, T. M. Srinivasan Ph.D. (Co-founder of the International Society for the Study of Subtle Energies and Energy Medicine) considers that SE is a kind of ultra-low intensity variant of physical energy, thus escaping our available detection and measurement equipment. He points to some quantum physicists that mathematically predicted and described a unified field that underlies conventional transversal EM vectors - a concept later expressed by Bohm and Aharonov as implicate orders (labeled as Quantum Potential) embedded in our 3D space (Srinivasan, 2007). This of course implies a higher-dimensional space allowing for time-reversed wave propagation, non-Hertzian, scalar waves operating at the Zero Point Energy level. This is consistent with predictions of the Quantum theory regarding the vacuum as a real contender of an enormous amount of energy, the source of a continuous apparition/disparition of particle from the vacuum (ZPF), an eternal creation/annihilation process of matter. Subtle energy fields emerge out of ZPE, thus they are beyond of conventional physicality until their transduction into quasi-physical energy variants. They can anyway interact with classical field phenomena by energy interactions. This is to be kept in mind for the understanding of reincarnational mechanisms.

Prof. W. A. Tiller, a brilliant theoretician of subtle energy fields and interactions, suggests that energy exchanges may occur through resonance effects between SE and EM fields by "pure" magnetic vector potentials from the ZPF. This implies an ordering ability of fundamental magnetic properties and this fundamental behavior patterns of EM fields,

where magnetic vectors impact EM phenomena. Also, via quantum field interactions, SE dynamics may impact subatomic particle behavior. Such approach may be expressed in its reverse form, too, considering magnetic vectors as physical attributes of non-physical SE fields. Interesting here to mention that magnetic fields have a direct influence on charged particles in motion like the photon, whose variants (as we shall see soon) have a tremendous importance in the explanation of reincarnative biomechanical tracks. As Prof. Tiller remarks, the ground state of electrochemical potentials of reacting molecules in living cells is sensitive to this kind of impact originated in non-physical media and translated via magnetic vector ways into biophysical reactivity potentials. The magnetic vector potential may be, according to Tiller, the bridging potential between the subtle, non-physical and the physical domains of manifestation. Such an interdimensional chain reaction may affect the quantum phase of real or virtual particles in the vacuum state, generating a wide range of so called "anomalous" phenomena. Unfortunately, enough, reincarnation still belongs as an elusive process to this phenomenal category. As long as biosystems work as transducers of magnetic vector potentials originating in vacuum into observable physical effects, no reason may be conceived to deny this interaction implied in the very mechanism of origination for living beings at first place. The primordial cosmic energy/information system described in terms of ether or Sub-quantum plenum got lately accessible to direct observation and experimentation. The abstract mathematical structures that where to replace the concrete physical qualities of space are barely reconcilable with the new factual observations. Such qualities are by now observable and reproducible in high vacuum media.

Important to know for our specific topic, that SE restore cells after gamma-ray destruction in 50-92%. Besant and Leadbeater (1951) observed clairvoyantly that matter is ultimately made of various combinatorial patterns of positive and negative ANU vortices which are surrounded by fields of aetheric energy, carriers of Information. They described the ANU as a string-like unit of matter (later confirmed by Stephen Philips, Cambridge). Each substance has a specific SE pattern.

Important: Liquid cytoplasm of the zygote may be modulated by SE effectors, leading to changes that can be monitored by Korotkov's GDV technology.

Most relevant for our study is the fact that photonic outbursts may couple to these spectra in a selective resonant way triggered by Informatic mediation originated sometimes in mother's readiness for pregnancy! The available aetheric template (carrying implicate orders of informational essence specific for the reincarnating entity) couples to the zygote's EM polarizing effect by a cascade - like resonance chain of harmonics by way of SQ flux propagations. Its coupling interface evolves into morphogenetic field systems contributing to the parental ones as the "soul genome".

According to Prof. Korotkov, in these interactions, a peak in the information field may persist and contribute to the reincarnation process as a pre-existent mold for the energy body of the individual.

Our readers are kindly urged to enjoy the hereby included link to an excellent clip showing the ANU dynamics for its accurate understanding!

<https://youtu.be/Da1caAYlWVI>

II-2. ORGON - QI - DARK ENERGY — *The Orgon and the laws of entropy.*
— *SQ flux superpositions in Orgon.* — *Special properties of Orgon and their experimental confirmation.* — *Qi as a universal connector of matter to its Informational background.* — *Physical properties of Qi.* — *Pranic healing.* — *The Dark Energy, its cosmic and physical properties.*

In order to get familiar with the subtle energies that play a crucial role in the reincarnation process, let's start with perhaps the best-known variant of them, amply researched by Wilhelm Reich - the orgone energy.

According to Reich, orgone energy displays the following properties:

It has no mass, inertia or weight, nevertheless mass as known in conventional physics is directly influenced by it. Omnipresent, it fills all space by its different charges, vacuum included. It is the propagation medium for electromagnetic and gravitational waves. Orgon is in continual motion, both a pulsating and a flowing kind. Orgon behavior flatly contradicts the law of entropy, as it flows from low concentration configurations (low orgonotic potentials) toward high concentration ones -which attract orgonotic energy from their less-concentrated surroundings. Results a process of entropy decrease, consistent with increase in order. As we shall see later, this is evident in morphogenetic evolutionary processes. The similarity with entropic processes stops here, as qualitatively organic energy can't be mathematically described by time-reversed thermodynamic equations. Under appropriate condition matter can arise from Orgon energy, too, ensuring the continuous creation/de-creation process of matter (perfectly consistent with our Sub-quantum understandings). Some Orgon energy develop special qualities associated to life, such as reproduction of similar units from parents (the biological component of the reincarnation process), continuous developments of these units, and supply the background stuff for sentience and higher cognitive functions.

The Orgon dynamics allow for stream superposition effects, the background of creative processes. The reader is by now quite sensitive to this kind of phenomena, having the understanding of hyperdimensional Informational origination and control of Sub-quantum

flux variants, able to aggregate in increasingly higher complexity patterns. Of a special importance for our topic is the description of mating, where two separate streams of energy superimpose during the orgasm (the associated subjective well-known climax is also this way explained). Here we have an early glimpse into the subtle-energy mechanism participating at the interface of biosystems with pure Informational structures in the reincarnation process.

Beside the aforementioned properties, Orgon is absorbed by water (humidity of cell components), is refracted by a prism and reflected by polished surfaces, and is affected by emotions of living beings. As we will see later, the pregnant mother's expectancy-related attitude affects the reincarnation process, too.

James DeMeo (2009), perhaps the leading authority of our days in the study of the orgone energy, compares it to the old luminiferous cosmic ether that filling all space displays the property of a pulsatory and excitable biological life energy. Using an extremely finely calibrated thermal shelter (down to 0.002C), he succeeded to detect a cyclical positive thermal anomaly (average of +0.13C) differential with maximal peaking daily around +0.5C reported versus the control apparatus. This thermal anomaly inside the Orgon accumulator (ORAC) confirmed Reich's early detection results. Einstein himself witnessed such a thermodynamically controlled experimental protocol presented to him by Reich, in 1941. Though later on he corroborated Reich's interpretation of thermal effects attributed to the Orgon energy with Dayton Miller's ether-drift theory, Einstein didn't find them persuasive enough for claiming such a revolutionary finding with its tremendous implications for science. Miller's research (2005) based on light-beam interferometry, widely ignored during his lifetime, let him to conclude about a measurable anisotropy of light, whose velocity is variant according to the direction of its propagating. The light-speed variance thus put in evidence was quickly dropped by the physicists of this time as incompatible with Einstein's theory. Our Sub-quantum concept amply confirms Miller's tenets. Reich's Orgon, this pulsating and streaming energy through cosmic space, impregnates all matter (orgonotic expressions are detected in the inert matter as well, strongly supporting our own theory of universal sentience). From the specific perspective of our present-work's

topic, the reincarnation of complex sentient structures, we should stress the orgone flux patterns' tendency for superposition effects related to cell growths and division phenomena, sexual excitation and their emotional correlates.

After W. Reich's groundbreaking discovery of the orgone energy, a lot of further research has been done on the physical properties of putative energy fields – especially in medical application domains. There have been proved statistically significant decreases in gamma ray emissions from patients under energetic healing attempts. Large frequency-pulsing biomagnetic fields emanating from healers' hands have been put in evidence in superconducting quantum interference devices (SQUID), operating at extremely low frequency (2-50 Hz). Such bioenergetic fields are responsible for crossed EKG/EEG signal tuning effects between physically interconnected, or even at a proximity distributed experimental subjects.

Now, after having got a fair sense of subtle energy fields of the orgone type, able to interfere with physical matter/energy structures especially in bioactive range, let's approach some particularities of the still elusive Qi force – often considered as equivalent of the Orgon in the Eastern wisdom, studied by the traditional Chinese analysts and lately even by Western scientific scholars. Tens of cultures around the world are aware of the reality of this force and integrate its features into practical healing protocols, as well as their deepest philosophical worldviews. As far as we can understand it by now, the Qi force can be described as a magnetic type of life energy propagating with superluminal velocities (emphatically allowed by the Sub-quantum concept). The Qi physics enters by now the domain of legitimate fields of scientific enquiry in our post-materialistic era of thinking. We are about leaving behind the dark cognitive trap of preconceptions limited to tangible material objects and their laws of behavior under Newtonian, Einsteinian and classical quantum models. Our cognitive functions are quantum-nonlocal, universally interconnected systems of biocommunication and self-consciousness. The implications of acknowledging non-material force fields in understanding our universe are enormous, while it upsets fundamental constructs of our materialistic culture. The realms of existence beyond space-time turns upside-down our indoctrinated knowledge about reality as it has been pictured

by obsolete artifact imagination based on mezocosmic dynamics. Qi is at the background of a wide range of "impossible" but nevertheless experienced events. It performs the connection between material/quantum forms of manifestation and its background guiding essence of informational consistency, roughly coextensive with the space configuration of everything. Modern lab experimentation on Qi shows magnetic, rather than electromagnetic indicators as participating in the physics of Qi.

The best understanding of the Qi force fields up to this point is supplied by the breakthrough investigation work done by William Tiller, who points to a conjugate interpenetrating four-dimensional realms as basic structure of Qi: our 4D physical world, and a 4D superluminal magnetic diffraction wave one. This hyperdimensional system is embedded in a 9D "emotional" - at its turn embedded into a 10D "mental" superstructure, which is a subset of the pure Informational universal system of guiding and control. According to Tiller's view, our Universe originated in a burst of high-dimensional energy propagated into a grid of active nodal points in the 10D mind-space level. Our present understanding rejects this primordial burst event but accepts the downward interdimensional patterning on a continuous base beyond the constraints of a linear time vector. Anyway, at the scale of 10^{-27}m , where space/time breaks down, D. Bohm suggests the evidence where the implicate order can be found.

Tiller divides the primary lattice of nodal points into two reciprocal sublattices (with a spacing of 10^{-17}m). The "inverse" space/time frame where standing magnetic diffraction waves dominate the superluminal velocity dynamics is, according to Tiller, the manifestation realm of Qi fields, while its reciprocal matrix (spaced 10^{-7}m and rotated 90 degrees with respect to the first one) is the grid domain of physical manifestation forms. The Informational waves traveling through both nodal networks display qualities of consciousness, not of energy. Informational structures are, according to Tiller, concerted into physical energy variants at these nodal points via diffraction patterns bearing tremendous amounts of information. Here we can recognize the background of PK effects, but also the subtle mechanisms of morphogenetic fields with concrete application in biogenetic developments of our interest.

Interesting enough, Tiller describes time-reversed signal propagations between different orders of diffraction nodal points, resulting in retrocausation-type effects. This mechanism has been differently treated by the author of this work, in one of his lectures delivered in a conference back in 2016 in Bangalore, India, in Sub-quantum terms and relying on the interactionist interpretation of the quantum mechanics, suggested by Cramer.

"Pranic healing" widely performed in Eastern medicine variants, was demonstrated to mediate effects of gamma radiation on living cells shielded from any EM radiation, increasing their survival rate from 50% to 92%. Moreover, fMRI studies clearly displayed neuro-physiological changes in subjects treated by "healers" using their ability to manipulate non-detectable energy variants. Joie P. Jones, Ph.D. experiments triggering a specific acupuncture point (B67) related to the visual cortex of the brain showed that the thus generated signal traveled to the brain at a speed 200 times faster than allowed by neural conduction ability. He also observed that the acupoint size changes over a period of 12 days, it twists itself around the triggering needle and communicates the signal to other acupoints on its own meridian with a speed of 5-10 cm/sec. Further research reported in Japan by Dr. Hiroshi Motoyama demonstrated the energetic nature of the chakras described in traditional Indian medicine. In his writings, Motoyama supplies experimental data related to the connections between chakras, meridians and the physical organs of human body. A wide database is emerging in the western scientific exploration domains supporting the existence and importance of man's subtle bodies and their interactions of biological value with the physical one - though the "dark energy" is not yet accessible to our scientific equipment.

In 1998, two different teams of astrophysicists succeeded to put in evidence a strange variant of energy, labeled as „*Dark Energy*“, assumed to oppose gravity and thus originating the expansion of galaxies in our universe. This subtle form of energy does not interact with electromagnetic fields, but can affect subatomic particles at the scale of nuclear protons and neutrons by interacting with their quark structures. Researchers hypothesized that dark energy may interact with matter via dark matter of their own kind, supposed to couple somehow to quarks. Our Sub-quantum concept is not far from these assumptions, as quarks

themselves are made up from Sub-quantum stuff, the omnipresent media of Information-laden pre-energetic fields. 90% of our universe is structured this way, representing Bohm's implicate order that generates our explicate physical world.

Yet interaction between this plenum of subatomic energy with matter demonstrably takes place, as proved by the researchers of the Tsinghua University in China. Dr. Yang Xin succeeded by manipulation of this special form of energy to alter the radioactive decay of isotope ^{241}Am from distance, while no magnetic/EM energy is known to affect the decay rate of radioactive substances. Dark energy (most probably similar to Qi) interacts - or is part of the Sub-quantum components in quarks, thus reaching interaction modalities with matter. And most important, with biological one, too!

II-3. PHOTONS - VIRTUAL PHOTONS - BIOPHOTONS - GRAVIPHOTONS — *Superluminal nonlinear photonic oscillations. — Information carrier biophotons. — Non-energetic Quantum afterglow Information dynamics. — Photonic cytoplasmic somatides. — Biophotonic radiation in cell division and death. — Photonic regulation in embryogenetic transcription. — Coherent biophotonic radiation. — Graviphotonic effects and photon/graviphoton conversions. — Biosolitons.*

No understandable physical model of the reincarnation process may circumvent the crucial role of light (photons in their various manifestation forms and functions) in the process. Therefore, we dedicate a whole chapter to a close scrutiny of the photon, the basic quantum of electromagnetic energy, and its interdimensional interaction variants with subtle energy dynamics in physical vacuum.

Photons are widely described as having no electric charge like an electron. Nevertheless, it decidedly can interact with an electromagnetic field. We can find in the literature the assumption that an electron is, after all, a photon with toroidal topology, making two loops within one wavelength. This brings us to dimensional dynamics. This looping results for the photon in losing its helicity while electric field becomes radially oriented and the magnetic one axially. Field is a derivative of potential. Wrapping up a four-potential field variation into a chiral "Möbius" spin $1/2$ spinor we have a standing wave, corresponding to a standing field. The electron becomes a disguised photon, displaying positive and negative charges. The amount of speed and energy of positive and negative Sub-quantum energies are equal, they may be differentiated only by their color-charges and magnetic-color flow direction. Thus, a real photon is formed by a couple of virtual positive and negative ones.

There is a linear relationship between a photon's energy and frequency. But the linear speed in vacuum, c , is associated with nonlinear oscillations of the photon, which adds up to superluminal velocity values. $V(\text{SQE}) > c$. This makes photons, especially their biophoton variants, excellent carriers of subtle energies.

Biophotons are light particles permanently generated in biostructures and radiated

outwards from them. This kind of photonic emission is not to be confused with the bioluminescence effect, which has a specific biochemical origin. Control biphotonic signals may be associated with subtle energy variants ascribe to vital functions, though the exact relationship is still to be clarified. On this line, biophoton measurements might support research in the metabolic aging process based on oxidative stress. Also, inherent connections between biophotons and non-local human/machine quantum interactions are suspected and investigated by now. The ultra-weak emissions of biophotons by every biological system, though in a range close to the visible one, escapes our current detection technology or sensory apparatus. Most important, biophotons are known to carry crucial Information both intra - and intercellular communications.

Persinger et al. (2014) focused their study on cerebral biophoton emission and random fluctuations in finely calibrated electronic devices, suggesting a possible psycho-affective role between their functional abilities. Such conclusions have now to be revised from the Sub-quantum perspective of Information-controlled processes, linked or not to biphotonic dynamics.

As we shall see, biophotonic radiation may be closely associated with NDE and ELE (and of life experiences), too - introducing a non-material extension to our current deterministic scholastic models of reality.

An intriguing new discovery with deep implications for our work's topic suggests that photon "afterglow" may carry information without transmitting energy at all. In such transaction, the energy is supplied by the target itself. The information carried by the quantum afterglow of virtual photons may be detected by the receiver, which acts as an attractor.

(The reader is cautioned that we use the term "virtual photon" for simplicity considerations, though as earlier mentioned elsewhere we adhere to its SQ Informational resonance interpretation)

Electromagnetic fields contain besides real photons virtual ones, too, seen as imprints on

the quantum vacuum. Thus besides the energy laden real photons, the virtual ones may well emit the informatio-carrier afterglow, able to interface with non-material subtle energy patterns. If these SE vibrations have been documented to interfere with electromagnetic radiation via virtual photonic links (R. H. Johnson et al. at the University of Waterloo, in *Physical Review Letters*), we have here an important hint to a fundamental component of the coupling mechanism of the reincarnating entity to its future EM supporting host cell. If some or all the components contended in the entity approaching the physical plane are embedded in virtual photonic afterglow phenomena, the receiver biostructure may tap into this carrier system acting as an attractor. Obviously, this afterglow occurs in a space reference frame higher than our physical 4D one (Johnson). In our post-materialistic new logical system, dissociating information from energy is not anymore attributed to pseudo-science.

Recent studies performed by French microbiologist Gaston Naessens using a detecting apparatus of his own construction, able to supply a magnification of 30 000 times and a resolution of 150 Angstroms, revealed inside the cytoplasm a hitherto ignored dance of light particles, which are supposedly related to life phenomena. This hypothesis states that no cell division is possible without these tiny life-force particles of photonic activity ("somatides"), where energy condenses to matter. To quote Naessens, "*somatid represents manifestation of cosmic energy in a tiny, moving dot of physicality*", as printed in "A New Answer to Cancer" in *Joga Journal*, September/October, 1993: 44. We can by now understand his research by our extending database related to photons as virtual carriers of subtle energies, so his observations begin to make sense in the wider context of life forces bearing sentient, informatic content.

A. T. Williams (2007: 1), after long years of serious research, concludes: "*Fundamental, irreducible primordial energy exists in the absence of matter, but matter is entirely dependent upon nonmaterial primordial energy and cannot exist in the absence of primordial energy*". From his perspective, matter/mass are conditionally relative anisotropic property of this nonmaterial essence. In his view, quantum physics has to be extended beyond the material bound toward the experimental investigation of massless nonmaterial primordial energy

physics. The energetic holonomic Universe becomes in this now acceptable concept a complex, open, mechanically non-conservative system embedded within this fundamental primordial energy domain. Matter/mass as well as electric charge are created and destroyed as a distinct coupled pair. Lepton pairs are produced, according to this theory, in the nonmaterial transition zone between the two realms of manifestation. This link is supplied by the point-like monopole of electric charge interfacing with the spin and magnetic moment invariance originating in the mechanically nonconservative, open holonomic Universe. Quite easily reminding of the pure magnetic wave vector that impacts from outside our physical reality of electric charge, creating our familiar electromagnetic fields ...

We are speaking here of Sub-quantum energy bridges for extremely high frequency nonmaterial effectors that transfer Information into the physical realm at a scale that greatly exceeds the highest frequencies and energies of massless gamma ray radiation. From this perspective, the particle/wave duality becomes a conditionally relative phase transition within the massless non-material energy domain. These extremely high frequency energy and information transfers through Sub-quantum interface levels run beyond the limited scope of classical and quantum physics, relativistic concepts, quantum electrodynamics and chromodynamics, as well as the electromagnetic spectrum. Such transfers minimize thermodynamic entropy effects in particulate matter at all scales of its manifestation.

K. Creath and G. Schwartz (2006) from Center for frontier medicine in biofield science, University of Arizona, studying properties of coherent light measurable through the UV - near IR spectrum, observed resonance effects between plant fragments using a highly sensitive, cooled CCD in total darkness, a compatible mechanism with the dynamical system theory. They consider biophoton emission as a possible energy release in biochemical reactions.

H. Niggli (2003) mention also recent biophysical researches supporting ultra-weak biophotonic emissions in biosystems, detectable by photomultiplier apparatus. Such radiations may be induced by UV light, especially the ones linked with DNA as a source.

In their paper *Quantum Biology at the cellular level - elements of the research program*, M. Bordonaro and V. Ogryzko (2013) extend quantum concepts into the domain of environmentally-induced decoherence and macroscopic superpositions in biological systems, by admitting the superposition of macroscopically distinct states. This might have consequences in cellular decision-making and adaptation by non-classical correlations between molecular events in a cell. Biophotonic mediation may well contribute to them. This mechanism might be involved also in augmented-information EMF experiments affecting larva development time in isophemale strains of *Drosophila* (Kohane & Tiller, 2000).

W. P. Mei discussing the nature of biophotons (About the nature of biophotons, *Journal of Biological Systems*, 1994) of low intensity (200nm-800nm) detectable by photocounting devices, found that their intensity varies in the range of 10^{-14} - 10^{-10} photons/s-cm² and their extremely low quantum efficiency in the range 10^{-14} - 10^{-10} . This biophotonic emission cannot be decoupled from cellular division and death processes. Biophotons are carriers of bioinformation related to all physiological processes. Using blue light, M. Khammash succeeded even to control gene transcription of DNA to RNA in single cells, after attachment of transcription factors to a specific part of the DNA. This allows new insights in photo regulated transcriptional dynamics, with wide implications in the initiation of the post-reincarnation first phases of embryogenesis, of course.

Interesting enough for our study, S. T. Dotta put in evidence a serial order of biophoton emission during the cellular division process, consistent with Cosic's resonant recognition model for macromolecules.

Biophotonics are based upon coherent light. Important for our study is mentioning Popp's proposal that DNA is the main source both for spontaneous and stimulated coherent radiation, due to the cooperative behavior of luminescent nucleotides in the cell nucleus. We speak of a biological laser light with a very stable intensity without fluctuations, allowing for wave superpositions leading to interference effects (unlike the visible light). The coherent property of ultra-weak biophotonic radiation is reflected in its "hyperbolic decay" and its "induced" variant by short flashes of light. The re-emitted biophotons prove

that their emitting molecules are coupled by a connective coherent radiation field. Before death, the biophoton emission steeply increases before (at the moment of biological death) it breaks down to zero. This radiation also increases during mitosis and displays significant fluctuation patterns correlable to various phases of the cell cycle. As a whole, a living organism becomes from the biophotonic perspective a very complex self-tunable resonating system of oscillating fields, coupled nonlinearly by their phase relations (Bishop, 2003). This novel concept of life is the background of currently emergent transdisciplinary Integrative Biophysics. As life as we know it begins at the moment of conception, an integrative biophysical approach will apply to the reincarnation process, too, as we shall see later.

Just a few words about graviphotons.

The ultimate nature of gravity is still controversial between scientific views.

According to Newton's law of gravitation (the gravitational force between two masses), and Coulomb's law describing the electric force between two charges, the equations involve the square of the distance between the respective masses or charges. This suggests that both forces have a similar physical basis, which we find in either activities. Gravitational fields produce a permanent notion of Sub-quantum superluminal propagating entities. We may consider that the speed of gravity would be $>2 \times 10^{10} c$. The original Newton equations involved electric charge, which points to a relation between gravitation and electric field. Experiments demonstrating the effect of light on gravitation may be found in Louis Rancourt and Philip J. Tattersall (2015). A. M. Mishin, using a highly sophisticated experimental equipment, detected all turbulent disturbances of the ether, its anisotropic properties and its various "ether wind" fluxes. He concludes that the specific state of ether in a given volume depends on the physical parameters that produced the given turbulent disturbance. The phase states of normal matter are inverted if compared to ether phase states: Transition of ether variants from plasma to solid state involves heat extraction and negentropy gain.

Anyway, an excitation of the metric tensor in space-time dimensions above relativistic 4,

may produce the hypothetical particle we know as graviton, with analogous physical properties to the photon (the ability of inducing a vector force included). Graviphoton is related to the graviton, emerging from an extra-component of the metric tensor implying a 5th dimension of supersymmetry. It is speculated that a graviphoton may provide a repulsive force with anti-gravitational effect (might correspond to the dark energy at cosmic scales). We seem justified to further speculate in this context, hypothesizing a certain subtle-energy located graviphotonic attraction exerted upon photonic radiation from physical systems (the zygote is one of them, of course).

The graviphoton rest mass is related to the rest mass of the electron. Measurements using the Maxwell-Wagner effect of inhomogeneous dielectrics applicable to the polarizable vacuum of quantum electrodynamics were performed, experimentally proving this relationship. For our study, let's emphasize M. Gasperini's observation (1990) that photon/graviphoton mixing allowed by multidimensional unification schemes, in the presence of a dielectric medium can significantly affect the mixing coefficient and the frequency splitting between the energy eigenstates. In this context, photon-graviphoton conversions are possible in detectable range.

Our discussion would be incomplete without, mentioning here the self-reinforcing solitary waves - the bio-solitons, responsible for the intra - and intercellular geometric patterning for signalization. The resulting semi-harmonic frequency spectrum may suggest a pilot-wave, interpretable as a hidden variable in Bohm's causal interpretation of quantum field reality.

III

THE NON-LOCAL IMMORTAL SELF

III-1. TOWARD A NEW PARADIGM OF CONSCIOUSNESS — *The immaterial consistency of the Self. — The limits of the Penrose/Hameroff “Orch-Or” model. — Brain as an entropy stabilizing system.*

Now after having passed through matter linked to its energy in conventional physics, subtle energy variants and their quasi-physical properties, let's tackle the perhaps most difficult and controversial topic of the soul, the reincarnating entity itself.

It's useless to enter here in the endless interpretations of this term in religious approach variants. They are specific to each belief system and vary according to the religion concerned. Also, it would be a waste of time and a useless burden on this book to mention the long history of philological arguments and views on this subject of inquiry. For Aristotle e.g., the soul was simply the form of the body. For Plato and the Christian theologian of the first millennium, the soul was the essential immaterial part of the human being, temporary united with the physical body (union which for Aquinas was its natural state). Modern philosophers simply deny the existence of an immaterial soul. Descartes argued that in order to survive physical death, an immaterial component of the self must exist during biological life, too.

Conventional science still based upon the materialistic worldview strongly denies even to consider as worth of scientific inquiry the whole topic of something that escapes modern investigation technology. Current instrumentation is unable to detect an immaterial essence.

The reader would find quite similar definitions for the soul in the major mass-media and encyclopedic information sources. In Wikipedia e.g., the soul is defined as an immaterial animating principle causing an individual life, the spiritual principle embodied in human

beings, a person's total self. In the Cambridge dictionary, the soul is "*the spiritual part of a person that some People believe continues to exist in some form after their body has died, or the part of a person that is not physical and experiences deep feelings and emotions*". The Encyclopedia Britannica defines the soul as the immaterial aspect or essence of the human being which confers individuality, often considered to be synonymous with the mind or the self. The Encyclopedia Americana sees the soul as „essential principle of life" in human beings.

All these definitions have as a common denominator the immateriality of the real Self, supposed in some way to be coupled during the lifetime to the individual's physical body, some of them linking it to a life principle. But here we are interested in its scientific aspects, which requires modern approach modalities and experimental confirmations expressed in scientifically acceptable terms, if we challenge to suggest a plausible mechanism of the self-conscious entity's re-embodiment into the world of matter/energy which hosts its physical body.

Let's start our inquiry from the most advanced quantum approach to the Self reached by the famous American anesthetist, Prof. Stuart Hameroff (1998), who seems to validate the existence of a soul in terms of quantum mechanics operating in the neuronal microtubules of the brain (The Orchestrated Objective Reduction, "Orch-Or" model). Though still a quantum-physicalist approach, this model is vastly superior to currently prevailing ones that present consciousness as an emergent result of neural connectivity of brain and the pattern-generating effect of them. Put forward by the end of the last century in a joint effort of both S. Hameroff and theoretical physicist Roger Penrose, it is the result of a revolutionary interdisciplinary research program extended upon molecular biology, neuroscience, quantum physics, pharmacology, philosophy, quantum information and quantum gravity. The great step done by this new approach is transferring consciousness from the computable domain of neural connectivity to the non-computable one of quantum processing inside the neuron itself. They describe collectively formed "qubits" inside neuronal microtubules, able to generate superimposed resonance rings by oscillating dipoles, which propagate through microtubule lattices in helical pathways.

These oscillations are mentioned as being of electrical consistency (derived from London forces) or a magnetic one related to electron or nuclear spins, extended in ranges of kHz to GHz. Microtubule-associated protein molecules (MAP) would in this picture be able to modulate space-time separations in their superimposed states (based upon Penrose' collapse of quantum states related to the relativistic possible curvature of space-time (a view we shall immediately transcend in our Sub-quantum-based analytic work on this concept)).

Microtubular functions include also axoplasmic transport, contributing to cell dynamics and shape modulations. According to Hameroff, the objective wave-function reduction may connect noncomputational decision-making to experiences embedded in space-time is fundamental geometry.

The problem is that such abstract functions exceed space-time, extending into hyperdimensional frames of reference, where - as we pointed out - pure Information plays the crucial role. This doesn't deny from neuronal microtubules their candidacy for quantum processing effects, based on hydrophobic pockets containing delocalized pi electrons possibly organized in indole rings with separations of 2 nm; these nanostructures, according to Hameroff, may originate even interneuronal quantum entanglements. In support of his conjecture, he invokes also possible Bose-Einstein and Frohlich condensates formed by microtubule electron groups, with long action abilities through synaptic gap junctions into glial cell structures. Such synaptic tunneling effects would support a large-scale quantum activity, the source of 40 Hz gamma oscillations in the brain.

We are not here concerned with various polemics stirred up between researchers by the Penrose-Hameroff model of microtubulinic quantum processes, proposed as an evidence for a noncompatible background of sentience (Tegmark, Koch & Hepp, Reimers & McKemmish etc.).

Our approach is fundamentally different, paradigmatically so, indeed. While not rejecting the Penrose-Hameroff claims regarding quantum sufficiency based on microtubular

structures in cells, we emphatically call to see them as mere expressions in matter/energy domain of subtler operators of pure informational consistency, acting from the non-material level of organized Sub-quantum flux variants, able to store and vehiculate modulating influences originating in these non-material realms. Their point of anchorage in neural (and general biophysical) domains may well be in quantum effects described by Penrose and Hameroff, at all the resolution details they mentioned.

Some explanatory stuff will be certainly in place for the next step we have to escalate toward an up-to-day level of understanding, which would allow reaching our target, the acceptable approach of the reincarnation process into a fully-equipped biological system, able to navigate purposefully in our material world. A most detailed exposure of our reprocessing done upon the Penrose/Hameroff concept, as it has been submitted for the JCS Conference, Beijing 2009, is integrally insert here as Appendix.

This stuff, relying upon the most advanced theoretic conjectures, as well as upon recent proposals that relate the hyperdimensional essence of brain and non-physical signalization pathways, extends across the complementary domains of low-level (biomolecular and cytoskeletal), medium level (Neural networks) and high level (Consciousness) integration instances of the Self-controlled biosystem into its energetic environment.

We suggest that conscious experience is accessed rather than generated by low order phenomena, presented as correlates rather than aspects of consciousness.

The Quantum Objective Reduction is described in terms of deterministic sequences running under Information field orchestration, where Informational configurations are translated into Brain Quantum states according to vector guidelines provided by the interplay between Sub-quantum resonant configurations.

Brain is thus presented in its integral efficiency as a highly complex entropy-stabilizing apparatus, progressively patterning its ontological development according to anticipated Information processing tasks. This patterning is implemented by morphogenetic determinants enfolded in holographic control matrices, external to the apparatus. We

provide ample arguments related to the Brain's efficiency as an ideal anchorage tool for connecting the biological systems into proactive conformally organized Information fields, which constitute the self-conscious structure, operating in its own holographic space. We epistemologically differentiate between the holographic distribution principle, which exists in the Information field, at various levels of implication, and a concrete hologram, which requires a medium for expressing itself, which media is the Sub-quantum plenum, in this case. Holographic interactions are made possible by Brain's being embedded in Quantum-controlled Euclidian projections of all the resolution details they mentioned.

Finally, we suggest that anesthetics may act obeying the Meyer-Overton correlation requirements while disrupting afferentation into subjective awareness fields by efficiently suppressing the neural Quantum resonance ability of Brain. Experimental and experiential observations under these conditions have shown, indeed, that cognitive phenomena continue running unaffected in the individual organized holographic information field, and remain associated with projective information space.

Transposing Lashley's interference engram into Quantum regime, mnemonic traces from such dissociating sequences between Brain and its cognitive field may be recalled by subsequent Quantum superposition effects triggered by Sub-quantum attractors, as supported by a vast experimental and experiential evidence, hitherto circumvented by mainstream explanatory trends.

We emphasize that the Sub-quantum concept is able to successfully replace dualist interactionist ones by a physically consistent and experimentally proven monistic asymmetric determinism obeying Bohmian implication requirements.

III-2. LOW LEVEL BIOLOGIC INFORMATIONAL COORDINATION

— *Quantum tunneling effect.* — *Cytoskeletal resonance, Quantum coherence and regulation domains.* — *Retro causation induced centrosomal Quantum states.* — *Centriolic fluctuations.* — *Cellular chemotactism explained in SQ terms.* — *Sub-quantum determinants of gene expression.* — *The "objective reduction" as a Quantum effect.*

A FEW INTRODUCTORY CONSIDERATIONS

Let's try to constructively address the Penrose-Hameroff "Orch-OR" model for Consciousness by a compatible and conceptually extended contribution derived from our progressively increasing understandings related to the Sub-quantum essence of sentient reality. Our basic conceptual guidelines have been presented at the "Quantum Mind" Conference in Salzburg (2007), as well as in the "T.S.C." conferences held in Budapest (2007) and Tucson, Az (2008).

At these events, we summarized our approach as follows:

"Recent experimental results have proved intractable to explanation by resorting to existing physics paradigms. This fact, along with certain fallacies inherent in mainstream physical-cognitive theories of mind, have encouraged the authors of this paper to transcend the currently operative limits of investigation, thus to explore the abyssal depth of the still uncharted, but highly rewarding, Sub-quantum regimes. The Sub-quantum is herein assumed to co-existentially accommodate proto-units for matter, energy and Information, which are thereby brought onto an equal ontological footing, in the Sub-quantum domains.

Devolving its argumentation and orientation from the Nobel Prize winning Fractional Quantum Hall Effect, which opened the perspective toward a further divisibility of the Quantum domain, hitherto considered as an irreducibly fundamental description of nature, the hereby proposed inter-theoretic model claims to satisfy advanced scientific and philosophic requests as reformulated for a conceptually new working hypothesis. Sub-quantum potentials evolving in the Prime Radiation Matrix result in organizing functions

able to interfere with classical local determinacy chains, operating at the Quantum levels of randomness inherent in space-time-like matter configurations, leading to highly complex representational patterns, linked to their phenomenal correlates in macroscopically detectable systems. Our model is strongly rooted in an overwhelming experimental evidence derived from multidisciplinary contexts of scholarly pursued exploration tracks as amply documented in this presentation.

Our basic understanding identifies the Quantum Potential (Quantum Field Theory) as a superluminal Sub quantum Information-carrying ether able to interact with matter and physical forces at well-defined Space-time positions injecting their Information content into our world of observables by modulating the event potential. This interaction is possible as soon as matter is defined by an n-degree entanglement state of SQ complexity. Absolute void refers to lack of matter which equals to a space-time sequence contending Information in its nascent, non-aggregative form (the Sub-quantum plenum) as observed from our Space-Time perspective. It contains implicated layers of increasingly subtle pre-quantum domains, which each one at its manifestation range may be organized in complete worlds of the kind our own is, each one of them ranging till its own "absolute void" as transition state to the next implication level of reality.

Introducing a quite innovative approach to the most controversial nature of Brain/Mind interaction, the pre-quantum tenets rely upon experimentally testable assessments. Our proposal has a strong outreach into unprecedented explanatory options for anomalous output data distribution in non-conventional exploration fields, whose statistically significant results become logically integrated into epistemologically sustainable blueprints. Constructively debating reasoning tracks suggested by eminent scholars with most impressive credentials in widely quoted references across our presentation, we emphatically challenge the current paradigmatic tenets that are obviously inspiring endless sterile controversies disseminated in widely accessible and mass-media supported literature. We hope to succeed in our attempt to persuasively reverse misleading ontological tendencies relying upon their disqualified metaphysical backgrounds by asserting an upside-down epistemological approach for the primary determinism that

Information structures have upon their physical counterparts.

Our views are perfectly consistent both with conventional empirical treatment of space-time defying representational variables, and their causal primacy upon Quantum implementation systems of their content, in the integral range of their polyvalent manifestation. Detailed descriptions of mind/matter entanglement patterns are supplied, as running in the holistic super implicative sentient reality domains, under the overarching regulation of Cosmic Harmony, underpinning a continuous creation cosmogenic process.

As our analysis addresses a pre-temporal range, the thus defined endless time vector allows ab-initio existing inherent resonance links in any SQ subtlety domain to turn into fluxes and organization effects leading to sequential entelechial self-contained worlds. These primeval harmonic SQ resonances are the very pattern of our overarching cosmic harmony just mentioned, the source of all conceivable manifestation and interconnectedness."

***HIERARCHICAL SUB-QUANTUM INTEGRATION/CONTROL SYSTEMS WITH EXTENDING
POTENTIAL IN THE PENROSE-HAMEROFF "Orch.OR" MODEL***

We are aware of the fact that our hereby proposed concept may suggest some justified analogies to E. Fredkin's vision of a Universe representing a lattice of interacting logic units rather than mass/energy configurations. Nevertheless, we do our best to transcend any previously proposed theoretic developments, while following the involvement of various cognitive units into the neurohystological range, the topic of our present Brain-related concerns, as evoked by the Penrose-Hameroff propositions.

As amply documented in the model we refer to, subunits of cytoskeleton microtubules are recognized as highly Quantum sensitive structures.

We hereby suggest that their Quantum sufficiency is coordinated by Sub-quantum Information storage and carrier systems operating in superluminal velocity range. From this, their computation efficiencies far exceed computer-driven AI technologies, as applied in cellular automata concepts.

Further on, we consider that Pribram's collective emergence of qualitatively distinct properties, along upward evolutionary vectors in phylogenetic chains, is conceptually consistent to the cumulative complexity indices we ascribe to evolving Information-driven SQ substructures, which cause Quantum superposition states. The quantum states so produced, are specific for given hierarchical levels of organization, involving specifically related energetic configurations.

Let us assess from the very beginning, that perception modalities of sensory information in brain-coupled consciousness, are related, in our perspective, to interference patterns produced by neural firing frequencies, provided they are properly configured for their successful transcriptions into Sub-quantum maps, which are available for subsequent decoding ("reading") by symmetrically conformed Information fields, which fields are operating at the next implication levels of complexity.

Hopfield introduced an Informational function, coupled to energy states in the Brain. This opened a new analytical perspective. However, Hopfield did not recognize at the time, that the structure-patterning effects such Information fields generate, exist both in morphogenetic modeling of neural structures, as well as in permanent reconfigurations of the functional efficiencies of neural network correlates of cognitive functions. That such correlates widely exceed static Information patterning and selections is suggested, e.g., in Changeux's spin glass mechanism.

Holographic distribution patterns of space-time configuration Units are properties internal to the SQ entities. The combinatorial states of the SQ entities are defining many different complexity values. This understanding provides a superior theoretical model for configuration transpositions, when compared to some earlier suggestions, such as the Conrad - Lieberman virtual cytoplasm representations.

Coherent nanoscale excitations in biosystems are elucidating collective subunit behavior patterns, which are originated in enfolded SQ Information patterns which control bioactivity chains. In this regard, DeCallatay's (1986) downward implication hierarchy and his approach to cytoskeletal structures, as fractal sub-dimensions of neural networks, in a

Bohmian context, strongly supports our views.

By connecting EM, Time and Gravitation in a synoptic homogenous concept, the SQ approach supports both time-dependent and time-independent mechanisms such as those proposed by Froehlich and Davydov regarding molecular computational efficiencies.

Brain-scale macroscopic Quantum superposition effects are presented as evolving on the background of micro tubulin conformational states, not as a cumulative consequence of such states, but as a higher organizing principle, one which allows for meaning-related two-way configuration-pattern transcriptions. These are essential replication effects, required for conscious representations, and are running in null time. This is a consequence of the superluminal velocity Information transfers which are commonly achieved by SQ fluxes, such as those recently experimentally demonstrated by Hu (2002).

BIOMOLECULAR, CYTOSKELETAL, GENETIC, AND CELL-LEVEL COORDINATIONS

At the biomolecular level, entropy stabilizing systems involve hydrogen bonds of multi-enzyme complexes. These are related to water-supplied resonant bivacuum interactions as described in the Kaivarainen model (2000). This interaction seems to be an important atomic-level contribution to cytoskeletal information processing ability.

Let's assume that Barrow-Lindsay correlated fluctuations in macromolecular surface effects, are SQ related to fluctuations of London forces, according to the polarization and separation indices which are specifically implied. This SQ relatedness operates in the infra-electronic and molecular scales, providing a transcription of a preselected SQ matrix, into conformations of biomolecular event chains. Further, let us assume that biochemical oscillating patterns of tyrosination/glutamation, regulating biomolecular configurations, supply the chemical encoding required for replication of Quantum-related events. In this situation, femtosecond and nanosecond oscillations are present in the metastable functional conformational states which are observed at the biomolecular level, leading to transient superpositions, expressed as Quantum equivalents.

Such a transcription of Informational contents at biomolecular level, may imply that there

exists a conformal Quantum tuning effect, which is occurring between cellular infrared dipolar radiations and ambient EM phenomena, acting to carry regulatory signals which are originating from higher implication levels. This concept seems to be supported by Free Energy Landscape experimental reports, where related experiments were performed using multidimensional Infrared and terahertz spectroscopy, with results which seem to correlate with the above suggestion (Suzuki & Tanimura, 2008).

The ultimate coupling of conscious experience to the physical Brain, has been suggested to imply that there exist dynamically evolving entanglement modules, in the Quantum range between TGD-defined vacuum extremals, and Bose-Einstein condensates (M. Pitkanen, 1985). This circumstance might influence cytoskeletal resonance mechanisms, involving Josephson currents which are oscillating in the InfraRed frequency ranges, resulting in their coupling to photonic Bose-Einstein condensates, thus leading to functional phase-locking effects in microtubules.

Nonlinear quantized soliton alpha helix propagations, as described by Davydov (1982), in their retroactive coupling to quantized phonons in Information transferences across nanoscale structures, are embedded in the regulating Quantum map, which acts as a local teleological attractor, by way of electro-soliton energy transfers. Quantum tunneling effects, together with nanosecond time-scale charge redistributions, related to the Froehlich excitations evolving in hydrophobic protein enclaves, equally participate in this process.

The alpha helicoidal structure of peptide alignments and sequencing can be described as a soliton-mediated holographic transcription of vortex structures forming at different scales of magnitude, at least down to the 10^{-58} m Kolmogorov range, as we have repeatedly stated. Beta-pleated configuration sheets are formed in polypeptide chains according to Information that is contended in the subatomic realms of the relevant hydrogen bonds involved. In a similar way, tertiary and quaternary protein assemblies have been documented as forming under SQ-originated Van der Waals forces. Charge configuration related dipole oscillations, evolving at this scale, are further contributing to the configuration and stabilization of tertiary allosteric states.

As we shall see at a more advanced stage of our analytic considerations on the various bioregulation instances, the biomolecular one included, a secondary downward holographic replication with retrograde causal orientation, is implemented by Quantum mediation, aligning elementary neuronal structures for the optimal implementation of cognitive tasks. These tasks have been preselected in time at the high implication levels which are specific to Consciousness and self-awareness related representational modalities.

In our view, cytoskeletal Quantum coherence which satisfies biological integration requirements and functional hierarchic integrations, leads into higher complexity Quantum fields. This situation implies that a direct causational link might be operating across biomolecular, neural network and conscious experience domains.

Cytoskeleton involvement in cognition has to be limited to its specific range of validity. This does not diminish its holonomic importance in the whole. It merely defines its application range in the overall scaling map of interconnected configuration mechanisms, extending across the literally infinite array of implicate domains, which are involved in sentient reality. Fractal expressions of such a multiple-embedded control system may be holographically described as the various conformational transition events which are operating at different size and time scales. Those determinants which are operating within the Pico and femtosecond ranges, define atomic, molecular, and cytoskeletal regulation domains.

The cytoskeletal hologram results from convergent SQ patterns, belonging to sensory input signals, and referenced information sources, respectively.

Such Information-guided Quantum superpositions provide a phase-stabilizing calibration system, which, in the available tuned filtering and resonant conditions in the cytoplasm, allow for the selective wave dynamics observed in the cell, as well as in their collective and coordinated "macron" effects. At a corresponding analytic resolution, Quantum macrons implement Information control upon their energetic correlates, at each level of the various informationally implied potential structures which are contributing to the vast holographic assemblage we describe as the sentient biosystem, at all levels of integration.

Functionally effective spatial organizations of cytoplasm activities, as evolving under centriole microtubule polymerization guidance, wouldn't be conceivable without implying an intelligent primary centriole activity, in the first place. This cytoplasmic organelle obeys enfolded retro causation cues, as supplied by overarching centrosomal Quantum states. Such implicate retro causation blueprints are made possible, as we shall argue, by infinite velocity SQ information transmissions, which has a blurring effect on the chronometric time-embedding of the process.

SQ capacitors aligned along insulated molecular strains, between the hollow core of the microtubule, and the peritubular clear zone, smoothly respond to the Quantum entanglement effects they are embedded in. It has been obviously overlooked until now, that the spatial arrangements of hollow parallel intra-micro tubulin systems may result in strong Grebennikov cavitation effects, which are acting as a tuning mechanism, linked into higher order task-related SQ attractors.

We strongly emphasize that cytoskeletal contributions are not limited exclusively to neurons. These contributions are in the background of the lower-level morphogenetic and morphoplastic information controls, which are operating in biological systems, at an overall biomolecular level. These processes must be related to various representational effects, only in their proper application ranges, as seen from the holonomic Bohmian perspective of hierarchical integration constraints.

In our Sub-quantum model of reality, cellular gravity, originating in gyroscopic centriole fluctuations, is intimately coupled to related EM, time and Informational components. This fundamental connectedness of physical forces to Information dynamics, also finds a significant manifestation in the pericentriolar environment embedding the centriole apparatus, whose stable axial orientation is thus preserved. ATP-generated centriolic rotative oscillations in the 10^7 per second frequency range, match collective energy-absorption bands, orchestrating an efficient detecting and processing apparatus for the linear signals involved.

MTOC-regulated microtubular space-time deployment patterns of multitube arrays, result

in propagations of deterministic changes, able to confer raw information about environmental events, without any claim for specific decoding of this Information content. Actual decoding occurs in distant implication domains, well above the intracellular one. Of course, there is a holographic parallelism between neural interconnectedness and MAP attachment patterns to MT. The best MAP1, 2 and TAU ratios in these structures, are selected out by the background organizing fields, via Koga information codes, operating in the microtubular domain.

Further, the Belousov-Zhabotinsky reaction-diffusion system is scarcely "self-organized". It runs under SQ control. This view is supported by its originating in the phase-singularity toroidal vortex, which is a scalar expression of similar SQ organizing torsion patterns we can follow down through the Compton radius vortex, to operative regimes far below the Planck limit. Winfree-Strogatz organizing effects ascribed to microtubulinic and centriolic dynamic inductors may run under MAP regulation mechanisms, where biochemical short-term MAP memory gets stabilized by SQ controlled Quantum states, affecting their molecular structure.

The downward flow and activation of Information control instances evolves in sensitive Quantum states, which operate via microtubular gradient distribution patterns. These are the building blocks for the Brain engrams whose outputs are amplified by allosteric cooperation chains up to detectable values for appropriate effector response of the biosystem at its macro dynamic level.

In a similar context, we have to emphasize that prokaryotic and eukaryotic cell mobility can't find a really satisfactory explanation in current theoretical proposals. The probing activity of chemo tactic Information signals ascribed to lamellipodia and filopodia requires a still elusive Information processing ability of the signals thus acquired, in order to achieve a cytoplasm-flux decision, oriented in the right direction. It's an almost impossible task to explain cellular chemotactism and motility in embryogenetic pathways without involving a "contact" function ascribed to filopodia, which is related to pre-set target matrix configurations, provided by higher level morphogenetic field matrices.

As previously mentioned, the overall orchestration of the different nanostructures in cells, and their functional correlations, require the hierarchical active interference of organized Information fields to be able to implement an integrated multi-task control. This is a very important contribution to the understanding of the optimal differentiation and high precision path-finding that neuro-embryonal processes are involved in, for establishing the maximal efficiency of interconnection potentials that the morphogenetically resulting Brain can offer.

Where is the control instance of the genetic cell activity itself? A certain kind of "micro-progenetic" regulation of the genetic apparatus itself is required, and this is supplied by stabilized SQ correlation maps available in the Quantum environment, where the genetic processes are embedded. This confirms the Albrecht-Buehler contention regarding hierarchical information processing strata, delivering the required guidance for the cytoplasmic level of intelligence.

Studies put in evidence the questionable role that the physical presence of centrosomes might have in the mitotic process, which process has been shown to proceed in progressing, even after laser irradiations of the centrosomes. This experimental evidence strongly suggests that the formation of the mitotic bipolar spindle follows an Information pattern, and is acting without respect to any centriole control. As acentrosomal cells lack the radial arrays of astral microtubules and are defective in spindle positioning, the orthogonal arrangement of centrioles seems to have a spatial centralizing task, for the site of the cytokinesis, rather than its initiating one. The mitotic starter, and further guidance, is not biochemically encoded in the cytoskeletal system. It clearly runs under relevant SQ Information control.

Fundamental chemical processes, such as the lysine acetylation on H3 histone, leading to chromatin fragmentation into nucleonic units, influence the transcription phase of the gene expression by histone-encoded epigenetic control. The functional gene product preserves the signature of the histone code, which participates in DNA-templated programs.

A single methyl group discriminating between dimethylated or trimethylated H3 histone

components, coupled to the chromodomain, may result in critical structural changes by histone code alterations. This highlights the paramount importance of SQ coordination at the atomic level, governing elementary chemical events, with decisive consequences for the gene expression and the resulting functional gene products.

SQ mediated Information transfer might operate at or below this atomic resolution, resulting in critical departures from original genomic expressions. This has been amply documented in recent impressive experimental, ontogenetically late instant mutations, reported by Gariaev and his team at the Moscow University.

Here we resume our repeated warning, that genetic and epigenetic code activities must be carefully described in the specific biomolecular/morphogenetic range they apply, avoiding extrapolations into the higher-order implication levels of Information complexity which are certainly involved in Consciousness dynamics. At the same time, we have to keep in mind that determinant coherence effects, ruling biomolecular events, may be analytically addressed as holonomic analogues for Informational processes governing high-level coupling and the integration of Consciousness with multimodal neural network activities in Brain.

We have to keep in mind that hydrophobic interactions involved in polymerization processes are the entropy conservation patents of nature, favoring negentropy, as supplied by the organizing SQ-related Information fields which exist at the biomolecular level. Electron density increases in centrosome protein molecules orbiting the centriole foci may be seen as the Quantum inductors, which are regulating Information for the centriole controls exerted upon particular configuration vectors of cytoskeleton conformation. This process is highly relevant in the centrosome/kinetochores orientation of microtubules, as an Information-induced mechanism, initiating the prophase in eukaryotic cells, possibly involving for this effect, chemo-gravitational fields, related to the gyroscopic inertia of rotating and oscillating centrioles.

Microtubular dynamic instabilities, leading to functional cell polarizations and mitosis-related specific structure formations, represent a statistical effect of intra-electronic SQ

fluxes evolving in the Compton Radius space under the derivative control of enfolded infograms, mediated by higher level retro causation effects. Unaccounted-for microtubule complexity gradients, beyond the equilibrium state of their subunit configurations, arise from the underlying SQ organizing modules. Coherent dynamic cytoskeleton excitations result in holographic Quantum units, stabilizing standing waves at the info-plasmic resolution level. The ultimate source of biological organization is thereby conceptually removed to deep below the microtubule lattice/cytomatrix connectivity relations, toward enfolded background Informational domains.

Coherent nanosecond Froehlich dipole oscillations are coordinated by their fundamental embedding in the Time aspect of the SQ field, which supplies a higher-precision synchronization guide than the one that might be derived from sensitively fluctuating physical forces of local topological relevancy.

Bose-Einstein condensates and Froehlich excitation coherent processes, evolving in the GHz spectral range, producing resonant microwave effects on living cells and other Quantum components, contribute an overall binding-effect, related to cellular functions.

Holographic SQ Informational distributions, resulting in increasingly complex patterning effects is, in our opinion, a more realistic candidate for replicate transcriptions than the one offered by Heidemann's fractal tensegrity model, whose application range is much more limited.

Distant functional cell alignments to resulting local Informational states, is ensured to occur in null-time by the superluminal propagating velocity of the Information carrier SQ infinitesimals, supplying a more fundamental mechanism for Von Neumann-type cellular automata models, than the currently envisaged ones.

For a better understanding of the following section in our exposure, let us recall that ionic flux channels in neuronal signaling, involved in slow propagating "gated" potentials, which evolve under informationally extended SQ space-time patterning effects, have a guiding and stabilizing interaction with trans axonal membrane depolarization waves, described as

"action potentials". These have far-reaching global consequences upon the neural networks, and the whole-brain Quantum conformational states involved in Consciousness.

OBJECTIVE REDUCTION IN THE SUB-QUANTUM PERSPECTIVE

Accumulating tubulin state-superpositions, leading to objective Schrödinger wave-collapse events, in a statistically random time sequence, are obviously unable to convey the extremely refined correlation maps required to produce meaningful and coherent blueprints. From this perspective, pre-reductions of Quantum distributions must satisfy local integration requirements, but not higher-level ones, unless some higher-level coordinating system (similar to our SQ model) implements an efficient patterning of the sequence. This sequence results in an orchestrated OR, according to overarching teleological attractors embedded in hierarchically higher-level Quantum configurations. These configurations are holographically imprinted, in a most efficient way, upon the OR mechanism.

The hereby implied Informational control may be mediated by the gravitational component of the SQ units, in the frame of the Quantum gravity threshold proposed by Penrose. Space time geometries related to Quantum superposition states at all of the integration levels, conducive to OR, are fundamental constituents of our hyperdimensional SQ configurations, and subsequently, are the natural carriers of Information stored in their combinatorial aspects forming the given Quantum state.

The self-collapse event is neither random, nor self-chosen by the superposition system itself. It occurs precisely according to the embedding Quantum configuration's requirements, mediated by the Time-Gravity constituents of the underlying Sub-quantum apparatus. The OR is the Quantum event which links different sets of deterministic Information controls, and provides their orchestration towards preselected attractor gradients, by suppressing nonconformal components, mostly originating at lower-level integration structures. This occurs in key neural components, which integrate different cognitive implication levels, by time density fluctuations, as described by Kozyrev.

Post-reduction events reflect further Quantum guidelines, related to complex histone codes internal to cytoskeleton nanostructures.

III-3. MEDIUM-LEVEL NEURAL NETWORK COOPERATIVITY —

Quantum / Sub-quantum interpretation of the microtubule apparatus. — Quantum map in representational patterns. — Cytoskeletal reaction modes. — Holographic Information storage. — Decision-making capacity at genome level. — Single and collective neuronal perceptual interpretation of stimulus by a retrograde causation chain.

Parallel networks of neuronal and intersynaptic substrates, as Brain correlates of consciousness, work by implementing Quantum correlation aspects established between their energetic blueprints, and the Information counterparts thereof. These conformational equivalents are conveyed via delivery and transcription media by the SQ configurations, which are supplied as references, to the various hierarchical constituent levels of the conscious Self. Thus, the only sustainable representation of Information in Brain has to be found in the interferential range of coupled SQ superposition maps, belonging both to the energetic and Informational components of the binary systems considered to be involved in sentience. According to the Information flow vector, these components assume preferred "active" or "reactive" tasks, which are selected by a switching effect which originates in enfolded control instances, operating in higher implication levels of reality. These instances may implement the teleological retrocausation potentials which are implied in the trans-temporal domains of our interest.

Firing frequency pulse codes are related to stimulus intensity alone. It is beyond any reasonable doubt that, even combined with the neural-network level, closed reverberating connectionism of polyvalent stimulations, which are detecting and integrating potentials, firing frequencies alone, fall short from any content-related Information processing requirements. This becomes more evident in observations of non-specific network activations, or correlation patterns, as involved with the multiple event-parameters they originate in.

Synaptic Long Term Potentialization and heterosynaptic plasticity, are biochemical effects, directly related to transmission velocity and not at all to informational content. These effects increase the Quantum efficiency of the NN involved in generating Quantum replicas for Informational transcription, working as a biological hardware maintenance process,

which runs at the low effector range in the signal processing domains. The same observation holds true with regard to the dynein-kinesin orchestrations observed in axoplasmic streams. The quantum configurations of the energy, biochemically derived from tubulinic ATP hydrolysis by the contractile proteins, encodes the proper sequencing coordinations for the contractile structures attached to the microtubular apparatus. This is possible only by Quantum integration into higher level programs. The ratio established between anterograd flux patterns and retrograde axoplasmic flow, with trophic feedback effects on the neuronal mechanism, are initiated under this localized Quantum control as an Information pattern consolidation effect, which is supplied to the neural unit and its assemblies, at SQ level of integration.

Sub-quantum modules hierarchically organize and control, implicated levels of Quantum activity, in coordinated brain areas. These coordination instances are operating, at a maximum efficiency range, which undeniably is far beyond the proposed strictly localized Gazzaniga inference engine or Minsky's multiple connected frame model. The "graininess" of representational patterns has to be found at the level of the Information-bearing infinitesimals, which are cooperating to form the Quantum map which functionally involves neural collectivities, where each cell participates into the representation, at its own SQ efficiency index. Freeman's collective behaviors are then a result of these collective Quantum activations. This activity has to be carefully distinguished from EEG patterns, which represent the general integration of overall Brain activities, into the planetary Schumann resonance-system.

Also, it is mandatory to differentiate the biological intelligence, which has been related to patterns of cytoskeletal responses to weak oscillating electric fields, from the task-related Quantum-coordination of trigger EM signals, and the cytoskeletal reaction modes, which are responding to resonant EM signals. As a matter of fact, weak EM fluctuations operating at the level of SQ configurations, are amplified into Quantum maps at cytoskeleton range, contributing to the level-specific engram formations. This process accounts also for the nonlinear tensility of cytoskeleton structures. The formation, depolymerisation, and Intracellular orientation of microtubulinic assemblies according to functional attractors,

evolve under related Information supply internal to the bio-regulating Quantum field potential. Tubulin dimer topology is in tilted and helicoidal hexagonal lattice structures, rather than different, biologically non-efficient orientations. These orientations are established under the organizing cytomorphogenetic SQ field potentials, as well. These potentials are conveyed to the reacting system by the Van der Waals London dipole coupling forces, which express an unfolding of the implicate SQ configurations operating at the cytoskeletal level - and far more fundamental integration domains, internal to the fine structure of participant electrons themselves.

In a similar manner, independent tyrosination/glutamation chains of tubuline subunits are variably related to DNA transcription effects, while sidearm dynein propulsion systems for axoplasmic transports, conveniently evolve under SQ coordinations, derived from hierarchically integrated organizing fields and holographic superpositions of teleological attractors. These mechanisms are coupled into the organismic level of the overall integration of the Self into its environmental conditions. From this perspective, local Shannon's "message formal structure" is meaning-laden in its specific cytoplasmic target range alone, where decoding organizational meanings conveyed by formal patterns is performed at the level of the biomolecular subunits which are involved in cytoplasm activity. The interacting spatial and temporal components in this process are not the source of Information. They are results of Information, used for coupling into the local energetic fields which are related to large scale intracellular biomolecular connectedness. Collective cytoskeletal activities are not generating Information patterns, but expressing them, according to geodesic tensegrity nets, which carry the Information required for their expressions.

The dielectric wave-guide model, as proposed for the micro tubular photonic conduction by Hameroff, gains an increasing importance, especially in the temporal and hippocampal areas of enhanced directed photonic penetrations. This is consistent with our references to photons as undifferentiated Information carrier agents that contribute to holographic image formations in various interference instances. More elaborate considerations, related to Boolean matrix vectors organizing in SQ arrays, suggest a selective coupling between the

ATP-related Infrared radiations which are observed internal to biomolecules, and their programming induction fields.

This means that the axoplasmic traveling of previously conjectured "representational screens" evolves under SQ control rather than an elusive programming previously assumed to originate in the microtubule formations themselves. Nevertheless, the Hameroff-Watt concept of holographic information storage, activating coherent wave patterns in cytoplasm, is in our opinion the most advanced concept ever proposed, seen its compelling similarity to our SQ modeling of the main underlying principles.

The Boolean switching matrix proposed by Hameroff strongly reminds Eccles' modular cortex activation patterns, amenable to configurationally meaning-related Quantum transcription both along afferent and efferent operational connectivity vectors. Recent experimental data (A. Maier, 2007) reveals that at the bacterial single-cell level (*Esc. Coli*) there exists the presence of an intelligent decision-making capability, which is obviously acting at the genomic level.

Distribution patterns of environmental water molecules, carrying chemically noxious ions, at the external membrane surface of the cell, may be disturbed by a feedback genetic-signalization which results in turn-overs of hydrophilic behavioral components, into hydrophobic ones, at that level. This experimentally confirmed reactive biochemical choice behavior, strongly contradicts the concept of biomolecular level initiations of upward organizational arrays by an accumulating chain of merely causal sequencing. This becomes still more evident seeing context-dependent perceptual modulations which exist in single-neuron activities. Neurons in the visual cortex have been electro physiologically proved to alter their spiking rates, according to perceptual interpretations of the stimulus. This implies a retrograde causation chain, which is consistent with the downward implication system we propose. This gets further experimental support in cortical sensory-motor mirror networks, supplying preferential functional subsystem activation patterns, according to the emotional valence and arousal properties of nonverbal vocalizations (Warren et al., 2006). Moreover, neural burst events recorded in the thalamic lateral geniculate nucleus, which are related to visual encoding in the Lesica-Stanley experiments,

put in evidence stimulus-related Information encoding efficiencies, in collective coherent neural firing events. Relying on explicit investigation procedures, the authors concluded that a possible cortical-feedback regulation mechanism is resulting in thalamic neuronal depolarization and a consequent switching from burst, to tonic firing patterns, after detection of the stimulus. The resulting linear transmission of preselected stimulus features is reached by pre-activations based on a higher-level interpretative processing, able to modulate overall neural cell activities, according to meaning indices, which indices are detected as being present in the signal content. More evidence for Informational bypass-mechanisms, circumventing primary visual cortex structures, is supplied by the nonconformal ratios which are existing between the alternate available extra-striate efficiencies, and the superior resolution-level that the visual stimulus achieves during its transcriptions into subjective awareness, as well-documented in papers related to blind sight.

III-4. HIGH-LEVEL CONSCIOUS INTEGRATION AND MEMORY —

Overlapping coherence bands. — The Stapp action template. — OR in preconscious range. — The experiential "nowness". — Hyperdimensional SQ Information coupling to Information fields. — Memory storage and its Quantum recall.

The selection of a preferred eigenvalue for the Quantum state, which state precedes the wave-collapse transition event, is far from a "random process" as proposed in standard Quantum Mechanical theory in its Copenhagen interpretation. In the SQ model of reality, state reductions are not related to ambient "observation" interferences, but follow a deterministic crystallization trajectory of a preferred orientation, not dissimilar to the physical laws governing fluid dynamics in the macroscopic range. We claim that subsequent and fundamental orchestrations of global Quantum-map configurational interplays, are excessively underestimated, when placed in the functional range of cytoskeletal biochemistries, or even when associated with coherent neural network activities.

As we have already stressed, NN components bear a very low-level causal significance as related to actual observable cognitive functions. Quantum Mechanical states display a double reactivity, both to SQ originated cognitive modulators, as well as to SQ sensory modulators of environmental origin, which are implementing the alignments and superposition states of both these sets of information, during each cognitive instance. Such Quantum Mechanical effects express both underlying, antero and retro causal, SQ determinacy chains, able to imprint into the integral system, the best embedding variant into an "All-time" modulated functional efficiency.

Overlapping coherence bands, which are involving sensory, mental and emotional contributions to selected Quantum potentials, may reach out to, and be analytically followed in, transpersonal EEG synchronization effects.

We have highlighted some of the Quantum mechanical components which are resulting in deterministic interactions between Heisenberg Choice activations, and Dirac's "response ability", which is suppressing nonconformal evolutionary lines of possible expansion

options which are originating in transient background uncertainty effects. This Dirac-response selection of deterministically controlled, conformal Quantum configurations, is implemented by the Quantum Zeno stabilizing effect upon the task-oriented Stapp action template, which is further stabilized by Quantum fixations of the implied basic vectors, in their Hilbert space.

The perfectly synchronized dual Quantum interactions we have described in our previous publications, lead to suppressions of conflicting action potentials, by interplays between superposing inhibitory signals and proactive proxy attractors. Thus, resulting neural signal sequences are deterministically aligned to preselected and appropriate action templates, in the Brain. Of course, neural paleo structures of Brain are placed under a priority response regime, which is aligned to Quantum determinacy cues, thus ensuring favored implementations, which are survival value configurations. This alignment of priorities results in - as we shall see - efficient and reversible dissociations, which can be observed under conditions of anesthetic neural interferences, between preserved paleo integrative vital functions, and higher-order cognitive processing events. Reversible blocking hippocampus-neocortical pathway conductions, involved in representational projections toward the self-conscious SQ structure, may have some relevance in this context, as implemented by metabotropic glutamate receptor effects on hippocampus synaptic plasticity.

No conscious equivalent can be proved to directly result from the collapse of conformationally-coupled Quantum superposition states. So, OR-conjectured transitions between, preconscious and conscious states, have no experimentally provable anchorage in observable phenomenological reality. At the same time, Quantum-map configuration-changes can't be described without these same phenomenological substructures. In this meaning, OR events are actually located in the preconscious range, though without direct subsequent repercussions on Qualia (Subjective experience).

Self-perturbations in Space-time geometry, which have been suggested as Quantum correlates of Consciousness in the OrchOR model, are conceptually consistent with the innately-hyperdimensional essence of our SQ information-bearing units, and can be seen as

their logical consequence.

The elementary unit of consciousness, the conscious "now" is not the instantaneous result of hierarchic binding effects of probability-wave reductions. In a more comprehensive reference frame, extending beyond space and time constraints, into the ontologically autonomic Information fields governing SQ activity, causation chains oriented along chronological time vectors, cease to be the ultimate deterministic pathways for meanings transferred across hierarchic holonomic networks, as implied by global integration processes.

Information subunits aggregate, in both directions of the Time vector, into an experiential "nowness", accessible to the Conscious Self. At the same time, this process provides the global reference frames for mnestic structures, which are stored in the atemporal Information fields, which are actually required for setups of actual connectional meanings. Such events involve Quantum nonlocal effects, originating in instances of space-time-free hyperdimensional couplings, of the SQ Units to Information fields, implementing in this way, a highly more efficient communication system than the one predicted by standard Quantum entanglement schemes.

Therefore, the ultimate coordination instance for consciousness-related phenomena has to be emphatically relocated into the Information-driven integration and guidance system, which is provided at SQ level by the hyperdimensional Informational essences it involves. In turn, this process of integral personality-representing focal information-condensations, actualizes the sequentially higher-order organizational principles which are innately embedded in the all-pervading cosmic harmony.

Learning and memory are not functions of inter-neuron synaptic modeling effects, as currently held. Mnestic patterns actually correspond to Information field configurations, each stored in their own SQ domain. Evidently, their preset resolutions, are in the first place, a function of recurrent synaptic connectional patterning processes, which lead to an increased accuracy in the replications of the original Quantum maps, as presented to the observer by integrated sensory cues, during the learning process. Of course, biomechanical

details of mnemonic replication effects are favored in this range, by the allosteric behaviors of presynaptic Ca channels and by the "habituation" of chreodic vectors, operating at biochemical levels.

Functional distributions of mnemonic traces, throughout the Brain, leads to their Quantum recalling, from any holographic storage module, by reference superposition attractors which are supplied as the symmetry components produced by an inquiring mind, in form of SQ patterns which generate field alignments to the, holographically-encoded, relevant Quantum activity components.

This view is consistent with Lashley's interference engram, if transposed to the Quantum level and beyond. Any structural or locational aspects, regarding neutrally encoded memory patterns, must be abandoned as only of an historic value. The reactivation patterns in Quantum maps, related to specific memory constellations must be seen as SQ-triggered alignments of extended Brain energy substructures. Each time, the SQ attractor performs the selective regulations of Quantum mechanical processes, which are correlated to the recalling event. Information is not stored in the physical Brain. It is reactivated in Quantum states by global resonant replications, which are controlled by SQ induction filters. A very large number of neurons participate in this Quantum resonance. Topological tracking of activated modules and networks, in specific instances, may be the subject of future, more refined, fMRI investigations.

Changeux's "representations" are ultimately SQ configurations, patterned in a "matching/not matching" mechanism, by real time sensory Information inputs, in a wide correlation context, pattern-matched to identical SQ-essence memory-storage pools.

III-5. UNEXPECTED NEW PERSPECTIVES FOR SCIENCE —

Anesthesia, OBE and NDE in a new perspective. — Hyperdimensional essence of brain. — 5th dimensional function in resonant NN connectivity. — Non-physical signalization. — Quantum choice in zero time by hidden time symmetry of Information vectors. — Phenomenal continuity of consciousness.

From all the previously introduced considerations, it clearly results that consciousness is in NO WAY a collective effect of conformational dynamics evolving at some lower hierarchic implication level. The SQ paradigm aligns these categories along a reversed causation vector, which is allowed by the fundamental time invariance applying to the Maxwell equations.

From this novel perspective, the anesthetic collective inhibition of dynamic conformal changes in Brain substructures exclude brain responses to available Quantum configurations, as supplied by the SQ processes which evolve in the conscious Self, and Brain mediations of environmentally-generated afferent signals, which are aimed, by the faculty of attention, towards the aforementioned ultimate Sub-quantum processing structure - the individual Self. If there is no attention for the thing or event, that thing or event does not exist for the observer.

Phase transitional sequencing in the implemented Brain/Consciousness decoupling and re-coupling pathways, are eloquently related to multidimensional dynamics, exactly as illustrated in the recently published Walling-Hicks phase-space EEG transcriptions. Hyperdimensional integration gradients into SQ-mediated Information fields are locally dependent upon the determinational quantum states of Brain, which are in turn, hampered during anesthetic impairments of regulating London force effects, at the level of nanoscale biomolecular background events. This explains why lower subsets of organismic integrations, governing vital functions, are preserved during anesthetic depth values, which are able to disconnect biological ground processes, from their projective space consciousness correlates. As an unavoidable, absolutely compelling consequence, conscious processing of environmental events may freely evolve during this disconnected state,

leading to SQ memory patterns which are being dynamically stored in the projective space-time, and subsequently re-supplied to the individual, for post-anesthetic recollections. Such recollection instances are abundantly described in the literature as "paranormal events" of the OBE and NDE kind.

Just as at biological resolution level, chemical energy patterns, have Information propagating efficiency, unimpaired conformal functioning of collective neural assemblies are required for up-scaled integrations of Qualia and provide meanings into the Self, during its coupled *modus operandi* to Brain. Anesthetic impairments at low integration levels, propagate in cascade-like dysfunctional arrays across the higher integration structures of Brain, resulting in Brain's transient functional dissociation from the self-conscious entity. The duration of such instances may vary from consciously unperceived micro-blackouts in the stream of consciousness, through short-term neural hypoxic effects, controlled medication efficiency windows (anesthesia), to long-term so-called "vegetative" preservations of vital functions. Beyond this connectedness reversibility threshold, experimental and experiential evidence strongly supports observations of unimpaired cognitive functions, which are operating their own, separate, SQ integration domains, which are able to interfere with anesthetic influences, by lowering entropy states, in both biological and non-biological systems, which are capable of modulable random energy-pattern supplies.

During anesthetic interferences, short-term memory fixation components, with biomolecular background requirements, may be impaired. Complex peripheral Information inputs may circumvent this integration level, resulting in extra-sensorial transmissions and subsequent coherent patterning of SQ maps, occurring at the highest level of the observing Self. Such imprinted configuration patterns may act as induction fields for subsequent Quantum replication effects in the Brain, during the post-narcotic phase resulting in long-term memory blueprints which may be recalled by accessing the proper Quantum connectivity pathways, which are normally involved in Consciousness/Mind coupling functions. Such memory contents preserve special integrated aspects from their non-neural extrasensory recording pathways, supplying the specific heterotopic recollection

parameters which define OBE and NDE reports. Such reports gain phenomenal reliability from the perspective of our SQ integration concepts, which contradict consciousness-suppression effects which have been misleadingly ascribed exclusively to physiological or medication-induced, transient cortical dysfunction states.

From the new perspectives opened by the SQ model we defend, we suggest to replace the currently held concepts of purely biochemically-induced consciousness-suppressing effects, as seen during narcosis, by a more accurate understanding, one which implies that, during narcosis, a transient decoupling effect is occurring between the individual self-conscious structure and the Brain (as the interaction tool of the Self), with relation to an energy-defined ambient reality. This decoupling occurs as a result of abnormal chemical influences on the normal biomolecular backgrounds which are required for setting up the various resonant Quantum maps involved in consciousness, in the normal waking state. Moreover, such disconnection states allow for continued and undisturbed cognitive functions running in projective space, despite any induced failures of the normal biochemical systems, leading to mnemonic configurations with the ability of triggering conformational Quantum maps in Brain, after the suppression of the chemical disturbance of the physical background during anesthesia. This effect is amply documented in a compellingly extended database which piles up in currently running investigation programs, with results which are confirming the endless chain of anecdotal post-surgical subjective reports which have been abundantly recorded (and routinely dismissed, as being events which are conceptually opposed to the standardized contents of the prevalent Consciousness-related theories).

Conformational and combinatorial structures at neural biomolecular level, obviously obey distribution orders far beyond their own structural codes. Direct photonic excitations by favored temporal penetration windows of the Right Temporal Lobe and its associated limbic system components, may contribute to Brain's biological interface with an interconnected Universe, as suggested by M. Morse (1998), such processes enhancing religious and NDE-type experiences. He suggests ascribing to the right temporal lobe, a biological vehicle value for morphic resonance-mediated control in post-genetical ontogenetic phase correlations.

In a personal communication dated back to 1997, J. Whinnery pointed to dreamlet-like experiences originating in hypoxic brain modules, as being similar to NDE reports. These kinds of experiences imply neural connectivity to non-local Quantum-Reality Information structures and corresponding configurational maps.

Extending the Rubner-Kleiber scaling computation laws, K. Togbey (2006) performed a fractal analysis of the relevant allometric exponents of the Brain, reaching a $4/5$ law. This implies that a 5th dimensional function is present in resonant NN connectivity. This finding relates Brain's Information-coding abilities to the Golden Mean ratio, by equating EEG metrics to number of harmonics times 2ϕ . Wave packets, scaled in powers of the Golden Mean, exert a patterning action upon the time-lags separating neural firing events, over several orders of magnitude. Harmonic spectra below and above the brain's fundamental 2ϕ frequency matrix, are involved. Neural networks operate according to powers of $2\phi/2$, efficiently using them for Fibonacci series related Information coding, involving Hausdorff dimensions which are implementing the fractal distribution patterns of SQ information structures.

Log-normal and power-Law distributions of variables are thus governing heritance and aberrance processes in biosystems, where the power-law distribution proves to accurately describe the Fokker-Planck equation, as applied to the discrete variables related to SQ Informational Units and their combinatorial matrices.

Our SQ model has received an important support, by the novel view on Quantum physics recently proposed by P. V. Kurakin (2005), from Russian Academy of Sciences, Moscow, which addresses hidden variables as evolving in a hidden space/time, without violating Bell's theorem. This highly appealing model of non-physical signalization systems, running in "hidden-time", beyond normal physical time constraints, is strongly consistent with our infinite-velocity SQ signalization concept. Indeed, hidden-time dynamics - the ones occurring in Information fields - result in the best conceivable controls of the deterministic parameters which are at work between elementary events, such as photon emission and absorption, thus implementing informationally enfolded guidance of energetic phenomena. Standard QM offers nothing more than a few predicted probability amplitudes, for such

elementary processes. Physical "quantum time" normally refers to the number of energy quanta, absorbed at a given point in Space, during a given time-span, as derived from normalizing experiment-related variables. The photon emission/absorption events themselves, are currently seen as running in a random, probabilistic framework.

The Kurakin Quantum model allows for a deterministic patterning of such events, rather than a probabilistic randomness, by introducing non-physical modes of Information signaling, which operate in the background, hidden-time, dimension. This involves complex interactions between "queries" and "confirmations", where queries and responses are operating non-locally as parallel vectors, composed of direct, and backwards-oriented, non-physical signals. These information signals, which are regulating Quantum processes, evolve as hidden variables, in the physically inaccessible domains, as defined in the Compton Radius Vortex, by a lower metric value than the Compton wavelength itself. This signalization control involves coaxial superpositions between contradicting time propagation vectors, thus involving retro causation effectors originating in preselected SQ matrix fields of higher implicated orders. Such Information signals are displaying a physically detectable fractal integration amplitude, only at the levels of fragments of superposition, thus eliminating the need for any theoretically uncomfortable, and physically hard to demonstrate, backwards-flow patterns, in physical time.

According to this advanced concept, Quantum choice happens in no physical instant (zero time), as a result of Information-signal superpositions along their vacuum trajectories. As described in the Kurakin model, Information propagation channels in the vacuum, are thus controlled by "virtual" guiding structures. Such structures might be mutually compensating pairs of Information-charged SQ units, organized in SQ condensates which are not signal-generating formations. These distribution patterns in the vacuum originate at a higher level of integration, aiming target-related conformal signal transmission blueprints which are reaching various targets, in zero time. This results in an apparent retro causation of the pure Informational essence, as implemented by the hidden-time symmetry of Informational vectors, which allow primary query signals to be propagated from detector to source - and not the other way around - as amply explained in Kurakin's model relying upon Cramer's

transactional interpretation of Quantum Mechanics.

From this novel perspective, Objective Reduction events of Quantum superposition states are seen as instantly deriving from hidden-time signalization patterns and not at some random and undefinable pace, as seems to be implied by the previously conjectured "Quantum gravity control". This retro causative chain operates along a downward implication vector of Informational essences, modulating upward physical trends, as described in the Penrose Hameroff model, and thus exerting a perfectly coordinated deterministic control upon the overall orchestration of the physical processes involved in neural activity. This easily explains both, the "logical" overall outcome of consciousness-related Quantum processes, and the highly elusive feature of the phenomenal continuity of Consciousness. This view overcomes the various unavoidable statistical segmentation effects, which are commonly resulting from applications of classical Quantum mechanical views.

Brain operates in physical time at the Quantum level, but it also operates as an interdimensional resonator, one which is capable of coupling hidden-time SQ signal processing events, into biomolecular energy-related Quantum states. Time-patterning Quantum events prove to be but the statistical results of deterministic SQ processes, evolving in the hidden time frameworks, which we have associated to a projective space, whose limiting singularity is the Quantum-embedding Euclidian space. Our extended team reached by now a quite advanced stage of developing an infinite tetration and self-root related mathematical formalism able to express these kinds of interdimensional transitional geometries, involving non-integer hyperoperations, which expectedly will highlight the many new connections hereby suggested, between Informational 2D spinor spaces and the Euclidian space of Brain, putting in a new light, the Brain correlates which are addressed by the OrchOR model of Consciousness.

Countless far-reaching explanatory consequences derive from these novel concepts, extending from anesthesia-related topics, to free-will proactiveness, to remote phenomenal patterns. These understandings are related to statistically significant, experimental and experiential results, such as those reported during "paranormal" Information-processing

research programs.

By now, we can see that the fundamental rules of the game need to be changed, in order to bring Consciousness research, and the understandings derived from it, into an alignment with the reproducibly observable facts, which facts unfortunately tend to defy the explanatory ranges of current paradigmatic constraints. Such observables can't be dismissed any more, or ignored, or misinterpreted, by biased preconceived approaches and tendencies. Prof. Hameroff's expressions regarding a Brain-coupled Consciousness seem to be perfectly consistent with H. Stapp's Quantum-mediated "top-level control" paradigm, as well as being consistent with our Sub-quantum concepts, which describe the details of this control's concrete implementation. Therefore, this novel view has to replace the obsolete one, which has proposed a Brain-based epiphenomenal approach. During the last few decades, the epiphenomenal approach has progressively degenerated, and thence stabilized into a most regrettable set of accumulations from the past, an unfortunately biased set of physically unverifiable, and conceptually egregious errors, in Consciousness Studies.

Summary

1. Conscious experience is "embedded in a fundamental space-time geometry", being accessed but NOT SELECTED by the OR process.
2. Our SQ model addresses the "non-computable" components of the Penrose sequences related to OR, which occur in Brain, not as "aspects" of Consciousness, but as correlates of Consciousness.
3. OR occurs not by cumulative Quantum superpositions by way of a random probabilistic Quantum mechanical effect, but due to purely deterministic sequences, imposed on the system by requirements which are originating from the Information fields.
4. Our SQ model provides the solution for the elusive determinism in specific 3-D configurations of amino acid chains in tubulin molecules (the "protein folding problem"), describing it as evolving along a teleological attractor-like vector.

5. Bose-Einstein type macroscopic Quantum coherent states, amplify the resulting Quantum effects, by sharing the thus selected wave function, and at the same time translating Informational configurations into the Brain's Quantum states.

6. SQ mediated Information Orchestration enters the Quantum domain via non-random van der Waals London dispersion forces, regulating Quantum superpositions of conformational states and aligning them for successful replications of SQ inductor maps.

7. Coherent Quantum superpositions in molecular hydrophobic enclaves are not a "prerequisite for consciousness". Such superpositions are simply supplying an orchestrating effect, which is resonant with Quantum maps in the Brain, thus tuned to SQ configuration information equivalents, which exist previously, in higher implication levels (Information determinacy).

8. Anesthetics may act in hydrophobic enclaves by obeying the Meyer-Overton correlation requirements, suppressing the fine-tuning effects between Quantum events occurring at this level, and their SQ-map counterparts, thus disrupting any afferent inputs into the conscious fields of subjective experience. At the same time, this process is suppressing Quantum neural resonance transcriptions with complex cognitive processes, which processes are meanwhile proceeding in their own projective space. In this way, anesthetics dissolve the physical Brain's correlations with the non-material Consciousness (mind), thus preventing noxious inputs from reaching the non-material Mind, by way of neural transmissions. Mind observably and instrumentally continues, even when the electrochemical mechanisms of the physical brain are turned off.

We defend the consciousness' condition of being a free, Sub-quantum-related, cognitive complex, one which is evolving beyond physical space and time constraints, following an increasingly negentropic vector. Together with thermodynamic chains of increasing entropy in various energetic ranges, this state contributes, over time, to a total entropy-negentropy conservation law, as fundamental to our Universe.

The brain-coupled functional variant of the above-mentioned structure, with describable

parametric correlates, as amply treated in the Orch-OR model.

At the level of its utmost morphogenetic complexity, brain is progressively patterned during its ontogenetic phases, for an increasing Information processing efficiency, with multitasking capabilities.

Our model is not reducible to previous dualistic or epiphenomenal concepts, as its approach to Information signalization and control apparatus is deeply rooted in modern, experience and experiment-supported, physical observations and their accompanying mathematical constructions.

We amply argument the "why" Brain is the ideal anchorage tool of organized Information fields, into ambient energetic Space-time dependent processes. Brain supplies the active components of this integration, by implementing symmetrical Information flows between the interconnected Quantum structures which are involved in the coupling process.

Our novel approach is rooted in an overwhelmingly deep pool of information, comprising an objective, experimental, and multi-disciplinary, extended database. This database includes in its explanatory range, both "normal" and "anomalous" Information-related phenomena, in a non-contradictory and coherent epistemological framework.

Keeping these conclusions in mind, by now we are ready to approach the mechanism of the reincarnation event itself.

IV

REINCARNATION

We remind our readers the our reincarnation model is based especially on the new Sub-quantum worldview, the consciousness (the "Ego", "Self") seen as a non-material ontological essence, and a time-symmetric causality (retrocausation supported by the Cramer "transactional" interpretation of Quantum mechanics). Without being somewhat familiarized with (and accepting) these novel paradigmatic tennents, the hereby suggested analysis would not make sense.

NOT A DISCLAIMER

By now, we assume that the reader is quite familiar with some preliminary interdisciplinary knowledge about both biophysical and more subtle domains that are involved in the conception event and its immediate consequences. Nevertheless, up to this point, our investigation addressed mostly the parental genetic supply forming the new entity's physical and psychological setup.

As we repeatedly emphasized along this quite comprehensive introductory exposure of scientific data, the total genetic make-up of the living entity is no way limited to its parental heritage. A second, not less important genome has to be taken into account, namely what Paul von Ward (2008) termed as "Soul Genome". This fundamental component of the total genetic background of the individual entity has been mostly ignored or rejected by mainstream scientific community, relying exclusively upon the materialistic paradigm that has been (and still unfortunately is) preached from all the academic cathedrals in a dogmatic way. High time for breaking this - up to now - impenetrable wall, if the truth has to prevail about the most important domain of human knowledge, the one addressing our very nature, our lives and our true identity.

Our personality is anchored in non-local domains beyond space and time constraints. In order to gain the Information that only immersing in the physical world can provide, we have to extend at least a portion of ourselves into the space-time domain. This immersion is the re-embodiment process, a chain of atemporal originated events required by the continuous evolutionary worldline of the Self.

All the currently available literature addressing this elusive topic is limited to case reports suggestive of reincarnation. And this literature, however extensive it would be, will always fall on deaf ears as long as a scientifically acceptable theory of reincarnation would be missing. The scope of this work is to suggest such a scientifically acceptable theory. The author is fully aware that his proposal is vastly hypothetical and incomplete. Its main scope is in triggering further research running in similar directions in order to get increasingly closer to the ultimate truth.

Let's jump in cold, until now uncharted waters, taking the risk of becoming the target for virulent attacks coming from the keepers of today's conservative materialistic dogmas.

The truth must prevail at all cost.

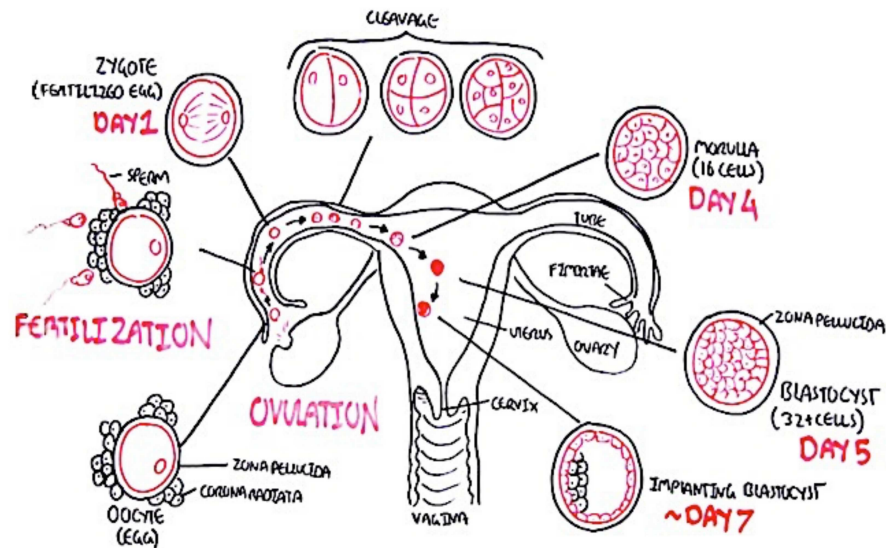
This is a first step in this direction.

IV-1. EMBRYOGENESIS — *Short overview of early embryogenesis. — The sperms' incredible competition. — The ovum's extremal selectivity. — Where "randomity" and life-long "destiny" meet by retro causation. — Mitotic division and start of embryogenesis.*

We will not extend our analysis on well-known aspects thoroughly studied and described in the medical literature about the female ovulation process. Women are born with a full quota of follicles containing immature eggs. Every month the FSH released from the pituitary gland activates a number of these follicles to evolve into their full capacity to release a functionally efficient egg and to produce estrogen that makes the uterus able to perform the implantation of a fertilized egg. At the proper time, the level of estrogen informs the pituitary gland to produce the luteinizing hormone (LH) that triggers one follicle to release a mature egg (ovulation). The thus released egg enters the fallopian tube and travels to the uterus. This journey takes five days, the period when fertilization of the egg takes place, provided sperm availability (the sperm survives in the vagina and the uterus 3 to 5 days, while an egg lives 12 to 24 hours after ovulation). Fertilization takes place in a window of about 6 days. Though during ejaculation millions of sperm cells are released, due to local pH conditions only some 200 of them are able to reach the site of the egg. And only one of them will eventually fertilize it. After the process is accomplished, a thickening of the egg's outer layer prevents other competing sperm cells to reach the already fertilized egg, which migrates to the uterus and begins its evolution as a blastocyst, toward the sequence of embryogenesis.

At a somewhat more detailed description:

Biological fertility sequence



Source: <https://www.youtube.com/watch?v=EwTZ1fypivg>

Inside the ovarian follicle, the female egg matures during the follicular phase (first part of the ovulation cycle). When ovulation occurs, the egg is released through the ovarian wall, prompting the beginning of the luteal phase. The egg is swept up by the fimbria toward the fallopian tube opening. Inside the fallopian tube it is ready for fertilization.

As a result of sexual activity, 300 million sperm cells are introduced into the acidic environment of the vagina, where most of them are able to survive due to a protective element surrounding them.

Passing the cervix (which opens for a few days of ovulation), the sperm cells enter the uterus, where millions of them die. Some are caught in the folds of the cervix, other are helped on their way by muscular uterine contractions. Resident cells from the female immune system are mistaking the sperm cells as foreign invaders and destroy thousands more. The surviving ones (only a few thousands) head the empty fallopian tubes.

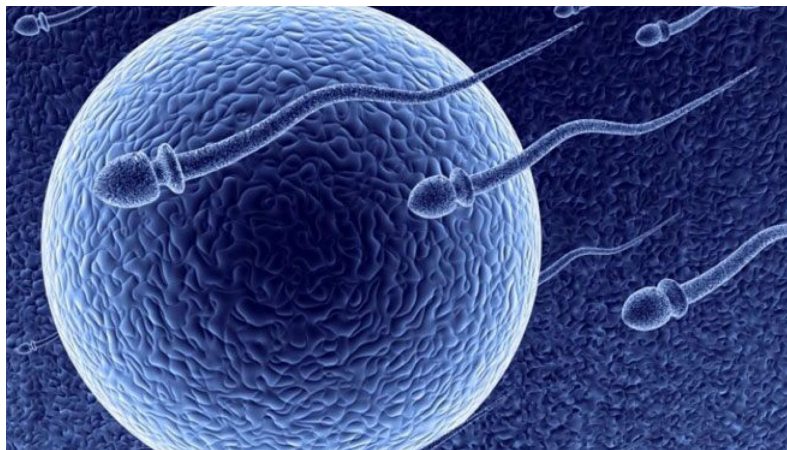
At the same time, tinny cilia push the egg into the uterus. The sperm has to follow its way against this motion in order to reach the egg, some get trapped in the cilia and die. It takes three days for an ovum to travel down the oviducts to the uterus. However, an oocyte lives

only 24 hours after its liberation from the follicle, thus the fertilization occurs in the oviduct. Female fertility lasts one or two days after ovulation.

The fertilized ovum becomes implanted in the endometrium some 6-7 days after its fertilization.

New chemicals in the reproductive tract lead to changes in the membrane covering the head of the sperm, which becomes hyperactive. Acrosomal secretions help the sperm cells to enter the ovum's cytoplasm through the Zona Pellucida and the plasma membrane. Only a few dozen reach the egg.

The fertilization context



Source: <https://www.foxnews.com/health/scientists-witness-flash-of-light-during-conception-say-discovery-could-aid-ivf>

The egg is covered with a layer of cells (corona radiata), which has to be protruded by the sperm cell in order to reach the outer layer of the egg (Zona Pellucida), where it attaches to special open receptors at the surface. Here the acrosome is triggered to release enzymes enabling it to enter this layer. Inside the Zona Pellucida, there is a narrow fluid-filled space just outside the egg cell membrane. The first sperm reaching the membrane will fertilize the egg (against incredible odds described!). In a few minutes, the outer membrane fuses, trapping the sperm inside. This event causes changes in the egg's membrane, which prevents other sperm cells attaching to it. It releases chemicals that push other sperms

away from the egg, becoming an impenetrable fertilization membrane. The Zona Pellucida hardens trapping any sperm not caught inside.

The tightly packed genetic material inside the body of the sperm cell spreads out and a new protective membrane forms around its stuff leading to the formation of the male pronucleus. Inside it, the male genetic material reforms into 23 chromosomes.

The female genetic material awakened by the fusion of the sperm with the egg finishes dividing leading at its turn to the setup of the female pronucleus, with the same 23 chromosomal content.

The two haploid cells thus formed are pushed each to other by a spider-like structure of threads, until their fusing point. At this moment a diploid cell with 46 chromosomes is formed, the ZYGOTE – while a unique genetic code arises for the new human being thus conceived. As the female haploid component has always a pair of X female chromosomes, the male one may have either an X or a Y pattern in its structure, thus becoming the determinant factor in the sex of the further developing embryo. If the embryo will have a XX structure, it will be a female human being. If ZY – a male – according to the parental chromosomal supply that "happens" to be brought into the picture by the only sperm cell contributing to the fertilization of the ovum.

At this point, from the perspective of retro causative predetermination, the reader has to get a first unprecedented synoptic insight at the whole process. It requires a very open mind just as the still more non-conventional understandings that will follow later on.

The new human being will follow a certain worldline in its physical form, containing a quasi-infinite interconnected events, all of them occurring in their respective "present" moments in space and time. They are not originating in chance. They are just as they are and not "possible alternative" ones. All this chain of events punctuating this specific worldline requires for their accurate fulfillment that the individual should be either a male or a female, or in exceptional cases a blending of both. This fundamental prerequisite has to be granted from the very start of its formation, which in its turn depends – as just described

– by the chromosomal structure of the unique sperm cell with its determinant function of the entire worldline (fate?) of the individual human entity coming into our physical world. Therefore, with incredible odds against chance, the one “winning” sperm cell from the provided 300 million will have to be with the chromosomal pattern (X or Y) that grants the individual’s fundamental prerequisite for its physical life-span, its sex. (We use deliberately the neutral term “it” here, for easily understandable reason).

Resuming our adventure following the first stages our just formed diploid zygote, carrying either the XX or XY determinants is involved in.

The mitotic division starts as the zygote moves through the isthmus of the oviduct (the cleavage stage) to the uterus, containing its blastomeres. This travel is assisted by the cilia of the Fallopian tube.

The blastomeres begin their division into 4,8,16 cells setting up the morula stage of early embryonal evolution. This morula will evolve into the blastocyst, that moves further into the uterus. The blastomeres inside the blastocyst are arranged into an outer layer (trophoblast) and an inner group of cells attached to it (“inner cell mass”). The trophoblast gets attached into the endometrium and the inner cell mass gets differentiated as the embryo. They divide rapidly covering the blastocyst, thus completing the implantation of the blastocyst into the endometrial lining. The Zona Pellucida disintegrates. A new baby will develop under morphogenetic guiding of topological and functional cell distribution and will complete its growth shortly before its birth.

According to mainstream science, as soon as the sperm cell's DNA is absorbed by the egg, the genetic blueprint of the child is "set in stone". Encoded parental genetic information coupled with cell growth is sufficient for creating a human being.

Ah, if it were that simple...

IV-2. INFORMATION-GUIDED MORPHOGENESIS — *The life potential and purposeful development vectors. — The etheric template for the morphogenetic energy fields. — Soul-genome and psychoplasm. — The forming of the etheric body in terms of ancient Chinese wisdom and theosophical teachings. — Toward a biophotonic coupling mechanism and a guiding matrix of the morphogenetic process.*

But... it is not!

Unfortunately, this description is less than half the story. Let's see now what really happens, at the moment of conception, addressing hitherto ignored parallel, but fundamental chains of events running in invisible and instrumentally still not detectable domains of reality. The reader is by now quite well sensitized to the fundamentals of these processes from the previous chapters of this work. Let's jump into the currently uncharted waters of the complexity that is involved in the fertilization process, transgressing canonical materialistic analytic borders.

Parental genetic supplies, seen in their true face value, are nothing more than biochemical molecular complexes, well known from fundamental chemistry. In order to fulfill biological functions, they need as an indispensable quality to be also alive, expressed another way - to perform and support vital processes at all their complexity levels, from cell organelles to fully developed organisms. This essential jump from basically mineral compounds to biochemically enabled structures is not encoded informationally in chemical bounds. It requires an additional, externally supplied quasimaterial essence, able to "animate" these minerally defined building blocks of a life-displaying structure. Cell growth and division runs through several informationally guided checkpoints while completing a cell cycle (the G1, G2/M and the metaphase checkpoint), and its chemical structure must be sensitive to them. This basic sensitivity is supplied by its interfacing with such informational guiding vectors via a reactive essence of bioavailability to be guided and modulated at this range of informational/energetic interference. This mediating principle between basic chemistry of matter and purposeful developing vectors toward biologically efficient blueprints is not content in the atomic/molecular map of the live matter's chemistry. It has to be externally

supplied. Here comes into the global picture the quasi-material enteric template associated to matter as conventional science knows it.

We are quite familiarized at this point with some basics of this essence, from our previous chapters of exploration. Barbara Brennan, one of the leading authorities in the field, describes an "enteric template" as precursor for the enteric layer that directly guides these vital processes along their morphogenetic pathways toward physical organization of matter into biologically enabled patterns of increasing complexity and interaction capacity levels. The enteric template is the template for the enteric body that builds the grid structure of energy fields upon which the physical body growth. Her "negative space", the domain of cosmic enteric templates, separated by an "empty space" from the lower enteric forces directly involved in modulating and organizing physical chemistry-based matter, finds a more suitable description with our hyperdimensional frame of reference, the site of Sub-quantum aggregation and diversification phenomena as origination domain for subtle energy forms at their pre-quantum manifestation levels. From this extended perspective, physical tissues are a result of pre-existing non-physical fields of force, and not the other way around. Consequently, we must attentively observe etheric processes that run in parallel and at the background of cell activity at the moment of conception, in order to more accurately understand what is really taking place at this crucial moment for setting up the prerequisites for a new living entity.

The etheric component of the human (and all biologically efficient) body participating from the moment of conception will build up progressively the complete etheric body that confers vitality to the material structures along all their functional performances up to the moment of death, when becoming useless will leave its physical double - as the only fine-structured component that will not follow the still more subtle envelopes attached to the Self and will disintegrate into the cosmic pool of etheric stuff. The pattern of the etheric template for the individual that ceases to manifest in the physical world is lost, while its lower representation, the one that ensured the vitality of the physical body is released and subsequently destroyed. Due to its semi-material consistency, the slow release of the vital/energetic structure may occasionally be visible for witnesses of the dying body, and

has been even caught on photographic evidence.

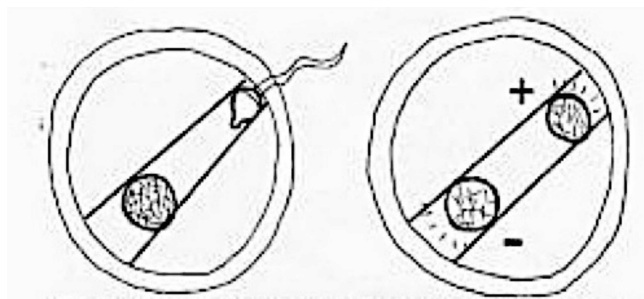
The best source in the currently available literature for understanding the energetic formation of the human body is based upon traditional Chinese knowledge, best translated into terms accessible to the western conceptual patterns by the American Prof. J. A. Johnson in his encyclopedic *Chinese Medical Qigong Therapy* (2014).

The universal QI (corresponding to Brennan's enteric template level) has the potential of assuming any imaginable pattern according to its state of density or dispersion. As we shall see, at the moment of conception a highly coordinated biophotonic interaction takes place between the fertilized ovum and the subtle energy bearing the informational blueprint of the reincarnating entity (von Wards, 2008). The thus attached energetic/informational essence is preserved in the Taiji Pole (according to the Chinese teaching) throughout our life. The informational matrix, specific to the reincarnating entity (Yuan Shen), crystalizes according to Chinese wisdom into the matrix of the entity's spiritual body, as a nonlinear essence in terms of time and space. This third non-material component of the genetic make-up, the "prenatal Jing", couples at the moment of fertilization with the ones supplied by parental genetic information through the blending of the parents' sexual energies and substances. This "eternal soul" radiates energy in all directions, triggering the crystallization of physical structures according to the fields and growth vectors thus supplied.

According to Chinese genetic embryology, taught in the Hai Dian Medical Qigong College in Beijing, the quality and quantity of the total "original QI" compound the new-born baby receives depends on the potency of both parents, their health condition, and the spiritual factors surrounding the conception (karmatic stuff). The parental originated QI blends with the incoming one in the fertilized zygote, as origination point for later developing organs, energetic channels of chi circulation and their collaterals.

At the instance of sperm penetration into the ovum, a polar axis is created in the form of an energetic vortex, the central Taiji Pole, drawing into the fetal body the self-inherited informational matrix.

Formation of the Taiji pole by the egg's membrane polarization



Source: Johnson, J. A., Chinese Energetic Medicine, 2014: 103

The electrical polarity and energy field of the polar axis are related to the process of first cell division of the zygote through the Conception and Governing vessels. The Yin and Yang heel vessels are also formed, with morphogenetic role in building up the left - respectively the right side of the developing embryo. The external compound of the egg is determined, according to this teaching, by the Yang linking vessels. Yang controls the development of the body's backside, Yin the frontside and the "Thrusting vessel" would carry energy through the center of the body. This energetic vector is correlated to ambient telluric energy pools and their action potentials by interference with the developing material matrix. In terms of traditional Chinese knowledge, the incarnating entity's enteric vehicle contends and brings into the forming structure the consciousness function by three "ethereal souls" (Hun), resonating with the upper, middle and lower Dantians, and can be accessed in acupuncture techniques at the B1-47 point for enteric harmonization purpose. According to this ancient knowledge, the prenatal Jing element ("Yuan Jing") aspect is produced by the blending of both male and female elements at the conception and will control all the vital activity of the body. The post-natal part of the entity's Shen (the Zhi Shen), derived from the postnatal Jing and Qi is the spiritual essence that develops under the interference with ambient effectors later, modulating the already present Yuan Shen in adaptative range.

The reincarnation process has been thoroughly studied and described in the theosophic literature, too. A special emphasis can be found there on the formation and coupling of the etheric/energetic essence to the physical matrix provided by parental genetic output.

L. J. Bendit and P. D. Bendit (1990), inspired from Mme Blavatsky's teachings in her *Secrete Doctrine*, describe this event as one running under higher informational guidance (a "devic" interference). The individual "monad" (the reincarnating "Self") triggers, according to this approach, the supporting intervention of the guiding agent (an "Arupa Deva" pertaining to a super-human line of evolution) - which bands a ray of light into a horizontal circle at the enteric level, thus defining the field for the reincarnation process. This field is described as one centered by a powerful point of light contending what theosophy describes as the "permanent, unperishable physical atom specific to the reincarnating entity. We can recognize in it the ANU, described in a previous chapter, which is reactivated after its period of latency between two successive embodiments of the Self. The monad does not descend still in this field at this stage. This spinning and radiating core element is able, according to this approach, to configurate the enteric body of the entity into its most appropriate matrix for the reincarnating monad's further evolution. By an intricate pattern of vibrational a spinning dynamic, the enteric field assumes the form of a 3D sphere. At this stage, the microscopic zygote is not within the circular field, which is suspended above the zygote at the first enteric level, where the circular stage of the field is manifest. The germination begins by a link established between the zygote and this germinative enteric field, which draws the germ and the field spatially together. Now the zygote (in its morula or blastula stage) and the central nucleus of the spinning energy coincide. In spatial terms, the spheroidal germinative enteric field is found at the etheric counterpart of the uterus. After the zygote's migration from the fallopian tube into the uterus, being brought spatially and magnetically into an aligned position with its guiding spheroidal enteric field, whose primary function becomes a protective one of the developing embryonal structure by defining the amnion and the chorion. Up to this point, the embryo bears parental genetic stuff alone, provided by external heredity. Now, a certain pattern is imposed upon it from within, according to the needs of the incoming individuality's morphogenetic needs. This process involves inhibition or deletion of certain potentialities in the genes, under karmatic control supplied by the "soul genome" of the reincarnating entity himself.

The term "Soul Genome" has been introduced by Paul Von Ward. It is the best way to define this third genetic input, originating outside not only the parental genetic legacy, but also

outside the physical world as we know it. His "psychoplasm" model turns the conventional genetic inheritance, based exclusively on parental origination, into a triadic mechanism that involves the transcendental informational input with all its mechanism for coupling with quantum sufficient background that is supplied by the classical genetics. The couple of 23 chromosomal sets well known in classical genetics becomes from this perspective not more than an efficient attractor for the incoming psychoplasmatic essence of the incarnating entity. Von Wards' bioenergy field implied in the conception event may well correspond with the just described enteric spinning subtle energy field of the theosophical concept. Von Wards makes reference to Prof. Gariaev's experimentally documented famous "phantom DNA effect". He suggests as possible coupling mechanism DNA interactions with light fields - a working hypothesis quite resonant with our own, but differing in its way to be fulfilled. Von Wards' model suggests the creation of microscopic wormholes in space/time as a channel used by the psychoplasmatic structure for its entanglement to parental genetic heritage, by modulating the holographic DNA patterns according to this soul-genome legacy. In his words, *"Drown the one another by energetic vibrations not yet understood, the parental genome and this soul legacy interpenetrate and shape the newly forming embryo or fetus."*(von Ward, 2008:76).

In this work, we will challenge his "not yet understood" statement, suggesting an acceptable biphotonic bridge, able to fulfill the coupling of the parental genomic matrix with the one supplied by Von Wards' soul genome with external origination. This will no way contradict his attempt to describe as distinct psychoplasmic tendencies the five discrete components, namely a physical, a cognitive, an emotional, a social and a creative component of the developing entity's personality. All these proto-tendencies are supplied not by the parental genome but brought by the entity himself from his past-lives, cumulative and multigenerational experience.

Cindy Dale refers to bioenergetic formative fields, as independent enteric fields formed around every vibrating unit of life, a single cell included. It is a pivotal part of the human energy field, by linking the physical structure to subtle energy-supported formative matrices inducing physical grows. According to Kim Bonghan, the enteric meridians used in

Chinese therapy protocols represent the interface between the body and the human energy field. They are produced by the enteric essence that serve as an inductive guiding matrix for the morphogenetic process.

IV-3. AN EXTENDED GENETIC HERITAGE — *The parental genetic heritage. — Pre-genetic Information sets. — DNE/RNA biochemistry, natural selection and genetic drift. — DNA transcription puzzles. — Multiplexed intercellular signalization.*

A few words about some elementary knowledge related to genetic determinants related to the chromosomal stuff inherited from both parents, and let's try finding out where this process (so thoroughly studied by mainstream genetics) finds his limits in describing all the complexity displayed by a human being as a non-repeatable singularity engaged in its interconnected worldline with events and societal interactions along his (her) lifetime. Then we will try transcending these limits, proving this conceptual jump in scientifically acceptable terms, by highlighting some late scientific research items supporting our fundamental thesis of individual reincarnation. As we shall see, the individual is actually the result both of genetic Information proceeding from parental genomic source AND his/her own, highly specific "Soul Genome" (using Paul von Ward's term) coupled to it (disregarding late epigenetic modulation with biological/psychological consequences impacting the individual's world-line during his life-time). We hope to prove at a relevant level that ultimately the individual is not a random, passively assembled biophysical system evolving merely on the track defined by its parental genetic makeup which determinates his brain structure and consequently his integration mechanisms into the sequence of life events he gets involved in, but IS the originator and modulator of all these effectors (genetic ones included), by its own pre-genetic Information heritage, gained from its accumulated experience, going back to a far remote past – and including a virtually endless previous genetic combinations. If parental genetic Information would be all what is, brothers and sisters would be identical in all respects and would fit perfectly not only their parents' biophysical patterns but their psychological ones, too. Evidence proves that this is not the case, even in twins! How is this to be explained? ...

It would certainly be useless here to remember our readers about some basic features of the DNA, the main biomolecular storage system of the parental genetic code. Nevertheless, some preliminary basics should precede more recent understandings pertinent to this field

of interest.

In each one of our cells there are about 2m of DNA, incredibly neatly packaged in looped strands wrapped around histones, forming the chromatin. These chromatins are supercoiled further in chromosomes (each chromosome contains one DNA molecule). Humans have 23 pairs of chromosomes. The basic building blocks of the DNA are the nucleotides (consisting of a nucleoside and a phosphate group). They are the monomer units forming the nucleic acid polymers (DNA and RNA). Each nucleotide is composed of a nitrogenous base (nucleobase), a 5-C sugar (ribose or deoxyribose) and one or more phosphate groups. Nucleotides are charged with chemical energy (in form of ATP, GTP, CTP and UTP). Also, nucleotides participate in cell signaling (cGMP and cAMP), as well as in the constitution of some cofactors of enzymatic reactions. The sugar phosphate backbone of the DNA is formed of nucleotides linked by a phosphodiester bond. Nevertheless, genes are not differentiated by these sugar-phosphate backbones, but by their base sequences. The sugar and phosphate molecules make up the sides of the DNA double-helix. The only unit not included in this backbone is the part providing the genetic Information itself. The nucleotides are attached together by DNA Polymerase III into the leading and lagging strand in 5' à 3' direction. The DNA Ligase is attaching the Okazaki fragments together and connect the Phosphodiester backbone of the nearly synthesized strand.

But the main challenge for geneticists is in the immensity of the number of base sequences – 4^{147} ! wrapped into a nucleosome. Applying the Mutation Monte Carlo method made it possible for researchers to get a simplified pattern that allows computation by respecting positioning rules, leaving 6 degrees of freedom per bp step.

Anyway, the heritable unit for transmission of biological traits is the gene, which is a sequence of nucleotides in the DNA or RNA that encodes the synthesis of a gene product (RNA or protein). For gene expression, the DNA is copied into RNA, that functions as an intermediate template for a protein able to perform a special function. The genes make up to specific DNA sequences (genotypes). These genotypes, together with various environmental and developmental factors determinate the ultimate phenotype of the offspring. Biological systems are related to polygenes and gene-environmental interactions.

Mutations can occur inside gene sequences (alleles) encoding slightly different versions of a protein leading to different phenotypical traits. According to materialist science, the specific evolutionary line of genes is related only to natural selection and genetic drift of the alleles. As we shall see further on, this is only a part of the truth, if examined from a post-materialistic perspective. Regulatory regions of a gene can be far removed from the coding region (which can be split into several exons).

But let's focus our attention on the fundamental process that allows the DNA gene expression to get active, namely its transcription into isolated strands of RNA (mRNA) by the RNA polymerase enzyme. Both DNA and RNA use base pairs of nucleotides, thus during transcription a DNA sequence is read by an RNA polymerase resulting in a complementary antiparallel RNA strand (a primary transcript). The RNA polymerase is organized into distinct clusters, which imply compartmentalization without membranes. Modern science has no explanatory cues for the specificity of this compartmentation and the role of active ribosomal RNA in its compartmentalization. This Information driven process, is actually originating in implicate orders of genetic control. Under this guidance, functional RNA molecules deliver amino acids to the ribosome, where ribosomal RNA (rRNA) links amino acids together to form coded proteins.

Codons are specific sequences of three consecutive nucleotides as part of the genetic code. But recent studies have determined that the codon's amino-acid assignments are decidedly not random. If not, where should we look for their organizing principle?

A specific set of RNA molecules in one cell of the cell population, the transcriptome, differs from the exome as it contains only specific RNA molecules related to the cell population (being also different from the translome composed of RNA molecules undergoing translation).

Until recently, the transcriptome supplied the unique cue for understanding molecular mechanisms and signaling pathways controlling embryonic development, and used for proper embryo selection for in vitro fertilization. As we shall shortly see, new research data of incredible importance extended this selection criterion. In order to approach such

mechanisms, let's consider a few variants of cell signaling involved in the vast interaction modalities between cells and cell populations, guiding and governing any communication process and leading the proper coordination of multiple-cell actions – the prerequisite of basic homeostasis in complex cell populations. We have to grasp some underlying principles of cell-signaling networks and how they affect signal transduction outcomes. Emergent properties of such systems include bistability and ultrasensitivity. Long range allostery often is involved in cell-signaling events, too. From a pure biochemical perspective, inter-cell signalization relies upon signal molecules expressed on the surface of a cell, that bind to a receptor expressed by the other cells, where each cell is programmed to respond to specific extracellular signal molecules. Extracellular signaling is described in classical terms by the synthesis and release of the signaling molecule by the cell, a transport of the signal to the target cell and its binding to it by a specific receptor that activates it, and the initiation of signal-transduction pathways. Chemical or physical signal transmission processes (involving generally protein phosphorylation catalyzed by protein kinases) follows pathways that interact leading to coordinate tissue response to combinatorial signaling events, via primary and secondary effectors. Multiplexing such signal fluxes is reflected in genetic and nucleosome positioning codes.

IV-4. GENE TRANSCRIPTION IN TIME SYMMETRY — *Biophotonic regulation in gene transcription. — Memory inherent in media and Quantum-related non-linearities. — Quantum-genetic correlations. — SQ memory of vacuum ZPE. — Entropy decrease in open systems. — The diploid zygote established by hyper-dimensional holographic information induced in the system. — Bidirectional time-flows of SQ information. — Life-time persisting morphogenetic effectors.*

But new research points to the availability of a new signaling mechanism, faster than the chemical one. Gene transcription may be regulated by light! (Ruegg, 2018).

DNA transcription into RNA may be impacted by blue light. High levels of variability in the transcription process based on random encounters of molecules (in the transcription factors group) imposed a closer look on this process for a more accurate understanding of its details. This is exactly what a team from Basel, led by Prof. M. Khammash (2020) decided to do, using an optogenetic platform that supplied new insights into the transcriptional dynamics. The thus achieved transcripts of a gene, tagged with fluorescent proteins, may be studied by fluorescent microscopy. They proved by this methodology that transcription occurs in bursts. This finding reminds of the Quanta dynamics. Moreover, the team proved that individual cells react to pulsatile signals with higher accuracy than to constant signals.

May we see here a significant correlation to the biophotons widely explored earlier in this book?

K. Creath and G. E. Schwartz (2006) decided to study biophoton interactions in biological systems having in mind to put in evidence photonic info-energy transfers. As we know, biophotons have the properties of coherent light thus are measurable across all the spectrum between UV and IR. Experimenting with a plant, the team observed resonance effects between its parts using highly sensitive, low noise, cooled CCD in total darkness.

H. J. Niggli and L. A. Applegate were able to detect biophotonic radiation from living systems using a photomultiplier instrumentation. This photonic emission may be induced by UV light, especially if targeting DNA-sourced samples.

This new trend in current research programs is very significant for our targeted topic, as we shall see.

Let's see what a new science, quantum biology, has to add to our preliminaries.

What we address here is the issue of environmentally-induced decoherence and macroscopic superpositions in biological systems ("formal superposition"). We are at the border of cellular decision-making and consequent adaptation.

In order to induce EPR-like quantum-genetic correlations, there are some requirements for Information-related qualities carried by the sub-quantum-based quantum systems involved. Information density per type, time unit and volume. Details in this regard may be found in H. Stapp's "quantum phase states" described as related to his "quantum matter" concept. The Information density as an additive function may be cumulative over time making up to a sort of memory function. Thus, media may act as active memory of information, as supported by experimental results reported by Gariaev, Kanjen, Poponin etc. By media dynamics, the Information inherent in these media may be relocated, just as in the case of active Information transference events involving photons or EM propagations. In such instances, the memory of the local media (not itself relocated) is retained unaltered. This memory inherent in the media corresponds to Bohm's "implicate order" and the notion of "Quantum potential". It is the fundament for quantum superposition, coherence and quantum states. The Quantum superposition is from this perspective a secondary statistic effect resulting from the active information already inherent in the system. Due to currently non-instrumentable kinds of Information variants in the system, at the "output" may appear unexpected nonlinearities and deviations from expectation (labeled currently as "uncertainty"). Heisenberg's uncertainty principle has already been falsified by Hans Dehmet, who together with Dr. R. N. Boyd, Ph.D. (the authority whose thoughts are the source of all the statements in this chapter) have proved that no uncertainty whatever is associated with any observable aspect of monochromatic beam of photons. This observation is of a crucial importance for supporting the predetermined retro causative view of re-embodiment mechanisms of the eternal ego into its physical host. Dr. Boyd strongly emphasizes that *"results that arise from a Quantum system are not due to multiple*

fictional "quantum world" comprise of infinities and possibilities which are due to overlapping of probabilities. ...The activities of the Quantum system rely exclusively on vast quantities of diverse kinds of Information, which acts to determine what exactly comes out of this system."

Quoting again Dr. Boyd's invaluable insight about Quantum-genetic correlations:

"Observed genetic alterations are not due to Quantum correlations, but due to the Information content of the media having been transferred from point A, across space, by several possible means, to point B. The Information transferred contains the genetic sequences, reorganizing the Information at B according to the one that came from point A."

And finally, expressing his statement as viewed from our Sub-quantum perspective:

"When we consider the genetic system as being comprised at its deepest level of Sub-quantum entities, which are the vehicles for the observed memory of the media, than it's easy to see how these entities can inform the larger objects comprising the genetic system in a manner that seems to have some analogy with quantum correlations, but which is in fact due to a Sub-quantum process."

(<http://worlds-within-worlds.org/functionofinfo.php>).

We may at this stage of our investigation begin to understand a crucial link for the descent of the ego's infinitely complex Information charge into the genetic process that runs in microphysical genetic domains, effectively modulating its functional and structural parameters according to his own future needs - via Sub-quantum/quantum effects. Considering the Fermi-Popov-Ulam lattice model of the Sub-quantum particle, the behavior of the various Sub-quantum species act in a collective manner. Therefore, we can see macroscopic behaviors in the vacuum, but not sub-Planck behaviors due to our current technology limits. The vacuum has a Sub-quantum memory. These domains might be screened only by ultra-modern technology of the kind invented by Prof. Korotkov in his research based in St. Petersburg.

Sub-quantum Information transfer may be both local and nonlocal, impacting both sides of a highly complex Informational structure as the descending ego is both, its physical and

non-physical segments. Nonlocal variables in the physical domain are labeled as "hidden" ones. They violate Bell's inequality theorem. Sub-quantum Informational transfers are not constrained by relativistic limits and may propagate at superluminal velocities, setting up the scene for slow chemical signalization results. Both local and nonlocal hidden variables are constantly influencing the behavior of Quantum systems.

Moreover, it might be postulated in this novel perspective that virtual Information-charged particles living in the nonlocal realm, might be blocked at the interdimensional barrier of the ZPE, but the information contained in them may easily transgress it and reform the original virtual entity's particularities in physical parameters corresponding to the physical world they reach.

ZPE is an observation of Quantum physics. Wheeler calculated that it causes space curvatures on the order of 10^{-66}cm (smaller than the Planck length). All the activities at the Planck scale are reversible in time (Feynman et al.).

In order to grasp the nature of microphysical dynamics we have to adopt an open system paradigm (LaViolette, 2011), which is consistent with Whitehead's organic theory of space. Sub-quantum kinetics is not bound by the second law restriction that entropy in the physical world must always increase. In an open system, it can also decrease.

This means that order may be injected into the physical domains from the higher-dimensional levels, by Information supply and guidance. This is of uttermost importance for understanding the operational mechanisms of the morphogenetic fields, which control early genetic stages from the moment of establishing the diploid zygote by the fusing process of the parental chromosomal stuff, too.

The environmentally interactive morphogenetic fields are molded according to the static portion of Sub-quantum conveyed holographic Information patterns. This Information gets imprinted on the surrounding physical matter by informational coherence of holographically encoded SQ infinitesimals, thus informationally conditioning static portions of adjacent ether comprising environmental matter (Tiller). This corresponds to the

quantum phase state of physical effectors impacting topological parameters of form. An optimal supporting environment is provided relative to life forms expected to have interactions with this specific location in the future. We remind here the reader that the future attracts the present by retro causation (T. McKenna). Experimental results reported by Wheeler and Feynman showed that light emitted by an atom and absorbed by another in the future triggered a time-reversed similar backwards light emission from the second done toward the original emitting atom. The future literally merged with the past creating the present. A coherence is thus created between future and present. The future creates its past, which is the present that leads inevitably to the predetermined future. A potential is created at each moment for an apparent linear chain of events already unfolded from past to future. The future is creating a past congruent with itself. Bi-directional flows of SQ information ensure this process. The quantum semi-fluid phase acts in the manner of the analogous physical form of matter controlled by informational coherence and resonances, which act as unique modifications of the evolving structure imposed by the ambient intelligence. Quantum phase states are stages of increasing negentropy in the quantum field. Morphogenetic effectors of this kind will in later stages of the entity's worldline persist in the form of enteric structures, responsible for assisting organic and functional maintenance and repair in challenged circumstances of medical profile.

IV-5. THE ZINC SPARK AS BIOPHOTONIC BRIDGE FOR SUBTLE ENERGIES — *Attractive photon behaviors. — The Zinc Spark. — Biophotons are carriers of subtle energies. — Development of the embryonal etheric body. Slawinsky's "death flash".*

Electromagnetic signals are supposed to travel at light velocity, so at very close distances they are effective almost instantly. Photons travel at the same speed, of course.

Virtual particles (virtual photons included) randomly pop in and out of existence in particle/antiparticle pairs according to weird quantum mechanical effects. These events occur in very small scales of space/time, thus not violating conservation laws. During the conversion of energy into mass, Sub-quantum energies are transferred from photon to fermions and bosons. Charged particles act as a kind of generators whose input and output are graviphotons and virtual photons. A negative and a positive virtual photon in the vicinity of a charged particle combine, making the charged particle to accelerate (Javati et al., 2017).

Moreover, Firstenberg et al. (2013) showed studying attractive photons behavior in Quantum nonlinear mediums, that coupling light to strongly interacting atomic Rydberg states in a dispersive regime produces a quantum nonlinear medium inside which individual photons travel as massive particles with strong mutual attraction resulting in two-photon bound states. Applying non-relativistic QED assumptions, Japanese studies point to the virtual photon fields as inductors of Quantum chaos. From this high entropic quantum state, a drop of entropy associated with reorganizational events seems to make sense.

The development of Rydberg electromagnetically induced transparency lead to strong interactions between individual photons, too. Interactive cavity Rydberg polaritons may emerge. A. Georgakopoulos et al. (2018) succeeded modeling polariton quantum materials in properly normalized strongly interactive patterns, suggesting effective theories that allow experimental studies of photonic fractional quantum Hall fluids and photonic

quantum Information processors. Other studies addressing fractional quantum Hall states of light, showed that polarized photons couple to different atomic Rydberg states forming two flavors of Rydberg polaritons behaving as an effective spin. Polaritons describe the crossing of the dispersion of light with any interacting resonance.

Now we have a quite reliable background to see how virtual photonic fields residing in nonmaterial domains and able to carry complex information stored in the Soul Genome of the reincarnating entity may be attracted and coupled to real photons emitted at the moment of conception by the ovum, in the form of ***Zinc sparks!***

Such resulting composed fields enter the new entity's biomatrix, where integrins traverse cell surfaces joining the cytoskeleton of every cell and through them to the nuclear matrix and to the parental genome. The thus enriched cell structures are capable of vibrating in a dynamic manner with complex harmonics.

Extremely important to understand that these inputs refer also to the cognitive constellation of the newborn child by putting into the genomic mix his/her own personality traits that might be strongly divergent from the ones inherited by parental supply. Epigenetic modulators would lately impact differently these informational constellations of different sources, of course. We don't contradict B. Tingley's mechanistic explanations regarding the sequence-dependent DNA geometry and elasticity as determinants of nucleotide positions seen as a product of mechanical evolution of the FNA/RNA molecules. We just make a further step inside this mystery, highlighting the real informational background of his "mechanical evolution". Empirical data strongly support our interpretation.

But biophotons involved in this interdimensional process are also carriers of subtle energies.

It is reasonable from this perspective to think of biophotons as important components of the Qi energy as modelled by traditional Chinese medicine (or Prana of the Ayurvedic Yoga).

At this point, the etheric body of the new entity got coupled to its maternal counterpart, injecting its informational content into the fertilized egg and modelling its ***further development accordingly to both, the parental and the own genomic modulators.***

This assessment is amply discussed in E. Block, Ph.D's paper (2004) about bioelectromagnetic medicine, strongly related to traditional Chinese wisdom.

Let's follow the etheric entity's impact on the developing early genetic configuration phases and the way they are expressed in the physical.

At the moment of fertilization of the egg by the intruding sperm cell, the egg's membrane is polarized at the entry point, creating the original polar axis known in Chinese terms "the Taiji pole". The energetic structure of the Taiji Pole determines the complex pattern of cellular division that will occur along this polar axis throughout the development of the fetus (Johnson, 2014). The polar axis is expressed by an energy vortex in the ovum. The sperm penetration point will become the newborn entity's anus, the first cell division determines the right side of the body, differentiated from the left side. The next cellular division is horizontal to the first plane and determines the back of the body. These 4 cells are guided by the morphogenetic field supplied by the reincarnated entity's etheric component already coupled to the mother's one. The first cellular division cleaves along the central Taiji Pole. The area of the cell membrane at the "top" side of the Taiji becomes, according to the Chinese teachings, the "Governing Vessel". The one "below" it forms the "Conception Vessel". Together with the "Belt Vessel" and the "Thrusting Vessel" formed by the horizontal cleavage, they will regulate the establishment of the energy system guiding the cellular division. (The reader is referred to Johnson's detailed description of the specific correspondences established between the 8 "extraordinary meridians" and their respective bodily equivalents in embryogenesis).

According to Dr. Sheng, at early embryogenetic stages gap junction mediated cell-cell communication is diffusely distribute, and the entire embryo becomes a syncytium. These gap junctions further become restricted to discrete boundaries; thus, the embryo gets divided into communication compartment domains (gap junctions in the cell membrane

allow for direct cytoplasmic movements between the cells without the need to traverse membrane structures). The whole early and following embryogenetic stages are under the energetic control of the morphogenetic field operating through the etheric vortices created inside the embryo.

It's important to understand, that the embryonal energetic matrix is associated with energies originating in the pulsations of the Earth' magnetic fields, as well as the cosmic energies inherent in the solar system's electromagnetic and gravitometric matrices. Various energetic layers are set up in the human body, namely the Taiji Pole energy, the 3 Dantians, the Chakras and the physical meridians. According to Block (2004), the Taiji Pole energy field (running the length of the head and trunk) is the main effector that allows the physical incarnation of the consciousness to take place. It is described like a white pulsating photonic field. The Taiji absorbs environmental energy and distributes it to the Dantians. This results in an encompassing toroidal electromagnetic field of the body, connected to the 12 major chakras.

Dr. Block, Ph.D. concludes the following emerging picture from this etheric/physical complex structure, with potential application in bioelectromagnetic medicine:

"The energies received from the environment that flows through a person does so in resonance with the matter and morphogenetic field of the organism as a whole. It is the purpose of all the rheostatic (more correct term than homeostatic) mechanisms of the body to maintain energetic resonance in harmony with the fluctuation of those energies in the environment to which the systems of the body are entrained."

(<http://www.diamondhead.net/msbem.htm>).

If we support an infoenergetic mechanism involved in the reincarnation process, we implicitly argue for a metempsychosis worldline followed by each individual Self.

This means, that similar biophotonic phenomena as the ones described for the initiation of a physical life, must be detectable in some form at its other end, too namely the physical death. Do we have any experimentally supported proof for this phenomenological

symmetry?

Yes, we have!

Janusz Slawinsky, Sc.D (1987), from the Institute of Physics, Krakow, supplies some valuable hints to this assumption. His work introduces death into acceptable conceptual categories, worth of serious scientific inquiry. His study addresses the photon emission in low-level luminescence which covers a broad spectral range from UV to near IR (200-900 nanometers). The photon flux intensity of stationary luminescence depends on the physiological condition of the organism (in stress condition, the intensity of this bioradiation is increased). The same increase is related to any irreversible damage to a biological structure. Besides the weak photonic radiation, living structures emit also infrared or thermal radiation and radio-frequency waves. These various EM potentials extend their influence beyond the physical body, forming a low-frequency electromagnetic aura. The force-lines distribution in this aura are measurable by proper technology (modern vector auratrons and electrographic imaging systems).

It has been found that dying cell populations emit a radiation 10 to 1 000 times stronger than their homeostatic baseline values. This emission is termed "Necrotic Radiation" or "Death Flash" by Slawinsky. It is independent of the cause of death, but its parameters reflect the rate of dying. He mentions that broad emission spectra offer an incredibly high potential of information capacity. Photon generating excited molecular system form a dissipative structure of the laser threshold. This laser action is facilitated by the ratio between excited/ground state molecules and its coherence allows for a tremendous information transfer. Moreover, DNA conformational changes are associated with photon emissions, as DNA may store virtual photons.

IV-6. THE SECOND LAYER OF DNA INFORMATION STORAGE —

DNA folding pattern as a second layer of genetic Information; its hyperdimensional source and psychologic content. — Two separate languages written by genomes. — Reverse entropy infusion in the system at the ZPE. — Etheric configurational guiding of zygote mitosis. — Resonant cells in biophotonic energy fields. — RNA secondary structures. — More on Slawinsky's death flash. — The symmetric physical life-span.

Mainstream genetics addressed hitherto the well-known internal structure of the DNA double helix, based on its paternal genomic heritage. The topography and biochemical properties of the base pairs binding the strands of the DNA macromolecule seemed to supply all the required information about its genomes' parametric protein-building potential according to the specificity of the zygote's early chromatin setup totally dependent on the random sperm cell's genetical constitution and its acrosomal impact on the female oocyte. The whole picture of genetic setup has been correlated to these effectors, disregarding the puzzle of counterintuitive aspects related to striking constitutional and behavioral differences observed between different children having the same parental genetic stuff, twins included. This paradoxical evidence has been misinterpreted as effect of late paragenetic environmental effects, even when the brothers shared during their first years of physical life the same environmental configurations.

However, recent research in genetics succeeded to put in evidence a second layer of genetic information on the top of the classical genetic code. Scientists from the Leiden University proved that the genetic information in the DNA is able to modulate the DNA mechanics, too. The way the classical genetic code is performed by specific reading of the coupled base pairs in the helix, and consequently which proteins are made, proved to be determined by the second layer of information, namely the topographic parameters of the folding process observed in the DNA strands themselves into nucleosomes. Anticipating, we may suggest that this fundamental second DNA structural parameter is originating at the ZPE level as primary guiding structures for the early embryologic development and its consequences, strongly suggestive of an unexpected modulator that impacts the parental heritage from outside. This is performed by a different packing and accessibility of the DNA, and leads to a different frequency of protein production, but also introducing into the process some new personality traits different from the ones originating in the parental genetic supply. The

"letters" constituent of the parental codes are used by this folding process to complete and determinate the final characteristic pattern of the whole genome. This hidden informatic layer is real and physicists are finding more and more proof for its existence. Researchers of the Leiden University (Netherlands) confirmed the presence of this second guiding system of genetic instructions by computer simulations. They erroneously attributed these new mechanical cues to random biochemical alignments, which from the perspective of the triadic character of the whole genome is compulsively contradicted.

Conformist approach to genetic dynamics models the electron clouds of nucleic acids in DNA as a chain of coupled quantum harmonic oscillators with dipole-dipole interaction between nearest neighbors resulting in a Wan der Waals type of bonding. By now, the second hidden code within the DNA recently discovered is supposed to instruct cells on how genes are controlled.

The interdimensional supply for the photonic bridge-related assumption described earlier in this book might find a further support in the work of Jeremy England (Massachusetts Institute of Technology), who derived a mathematical formulation based on established physics, indicating that when a group of atoms is driven by an external source of energy, it will gradually restructure itself in order to dissipate increasingly more energy, suggesting that under certain conditions, matter inexorably acquires the key physical attribute associated with life. Or true life in the case of zygote maturation phases leading to a new biologically active entity might be related to self-assembled supramolecular photoactive centers working as a photoactive prebiotic kernel system. Quantum biology and biophysics showed a tremendous degree of coherence within all living systems. A specific quantum state was established for the system as a whole by quantum entanglement events. Such quantum phase transitions involving quantum entanglement components are informatically controlled and guided by Sub-quantum Information carriers, as we already know. Such subtle determinants are responsible for specific mechanical cues within the DNA, which determine how preferentially DNA folds, resulting in the second layer of information charge present in the DNA. It has to be strongly emphasized that beside the protein formation attributed to the classical description of the DNA, this additional guiding

system related to the folding pattern of the DNA strands in the double helix is the determinant factor of psychologic make-up during the embryogenetic process, which is not protein-dependent. How someone will capitalize his/her genetically acquired morphologic traits is determined by his/her own transcendental set of personality-related information, which most probably is encoded in the folding pattern of the DNA strands.

If quantum entanglement is causally implied in the early embryonal development, it may be quantified in terms of negativity and single base von Neumann entropy, allowing to reach analytical expressions for the binding energy of the coupled chaining terms of entanglement, shading more light on the correlation energy present in the system. According to Stamatoyannopoulos (Washington University), the genomes use a genetic code to write two separate languages. He concludes that our basic assumption about reading the human genome missed half of the picture. Some of the codons used by the genetic code can have two meanings — one related to proteins, the other to gene control. The term assigned to codons from this perspective is "duons", which make the DNA an incredibly powerful information storage system, which nature has fully exploited in unexpected ways.

Secondary coiling of DNA



Source: <https://bigthink.com/surprising-science/2-new-ways-to-find-aliens-according-to-a-nobel-prize-winner>

At the ZPE point, reverse entropy is induced in the primary chaotic quantum state dominating the initiation moment of fertilization. According to England's experimental findings, under photonic input more bonds are forming among elementary particles,

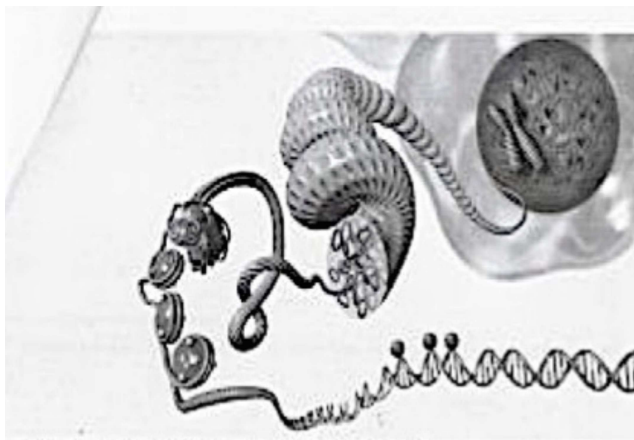
inverting the entropic vector of the system in linear time. In an open system (as the ZPE-determined interdimensional reference frame), entropy can be kept in low value domains by dividing energy unevenly among its atoms and thus increasing the entropy of its surroundings. Reproduction is one such mechanism by which a system may dissipate an increasing amount of energy over time. And as England puts it, "*a great way of dissipating more energy is to make more copies of yourself*." (Quanta Magazine, January 22, 2014). This is exactly what happens in cellular division initiated by the fertilization act.

Self-replicated microstructure has been supported by the Harvard University team's simulation experiments, too. Other research protocols led to relating self-assembling photoactive systems to quantum entanglement phenomena (which are as we suggest Sub-quantum guided information bearing effects, originating in higher control systems (implicated orders) from nonmaterial domains behind the ZPE transductor instance. Tamulis and Grigalavicus (2010) confirm this assumption, by their statement that self-assembly of molecules toward supramolecular bioorganic systems depends on the quantum mechanics laws. Zygote evolution is logically enhanced also by quantum superposition of information layers inside the DNA structure, provided external Information input supplied from trans-space-time domains by the etheric configuration of the attaching new entity to the physical genetic background. Of course, the warm quantum coherence is basic for DNA stability.

Further on, the photo excited (Zinc spark!) electron charge transfer from one protocell to other leads to self-assembly associated with exchange of energy and information. Such assumptions led Fritz-Albert Popp to put forward the hypothesis that biophotons are emitted from a coherent electrodynamic field within the living system. This may confidently be expressed the other way around, too. Each living cell is resonating in a coherent bio photonic energy field (a ubiquitous nonlocal field, corresponding to the nonlocal domain where incoming self-conscious structures are originating under the reincarnation hypothesis). After all, the medium of our bodies is a form of liquid crystal, an ideal transmitter of communication, resonance and coherence. And DNA is itself a liquid crystal, lattice-type structure. All living structures (embryonal ones included) continuously emit a

radiation of light forming a field of coherence and a holographic instantaneous communication. Perturbation calculations allow gain of information in systems where the number of particles are small for statistical entropy to describe the system. Here comes into play the negentropic input from previously organized information complexes supplied by the reincarnating entity. The fluctuation theorem allows for a probability that entropy may flow in a direction opposite to that dictated by the second law of thermodynamics. This is an important assessment for our hypothesis, as it confirms that living systems have an entropy lowering and information gaining vector, leading to entangled molecules governed by quantum mechanics and the general weak interaction. The entropy grows by changing the temperature-dependent diffraction patterns of the electromagnetic oscillators. A time reversal (retro causation) is involved in this process. Anti-neutrinos are supposed to go back in time relative to the neutron created electron and proton, with a superluminal velocity related to the weak interaction. *(The reader is kindly referred to our paper addressing retro causation mechanisms in brain functions, insert in this book for reference as Appendix).*

A second layer of genetic Information



Source: B.Tingley, <https://mysteriousuniverse.org/author/bbtingley>

In order to complete our reference to the DNA second layer of information hitherto unknown, which strongly suggests a corresponding second source able to determine how the parental genome will be read, and which source most probably is external to the system, we have to add that this new discovery applies also to the RNA.

The secondary structure of RNA has concrete consequences for the cell, as RNA is the genetic messenger of the DNA information charge. The analogy between the chemical structures both of the DNA strand and the RNA is reflected also in the analogy of their information storage system. Complementary bases from two RNA molecules do not couple to form a DNA-like double helix which prevent DNA from forming secondary structures. The nucleotides of RNA are free to interact within each molecule, interactions that result in folding of the RNA chain into secondary structures, able to copy their equivalents described for the DNA. These folding-based secondary structures of RNA will preserve information of second order transcribed from the DNA and transfer it as efficient modulators not only for protein synthesis (we amply discussed their source!). Both in cell division and in cell death, such virtual photons may be transformed into real photons.

This coherent information transfer is also related to the rotational timing of fluctuations within the quadrature phase. These two-photon coherent states enable preferential addition of the quantum noise to the quadrature not carrying information, thus improving the informational transfer.

Slawinski (1987) admits three different interpretation for the experimentally documented "death flash". The one of our interest refers to the assumption that the electromagnetic essence of life including the conscious Ego, "may be radiated into space at the speed of light". Moreover, he argues that the light emission at the moment of biological death is inevitable, relying on mathematical and physical calculations. Biological degradation at all levels, according to his arguments, is associated with the dying structure's closed system status being transformed in an open system (at atomic, molecular and cellular levels). For example, in the case of molecular closed structures, the rupture of a thermodynamically unstable ring (dioxetane ring) leads to the ring's rearrangement associated to an electronically excited state, the radiative deactivation of which generates a photon (chemiluminescence). Disintegration of a biological circuit transforms it to an open configuration. Thus, it loses its ability to support periodic resonant vibrations, to maintain homeostasis and to store energy and information. Subsequently, it must emit its electromagnetic energy/information. A complex superposition of standing EM waves

stored within resonant cavities (biological structures) are irreversibly liberated from the system, as a coherent integrated field, simulating death. It is a reasonable conjecture that the intense light reported by subjects who have had an NDE might be related to Slawinski's "death flash" phenomenon, and might contend an immense amount of information. He concludes, that *"the EM field produced by the necrotic radiation, containing energy, internal structure and information, may permit continuation of consciousness beyond the death of the body."* (Slawinski, 1987: 79).

We have here a mirror-type symmetry between the photonic mechanisms involved both in the beginning and the end of physical life. It seems reasonable to suggest, that the conscious entity uses similar highly complex mechanisms for entering and exiting the physical world. In both cases, it is carried within its etheric envelope, which by its virtual photons resonates physically with the real ones, be them related to the Zn spark or the necrotic radiation effect.

The scientific possibility of reincarnation becomes a high probability. Our attempt to underpin this reality with ultimate recent scientific data comes in support of the overwhelming empirical database piled up in the relevant literature, extending from Prof. Ian Stevenson's monumental work to Dr. Semkiw's one in our time.

It's high time for an experimental protocol able to put in evidence this still controversial paradigm in mainstream academic circles. Convenient or not for their representatives, truth has to be loudly expressed and experimentally proved. We are immortal self-conscious beings. Death is nothing more than a concept, an illusion.

And demonstrably so ...

IV-7. BIOLOGICAL ACCOMPLISHMENT OF THE REINCARNATION PROCESS — *Intracellular Ca gradients and membrane hyperpolarization. — The “Zinc Spark” as an inorganic, extracellular marker of the fertilization event. — Polyspermy blocked by Zn exocytosis. — Light as DNA transcription regulating agent. — Multiplexed informational pathways. — Quantum entanglement of the Self with the photonic attractor signal by a trans-ZPE tunneling effect and starting the morphogenetic control upon the zygote’s further development. — Reincarnation completed.*

Let’s introduce here a crucial new development in genetics, which seems to strongly support our tenets regarding its deep routing in the very hard genetic map, able to store far much Information than previously thought as originating in the parental genetic heritage ...

First, it is known that gamete cells are electrogenetic thus able to respond to electrical signals (Tosti & Boni, 2004). During fertilization, we assist to a reciprocal activation of the two gametes. Signals from the oocyte induce dramatic changes, both morphological and functional, in the spermatozoon, while the last triggers the female gamete into metabolic activation, by a sperm-induced Ca^{+2} release. The activation signal is quickly perceived by the entire oocyte by a short increase in intra cellular Ca^{+2} . In some species, this Ca^{+2} increase is followed by a long oscillation pattern of the ion, entertained by specific receptors. The ionic event is associated with electrical changes in the oocyte plasma membrane. Important to stress, that Ca^{+2} gradients are linked to calcium-activated K^{+} channels. A voltage modification in the oocyte is described as the “fertilization potential”, which results from an ion flux across the plasma membrane, marked by an inward ionic current. Most interesting to emphasize, that as observed in sea urchin eggs at the moment of fertilization, the first electrical response of the oocyte to the spermatozoon interaction, precedes the fertilization potential by $>10\text{s}$! (hint to a retro causation effect?).

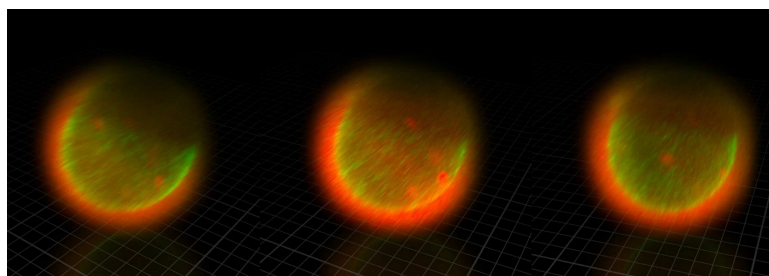
Anyway, most important for our study is the fact that the fertilization potential is related to the inward ionic current that results in a net increase in Ca^{2+} concentration at the fertilization. Moreover, membrane potential fluctuations are intimately linked to $\text{Cl}^{+/-}$ ions responsible for the first depolarization phase evoked by the sperm, whereas K^{+} contributes to the repolarizing phase. Whatever the ionic trigger considered (species-dependent

differing mechanisms), there is no doubt by now that a series of hyperpolarization events occur at the moment of fertilization. The authors (Tosti & Boni, 2004: 55) quoted above write: *“The significance of the change in resting potential at fertilization is still unclear ...”*.

Maybe we could add something to clarify this topic.

Quoting a breakthrough research dated back 2012 done by a team in the Northwestern University, B. Fogel publishes its finding in a paper (2015) bearing the sensation-charged title: “When Egg Meets Sperm, Sparks Fly”. The researchers using fluorescent labels for ZINC, discovered thousands of Zn-rich packages inside an egg cell. Their release at the instant of fertilization results in a phenomenon known as “ZINC SPARK”. The mammalian egg cell accumulates an unprecedented amount of 20 billion atoms of Zn during the 12 hours before ovulation. When sperm meets the egg, much of that Zn is released in a series of bursts. Using a “molecular probe” to visualize and measure Zn sparks, Woodruff et al. (2015) published their findings in “Nature Chemistry” – showing that hot spots of fluorescence at the cell surface demonstrate how groups of Zn-rich packages are released upon fertilization resulting in the Zn Spark. The team has been able to show by fluorescence techniques some 8000 vesicles at the inner surface of the egg membrane, each one containing about one million Zn atoms. During a time-span of an hour and a half, three to five sparks of this kind have been witnessed, releasing each of them 3-5 billion Zn atoms in discrete “hot spots”. It is supposed that the Zn content in the egg has an inhibition role of its maturation until the event of fertilization. When a threshold level of Zn is reached, the egg is ready for fertilization – when the stored Zn radiates out from the cell in a breathtaking burst of light.

Zinc spark under fluorescent microscopy

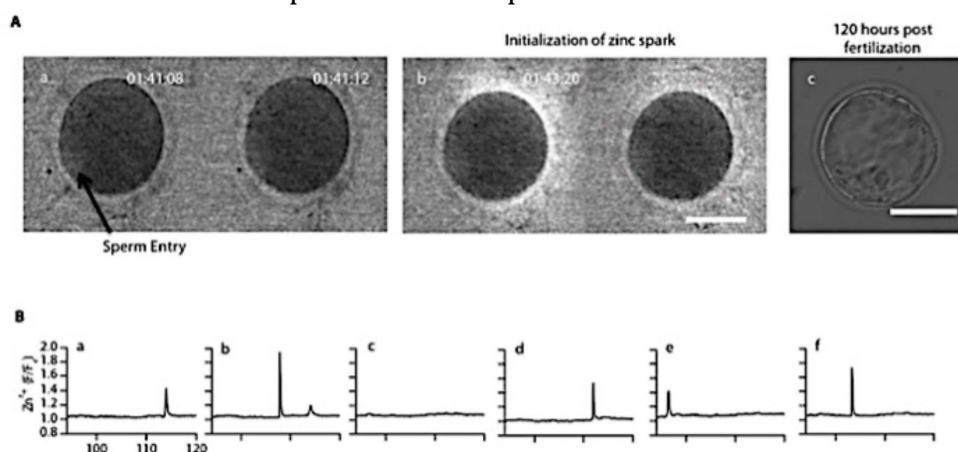


Source: <https://www.sciencefriday.com/articles/picture-of-the-week-zinc-spark/>

The Zn spark is an inorganic signature of human egg activation (polyspermy block, completion of meiosis, entry into mitosis, selective recruitment and degradation of maternal mRNA, pronuclear development).

The experimental confirmation of this highly significant event has been performed by F. E. Duncan et al. (2015) using selective fluorophores following artificial activation of the egg with ionomycin and its variants introduced in the egg by microinjections. Inducing thus high intracellular Ca levels, they observed a related triggering of Zn release into the extracellular space in a “prominent Zn spark”. In biological sense, the Zn spark is associated with parthenogenetic activation, being considered an extracellular marker of the fertilization event. A positive correlation has been found between the Zn spark and the Ca transients with a larger intracellular Ca wave associated with a larger amplitude of Zn exocytosis. There is a meiotic maturation dependence of the gamete’s ability to elicit a Zn spark following parthenogenetic activation. As a very early hallmark of egg activation at the fertilization event, during meiotic maturation the gamete is able to achieve a maximal Zn spark response. Moreover, it has been demonstrated that parameters of the Zn spark are highly associated with blastocysts of increased quality. Other studies (Zhang et al., 2016) showed that the Zn spark has been mounted 2 minutes and 8 seconds after the sperm penetrated the Zona Pellucida.

Zinc spark release amplitude correlations



Source: https://www.researchgate.net/figure/Larger-zinc-spark-release-during-IVF-is-associated-with-embryos-that-develop-to-the_fig1_298914031

This finding is consistent with the first intracellular Ca transient initiated at the site of the sperm entry around 12 sec after the sperm's interaction with the ooplasmic membrane. The Zn spark occurred as a bright fluorescent signal at the hemisphere opposite to the sperm entry site. The intracellular Ca transients triggering the Zn spark gradually decline to zero after its initiation. The Zn exocytosis contributes to zona hardening thus blocking polyspermy.

But the Zn spark has for us another most critical significance, too. In order to understand this aspect, we must mention another research done by P. Ruegg (2018) from ETH Zurich – regarding the gene regulation using light. He quotes a new experimental protocol introduced by M. Khammash using blue light to control the transcription of DNA into RNA in single cells. Using fluorescence microscopy linked to computer screening, the researchers succeeded to count how many RNA molecules are transcribed at a given time and to decide the amount of light that each cell should receive next in order to regulate their transcription as desired. Such studies clearly point to an effective interference between photons and the genome expression. This hint is to be seen from the perspective of general signal transduction pathways, which interact with one another forming networks that allow cellular responses, transcription and translation of genes included. Molecular events of this kind control cell growth, proliferation, metabolism and differentiation.

B. E. Mossalam et al. discuss in a paper of June 2016 a computational approach to multiplexing genetic and nucleosome positioning codes. Besides mechanical properties that determine nucleosome structures, a genome-wide multiplexing of Informational pathways is proposed. The exact positions of nucleosomes play a crucial role in chromatin function. The nucleosome positioning rules can't be fully explained only by mechanical properties of the base-pair sequencing. Undeformed B-DNA can be described in two non-vanishing degrees of freedom (0.34 nm rise along and a ~36-degree twist around the axis perpendicular to the bp plates). But, to produce a bent DNA molecule in the nucleosome, and especially to produce the secondary twisting of the DNA/RNA that conveys the superposed Informational structure we've discussed earlier in this study, other degrees of

non-zero freedom are also required. In order to accommodate the double Information storage (the parental and the Self's own one), an interdimensional non-zero degree of freedom is a prerequisite. This means that the genetic stuff has to tap into Informational domains beyond the ZPE barrier.

This requirement is up to this point missing from the classical concept, but is a sine-qua-non for a realistic and accurate description of the reincarnation process.

It should be mentioned here that some objections to the Zn spark as described by the aforementioned research teams have been suggested (S. Trasancos, National Catholic Register), claiming that the spark effect is an artefact related to the fluorescence microscopy used. We strongly doubt that such attempts to invalidate well-established reports by serious academic teams is water-proof. As we have seen, photonic irradiation of molecular structures results in a gain of magnitude in the biophotonic emission, but do not explain it. The same argument holds true for the case of fluorescence microscopy addressing photonic discharge of Zn-containing molecules, possibly amplified but not produced by the examination procedure applied. Moreover, for setting up the interdimensional photonic bridge required for the attraction, superposition and Quantum/Sub-quantum phase-alignment, a minimal photonic emission at this side of the ZPE would certainly suffice. And this level of photonic discharge at the moment of the egg's fertilization is granted.

The incoming Self, using its subtle energy envelopes, is triggered to pass the ZPE barrier by the photonic signal emitted by the egg's Zn spark. The real biophotonic attractor thus supplied as an interdimensional link gets entangled with the incoming aetheric structure bearing the Self's immense Informational complexity, a structure which, as we have seen in earlier chapters, is charged with virtual photons able to rich and entangle (by Quantum tunneling effect) with its reception pole and thus start its morphogenetic modulation task upon the fertilized zygote from the very moment of conception. This modulation controls the setup of the second Informational layer described in the DNA torsion parameters, aligning the parental genetic heritage with its own development needs, which are retro causally imposed upon the newborn entity by its future worldline.

It would be reasonable to assume that the first (and most intense) Zn spark – frequently followed by secondary, less dramatic ones – has the task to accomplish the coupling of the incoming subtle-energy body of the Self to the egg's own aetheric counterpart, in order to take immediate control upon the starting early morphogenetic process, comprising first cell divisions and further cell differentiation.

Once this anchor cast, increasingly subtle Information structures will descend from the incoming Self into the embryonal structure using the already established aethereal bridge (secondary Zn spark events might relate to this process), until the personality's whole immense complexity is in place.

At this step, ***the reincarnation event is accomplished***, without violating classical requirements of genetics but completing and extending them into a retro causative, hyperdimensional Sub-quantum perspective ...

IV-8. TOWARD RESEARCH PROGRAMS POSSIBLY ABLE TO ENCOURAGE

FURTHER UNDERSTANDINGS OF THE REINCARNATION PROCESS

We are at a very early stage in exploring the multiple aspects of this event, which due to its highest possible complexity and elusiveness for current instrumental investigation, invites for both a paradigmatic revolution and an expensive development of an adequate technology. The currently available instrumentation and the exploration methodologies they support might be but a starting point for such an adventure requiring heavy funds and most competent experts in the various multidisciplinary domains involved. But the results would be certainly worth of all these joint efforts of open-minded scholars. Though suggesting a concrete program for the exploration of such highly elusive and controversial hypothesis as our one certainly is, lies far beyond the scope of this introductory theoretical study, let's mention here in very rough outlines but a few academic structures that might be addressed (and the author intends really to do so) for testing their possible interest and availabilities in setting up such an interdisciplinary experimental protocol. Of course, the short directory supplied here enlists only some outstanding scientific structures that seem to be somewhat more familiar with etheric/informational dynamics (the key for a successful investigation), and in due time should be extended by attracting cell-biologists and geneticists with valuable scientific credentials, too.

1.



Prof. Konstantin Korotkov

One of the widely recognized authorities in the field of electro photonic analysis of

consciousness-related subtle energy fields is of course Prof. Konstantin Korotkov from Saint-Petersburg, president of the International Union for Medical and applied bio electrography. His biological field concept is successfully applied for diagnosis and therapeutic purpose world while, based upon his gas discharge visualization technology - sensitive enough for the subtle energy fields and biophotonic radiations associated with them. Prof. Korotkov 's genial insights and original creativity supplied hard experimental evidence for the time=span difference between the organism's biological death and the completion of its ethereal body's final detachment from it.

GDV images of people after death



Source: Korotkov, K., *Light after Life*, 2014: 158

Though Prof. Korotkov's groundbreaking work addresses mainly the whole biological system, there is a very plausible chance for him to apply his ingenuity also on cellular scales of investigation, developing adequate instrumentation for this challenge. We can only hope that his overwhelmed working agenda would allow him to join such a breakthrough project as our one would ultimately be. The reader is strongly advised to study his brilliant works enlisted in the bibliography.

2.

Interesting research on etheric modulation of biological structures may be found in Beverly Rubik (2002), Ph.D's sympathetic resonance studies. Her SRT-modulated EM fields reportedly have the ability of permanently storing biofield-reinforcing resonant frequencies. Inducing cell functions in the spectrum of such beneficial frequencies (experimentally confirmed), might have future applications in the exploration of oocyte frequency modulations implied in the fertilization act. Non-linear dynamical system's theory is invoked as explanatory framework for this kind of life-sustaining (and possibly initiating) processes.

3.

Brendan D. Murphy (2013) works in the field of the formative causation related to morphic fields modulating genetic expression in a nonlocal way and speaks of their cumulative memory – which seems closely related to the informational heritage supplied by the soul genome. He emphasizes the etheric body as the principle that biases quantum jumps at the small scale, thus offsetting forces of entropy at large scales. Here a very relevant quote from his writings:

“The bioplasma fetus wraps around the physical-biomolecular embryo while undergoing an accelerated morphogenesis The physical-molecular body therefore is cued by the etheric bioplasma body which acts as an electronic matrix and a time-resolved hologram that guides its development.” (Murphy, 2013: 51).

In his concept, subtle bioplasma bodies interact with biochemical fields via weak electromagnetic fields. Further on:

“the etheric template acts as a negentropic/syntropic force, organizing information and energy to do intelligent work in morphogenesis.” (Murphy, 2013: 51).

4.

A currently active high-level bio-informatics lab, the AccuraScience, offers valuable computerized data analysis and other expert services for research projects with the profile of our interest.

The very pretentious bioinformatics standards a serious research project in our field of interest might certainly benefit from the high expertise and scientific credentials of this Institute’s team, which offers advanced data processing and interpretation, statistical data analysis, data integration, data mining and classification services.

Their head-quarters are base in Johnston, IA with a branching office operating in China.

5.

Another promising facility for research projects related to our working hypothesis is the

PSY-TEK Labs, Encinitas, Ca. Their subtle energy laboratory performs testing, subtle energy measurements providing cellular level statistics, life-energy patterns and their physical connections. Their technology is designed for non-invasively detecting signatures of the subtle energies. They claim advanced abilities to design specific research projects related to subtle energy dynamics. With their high-sensitivity photomultiplier device, they claim to be able to detect single biophoton emission.

Seen the significance of the bio photonic bridge in the fertilization event, their advice or cooperation in a research project specifically designed for our purposes might be certainly desirable.

6.

The HELIOGNOSIS Institute (David Maret), as well as the Orgone Biophysical Research Lab (OBRL) owned by James DeMeo, provide high technology for the exploration of living structures. The author of this book is happy for having already contacted them in this regard, hoping to find open minds for a specific application of their Life Energy Meter LM-4 for our needs. Here the very promising quote of their short Info received subsequently:

"...The accuprobe detection surface is 3mm in diameter. Individual cells are perhaps 100um or smaller in diameter and would require a specialized point electrode such as a fine wire (40 gauge or smaller) with an insulated tip. The surrounding media will also have an effect on the reading. In principle it is possible to construct such a probe, connect it via a short lead wire to the LM4 input, and clamp it to a non-metallic micrometer mount. With careful adjustment, the tip could then be positioned to the desired location of the cell."

Very promising, isn't it?...

Just for exemplification purpose, a small quote from Paul Von Ward's book *The soul genome* (2008: 92-93):

"Given the pace of innovation in genome assessment technology, we should soon be able to calculate the probability of psychoplasmatic transfer of genetic data, if not find the actual energetic tracks. Technology used to measure psychokinetic impacts on cells through

containers that shield electromagnetic influences may help us identify the energetic tracks of soulprints. In vitro fertilization in shielded containers could permit the identification of biofield impacts by comparison of DNA scans of sperm and egg with post-insemination DNA scans."

Of course, for experimental accuracy in any available setting we have to keep in mind the need for the Quantum noise reduction mentioned in his works by T. M. Srinivasan, Ph.D., a recognized expert in ZPF detection and analysis and related subtle energy radiations, the crucial domain where our subject of interest is anchored. In his concept, SE fields can be focused and down-converted through special energy-information transduction techniques which couple multi-dimensional SE fields to 3D force fields. After such transductions, SE seem to manifest as quasi-physical energies, which may directly influence the behavior of classical field phenomena (EM and acoustic fields). Worth to remember that according to Prof. Tiller, magnetic vector potentials are the means by which energy exchanges occur between subtle energy fields and the physical world of electromagnetics. The energy generated through magnetic vector potentials from the fundamental ZPF is "pure" and can influence fields and matter around it through resonance effects. The strong oscillations at the fundamental ZPE level will couple with other material oscillations and organize them to its proper frequency. Magnetic fields influence also charged particles in motion such as photons.

With such a wide theoretical and technological knowledge currently in place, conceiving an accurately designed concrete research project, able to investigate the hitherto elusive hypothesis of personal reincarnation, providing a scientific validity of the overwhelming database describing individual cases suggesting its being implied, its ultimate proof seems not to be a too far-ahead dream ...

APPENDIX

I

CONSCIOUSNESS & CAUSALITY: A SUB-QUANTUM TIME-SYMMETRIC APPROACH

Adrian Klein, Ph.D., Ph.D. - PA Ass. ECAO Aff– Israel

Robert Neil Boyd, Ph.D. – Princeton biotechnologies– USA

ABSTRACT

We propose applying Sub-quantum concepts to brain functioning, linking information with energy and mass.

We suggest here an extended theoretical model for the Brain-Mind interface. We introduce some basic Sub quantum (SQ) considerations, as an important contribution to a more accurate understanding of the way Nature uses energy/mass bearing matter as an expression of its Informational essence.

We apply a coherent concept regarding time symmetry and retro-causation, superluminal propagations in Sub quantum (SQ) domains and Cramer's transactional interpretation of Quantum mechanics. This way we cogently extend and complement Henry Stapp's leading theoretical model of mental causation by a documented rejection of both the causal enclosure principle and causality violation constraints.

We show that in the SQ domains of superluminal propagation action-reaction mechanisms, which run in the hidden time of Informational interactions, a time-symmetric causal loop is formed and operates at any point in physical entropic time. This couples future states to their preceding determinants by a closed, self-balanced system. This involves a hyper-dimensional pathway of high implicate order coordination, affecting this loop at both its ends: the subjective awareness operator and the objective Quantum events it modulates in

a causally efficient range. Thereby, while following Stapp's fundamental concept, we propose reframing the “free” subjective choice of the Question and the nature's “random” Response to it, in a self-consistent and coherent deterministic mechanism of bidirectional causality operating at FTL velocities as hidden variables. This satisfies Stapp’s request for the double origination of actualized psycho-physical patterns both in conscious structures and the global Quantum state of the material universe.

We argue that nonlocality and trans-temporality of Qualia are the ultimate causal principles of reality. This supports a unified monistic orientation, which is underpinning the Being’s transient connection to the brain's Quantum mediation tasks, yet it preserves the acquired complexity of its cognitive functions in a temporary or definitively disconnected operation, separate from the brain.

Our concept's philosophical outreach exceeds the brain/mind connectivity problem, as it suggests a preprogrammed future and an open past, principle compatible with Stapp's “actual past” reduction to its “efficient past” component by the collapse of the probability wave.

Moreover, the time-invariant solution derived from the Schrodinger equation, along with its time-sensitive one, may be invoked in support of this novel Quantum perspective.

We address the epistemological equivalence of normal and paranormal phenomena from a Quantum transactional perspective (Trajna's psychotemporal wave concept, applied to Stapp's brain-mind interactions), underpinning our synoptic concept by recent experimental studies.

A special "Appendix" following this paper is meant to facilitate the understanding of the ways its tenets apply to H. Stapp's latest work *Quantum Theory and Free Will*, Springer, 2017.

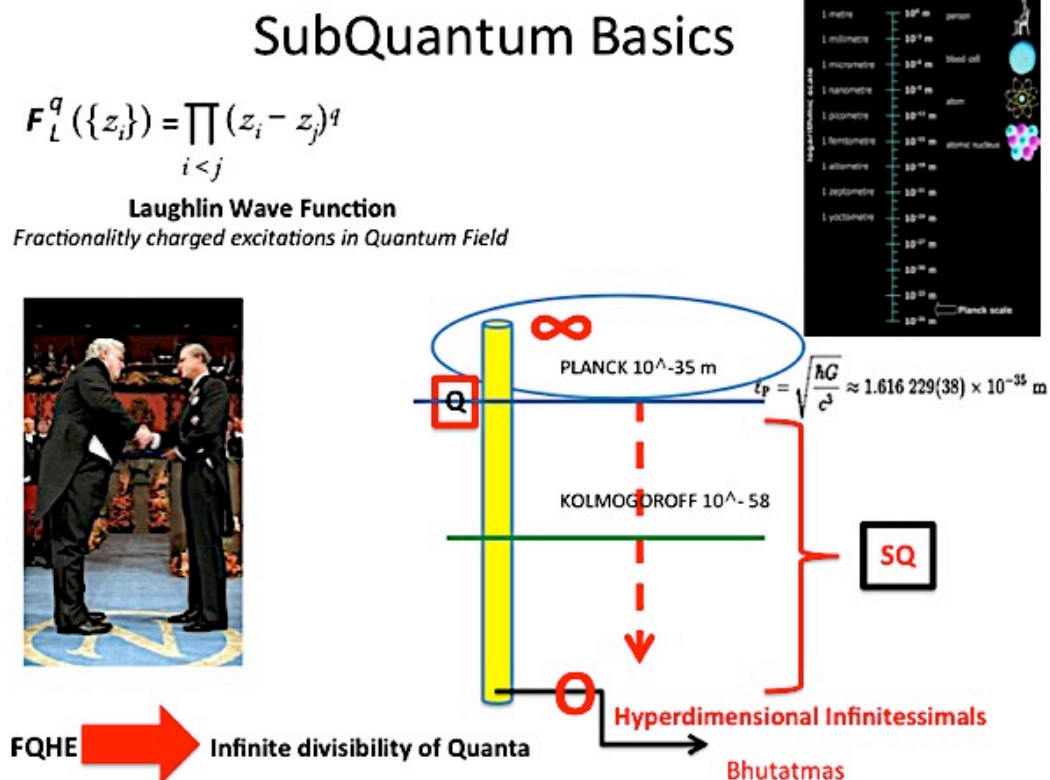
I

RELEVANT PHYSICS

The paper's tenets are evolved from advanced understandings of modern physical concepts as presented by its authors at the "Quantum Mind" Conference in Salzburg and Budapest, 2007, as well as in various publications in different editorial outputs since.

Summarizing our basic premises:

I-1. Sub-quantum



We see here a logarithmic metric scale that applies to mezocosmic and microcosmic domains of physical manifestation. Its lower limit, the Planck limit, believed to represent

the smallest measurable distance between 2 points, is 10^{-35}m .

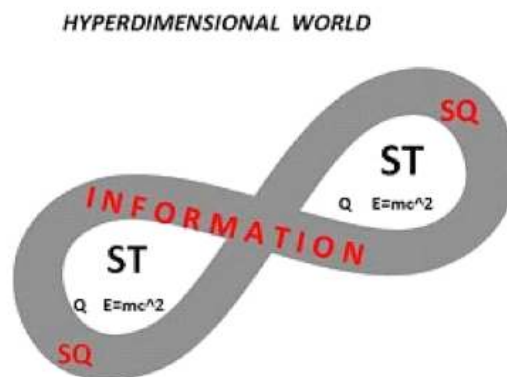
This tenet changed drastically back in 1998, with the advent of Nobel Prize winning FQHE presented by Laughlin, Stromer and Tsui, and based on successfully implementing fractionally charged excitations in the Q. Field, resulting in fractional elementary charge and statistics in the form of Quantum Hall transition states.

The FQHE opened the way to the infinite divisibility of Quanta by extending the Laughlin plasma model into a new hierarchical SQ understanding – where composite fermions and fractional states of electrons can be described.

The metric scale becomes extended downwards into the SQ range below the Planck limit, through the Kolmogoroff limit and beyond, to the massless infinitesimals known in Hindu esoteric wisdom as Buthatmas. These massless extremals are the coupling site of Information to physical Space-Time. In this new range of describable Reality, any classical and Quantum constraints break down.

Around the Planck length, we have a bidirectional transition zone between the matter/energy controlled Quantum regime and the Information-controlled SQ domains. In this range, for example, we can observe the cloud-like SQ permanent condensations with stabilizing maintenance functions upon biological structures, which originate in the primary morphogenetic fields.

I-2. Hyper dimensionality



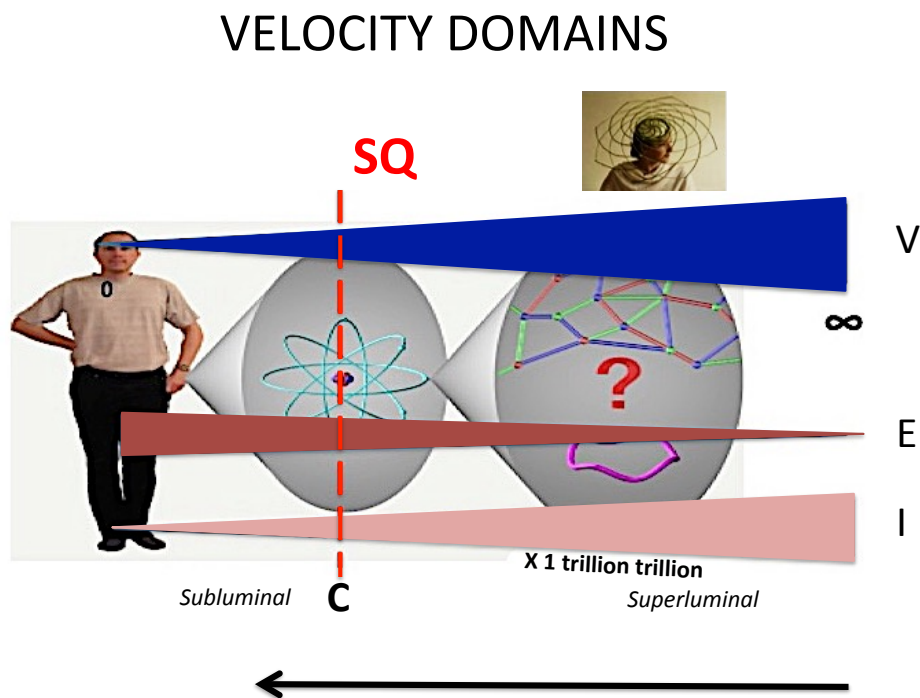
A convenient way to express physical realities is the one in Dimensional terms.

We are part of a hyper dimensional Sentient Universe.

The transfinite matter/energy domain is described in units of S and T, and is embedded in the infinite Informational one, as a subset. Their permeable interface might be more easily visualized as a Shilov-Bergson boundary allowing for graviphotonic transactions.

Matter/E is not conceivable without Information, a statement which doesn't hold true the other way around! Information permeates the entire material world, but its higher-complexity structures are beyond it.

I-3. Superluminal to infinite velocity propagations in Sub-quantum Range



In our SQ conceptual frame,

- 1. At all scales of manifestation Energy and Information are negative covariant functions of SQ velocity values.*
- 2. The SQ model assumes that Information transfer may be accomplished at any velocity between Zero and Infinite, because in SQ regimes relativistic and Quantum constraints do not apply. This new perspective is supported by 14 non-linear projective Mobius transformation solutions to the Maxwell equations, discovered by Boyd and Smith during the last decade. These solutions behave in a manner completely different from our accustomed Lorentz transformation propagations.*
- 3. The speed of light appears in this context to be just a particular limit between subluminal and superluminal velocity options. Please note that the light velocity is conveniently placed in the interaction zone between Energy and Information, at the interface between the material and the so called "spiritual" domains.*
- 4. In a system at rest, potential energy has a maximal value, and drops as velocity increases. It vanishes altogether from the structure when it attains Infinite velocity.*
- 5. In a negatively covariant way, useful Informational charge is undetectable at the rest condition of a structure, and increases with the gain of its velocity toward infinite, where all the structure becomes one of pure Informational consistency.*
- 6. In a cosmogony perspective (beyond the scope of this presentation), Energy is injected into the system by drop of SQ flux velocities as a result of their interactions forming increasingly stable combinatorials, parallel to Information complexity decrease. This process reflects super implicated orders of Informational control at work.*

Both the relativistic contents about the speed of light as a constant and upper limit of velocity in the Universe proved to contradict empirical findings. It has been proved that c is a function of the propagation media. When a charged particle travels through a given medium with a velocity higher than the "slow light" photonic propagation (its phase

velocity compared to vacuum values), its high energy gets absorbed by surrounding particles which decay to their ground state while emitting Cherenkov radiation.

But these approximation values with a narrow distribution range around the vacuum propagation speed of light are far from being the whole picture, if SQ propagations are addressed. The SQ velocity values range between zero and infinite, escaping any relativistic constraints which may apply in Quantum energetic phenomena.

As a matter of fact, superluminal sectors are weakly coupled to "ordinary" matter (Gonzales-Mestres, LPC, 1996) - acting at very high distance scales where the Lorentz invariance doesn't apply. In superluminal sectors of velocity the propagating entity relates to different Minkowskian space-time coordinates from the ones governing physical phenomena, thus it shouldn't be strictly identified to tachyon propagation. In projective space frames of reference the speed of light obeying different constraints, assumes different values from the ones described in relativistic terms. Massless superluminal particles may couple to physical matter by their spin values. Such "tachyon" entities lose energy in a proportional relation to their incremental speed, so at infinite speed value they carry no more energy. What they still carry at this limit (and all along this acceleration process) is Information stored in its SQ flux components.

At the lower limit of their velocity domain - the speed of light c , such entities are highly energized and thus able to couple to physical energy patterns in Quantum range. Massless infinite velocity propagations in vacuum have a destabilizing effect on its homogeneity, resulting in vortical structures with Information-controlled behavior in SQ domains.

As superluminal disturbances are essentially nonlocal, they still are able to store and propagate Information encoded in localized tachyon fields if treated in a triadic hyper dimensional frame (ST + Information) - an analytic scenario strongly consistent with the "hidden time variables" allowed by Cramer's transactional interpretation of the QM. (treated in more detail further on). In non-physical domains accessible to SQ entities and combinatorials the complex mass of tachyon condensations vanishes, opening the system to pure Informational control.

I-4. Time Symmetry and invariance

As generally accepted, under time-reversal transformation the physical laws preserve symmetry ($t \rightarrow -t$). Any Lorentz invariant local quantum field theory with a Hermitian Hamiltonian must have CPT symmetry (though as a result of super weak interactions time invariance is violated in the decay of long-lived K_L^0 mesons). The time reversal operator in motion equations corresponds to a symmetry operator for the QM system.

The second law of thermodynamics (TD2) allows for time symmetry in equilibrium states. Under the Loschmidt paradox an entropy-decreasing vector may oppose the TD2 based on the cosmological assumption of an "initial condition".

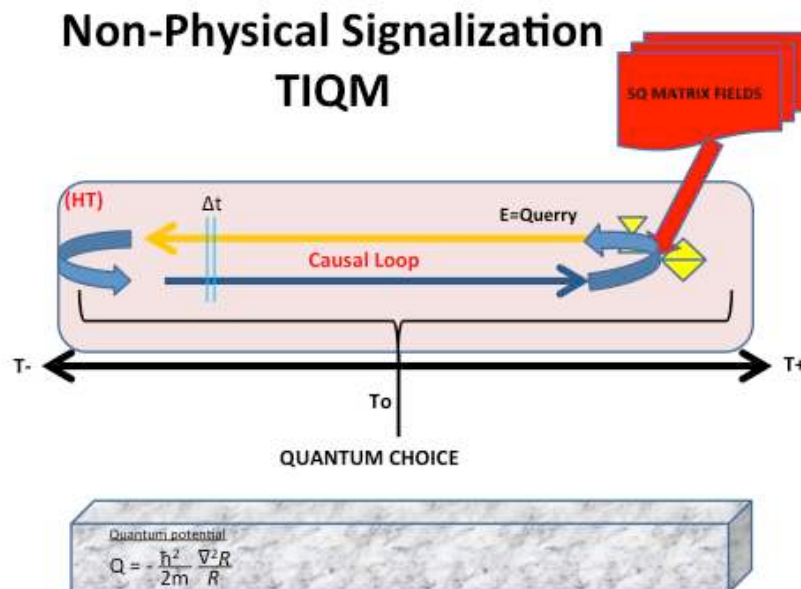
The Maxwell equations are time-reversion invariant at microscopic level. C. E. Shannon's quantum information transmission limits do not apply for eidetic information variants. Dissipative systems obeying Boltzmann-Shannon logarithm support time asymmetry by increasing entropy only in physical phase space volumes. They don't apply to SQ eidetic Information controlling the way particles are carried in this space. The motion of classical charged particles in EM fields is always time-reversal invariant, just as gravity is.

Microscopic Time-reversal invariance applies to particle acceleration, force, energy and electric potential of particles, polarization and density of electric charge and energy density of the EM field. Hence a major consequence for the Brain/Mind interface (the main topic of our presentation): *EM energy density variations in Brain are Time-symmetrical and thus may couple to retro causative SQ fluxes of Information.*

Moreover, under Kramer's degeneracy theorem applied to QM, if the Hamiltonian operator commutes with the time-reversal operator in a half-integer spin system, to every energy eigenstate corresponds a time-reversed state of the same energy, expressing the time-reversal invariance of electric fields when a unitary operator is applied by a complex conjugation. This is to be kept in mind for a correct understanding of complex phase superposition and phase conjugations running in hidden time of brain functions correlated to mental determinants - to be addressed further on in this paper.

For now, should it suffice that when an antiunitary operator is applied in time-reversal, the time component of the momentum is energy - so antiunitary symmetry in a positive energy system must reverse the direction of time. This is consistent with the assumption that at infinite velocity, where the time function is irrelevant, *there is no energy associated to the pure Informational charge.*

I-5. Relevance of Cramer's transactional interpretation of QM



1. According to Cramer's Transactional Interpretation of Quantum Mechanics, besides The Quantum potential expressed in physical ST, there is also a Hidden Time domain.

2. In this domain, synchronous superposed causal vectors run in opposite directions. This corresponds to our third Time Dimension, coupled to Information dynamics.

A physical entropic causal vector is paralleled by a coaxial Informational one which is a signal emitted by future deterministic presets of actualization, which are able to trigger the content and nature of a probing act that has to be Issued by previous causal constellations.

3. Nevertheless, this system doesn't allow for time paradoxes by interfering with past events, because the superposition effect applies to separate infinitesimal moments in physical time and not to a measurable time span that enables to act upon.

4. Between the couple of opposed informational vectors, a causal loop is formed in Hidden Time.

5. The whole causal loop projects into the linear entropic Timeline in Null time – the present moment – implementing the Quantum Choice by the collapse of the Schrodinger function.

6. The future deterministic setups, are conveyed from super-implicated Informational matrix fields, external to the closed system described, being guided in absolute vacuum by pairs of SQ units and combinatorials, possibly forming Bose-Einstein condensates. These structures are not Information radiating ones, but build up a neutral guiding system for the Information flow.

Replacing the Copenhagen interpretation by assuming hidden-time evolution of variables in a symmetric time frame, the transactional interpretation of QM supplies a pivotal theoretic support for the brain/mind interaction modalities. Based on this increasingly popular model for Quantum physicists, P. V. Kurakin (2005) from Russian Academy of Sciences proposed a serious reevaluation of hidden variables running in hidden space-time without violating Bell's theorem. This highly appealing model of non-physical signalization systems, running in "hidden-time" beyond normal physical time constraints, is strongly consistent with our near-infinite to infinite velocity SQ signalization concept. Indeed, hidden-time dynamics - the ones occurring in Information fields - result in the best conceivable controls of the deterministic parameters which are at work between elementary events, such as photon emission and absorption, thus implementing informational enfolded guidance of energetic phenomena. Standard QM offers nothing more than a few predicted probability amplitudes, for such elementary processes. Physical "quantum time" normally refers to the number of energy quanta, absorbed at a given point in Space, during a given time-span, as derived from normalizing experiment-related variables. The photon emission/absorption events themselves are currently seen as running in a random, probabilistic framework.

The Kurakin (2005) Quantum model allows for a deterministic patterning of such events, rather than a probabilistic randomness, by introducing non-physical modes of Information signaling, which operate in the background in a hidden-time dimension. This involves complex interactions between "queries" and "confirmations", where queries and responses are operating non-locally as parallel vectors, composed of direct, and backwards-oriented, non-physical signals. These information signals, which are regulating Quantum processes, evolve as hidden variables in the physically inaccessible domains, as defined in the Compton Radius Vortex, by a lower metric value than the Compton wavelength itself. This signalization control involves coaxial superposition between contradicting time propagation vectors, thus involving retro causation effectors originating in preselected SQ matrix fields of higher implicated orders. Such Information signals display physically detectable fractal integration amplitude only at the level of superposition fragments, thus eliminating the need for any theoretically uncomfortable, and physically hard to demonstrate, backwards-flow patterns, in physical time.

According to this advanced concept, Quantum choice happens in no physical instant (zero time), as a result of Information-signal superposition along their vacuum trajectories. As described in the Kurakin model, Information propagation channels in the vacuum are thus controlled by "virtual" guiding structures. Such structures might be mutually compensating pairs of Information-charged SQ units, organized in SQ condensates which are not signal-generating formations. These distribution patterns in the vacuum originate at higher levels of integration, aiming target-related conformal signal transmission blueprints which are reaching various targets, in zero time. This results in an apparent retro causation of pure Informational essence, as implemented by the hidden-time symmetry of Informational vectors, which allow primary query signals to be propagated from detector to source - and not the other way around - as amply explained in Kurakin's model.

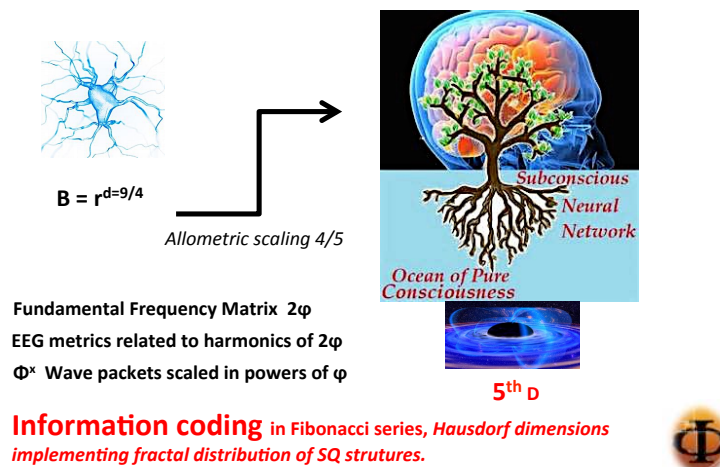
Let's see how these non-physical signalization variants may support, extend, complete and further improve the currently leading Stapp theory for Consciousness/Brain interaction.

II

RELEVANT NEUROPHYSIOLOGIC DATA

II-1. The hyper dimensional essence of Brain

HYPER-DIMENSIONAL BRAIN



The second aspect that is fundamental for our understanding of Brain's dynamics, besides its time-symmetry, is its hyper dimensional nature.

1. Neuron is not a spherical cell, its contour has a fractal dimensionality.

2. As we know, a biological variable of a given structure relates to its mass by an alometric scaling power law.

The algometrical scaled basal metabolic rate of Neuron is expressed by its average radius to the fractal dimensionality of its contour, which is 9/4.

3. Further Fractal geometry analysis led Togbey and his team to put in evidence a 4/5

allometric scaling law of Brain.

4. This corresponds to a 5th dimensional function in resonant neural networks.

Moreover:

5. Accurate measurements showed that Brain's fundamental frequency matrix = 2ϕ .

6. Equating EEG metrics to harmonics of 2ϕ leads to the conclusion that wave packets are scaled in powers of the Golden Mean.

7. A fractal distribution of SQ structures based on Hausdorff dimensions implements a patterning action upon the time legs of neural firing over several orders of magnitude. This means that Information coding is related to Fibonacci series.

As we mentioned in our presentation for the TSC Conference 2009, Hong Kong, conformational and combinatorial structures at neural biomolecular level, obviously obey distribution orders far beyond their own structural codes. Direct photonic excitations by favored temporal penetration windows of the Right Temporal Lobe and its associated limbic system components, may contribute to Brain's biological interface with an interconnected Universe, as suggested by M. Morse (1998), such processes enhancing religious and NDE-type experiences. He suggests ascribing to the right temporal lobe, a biological vehicle value for morphic resonance-mediated control in post-genetic ontogenetic phase correlations.

In a personal communication dated back to 1997, J. Whinnery pointed to dreamlet-like experiences originating in hypoxic brain modules, as being similar to NDE reports. These kinds of experiences imply neural connectivity to non-local Quantum-Reality Information structures and corresponding configuration maps.

Extending the Rubner-Kleiber scaling computation laws, K. Togbey et al. (2006) performed a fractal analysis of the relevant allometric exponents of the Brain, reaching a $4/5$ law. This implies that a 5th dimensional function is present in resonant NN connectivity schemes.

This finding relates Brain's Information-coding abilities to the Golden Mean ratio, by equating EEG metrics to number of harmonics times 2ϕ . Wave packets, scaled in powers of the Golden Mean, exert a patterning action upon the time-lags separating neural firing events, over several orders of magnitude. Harmonic spectra below and above the brain's fundamental 2ϕ frequency matrix, are involved. Neural networks operate according to powers of $2\phi/2$, efficiently using them for Fibonacci series related Information coding, involving Hausdorff dimensions which are implementing the fractal distribution patterns of SQ information structures.

Log-normal and power-Law distributions of variables are thus governing heritance and aberrance processes in biosystems, where the power-law distribution proves to accurately describe the Fokker-Planck equation, as applied to the discrete variables related to SQ Informational Units and their combinatorial matrices.

II-2. The J. Bierman CIRTTS concept

In his pivotal paper *Consciousness-Induced Restoration of Time-Symmetry, a Psychophysical Perspective*, Bierman (2008) argues based on strong experimental evidence that Brain's Information processing restores the break in the statistically weak time symmetry due to the current cosmic imbalance between coherent Quantum transmitters and the dominance of cosmic critical temperature required for multiple particle coherent absorbers (Wheeler & Feynman). This corrective effect is conceived as occurring at the classical point of break in the time symmetry, the collapse of the probability function. Nevertheless, as demonstrated by P. Gariaev's works, coherent emitters (laser) produce Quantum vortices in the absorber structures, with Informational imprints gained along the trajectory - thus triggering time-reversed induction of this Information upon affected structures.

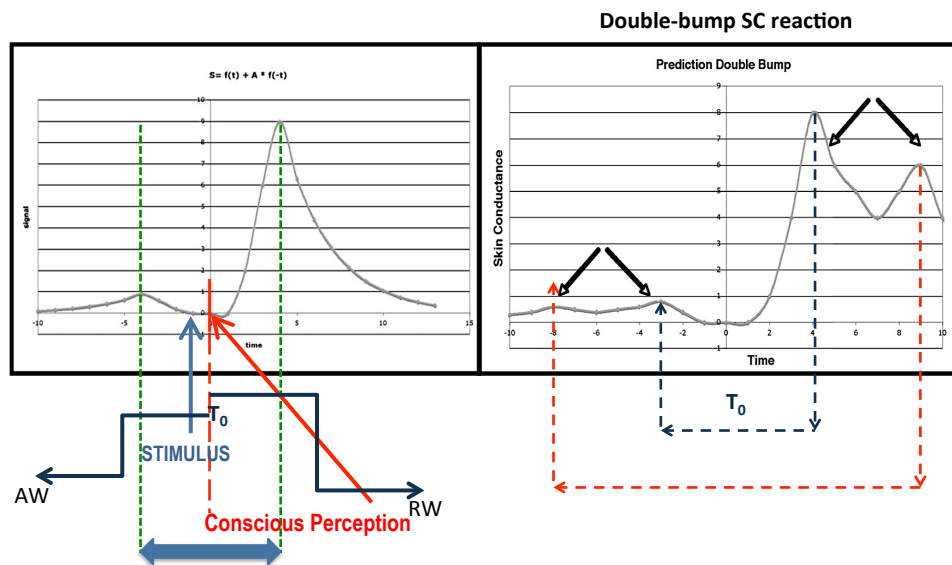
Bierman (2008) speculates about the role of global and coherent synchrony of neural firing events in the parallel sensory processing preceding the advent of Qualia, suggesting a link between the restoration of time symmetry in conscious brain and some form of this global

coherence. Building his experimental protocols on skin conductance determinations at different points in positive and negative time as referred to the stimulus onset, Bierman finds, besides the expected $S = f(t)$ signal, a time-advanced symmetrical one representing a "weighted mirror image" of the advanced equivalent observable after the stimulus onset. Provided the stimulus is consciously observed, the time symmetry is restored as a function of the total brain volume involved and the relative neural network firing coherence index "A": $S = f(t) + A \cdot f(-t)$

The retarded and the advanced wave functions are time-symmetrical around the moment of conscious experience and not the one of the exposure to the stimulus (at a time differential of about 350 msec according to the Libet data, 1979).

The Bierman experiments are easily replicable for further investigations on the psychological term implied in this time-symmetry restoration, using EEG-reflected coherence measures associated with fMRI volumetric ones about the Brain volume involved. In terms of Quantum processes, the neural firing coherence is maintained as a boundary condition for the instantiation of the Bierman time-symmetric process, as we shall see shortly, by the Zeno Quantum Effect (ZQE).

Bierman CIRTS



An outstanding experimental study on Consciousness Induced Restoration of Time Symmetry has been reported by Pr. Bierman, Netherlands.

1. Symmetry of physical laws under time reversal transformation is broken by the cosmic disequilibrium between multiple particle coherent absorbers and transmitters. Bierman proved that this symmetry may be restored in certain conditions, such as in the presence of Consciousness bearing structures - where an increased concentration of Bose-Einstein condensates is assumed to build up, proportional to a global coherence index displayed by correlated brain activations.

2. Bierman used EEG-derived coherence measures corroborated with fMRI assessments of the brain volume involved in the conscious observation of a stimulus - as related to recorded skin conductance variables.

3. Conscious perception is delayed by slow neural transmission.

4. Amazingly enough, the plot put in evidence a time-symmetric advanced wave as a mirror image of the expected retarded wave.

5. Please note that the time symmetry is formed around the moment of conscious perception of the stimulus, and not of its onset.

6. Compelling enough, a double-bump skin conduction reaction is also projected into a correspondingly structured advanced wave.

7. The mirror image reflects the later bump as preceding the earlier one upon the negative timescale involved.

In long run, quantum predicted distributions are disturbed by the mental hidden variable at work. As Bierman eloquently puts it, any counter-bias rebalancing effect for such disturbances would yield new disturbances in higher order distribution patterns - a remark strongly consistent with our Bohmian interpretation of hierarchical Information complexity domains in SQ causation chains.

Whether the "presentiment"-type advanced wave function in $[-t]$ coordinate may correspond only to actual future actualization variants rather to probabilistic ones (a conjecture favored by Targ (1998) but not experimentally confirmed by Radin (1988)), would get a sufficiently consistent explanatory treatment in the framework of Stapp's bi-interventional model of mental determinants in the cognitive Quantum process, as we shall see further on. Worth of a special emphasis at this stage of our inquiry, is Bierman's observation that the reversal of the second law of thermodynamics in the quantum processes here addressed by the time-reversal vector lead to a gain in Information (entropy decay) in the otherwise random systems (described in von Neumann's "process 2"). This observation does correlate both with Stapp's tripartite von Neumann diagram, as well as with our postulated entropy-conservation universal law. As we shall argue shortly, the Information input yielding the biasing of the von Neumann process 2 randomness originates both in past energetic processes and in future actualization potentials of Information consistency - running in SQ domains.

III

THE THREE PREDICTIONS OF THE SQ APPROACH CONFIRMED IN CLINICAL SETTINGS

Provided the SQ approach we defend is an accurate description of the brain/mind interaction, we can predict the following consequences:

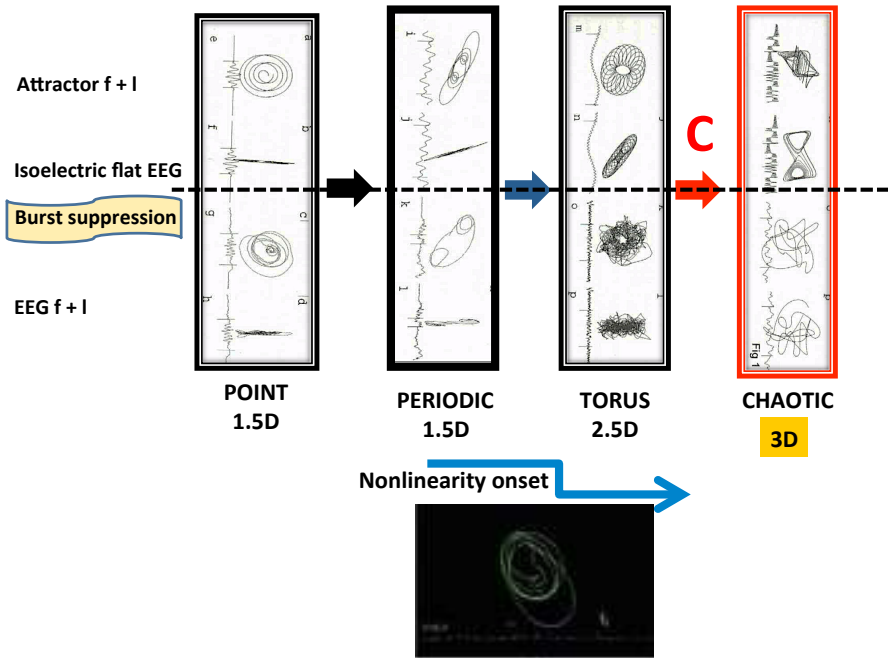
- A conscious brain would detectably display the hyper-dimensional background of its functional extension into Information domains.
- The causal determinacy of Conscious Self upon energy-driven lower brain structures should be reflected in observable macroscopic compensatory morphological changes in brain structures if required for stabilizing cognitive efficiency.
- Consciousness would predictably conserve its integral functional spectrum in its disconnected modus operandi from Brain's Quantum integration mechanisms into its physical environment.

Let's see how all of these fundamental predictions are experimentally and experientially confirmed by irrefutable clinical data:

III-1. The Walling-Hicks data

A brilliant experimental work done in clinical settings, which proves the hyper dimensional function of Consciousness-supporting Brain, has been accomplished by Peter Walling and Kenneth Hicks (2009). It brings undeniable evidence for the contention that the percept (qualia) is a multidimensional construct in projective space.

WALLING-HICKS EEG ATTRACTORS



Hyper dimensional integration gradients into SQ-mediated Information fields are dependent upon the Quantum states of Brain.

Anesthetic impairments at low biochemical integration levels of Brain propagate in cascade-like dysfunctional arrays across the higher integration structures resulting in Brain's temporary disconnection from the self-conscious entity.

Let's follow the reversed process during the emergence from deep anesthesia.

The W-H SW recording 40 000 samples/sec is able to draw real-time graphic models of dynamic attractors corresponding to brainwave signals in subjects emerging from deep anesthesia to consciousness - allowing a detailed dimensional analysis of these attractors by applying the "Correlation Dimension" method.

1. In the deepest burst-suppression stage of narcosis, an isoelectric flat EEG is recorded.
2. Let's follow the 4 stages of progressive brain activation during the emergence from anesthesia as reflected by the relevant attractor (upper field) corresponding to EEG

patterns (lower field), both in frontal and lateral views.

3. After a first burst-type signal the plot is spiraling inwards toward a point attractor. The plot evolves in 1.5D.

4. The first stage of continuous low EEG activity with recurrent cyclic patterns yields a periodic attractor.

5. A further energized step signaling the gamma ascent effect yields a 2.5 D donut-shaped torus attractor. This signals the impending return of Consciousness.

6. The Brain activity's re-coupling to Consciousness is marked by the appearance of a strange attractor evolving in 3D, which corresponds to the onset of a full 5D function able to sustain Consciousness.

The subject is awaking from anesthesia.

6. We see a progressive nonlinearity beginning with the onset of the periodic attractor and increasing till the

In their monumental work *Consciousness – Anatomy of the Soul* (2009), P. T. Walling and K. N. Hicks succeeded to experimentally prove that perception is a multidimensional construct in hyperspace. During emergence from anesthesia, brain dynamics progress from periodic to toroidal to chaotic attractors in a step-like nonlinear fashion. This process is reflected also by the “Gamma Ascent” effect in EEG records. The apparition of 3D EEG attractor marks the return of consciousness, at a significant delay after the previous periodic and toroidal attractors which sustain biological automatic functions at low EEG power spectrum domains. The authors conclude that the conscious mind has to be seen as a derivative of sensory and memory data coordinated by nonlinear dynamics in imaginary multidimensional projective phase-space (the one which is the scenario of SQ coordination's running in a background of hidden variables - recently accepted also by S. Hameroff:

"HAMEROFF (post in JCS online): consciousness is occurring in the structure of non-local space-time geometry."

The Walling-Hicks research results are of a paramount importance for an accurate understanding of the individual self-conscious structure and the Brain (as the interaction tool of the Self), with relation to an energy-defined ambient reality. They are strongly consistent with our comments for the 2009 "TSC" Conference, Hong Kong, regarding the true dissociation mechanisms during induced anesthesia:

From all the previously introduced considerations, it clearly results that consciousness is in NO WAY a collective effect of conformational dynamics evolving at some lower hierarchic implication level. The SQ paradigm aligns these categories along a reversed causation vector, which is allowed by the fundamental time invariance applying to the Maxwell equations.

From this novel perspective, the anesthetic collective inhibition of dynamic conformal changes in Brain substructures exclude brain responses to available Quantum configurations, as supplied by the SQ processes which evolve in the conscious Self, and Brain mediations of environmentally-generated afferent signals, which are aimed, by the faculty of attention, towards the aforementioned ultimate Sub-quantum processing structure - the individual Self. If there is no attention for the thing or event, that thing or event does not exist for the observer.

Hyper dimensional integration gradients into SQ-mediated Information fields are locally dependent upon the deterministic quantum states of Brain, which are in turn, hampered during anesthetic impairments of regulating London force effects, at the level of nanoscale biomolecular background events .This explains why lower subsets of organism integrations, governing vital functions, are preserved during anesthetic depth values, which are able to disconnect biological ground processes, from their projective space consciousness correlates. As an unavoidable, absolutely compelling consequence, conscious processing of environmental events may freely evolve during this disconnected state, leading to SQ memory patterns which are being dynamically stored in the projective space-

time, and subsequently re-supplied to the individual, for post-anesthetic recollections. Such recollection instances are abundantly described in the literature as “paranormal events” of the OBE and NDE kind.

Just as at biological resolution level, chemical energy patterns, have Information propagating efficiency, unimpaired conformal functioning of collective neural assemblies are required for up-scaled integrations of Qualia and provide meanings into the Self, during its coupled modus operandi to Brain. Anesthetic impairments at low integration levels propagate in cascade-like dysfunctional arrays across the higher integration structures of Brain, resulting in Brain’s transient functional dissociation from the self conscious entity. The duration of such instances may vary from consciously unperceived micro-blackouts in the stream of consciousness, through short-term neural hypoxic effects, controlled medication efficiency windows (anesthesia), to long-term so-called “vegetative” preservations of vital functions. Beyond this connectedness reversibility threshold, experimental and experiential evidence strongly supports observations of unimpaired cognitive functions, which are operating their own, separate, SQ integration domains, which are able to interfere with anesthetic influences, by lowering entropy states, in both biological and non-biological systems.

During anesthetic interferences, short-term memory fixation components, with biomolecular background requirements, may be impaired. Complex peripheral Information inputs may circumvent this integration level, resulting in extra-sensorial transmissions and subsequent coherent patterning of SQ maps, occurring at the highest level of the observing Self. Such imprinted configuration patterns may act as induction fields for subsequent Quantum replication effects in the Brain, during the post-narcotic phase, resulting in long-term memory blueprints which may be recalled by accessing the proper Quantum connectivity pathways, which are normally involved in Consciousness/Brain coupling functions. Such memory contents preserve special integrated aspects from their non-neural extrasensory recording pathways, supplying the specific heterotopic recollection parameters which define OBE and NDE reports. Such reports gain phenomenal reliability from the perspective of our SQ integration concepts.

III-2. The Zeineh Data

A persuasive study performed on neuro-morphologic aspects associated to Chronic Fatigue Syndrome (CFS) has been reported by M. Zeineh (2015). In patients displaying symptoms of CFS, the abnormality found in the arcuate fasciculus of white matter connecting the Wernicke and Broca's areas was associated with a thickening of the gray matter they connect. As white matter of Brain is fundamentally an Information transference substrate for Information-processing grey structures, the compensatory correlation found in this research strongly supports the concept of self-directed neuroplasticity. Cognitive efficiency is stabilized by morphogenetic effectors and their task-oriented causally modulating effects on brain structures.

Similarly, S. Begley and later the fMRI and PET scan-backed studies mentioned by J. M. Schwartz eloquently support the fact that mindfulness is a key determinant in activating neural processes (D. Passingham, I. Robertson, M. Corbetta, N. Kanwisher etc.).

III-3. "Anomalous" phenomena

From a physical perspective, the implicating potential of sentient SQ flux systems operates by the fundamental homogenous transmission medium invoked in recent explanatory attempts for Ken Shoulder's Exotic Vacuum Objects (EVO) or R. M. Kiehn's nanometer vorticity distribution patterns. Ether-bound information flow as self-consistent ontological system was experimentally proved by biasing the SQ "Potentum" (J. Firmage) with an asymmetrical charge distribution - be it done by fast explosive electrical discharge applied in high voltage environment or keeping EVO in EM field-free space - which will result in an EVO charge variation gradient reflecting the Information flux potential decoupled from any background of classical matter.

Hence, the self-conscious structure's natural ability to preserve its total cognitive complexity range in its own SQ regime, after decoupling from physical brain's coherence

range. A similar explanatory track would describe its instrumentable quantum modulating efficiencies on non-linear, chaotic, or random systems, resulting in orderings thereof.

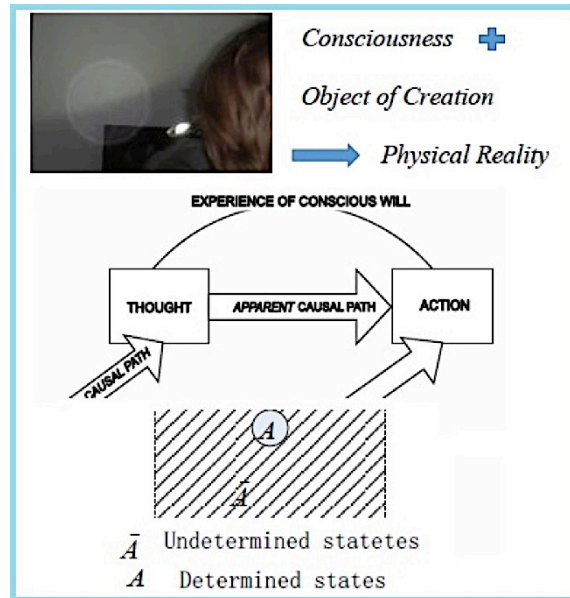
An overwhelming database recently signed by high-credential scientific representatives of academic research can be found in the literature, attesting the Self's ability to display its stabilized integral cognitive spectrum in dissociated states from the Brain's Quantum mediation (recent studies on OBE, NDE phenomena statistically confirmed in multiple clinical settings).

The updated post-materialist paradigmatic approach that acknowledges hitherto wrongly labeled "paranormal" phenomena as valid fields of scientific study is strongly emphasized by a most recent declaration of Prof. G. Schwartz, professor of psychology, medicine, neurology, psychiatry and surgery at the University of Arizona:

"Some materialistically inclined scientists and philosophers refuse to acknowledge these phenomena because they are not consistent with their exclusive conception of the world. Rejection of post-materialist investigation of nature or refusal to publish strong science findings supporting a post-materialist framework are antithetical to the true spirit of scientific inquiry, which is that empirical data must always be adequately dealt with. Data which do not fit favored theories and beliefs cannot be dismissed as priori. Such dismissal is the realm of ideology, not science." ([Is Consciousness More than the Brain? | Interview with Dr. Gary Schwartz](http://conscious.shift.over-blog.com/2017/03/is-consciousness-more-than-the-brain-interview-with-dr.gary-schwartz.html), March 9/2017, in <http://conscious.shift.over-blog.com/2017/03/is-consciousness-more-than-the-brain-interview-with-dr.gary-schwartz.html>).

A similar support for our novel approach outlined in this paper can be found in Huping Hu's prestigious *Journal of Consciousness exploration and research*, Vol. 6, No. 7 (2015), attesting that Consciousness is at the source of all physical reality:

Will and Intent effectors as embedded in implicate order causality



Source: Explorations on Free Will, Channeling, Mystery of Orbs & Intelligence, *JCE&R*, 6/7, 2015

Moreover, in their most recent paper *Explaining psi phenomena by applying TDVP principles: A preliminary analysis*, Prof. Vernon M. Neppe MD, Ph.D., FRSSAf and Prof. E. R. Close, Ph.D., PE refer to advanced study concepts of Psi phenomena in a strongly supportive way for our own views:

"Extraordinary claims such as psi might require extraordinary evidence, but this has frequently led to biased interpretations of psi, with outright rejection without examining the facts: the overwhelming frequentist statistical data for the existence of 9 different kinds of psi phenomena showing less than one in a billion against chance statistics plus the tens thousands of reported spontaneous cases of the various manifestations of psi and its, at least rare, occurrence in the majority of the population, strongly support the ostensible existence of psi. Even when confounding aspects are included, the data remains solid. We argue there is a strong link of psi with what is non-local from the relative framework of our usual experience where the nonlocal and psi appear "beyond space and time." (Neppe & Close, 2015: 48-49).

IV

EXTENDING THE H. STAPP MODEL FOR CONSCIOUSNESS

SQ. Premises.

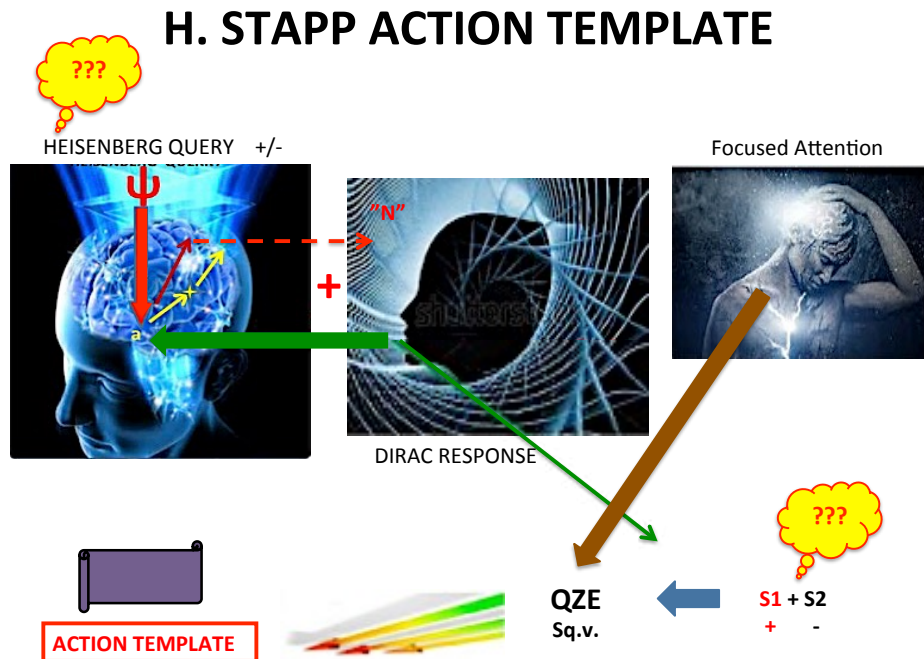
1. In SQ regimes velocity values are comprised anywhere between Zero and Infinity.
2. Information is a hyper dimensional component of space (manifest matter/energy) and is stored and transported by SQ structures.
3. Time originates in (and reflects the) speed of SQ fluxes - it gets irrelevant at infinite velocity and becomes infinite at zero velocity. Intermediate values of time speed (a SQ flux property) correspond to the descriptors of the Information correlated to them.
4. Speed of Light - c - is the upper limit of energy transport (the Quantum domain in "physical time") and at the same time the lower limit of pre-energetic variants of SQ Informatory determination pathways.
5. Information is conveyed across different SQ structures by resonant speed ratios established between their respective velocity (Information content) signatures.
6. Both Gamma and Kappa Psi effects are the expression of temporal bridges setup between two different velocity time flows as their ratio - where one of the reference values may be coincident to physical time speed (be it Quantum neural activity or any high-entropic EM media able of entropic decay under the control Information agent of lower entropy index).
7. Any Informational process is an interplay between a Query (Q) and a Response (R), which complement each other and thus preserve a null value of the interaction process as embedded in higher domains of Informational guidance. In physical time the causal aspects of both terms *are interchangeable* as a result of their evolving in the ratio domain of two speed values of time flow. The same principle applies for Time speed gradients higher than c , resulting in communication effects between non-physical intelligent structures. A limit-

case of this principle is the Psi/Quantum interface with biological or non-biological energetic constellations.

8. In non-physical "hidden time variables" that flow in both directions of physical time flow, Q is always R-predetermined, but may actualize at any physical time position if related to the R, according to the time flow ratio between the domain of the Informational process and Physical time. A "primary statement" (R) evokes the corresponding Q in the receiver of Information, in a synchronous or delayed time position; this doesn't invalidate the presence of both as complementary terms of the Informational equation as a fundamental law. The actualization into manifestation is both a result of probability functions evolving "toward" it, and their source supplying the integral spectrum of probability variants available for the specific event to be fulfilled.

IV-1. Toward a SQ- extended Stapp formalism addressing Brain's involvement in cognitive functions based on the hereby introduced concepts.

Stapp Model's Basics



It's beyond any reasonable doubt that the currently most widely accepted model is the one proposed by H. Stapp.

- Please allow me to briefly remind you the basic guidelines of Stapp 's interaction sequence between the Self-conscious entity and the NATURE it is immersed in (meaning the physical world obeying Quantum Laws).
- Self probes possible outcomes of a condition it encounters emitting the "Heisenberg Query" in a yes/no binary code.
- Nature selects the acceptable option between both. If it is the "yes" variant, Nature returns it to the Self as the Dirac Response.

Self strengthens this option by focused attention, which stabilizes it by the QZE obviously

based upon superluminal SQ velocity repetitions, thus building up an Action Template in Brain.

The originally co-present second option denied by the Dirac response is extinguished.

The Action Template patterns the effector neural network for performing the chosen feedback into nature, thus injecting into the material world a change.

Please note, that Stapp's formalism leaves open the question how Self selects the content of its query and how "Nature" selects its choice. These are the elusive but most fundamental components of the Stapp model, which need to be solved. This solution is our contribution to the Consciousness Studies, as we shall see now.

As it seems to happen in his current formalism, H. Stapp's leaves open the question about the non-physical origination, placed in the domain of causally efficient hidden variables, the will and free choice.

Moreover, Stapp ascribes the Dirac Choice to a very fuzzy and poorly defined "nature's response". Thus, in Stapp's description, both the boundaries of the von Neumann chain are ontologically indefinite, leaving the already well described Quantum processes contended by such "choice" boundaries (Process 2) the only component obeying known Quantum laws.

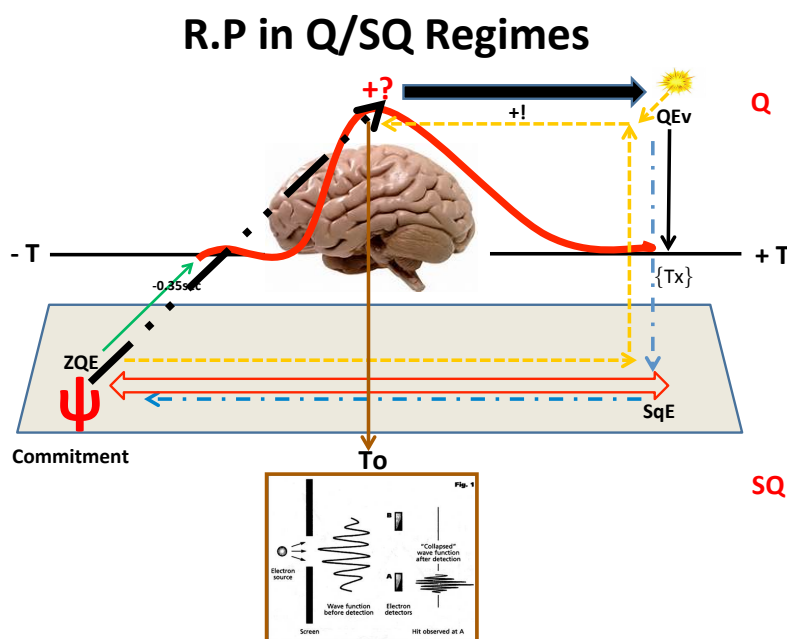
Our SQ approach claims to supply a first acceptable extension of Stapp's poorly defined details of the von Neumann Quantum chain, toward an accurate deterministic defining of the very sources both of the Heisenberg and Dirac choice events. Amazingly enough, both turn out not only to be of the same Information consistency, but representing the terms of a coordinated global meta-process by their inherent causal link.

Further on, we may suggest a similarity between Stapp's "action potential" and a certain "*reception potential*" ascribed to the primary processing of parallel sensory multimodal inputs. Our understandings rely upon the differential values existing between the SQ Informational high-velocity propagation domains and the Quantum-limited velocity in the

neural processing that runs as a correlate under their control.

The Stapp Quantum mechanism for the setup of the readiness potential in prefrontal cortical areas actually runs in Quantum domain. In order to complete our understanding about the parallel processes running in SQ range, which allow for the setup of the Stapp chain, we suggest a careful consideration of the following chart:

Objective Q/Subjective SQ regimes in time symmetry



The readiness potential (in red) is the Quantum observable process displayed in classical electro neurological terms. It runs in both $[+t]$ and $[-t]$ Quadrants of the Quantum domain. Nevertheless, its true origination can be described only by considering parallel SQ processes extending also in both Time directions.

An objective Quantum event, predetermined by super implicated orders of reality and actualized in the future, $X+$, (corresponding to Stapp's "absorber" agent) has a SQ structure hereby represented by a projection into SQ domains in both its possible actualization variants ($+/-$ stands for yes/no). This SQ structure is projected by a Po projection SQ operator into a time-symmetric virtual subjective potential "*commitment*" postulated to arise in a conscious self. This projection runs at superluminal velocity (not prohibited in the

SQ regime).

The subjective, virtual "commitment" structure ($y+/y-$) assisted by the objective event potential Q_e exerts a trigger effect in negative time (~ -0.35 sec) for initiating a serial bundle of readiness potential action waves in the prefrontal cortex. At the peak value of the thus initiated RP, (T_0), the virtual potential structure $y+/y-$ places the request for possible validation of the initial Po-transferred options. This request is the very time-reversed counterpart of the preselected confirmation in actualization range $+t_1$, completing the causal loop in the time symmetric frame of reference. Of course, the evolution of the readiness potential obeys the low-velocity constraints in physical energetic range, while the Information operators (at this stage P1a) may virtually act in quasi-null time. The "conscious query" corresponds to this T_0 Quantum peak activity of the RP - $[+P1b]$.

The actualized event's quantum blueprint projects at this stage a second "confirmatory" signal in reversed time vector, signal that acts upon the still evolving RP.

As a consequence of this impact on the RP, the SQ conscious structure $y+/y-$ reacts to P1b by radiating a rapid string of projection operators P2 which stabilizes the P12b Dirac response by the Zeno Quantum effect, leading to the collapse of the Schrödinger function into physical action that corresponds to the double "confirmed" informational pathway.

Of course, for the virtual negative probability variant $[P1b-]$ of the Dirac choice to the Query, no P2 Zeno stabilizing effect is issued.

Please note that all the processes running in negative time domain, as defined by the conscious participant instance in both directions of time, evolve in the self-aware entity's unconscious range, while the intent-related component (will effort) evolves in positive time, controlling effector neural pathways - as needed by the physical integration of the Self into its energetic environment.

The self-directed neuroplasticity reveals that direct mental effort affects systematically and predictably cerebral functions by a clearly obvious causal function which is after all the basic one in all physics. The interference of mental choice data with the quantum status of a

system (brain or else) at any given point (plane) of time may be included in basic mathematical formalism similar to the one describing intra-atomic phenomena - because at Quantum level SQ background processes work as hidden variables following their own dynamic laws.

In Brain, the ion conductance channels and trans-synaptic chemical dynamics obviously obey classical Quantum formalism.

The origins of conscious effort are not in principle untraceable (as suggested by Stapp). They are associated with the conscious entity's SQ Information structure working as an effector component of the non-local hidden-time SQ loop (described by Cramer's transactional interpretation of QM). In our extended model, "Nature's Dirac response is the informational origination trigger that acts in time-reversed vector *for setting up the particular Query* according to presets determined by higher implication orders of Information content. This is the mechanism at the background of the emotional resonant reframing and re-contextualizing in prefrontal cortical range by the original query that triggers the selective redirection of neuro-energetic response from lower limbic system. Brain's only task is performed by von Neumann's Process 2. This is the Quantum activity binding both information- controlled domains described in Process 1 and 3.

Therefore, we can't fully agree with Stapp's contention that the intentional action depends partly on the state of the Quantum system acted upon, included in Heisenberg's "space of action". We see in the effect of process 1 the consequence of the preliminary signalization emitted from the future space-time configuration by hidden reversed time propagation, able to render the intermediary Quantum chain responsive and aligned to the phase 3 Dirac choice, thus tuning the Brain's Quantum reactivity to the outcome state of the system already present in the intentional effort. Cancelling this loop (by cancelling the ZQE) is a correction option for inaccuracies in the retro causal output at the query level of the mental agent. In other terms, the accuracy of the SQ-mediated Process 1&3 loop is validated by the ZQE.

At classical physical levels Process 2 runs through nerve terminals and synaptic ion

channeling mechanisms leading to the coherent state of specific all-brain firing map required by the primary predetermined outcome - which is collapsed from the cloud of Quantum potentials associated with the Ca ion's behavior. In our view, Brain's action template originated in mental action, the von Neumann Process 1 is a really "free choice" only from the agent's perspective alone. From the SQ loop's perspective it is a controlled input variable aiming to complete the loop.

Further on, Pashler's parallel sensory processing that runs under micro-modulators is NOT an instant effect (neural ionic processes involved), but its *output* for further "post-perceptual" processing (by von Neumann Process 1) is received as a unitary structure, which once integrated into the global conscious Self "selects" the corresponding initiatory effect of Process 1. This is a complementary spectral array of SQ vectors acting upon the Brain's Quantum state sequentially - in order to fit Brain's temporal low-velocity processing needs.

The high-deterministic future preset condition is a multipotential probabilistic state sent backwards in time as a SQ substrate able to be acted upon by the resonant components of the Self, provided a readiness potential is in place. A bi-level SQ implication is at work, comprising both a super implicated origination of the primary Heisenberg choice and the implicated morphogenetic potential that makes possible (by the R.P.) a confirmatory response in Brain-mediated *modus operandi* of the Self. As in Quantum terms projection operators obey the $P=PP$ rule, the SQ input represents a double (multiple) projection operator initiating both the cortical brain subspace (readiness potential) and the Heisenberg choice's content related to its instantiation. These both are neural correlates of the conscious process evolving in the physical energetic realm of manifestation.

The SQ model allows both for the von Neumann/Stapp ZQE AND the causality violation at the level of Schrödinger probability collapse (Process 3). Conscious choice enters as an irreplaceable free input variable in the SQ retro causality projection system. Moreover, the SQ superluminal impact variant ensures applying strong and super-fast coherent pulses via ZQE, which decouple the system from its decoherent environment.

(sensory) input data by an attractor/resonant effect.

The neural network's coherence itself can be best explained by the SQ spectral decomposition of each component into a sum of Information-driven flux vectors, which align in a resonant outcome according to the main Information vector that has to impact the Quantum process in a pre-determined way. This resulting Informational complexity vector is able to recruit morphologically highly-distributed neural areas into a shared collective action required by the particular task in the given circumstance and specific position on the bidirectional timeline involved.

The result of this resonance is projected subquantally into Self as the accurate version of the originally fuzzy representation in precognitive range - P2 - at a delay corresponding to the slow neural processing (α). The "alpha" segment represents the Brain as statistical operator (reduced density matrix - $S(t)$ - under decoherence effects by preselected re-averaging of all non-brain degrees of freedom.

IV-2. A SQ - extended Henry Stapp model of causality

As well known by the Quantum physicists' community, the Stapp model implies Zeno's infinitesimal time freeze-framed instances, which accommodate imbedded change potentials if seen as pluridimensional time-derivatives. Past and future conditions are reflected in any time-plane as all the derivatives of the time-dependent function, leading to a deterministic formalism where "present" has Consciousness determination. The present plane is viewed as a fuzzy region of non-deterministic confluence of past and future signals, where the collapse of the Schrodinger probability function occurs in a blurred zone of time indeterminacy.

In the SQ regime associated with the third (informational) time derivative operating in the Stapp time window relevant for the mental determinism, no causality violation principle applies, as it is prohibited only in Quantum-limited physical range; it doesn't apply in SQ

domains where superluminal velocity information transports run in natural time-symmetric frameworks. Time symmetry collapses only at Quantum interface with energy-driven macroscopic reality.

Moreover, in a time-symmetric setting the causality vector is not violated in the usual sense, but reversed. Cause and effect are time invariant at this regime, as interchangeable semantic terms. The present plane's fuzzy indeterminacy central segment is the actualization instance of past energy combinatorials and future informational attractors that lead to the collapse of the Schrödinger function into actual reality at this specific position. In this particular perspective, the "block universe determinism" may be an appealing variant supported by the retro causation effect. Physical conservation laws are preserved in the energy-driven sector (past/present) ending by the collapse of the probability function, but don't apply in the Information-driven determinant system (present/future) - where complexity of Information super implicated domains are in control by retro causation SQ vectors.

The very meaning of causation gets obviously blurred if both the "emitter" and "absorber" positions in the in Cramer's transactional scheme are recognized as emitting compensated Information-laden SQ flux radiation beams in both time directions. In this realistic scenario, each beam has a simultaneous "query" and "confirmation" functions across a couple of adjacent time windows, thus perpetuating a superimposed continuity of action in both time directions. The moment of actualization is the handshake of the "why" and the "what for" - in a perfectly harmonic equilibrium beyond time and space, embedded in pure Information determinacy that connects different levels of Informational implication domains. This is the standing wave around the Schrödinger collapse in the Cramer's transaction window.

How this SQ formalism is accommodated in its macroscopic environment as described in Quantum physics and its classical approximation variants?

Eberhard's rejection of superluminal information transport modalities are based on classic Quantum formalism. In the SQ regime, superluminal velocity Information carrier systems are at work, ranging up to infinite velocity values. Moreover, the Cramer transactional

interpretation - as explained above - does not violate classical causality inside the transaction field, which is embedded in super implicated orders of information complexity, which allows for superluminal information-based retro causation.

We can also certainly invoke in this context Weinberg's small non-linear corrections to standard QM, as well as J. Polchinski's (2012) non-linear effects that allow for superluminal time-reversed communications. SQ flux superposition may well originate such nonlinearities in Quantum formalism in an extended framework of enforcing correlations.

H. Stapp's genial insight correlates the Heisenberg Choice in the von Neumann event trilogy with intent, conceived as an effort toward a conceived experiential feedback or its delayed monitoring. Nevertheless, he leaves open the question about the non-physical origination, placed in the domain of causally efficient hidden variables, the will and free choice.

V

NEW SUB-QUANTUM PERSPECTIVES IN PARAPSYCHOLOGY

Brain-mediated and non-mediated Information Processing pathways

V-1. The Brain

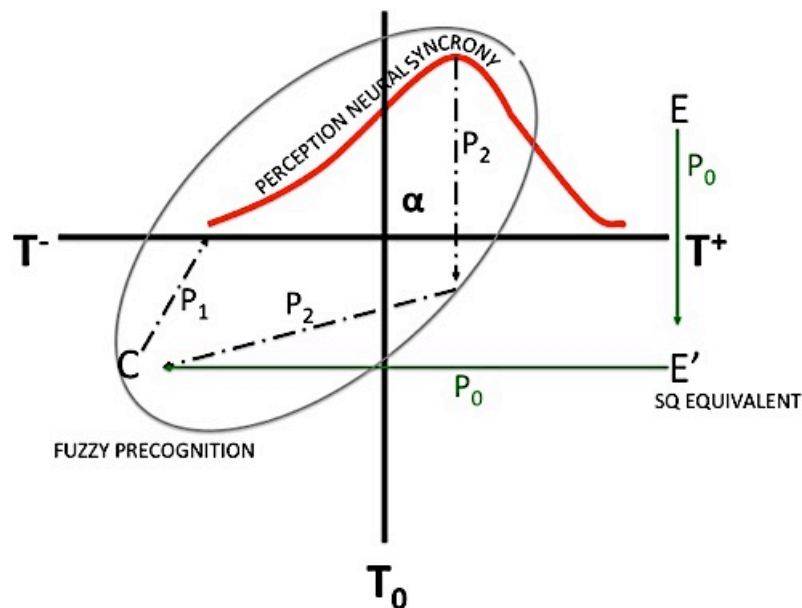
The morphogenetic patterning of the brain is performed according to its complex intended functional requirements as a multidimensional Information processing apparatus.

Brain's morphogenetic setup is itself an Information-controlled one, mediated by endogenous DC electric fields, magnetic fields and ultra-weak photon emissions, which operate in the large-scale biosphere Information flow, where Earth's geomagnetic and geoelectric fields are also implied in later stages in modulating neural activity. Biosystems are responsive to exogenous EM signals that are involved in the information flow during morphogenetic patterning (by short circuiting concurrent endogenous influences). Neurites may detect and integrate multiple morphogenetic guidance cues simultaneously (Rajnicek, Britland & McCaig, 1997).

Information supply to functional neural systems is also ensured by a wide range of ultra-weak photons (UV, IR range operating in mitogenetic radiation spectra, too) cooperating in their action with ELF and high frequency EM signals able to carry SQ-supplied Information over biologically relevant distances. Energetic mediators of Information for neural activity patterns may affect DNA expression by changing Quantum tunneling rates between nucleotides, enhanced by the centriols ability to detect IR radiation (Barnothy, 1969). Most important to clearly emphasize that biological effects of these kinds of subtle interactions do not depend on the amount of energy introduced into the system, but ***on the amount of Information*** carried by them, which leads to specific redistribution patterns of the energy contended in the system (Presman, 1970). This conjecture strongly supports our SQ

V-2. Quantum Field Dynamics in "Paranormal" Events

Gamma-Psi Pathways



The SQ information receiving non-energetic pathway

Brain projects Information data on linear time sequencing by the interposition of neural biochemistry and energetic equivalents.

Therefore, Brain correlates described run in a complex past/future context.

At SQ range of Information storage, transport and processing at superluminal velocities, the time-distribution of events doesn't apply. Information processing (retrieval-processing-emission) is an instant effect if seen from the conventional ST perspective.

The perceptive sequence P1/P2 neural synchrony is absent (Fig. previous), as the E' SQ event is instantly conveyed in its integral accuracy to C by Po. No "fuzzy precognition" required as relaying instance for Information. ESP is a bypassing of time-consuming neural mediation and runs in null-time (telepathy) or even follows negative time vectors

In this parapsychical regime, C may perceive both a SQ-reflected "Physical" E and/or an Information event E' without physical equivalent. This double-source ability is the signature of discarnate entity's cognitive function. Discriminating between both variants is performed by voluntary focus of attention (which is a fundamental C function). E' events are patterned in C subjective time and may or may not be shared with different C entities, via "collateral" telepathic links set up by each one's attention function.

The same applies for Space distribution, which as another patterning tool of the Self for Reality, operates as reference frame for its activity as "subjective" space (e.g. dreams or ASC conditions).



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effector instances or direct PK phenomena.

Referring to the diagram of SQ pathways for volitional acts, we have to consider that all the components pertaining to the setup of the readiness potential in brain may be circumvented in its missing condition:

Regardless to the origination of the predetermined result in physical domain ($X+/X-$) or in the Sub quantum one ($X+1/X-1$), the relevant Information is conveyed to the volitional Self ($Y+/Y-$) along the P_0 vector, initiating thus the content of the volitional act as fitting predetermined results already preset in imaginary time lines (Psychic time flow). This process is marked in the diagram as the "Sigma1" shunt.

Circumventing neural energetic pathways implied in the setup of the readiness potential and the Zeno Quantum Effect (reactive to the $P1b+$ in Dirac choice response), a "SIGMA2" shunt unmediated SQ response is issued by the conscious Self as volitional act (perceived by the Self as free will as a consequence of the temporal wave's instantaneous feature, Trajna) - targeting either the future physical constellation $X+$ or its SQ equivalent $X1+$ (in non-energetic regime).

The "Sigma2 shunt" response (the volitional act) may be subsequently perceived by collateral information links related by attention to $X1+$ by different asomal entities, too, provided they focus attention (perceptual orientation) to the Sigma2 vector according to both implementation variants described for Informational reception modalities.

V-3. Experimental Evidence of Time-Inverted Meaningful Signalisation (ITC)

Worth to be mentioned here are the convincing experimental results of Mrs. S. Rinaldi (Sao Paulo, Brazil) statistically processed by Eng. A. de Carvalho Borges (computer sciences) and submitted as her mastership graduation thesis (*The communication with the dead - from cave to electronic equipment*).

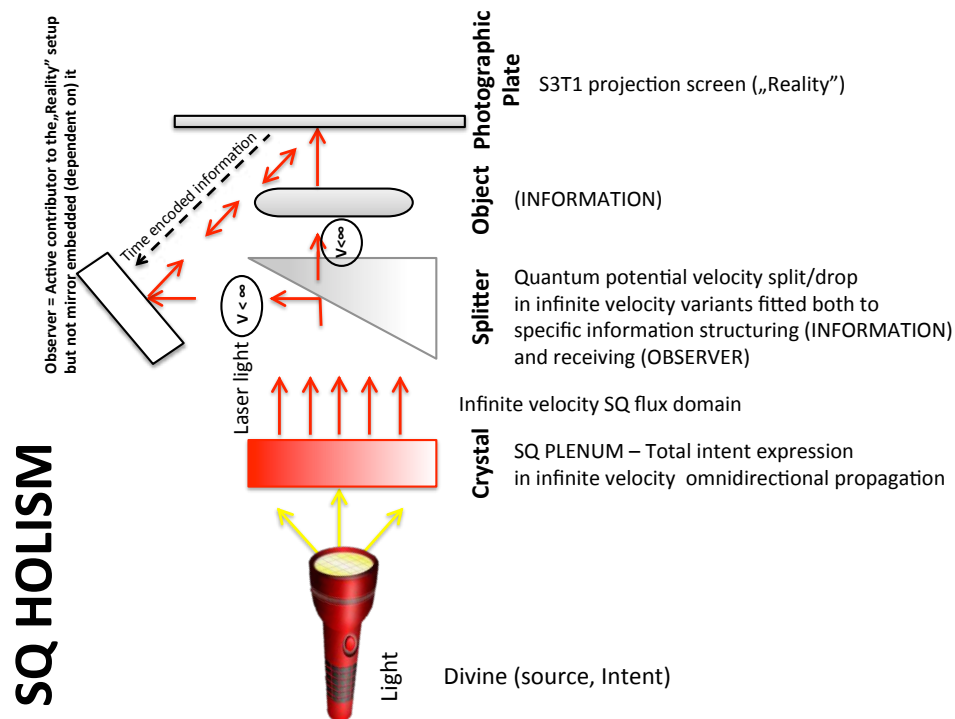
This research yielded an astonishing proportion of 35.6% from the replies to questions as delivered before the question verbally expressed.

VI

SUB-QUANTUM HOLISM AS GENERAL EXPRESSION OF QUANTUM SENTIENCE

Our approach to the mind/brain interactions is fundamentally a SQ Holistic one. We try to make this applied concept more accessible for general understanding by the hereby presented diagram, roughly reminding the creation process of a hologram:

Sub-quantum Holism diagram



Here Observer stands for the nonphysical self as an active contributor to the setup of "Reality" without being itself embedded in it, by a double emission/reception act of the same Information that is projected and stored in the four--dimensional physical Reality (Brain) by time-symmetric EM/graviphotonic mediators described elsewhere in this paper. The time-encoding of the Information implying Observer is performed in hidden variables of time acting as described in Cramer's transactional interpretation of the QM.

The diagram also displays the subluminal velocity regime of neural conduction responsible for informational input and transport in neural networks, reached by the drop of velocity from close-to-infinite values in SQ flux domain.

Moreover, it illustrates the transition process from the SQ Plenum as total intent expression in infinite velocity omni-directional propagation variants to Quantum-potential sensitive values detectable by energetic sensors in Brain's Quantum activity.

[Obs: The bottom half of the diagram illustrates concepts that are beyond the scope of our present concern in this paper].

VII

DISCUSSION

The Mind/Brain interface and interaction is presented here in a new perspective inspired from the latest theories of Consciousness extended in the hitherto neglected realms of SQ physics.

The thesis is based upon the possible decomposition of a wave of energy or probabilities (lately interpreted as physically propagating ones) into an infinite bundle of SQ flux components storing and propagating Information at both sub-and superluminal velocities. Such carrier systems aggregate in increasingly complex patterns with specific averaged velocity indices according to their content's complexity range.

Eberhard's rejection of superluminal Information transport, based on classic Quantum formalism breaks down in SQ regimes that are governed by a different set of physical laws.

Though the Cramer transactional interpretation of Q.M. does not violate classical causality inside the transaction field, the transaction domain itself is embedded in super implicated orders of Information transference resulting in an Information-based retro causality in SQ terms. This reversal of causality is allowed by Weiberg's nonlinear Quantum theory which introduces small nonlinear corrections to standard Q.M. The same view is advocated in J. Polchinski's (2012) nonlinear effects that allow for superluminal time-reversed communication.

We argue that SQ flux superpositions are the background that originates such nonlinearities in Quantum formalism.

As a consequence, hidden non-locality is transformed into an empirical manifest property of the Quantum interpretation along with enforcing correlations it supplies. The PEAR explorations of statistical output distributions as functions of operator-

intentional presets led J. Donald (1976) to formulate principles of time-symmetric thermodynamics and resulting causality violations. Von Neuman's projection postulate doesn't contradict Schrödinger's dynamics if at the collapse point of the wave function a break in time symmetry is considered. In this context, intent-related operators control the forward dynamics of the energetic system.

Time symmetry and breaks of it obey a formalism defended by SQ theory, which offers an improved and more accurate context for the Wheeler-de Witt equation that illustrates how Time can arise as the property of a Quantum state in an initially timeless situation - a state corresponding to infinite velocity SQ dynamics. At infinite velocity propagation no energy is associated to the wave of pure Information, but as soon as the velocity of a propagation wave (which at infinite velocity is obviously a nonlocal entity) velocity drops below the infinite value, energy is created and carried by the slowed-down wave. At the critical point of speed of light, the complex SQ string of different velocity fluxes may interfere with physical energy systems by Quantum resonance. Further drops of velocity may gradually tune the associated Quantum complex to deep subluminal processes associated with neural conduction, where controlled time symmetry effects are provoked. High-velocity linear space processes evolving as Information-driven SQ phase-space functions may project into the linear subspace of neural slow phase space functions as allowed by the Zwanzig projection operator.

As at Quantum range to every differentiable symmetry generated by local actions corresponds a conserved Noether current, so if a system has a continuous symmetry, some corresponding quantities are produced, whose values are conserved in time. This effect correlates to the ZQE's maintenance efficiency on neural Quantum states that thus are rendered reactive to the sequential bivectorial impacts described in the Stapp/Cramer conjecture.

It's quite obvious that in time symmetric conditions, the cause and effect are decidedly interchangeable in their very definition. D. Marom et al. (2000) identified in time-reversal experiments with ultrafast waveforms (obtained by mixing spectrally decomposed waves - a procedure made possible due to the SQ spectral composition of Quantum), real-amplitude time-inversed waveforms based on phase conjugation instances. This is predicted to occur in superposition states of bidirectional time vectors

propagating Information contents of superluminal velocities achieved in the SQ domain, running between the mental source of the Query and its neural network's correlated coherent response.

Similar experimental results have been reported by A. V. Chumak et al. (2010), departing from previous protocols based on nonlinear phenomena (four-wave mixing) and achieving a time-reversed wave by spectral inversion associated to dynamic control (magnetic field modulation) of an artificial crystal structure while containing a propagating wave. A Time-inversion of an input of two spin-wave pulses has been achieved.

We emphasize that the Shannon relation between Information and entropy applies to the SQ interfacing of retro causation signals (Information content) and the super-coherence response of neural networks. The asymptotic equipartition property of the neural system's high stochastic output variants, able to select the actual outcome from a set of equal-probability variants of realization, gets biased by the SQ "query" informational vector propagating as a hidden variable in reversed time. This obviously violates *classical* causality, which turns out to be basically reversed (a conclusion granted by the symmetric equivalence of a function "f" with its inverse expression " f^{-1} "). The trigger information signal coming from the real actualization back to its required source in neural coherent states results in the breakdown of the Shannon entropy at this level. This effect is granted by the fundamental reversibility of Quantum logical gates in time.

If in time-symmetric context, the Feynman diagram allows for an Information-laden SQ bundle (comparable to a gluon) to associate with a superluminal antiquark that by collision with a Quark emits a retro propagating photon, which will result both in a physically detectable particle (electron) following neurotransmission vectors, and a retro-time propagating positron, which "informs" in a chain-like retro causation process "past" physical constellations about the parameters of future actualization needs. This corresponds to Cramer's bidirectional emission in time, occurring both at the "emitter" and the "absorber" boundaries of the time-slice accommodating the transactional process.

The causal enclosure is cancelled by the SQ spectral structure of the physical energy wave, an experimentally proved starting point for a more accurate representation of cognitive functions as related to neural processes. J. Brown's microgenetic theory (2005) can be validated in a fundamentally new theoretic framework, where his multiple developmental super implicated levels obviously correspond to our SQ integration mechanisms as described.

The mind/brain interface is reduced to a matter of phase conjugation by bivectorial time propagated complex SQ Informational strings. The coupling of high-velocity SQ information structures to slow-velocity neural functions is instantiated by the spectral decomposition of energetic propagators in their SQ flux constituents. In phase conjugation related to holographic or parametric pumping the resulting field has a reversed propagation vector but keeps its amplitude and phases. The wave re-emitted by a phase-conjugation (neural ?!) mirror auto-compensates any phase distortion, focusing on the initial source. Based on studies on stochastic Green functions, Ishimaru et al. (2007) proved that time reversal in random media (brain) rather than in vacuum results in enhanced coherence and super-resolution. The Brain's back-scattering enhancement effect may correspond to the "response" in forward time.

In medium-level neural network cooperativity, Sub quantum modules hierarchically organize and control, implicated levels of Quantum activity, in coordinated brain areas. These coordination instances are operating, at a maximum efficiency range. The "graininess" of representational patterns has to be found at the level of the Information-bearing infinitesimals, which are cooperating to form the Quantum map which functionally involves neural collectivities, where each cell participates into the representation, at its own SQ efficiency index. Freeman's collective behaviors are then a result of these collective Quantum activations. This activity has to be carefully distinguished from EEG patterns, which represent the general integration of overall Brain activities, into the planetary Schumann resonance-system.

Highly complex SQ-controlled neural interactions lead to suppressions of conflicting action potentials, by interplays between superposing inhibitory signals and proactive proxy attractors. Thus, resulting neural signal sequences are deterministically aligned to preselected and appropriate action templates, in the Brain. Of course, neural paleo-

structures of Brain are placed under a priority response regime, which is aligned to Quantum determinacy cues, thus ensuring favored implementations, which are survival value configurations.

Overlapping coherence bands mainly in affective spectra allow for EEG synchronizations of the kind reported in Montecucco's (2000) experimental evidence for empathic macroscopic resonance effects occurring in transpersonal affective connections. Such results together with the Nathal synchronous four-band EEG activation techniques resulting in the extension of coherence domain over different naturally uncoupled or non-contiguous bands, as well as the Hemi sync induction by external frequency modulations imposed upon the electric activity of Brain - are strongly supportive for our interactive view between Information coherence domains and macroscopic EM-encoded correlates of neural activity. This contention is strongly supported by E. Jovanov's ascribing higher levels of integration to lower EEG frequencies based on experimental evidence for prefrontal and frontolateral transpersonal EEG pattern synchronizations in delta and theta range.

Both the highly controversial quantum-uncertainty principle (R. N. Boyd, H. Dehmelt) and H. Stapp's action-template superposition states reduced by the Dirac response originating in higher control levels of Information content are to be seen as sequential organizing effects run and made possible in principle by the active Information inherent in the system's deterministically changing Quantum states, pointing toward the sequential collapse of the probability spectra at different points in time. In our view, Quantum mechanical effects are but expressions of underlying Sub quantum purposeful determinacy chains functionally linking different sets of deterministic Information control via the "Quantum jump" suppression of nonconformal components to the overall "sense" of the process at key neural positions.

This important insight leads to a highly sensitive epistemological position of Brain at the crossroad of physical reality and the differential Information complexity gradients ascribed to non-identical cognitive implication orders.

From this elevated analytical perspective, Brain works as an information-transduction system coupling classical matter to various implicating orders of Sub quantum

Information consistency inside the efficiency range limits of its own phylogenetically determined coherence regime and ontogenetical morphogenetic patterning by morphic modulators embedded in hierarchical formative matrices.

Thus, a perfectly coordinated deterministic control is implemented upon the unfolding action templates involved in neural activity, underpinning the overall “logical” outcome of Consciousness-related Quantum processes and the elusive feature of phenomenal continuity of Consciousness. Information subunits aggregate, in both directions of the Time vector, into an experiential “nowness”, accessible to the Conscious Being. At the same time, this process provides the global reference frames for mnemonic structures, which are stored in atemporal Information fields, which are actually required for setups of specific connection meanings. Such events involve Quantum non-local effects, originating in instances of space-time-free hyper dimensional couplings, of the SQ Units to Information fields, implementing in this way a highly more efficient communication system than the one predicted by standard Quantum entanglement schemes.

In H. Stapp's words:

"The brain constitutes a field of deterministically evolving tendencies for the occurrence of conscious events, each of which chooses from among alternative courses of action evolved by the brain." (Stapp, 1996: 194).

Bottom-to-top chemically-based biogenesis theories have to be dropped by now, to be replaced by the more accurate Informational Regulation tenets, which apply, without exception, through all scales of manifestation, as all physical manifestations are controlled by Information provided from outside the given system.

Kozyrev's time density fluctuations along the causal vectors may be tightly related to our SQ density concept as applied to the Informational parameters of different cognitive implication levels functionally interconnected by the uncertainty-suppressing Quantum jump, which is ultimately initiated at the Informational background of Brain's Quantum efficiency. These information signals, which are regulating Quantum processes, evolve as hidden variables, in the physically inaccessible domains, as defined in the Compton Radius Vortex, by a lower metric value than the Compton wavelength itself. This signalization control involves coaxial superposition between contradicting time

propagation vectors, thus involving retro causation effectors originating in preselected SQ matrix fields of higher implicated orders.

Per M. Hadley's experimental results, ether torsion fields are not bound to conventional time or space. This corroborates with Kozyrev's tenets regarding the "energetic aspects" of time, capable of affecting the spins of elementary particles, as well as behavioral patterns of macroscopic bodies.

In our hereby suggested model, an "either/or" ontological exclusion is conceptually bypassed while protomental micro constituents of reality are seen as proactive transdimensional extensions of pre-quantum entities and the various flux patterns thereof. Some controversial puzzling aspects of panprotopsyism are solved in the super implicated order of sentient data unfolding from the presence of protopsychic properties at the very fundament of reality.

We strongly support a monistic reinterpretation of the dualist interactionist view of mental and neural functions, while both of them are preserving ontological autonomy.

L. Storm and A. Rock's (2009) studies equate the Ganzfeld protocol efficiency with (Shamanic-like) imagery cultivation techniques for psi-conductive ASC conditions. In non-sensory-deprivation instances the conscious Self is able to dissociate from its neural bounding constraints, defying Honorton's noise reduction requirement for ASC. This principle has wide-reaching interpretation potential for the integral preservation of cognitive functions in asomal modus operandi of the Self, where neuronal Quantum mediation between the query and response boundaries of Information processing is bypassed. In this timeless and nonlocal range, cognitive functions evolve in a self-referent framework of Information consistency, efficiently replacing neural anchorage and filter effects that interfere with eidetic Information-based Qualia during the Self's physical integration into environmental modulators evolving in entropic time vector.

Wide and far-reaching explanatory options may be derived from the SQ approach we defend, both for "normal" psychological observables and the ones related to hitherto unexplainable ones in the current materialistic paradigmatic framework.

VIII

A FEW CONCLUSIVE REMARKS

In our hereby suggested model, neural network -related components of cognition are proved to have an increasingly low-level causal significance, paving the way for our ontological reversal of causal primacy that is still finding wide academic preference based on false theoretic assumptions and subsequently misleading biased interpretations of experimental results.

Brain is a product of a morphogenetic effect of the first-degree information complexity, its work being quantally adapted for processing higher orders of information complexity then its own.

The Quantum process in Brain is the specific expression of multilevel integrated causal domains running down to the SQ infinitesimals and up to the overarching cosmic harmony.

Information is packed in nonlinear complexity gradients starting with the hyper dimensional SQ unit that comprise matter and energy coupled to non-differentiated proto-information.

The elementary unit of consciousness, the conscious "now" is not the instantaneous result of hierarchic binding effects of probability-wave reductions. In a more comprehensive reference frame, extending beyond space and time constraints, into the ontologically autonomic Information fields governing SQ activity, causation chains oriented along chronological time vectors cease to be the ultimate deterministic pathways for meanings transferred across hierarchic holonomic networks, as implied by global integration processes.

In the global unconscious Self, the retro-causation signal is the inductor of a resonance-produced preferential range of response. The unconscious domain of the individualized integral Self (which is embedded in the collective archetypal Information storage and propagation patterns) is patterned by the retroactive query signal by placing the

corresponding configurations in the most reactive distribution variant - the subconscious-level "commitment" blueprint.

In environmental interaction requirements, the global All-brain reception potential is able - via the brain-coupled Self - to perform the neuro-cybernetic transition to the most accurate Readiness Potential as a fine-tuned reaction modality to external sensory - or ES stimuli.

At the overall modular cortex activation level, Sub quantum determinacy of the exocytose/not-exocytose options are expressed in the quantum effects upon the ion channels in the synaptic clefts either by the Eccles-type dendronic activation or its Electromagnetic counterpart, extending the global intermodular pattern-generating abilities of the underlying Information-charged initiating system. Our choices are to be treated as empirically specified and consciously controlled input variables in accordance with the implemented biophysical protocol of interactions.

This view compensates for widely criticized aspects of the Penrose-Hameroff Quantum mind theory, because the reduced density matrix of the modular subsystem limits the possible effects to variables of the subsystem, itself enhancing the crystallization of two alternative states to be selectively suppressed by the Dirac choice, according to strong interactions with its preceding underpinning Sub-quantum Heisenberg probing.

The sentient impact on the Quantum event is dependent upon the entity's achieved biological and cognitive complexity, and encompasses all the material manifestation in energetic range, down to inert matter and up to the inaccessible "divine". It is the contribution quota each individualized sentient structure in physical domain brings to the overall cosmic entropy conservation, while creating in the time-reversed dynamical pattern of cognitive systems the compelling sensation of time's unidirectional forward flow.

The Sub quantum deterministic discriminator's active selective organizing function leads to the collapse of the system's randomness and thus supplies an acceptable explanatory option for the implementation of Penrose's quest about when - and to which state - the Quantum Jump occurs. Psychological conditions are amenable to both informational and neurobehavioral analysis, yet primary Sub quantum determinacy

strongly supports Harnad's hermeneutic mentalist request to interpret observable events not merely as mental, but explicitly as CAUSALLY mental ones, in a most fundamental sense.

Altering the basic assumptions of the way Quantum mechanical tenets relate to Brain and supporting H. Stapp's description, incremental Information is injected into a information- bearing mathematically described physical state, without implying epistemologically uncomfortable changes at the pragmatic level for almost all of the classical and conventional Quantum physical laws. Both mind and matter are causally tied to the agent's free choice of acting by the conscious experiential increment of knowledge (increasing Sub quantum complexity index inside an information defined sentient structure) and the physical actualization of the neural correlates of the thus experienced increments. Therefore, the SQ model we propose presents promising advantages upon hitherto similar attempts.

The SQ theoretical basics are effortlessly circumventing Chalmers' paradox at both of its ends: SQ theory replaces the emergence of conscious structures from non-conscious background by an original synactivation process, while the unfolding of energy/matter from the background of pure Information, becomes an implicit feature of reality. This gain in understanding relies upon postulating a hyper dimensional unit assumed to carry information content toward different degrees of complexity throughout infinite manifestation domains, possibly relying upon its own context-related mathematically acceptable ability of exhibiting non-zero space-time values.

The Quantum Objective Reduction is described in terms of deterministic sequences running under Information field orchestration, where Informational configurations are translated into Brain Quantum states according to vector guidelines provided by the interplay between Sub quantum resonant configurations.

Brain is thus presented in its integral efficiency as a highly complex entropy-stabilizing apparatus, progressively patterning its ontological development according to anticipated Information processing tasks. This patterning is implemented by morphogenetic determinants enfolded in holographic control matrices, external to the apparatus. We provide ample arguments related to the Brain's efficiency as an ideal

anchorage tool for connecting the biological systems into proactive conformal organized Information fields, which constitute the self-conscious structure, operating in its own holographic space. We epistemologically differentiate between the holographic distribution principle, which exists in the Information field, at various levels of implication, and a concrete hologram, which requires a medium for expressing itself, which media is the Sub quantum Plenum, in this case. Holographic interactions are made possible by Brain's being embedded in Quantum-controlled Euclidian projections of the projective hyperspace which accommodates organized Information fields. They are implemented by the intrinsically hyper dimensional essence we ascribe to information transporting Sub-Quantum entities and their combinatorial patterns.

Further on, we argue that in misleadingly labeled "paranormal" investigations, the anomalous distribution range of output experimental data has to be reformulated as a deviation from experimenter's expectancy regime values, based on previous mean values derived from different sets of discriminators in his (and his collectivity's) past exploration record. Such deviations are nevertheless perfectly consistent with the specific given set of assumptions, as soon as deterministically different SQ input complexes are invoked, which, interfering in their own regime with experimenter's expectancy choice parameters, result in the unexpected statistical shift. It is a testable prediction that at the case limit, where experimenter's SQ contribution drops below a critical efficiency level, the result will be increasingly consistent with the external configuration of Information choice systems that are affecting the Quantum determination of the observable output.

We strongly rely upon the experimental testability of our model's predictions in the framework of Schrodinger's equations, since quantifiable detection of shifting tendencies in random regimes, under Sub quantum information control, can be detected thereby. The outreach of applicability that our model has is relevant for future genetic engineering protocols aiming concrete means for altering various malignancy patterns. Moreover, it opens new horizons and other abilities in altering genetic systems, such as the aging-related Hayflick limit, with longevity consequences which can hardly be overestimated.

The ultimate coordination instance for consciousness-related phenomena has to be

emphatically relocated into the Information-driven integration and guidance system, which is provided at SQ level by the hyper dimensional Informational essences it involves.

We provide a compelling evidence for the fact that causal enclosure principle does not apply below Quantum regimes of interference. Also, that the impacting probability waves that originate in PSI domain upon the Quantum state of the system is a SQ mixture of superposed informational fluxes of different propagation velocities acting both as individual and collective determinants of the outcome's specific complexity index.

As ANY point in the space-time continuum is simultaneously emitter and absorber of Information by its operators sent both to past and future actualization relevancies, a continuity of ordered and controlled change vectors both in eidetic Information processing and the energetic background that "plays out" the process at Quantum level is achieved.

This conclusion is consistent with OCHSNER's experiments of active (voluntary) reappraisal of emotional response by intentional suppression of the limbic activation by the ZQE stabilization and its replacement by prefrontal dynamics. (reappraisal template).

Our concept based on empirical and testable evidence strongly supports Hameroff's statement "there is a connection between the Brain's biomolecular processes and the basic structure of the Universe (Hameroff & Penrose, 2014). We provide the compelling evidence for this ultimate understanding.

In his paper *How quantum brain biology can rescue conscious free will*, S. Hameroff (2012) clearly admits retro causation in reversed-time propagation effects of Information, emphatically departing from previous epiphenomenal interpretations of Consciousness as by-product of pure microtubular quantum computations.

Nevertheless, we emphatically disagree with Hameroff's conjecture about Consciousness as a result of Darwinian evolution. It is no way an evolutionary result; it IS the very origination and control of the biological evolution, diversification and

adaptive mechanisms.

At a most fundamental level of Reality, we emphatically replace the notion of "causal chain" by the one of "causal loop", the only accurate description of the background of a never-starting and never-ending Universe.

We realistically believe that our SQ concept of Universal Sentient Reality may be further developed by coaxially minded scientific representatives of the modern post-materialistic academic community of highest theoretic credentials (H. Stapp, V. Neppe, M. Beauregard, Edward & Emily Kelly, the professional and associate members of the P.A., G. Schwartz, D. Chalmers, J. Schwartz included.)

With this hope in mind, we respectfully submit this paper to their personal attention.

APPENDIX

II

NEW PERSPECTIVES?

A few possibly relevant comments addressing some advanced suggestions in H. Stapp's latest book "Quantum Theory and Free Will" (Springer 2017), from a Polidimensional Sub-quantum perspective.

Toward an ultimate TOE, incorporating Consciousness as proactive ontological prime into the future of Physics

Based upon the wide experimental, experiential and conceptual argumentation in this paper, we feel that a major paradigmatic shift in the correct understanding of Reality might become conceivable as initiated by H. Stapp's pivotal work. This new worldview might be simply expressed by the following axiomatic statement:

Reality is not determined by the Collapse of the probability function but the other way around. Self-conscious Ego comes with its probing ability and tendency as an informatically preconceived contribution to the well synchronized overall universal Quantum dynamics.

In a Sub quantum perspective on the Sentient Universe, Ego and Nature are of the same consistency and both provide complementary action for implementing various Informational dynamical stages mediated by SQ flux patterns as required by the specific aspects associated to the changing GQS of the whole.

We strongly agree with H. Stapp's views about the mental monistic unitary background of the quantum dualism, which is perfectly consistent with our general Sub-quantum approach.

For a reliable foundation of the new paradigm, we suggest some slight further

improvements in H. Stapp's Quantum formalism at its conceptual level, which might be worked out along hereby presented few tentative guidelines:

1.

The physical description of the materially structured Hilbert space does not apply to the representational space that is the home of Qualia. Therefore, we would advocate rather for a non-movable Heisenberg cut at the upper limit of Quantum brain dynamics as coincident to the lower limit of consciousness-related processes. Brain's Quantum sufficiency *associated* to its hyper dimensional structure (as treated in our paper) might well correspond to a physical description of the Heisenberg cut, facilitating the noetic transcription of afferent biochemical/neurodynamic processes as well as the accurate decoding of mental states into understandable units for efferent neural network activities.

2.

The von Neumann's Process 2 is certainly deterministic by its mechanism of action, yet informationally controlled from those implication levels where Process 1 and 2 are confluent.

The projective "first" phase of V. Neumann's Process 1 originates by true retro causation in its second phase, which is embedded in a global Quantum state of the Universe that contains the observer/agent's pertinent brain correlates.

The "virtual" part of this Quantum pattern is available for different observers and is objectively contended in a higher order Informational matrix. The synchronous Phase 1 associated with different observers results in the coordinated Quantum dynamics in the actual Universe along guidelines inherent in the overarching cosmic harmony, and this process runs in higher time dimensions where sequentially described modalities in the linear entropic Time vector disappear.

The global quantum state (GQS) of the Universe at each Tx position on linear Time flow is a direct consequence of previous GQS patterns originated in the specific interactions between Phase 1 and the reactive realm [Phase 2 + Process 2 von Neumann].

3.

Ego doesn't need a random sequence of Trial & Error beginning in its prenatal existence, where cumulated experience pertaining to Paul von Ward's "Soul genome" is available

to it.

In our understanding, Born's rule of probability ***Trace PρP/ Trace ρ*** fails to supply a consistent explanation of the subjective choice, giving it just a mathematical expression based upon conventional matrix operators. Stapp's "Mathematical duality" addresses physical Quantum observables and their interactions when describing "atomic particles" and "appearances", thus it applies to different scales of the physical world leaving out of its scope the Informational essence that permeates and activates these various aspects of it.

In our view, Brain's fine patterning is not the result of a blind deterministic von Neumann Process 2, but one evolving along future integration needs of the self-conscious structure (the Ego); this patterning is controlled by relevant extremely subtle fields of morphic resonance during ontogenesis.

4.

Our interpretation of brain/mind-related Quantum mechanics results in a novel world-view based on a predetermined, fixed future in a transtemporal frame of reference, according to presets inherent in the overarching cosmic harmony. This future implements itself by a proper patterning of the "open" Past via the ***general, time-invariant solution to the Schrodinger equation***, which allows for bidirectional causation if referred to linear time flow:

$$\Psi(r,t) = \sum_i c_i e^{-iE_i t/\hbar} \psi_i(r)$$

The "present" instance that describes the "density matrix" of the Universe at any point in linear time flow - $P(\sigma)$ - reflects the superposition of both the wave function's collapse and its opening toward the recent "actual past" through its informatically selected "effective past", using Stapp's terminology. The illusory "locking" of Past as addressed from a future time position is intelligible if occurring through the lens of the recent "effective Past". After the selection of the specific Schrodinger equation's solution by cosmic and individual Information-driven agents, non-actualized components of the spectral "actual past" vanish from the objective Universe, but may be stored in (and retrieved from) subjective memory data as lost virtual potentialities.

The requirements of relativistic quantum field theory are consistent with Cramer's transactional interpretation of Quantum mechanics, if relativistic constraints about a limiting speed of light are given up once and for all by accepting FTL velocities ranging up to infinity as in our Sub-quantum concept. Such velocity values account for the *true* retro causal effect operating in Informational range both in individual and global consciousness fields, for the relevant selection of the specific Quantum potential out of the whole available spectrum prior to the bivectorial Schrodinger event as suggested in our model.

From this time-invariant operation ascribed to the bidirectional projection operator involved in the outcome of the Schrodinger equation, Reality is emerging both from a time-like and space-like sequence of quantum states. This operator acts on the evolving space-like sequence $\Sigma(n) \rightarrow \Sigma(n+1)$ at the level of the *overlapping* fragment of both, inducing the same effective change in both global density matrices $\Sigma(n)$ AND $\Sigma(n+1)$, thus rendering future states perfectly compatible with the effective Past just created. This quantum symmetry at the both open ends of the Schrodinger equation, solves not only the status of any present point in time/space as connecting past and future, but also illustrates the way individual **and** cosmic conscious free will interact in the great scheme of Universal equilibrium.

Free-will is a fundamental feature of the sentient Universe we live in, manifested at all its levels of implicated Information matrices by an infinite array of symmetric interfaces, in both directions, between a supreme cosmic order and every individual structure according to its own level of complexity.

Individual Free will is perfectly and smoothly coordinated with Nature's Free Will by being part of it.

This seems to solve the quantum paradox of connectivity between Stapp's subjective inquiry as an unpredictable free choice and Nature's seemingly "random" selection of its preferred response variant.

The time-invariant solution of the Schrodinger equation acts as a reliable link between both.

If further developed and completed by a possible philosophical and/or mathematical background, our conceptual framework might conceivably open a new track in the accurate understanding of the inner works of Reality, extending Stapp's Quantum formalism which is based upon a dialogue between self-conscious structures and Nature. Such new approach might suggest an Information-driven, consonant accord-like construct, where informational resonance between all participants in the great cosmic play is granted by shifting the emphasis to the informational interaction fields themselves (seen as primary content of Reality), rather than the players involved in its implementing

Such novel perspective may bring to a common denominator the objective matter/energy based Universe with its noospheric, originating equivalent.

REFERENCES

- Andrew, C., (2012), The curse of the Hexham heads? Paranormal, the occult, in <http://www.paranormal-encounters.com/wp/the-curse-of-the-hexham-heads/>
- Arends, E., (2016), Second layer of information in DNA confirmed, in <https://phys.org/news/2016-06-layer-dna.html>
- Barnothy, M. T., (1969), *Biological effects of magnetic fields*, Plenum Press, N.Y.
- Barrett, T. W., in T. W. Barrett and D. M. Grimes (eds.), *Advanced Electromagnetism: Foundations, Theory, Applications*, World Scientific, Singapore: 278-313.
- Beauregard, M., O'Leary, D., (2007), *The Spiritual Brain*, HarperCollins.
- Beck, F., Eccles, J. C., (1992), Quantum Aspects of Brain activity and the role of consciousness, *Proceedings of the National Academy of Sciences*, 89: 11357-11361.
- Bender, T., (2006), *The physics of Qi*, in http://tombender.org/energeticsarticles/qi_physics.pdf
- Bendit, L. J., Bendit, P. D., (1990), *The etheric body of man: The bridge of consciousness*, 2nd ed., Quest Books.
- Besant, A., Leadbeater, C. W., (1951), *Occult Chemistry, Investigations by clairvoyant magnification into the structure of the atoms of the periodic table and of some compounds*, The Theosophical Publishing House, India.
- Biermann, D. J., (2008), Consciousness-Induced Restoration of Time-Symmetry, a Psychological Theoretical Perspective, *P. A. Annual Convention* 01/2008, 74(2).
- Bischof, M., (2005), Biophotons, the lights in our cells, in https://www.bibliotecapleyades.net/ciencia_fuerzasuniverso06.htm
- Block, E. F., (2004), A modern schema for bioelectromagnetic Medicine, in www.diamondhea.net/msbem.htm
- Bohm, D. J., (1986), A new theory of the relationship of mind to matter, *Journal of the American Society for Psychical Research*, 80 (2): 113-135.
- Bohm, D., (1957), *Causality and Chance in Modern Physics*, Penn Press.
- Bohm D., (1983), *Wholeness and the Implicate Order*, Routledge Press.
- Bohm D., Hiley, B. J., (1999), *The Undivided Universe*, Routledge Press.

Bordonaro, M., Ogryzko, V., (2013), Quantum biology at the cellular level-elements of the research program, *Biosystems*, 112(1): 11-30.

Botkin, A., (2014), *Induced After Death Communication: A Miraculous Therapy for Grief and Loss*, Hampton Roads Publishing Company Inc.

Boyd, R. N., Alterations of Aether density, in <http://worlds-within-worlds.org/alterationofaeyher.php>

Boyd, R. N., Empirical Science -Back to Reality!, in http://blog.hasslberger.com/docs/Empirical_Science_Back_to_Reality.pdf

Boyd, R. N., Local and nonlocal Information Transfer Mechanisms, in <http://worlds-within-worlds.org/>

Boyd, R. N., Non-Hertzian Waves may involve Subquantum particles, in <http://worlds-within-worlds.org/>

Boyd, R. N., Subquantum Particle Flux, in <http://worlds-within-worlds.org/>

Boyd, R. N., The function of information in Quantum-Genetic correlations, in <http://worlds-within-worlds.org/>

Boyd, R. N., The Sub quantum Plenum - a restoration of Rationality to Physics, in <http://worlds-within-worlds.org/>

Boyd, R. N., Zero point energy, in <http://worlds-within-worlds.org/>

Boyd, R. N., Klein A., (2009), Subquantum Perspectives in the Penrose-Hameroff Model, *TSC Conference Hong Kong 2009*.

Boyd, R. N., Klein A., The inner workings of reality, in <http://worlds-within-worlds.org/publications-and-research.php>

Boyd, R. N., Klein A., (2007), Toward a new Sub quantum integration approach to Sentient Reality, *Quantum Psi Conference Salzburg 2007*.

Brennan, B. A., (1993), *Light emerging*, Bantam Books.

Brown, J., (2015), *Microgenetic Theory and Process Thought*, Imprint Academic, Exeter

Chalmers, D. J., (2004), *How can we construct a science of Consciousness? The Cognitive Neurosciences III*, MIT Press.

Chalmers, D. J., (1997), Moving forward on the Problems of Consciousness, *Journal of Consciousness Studies*, 4 (1): 3-46.

Chalmers, D. J. (2006), *Phenomenal Concepts and the Explanatory Gap*, Oxford University Press.

- Chalmers, D. J., (1996), *The Conscious Mind*, Oxford University Press.
- Chandrasekaran, B., (1988), Connectionism and Information processing abstractions, *Behavioral and Brain Sciences*, 11 (1): 26-27.
- Changeux, J-P., (1998), *L'Homme neuronal*, Hachette.
- Choi, C-H., Soh, K-S., Lee, S-M., Yoon, G-W., (2003), Study of Propagation of Light along an Acupuncture Meridian, *Journal of the Optical Society of Korea*, 7 (4): 245-248.
- Christianto, V. Smarandache, F, Boyd, R. N., (2019), Toward Helmholtz's electron vortex from Kolmogorov's theory of turbulence and a new model of origination of charge and matter, in https://www.academia.edu/39157693/Electron_Model_Based_Helmholtzs_Electron_Vortex_and_Kolmogorovs_Theory_of_Turbulence_Electron_Model_Based_on_Helmholtzs_Electron_Vortex_Theory_and_Kolmogorovs_Theory_of_Turbulence
- Chumak, A. V., Tiberkevich, V. S., Karenowska, A. D., Serga, A. A., Gregg, J. F., Slavin, A. N., Hillebrands, B., (2010), All-linear time reversal by a dynamic artificial crystal, *Nature Communications*, 1:141.
- Conrad, M., Lieberman E. A., (1982), Molecular computing as a link between biological and physical theory, *Journal of Theoretical Biology*, 98: 239-252.
- Corbetta, M., Shulman, G. L., (2002), Control of goal-directed and stimulus-driven attention in the Brain, *Nature Reviews Neuroscience*, 3(3): 201-215.
- Cramer, J. G., (1980), Generalized absorber theory and the EPR paradox, *Physical Review*, 22 (2): 362-376.
- Cramer, J. G., (1986), The Transactional Interpretation of Quantum Mechanics, *Reviews of Modern Physics*, 58: 647-688.
- Cramer, J. G., (1997), Quantum Nonlocality and the Possibility of Superluminal Effects, *NASA Proceedings*, Cleveland, OH.
- Creath, K., Schwartz G., E., (2005), Biophoton interaction in biological systems: evidence of photonic info-energy transfer? in http://www.u.arizona.edu/~kcreath/pdf/pubs/2005_KC_GES_SPIE_v5866p338.pdf
- Dalrymple, W., Anand, A., (2019), *Koh-I-Noor- the history of the world's most infamous diamond*, Paperback-Surge print.
- Davydov, A. .S. (1982), *Biology and Quantum mechanics*, Oxford, Pergamon Press.
- DeBroglie, L., (1928), La nouvelle dynamique des quanta, in *Electrons et Photons*, Gauthier-Villars, Paris.

DeCallatay, A. M., (1986), *Natural and artificial intelligence: processor systems compared to the Human Brain*, Amsterdam, Elsevier.

Dehmelt, H. G., (1999), Bound on CPT and Lorentz Symmetry with a Trapped Electron, *Physical Review Letters*, 83 (11): 2116-2119.

Dehmelt, H., (1993), Nobel Prize lecture, World Scientific Publishing Co, Singapore 1993, in <http://nobelprize.org/physics/laureates/1989/dehmelt-lecture.html>

Delavre, V., Transkommunikation ½, 1991 Pg. 25; ¾ 1998 Pg. 4.

DeMeo, J., (2009), Experimental confirmation of the Reich orgone accumulator thermal anomaly, *Subtle Energies & Energy medicine*, 20(3): 17-32.

DeMeo, J., Reconciling Miller's Ether-Drift with Reich's dynamic orgone, in <http://www.orgonelab.org/Miller-Reich.htm>

DePalma B., (1991), Magnetism as a Distortion of a Pre-Existent Primordial Energy Field and the Possibility of Extraction of Electrical Energy Directly From Space, *Proceedings of the 26th Intersociety Energy Conversion, Engineering Conference (IECEC)*, 4 - 9 August, 1991, Boston, Massachusetts, U.S.A.

Detela, A., (1998), Self-organization within complex quantum states, in <http://ciiweb.ijs.si/dialogues/r-detela.htm>;
http://www.emergentmind.org/paper_reviews12.htm

Dobbs, H. A. C., (1961), Comments on Theory of Resonance, *British Journal for the Philosophy of Science*, 12 (45): 65-68.

Domasio, A. R., 2010, *Self comes to mind: constructing the conscious brain*, Pantheon.

Donald, J. A., Martin, B. (1976), Time-symmetric thermodynamics and causality violation, *European Journal of Parapsychology*, 3: 17-37.

Dotta, B. T., (2019), Ultraweak photon emission in cells: coupling to molecular pathways, applied magnetic fields and potential non-locality, Univ. Sudbury, Ontario.

Duncan, F. E. Que, E. L., Zhang, N., Feinberg, E. C., O'Halloran, T. V., Woodruff, T. K., (2015), The zinc spark is an inorganic signature of human egg activation in <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4845039/>

Dunne, B. J., Jahn, R. G., (1995), Consciousness and Anomalous physical phenomena, *Princeton Technical Note* 95004.

Durand, D., Lincoln, E., (2016), Brain waves may be spread by weak electric field, *Journal of Neuroscience*, Jan. 2016.

Dyer, R. G., Neumeyer, C., Chittka, L. (2005), Honeybee (*Apis mellifera*) vision can discriminate between and recognise images of human faces, *The Journal of Experimental Biology*, 208: 4709-4714.

Eccles, J. C., (1991), *Evolution of the Brain - Creation of the Self*, Routledge.

Eccles, J. C., (1980), *The Human Psyche - the Glifford Lectures*, Springer International.

Farrier, J., (2013), The cursing stone, in
<https://www.neatorama.com/2013/10/09/The-Cursing-Stone>

Firstenberg, O., Firstenberg, O., Peyronel, T., Liang, Q. Y., Gorshkov, A. V., Lukin, M. D., Vuletić, V., (2013), Attractive photons in a Quantum Nonlinear Medium, *Nature*, 502 (7460): 71-75.

Fogel, B., (2015), When egg meets sperm, sparks fly, in
<https://www.sciencefriday.com/articles/picture-of-the-week-zink-spark>

Franks, N. R., Richardson, T., (2006), Teaching in tandem-running ants, *Nature*, 439 (7073): 153.

Freeman, W. J., (1983), The physiological basis of mental images, *Biological Psychiatry*, 18 (10): 1107-1125.

Fredkin, E. (1982), Conservative Logic, *International Journal of Theoretical Physics*, 21: 219-253.

Frohlich, H., (1986), Coherent excitations in active biological systems, *Modern Bioelectrochemistry*, Plenum Press: 241-261.

Gariaev, P. P., (1994), *Wave based Genome*, Ed. Obsh. Pl'za (in Russian).

Gariaev, P. P., Friedman, M. J., Leonova- Gariaeva, E. A., Crisis in life sciences. The wave genetics response, in <http://www.aipro.info/drive/File/150.pdf>

Gariaev P. P., Tertyshniy G. G., Gotovsky Yu. V., Leonova E. A., (1999), Genome holographic and quantum non-locality, *5th International conference Theoretical and clinical aspects of bioresonance and multiresonance therapy application*, part II. Imedis. Moscow: 256-272.

Gasparini, M., (1990), Photon-graviphoton mixing in a dielectric medium, *Physics Letters B*, 237 (3-4): 431-435.

Gazzaniga, M. S., (1985), *The Social Brain - discovering the networks of the mind*, New York - Basic Books.

Georgakopoulos, A., Sommer, A., Simon, J., (2018), Theory of interacting cavity Rydberg polaritons, in <https://arxiv.org/pdf/1805.07315.pdf>

Gonzales-Mestres, L., (1996), Superluminal matter and High-energy Cosmic Rays, in <https://arxiv.org/abs/physics/9705032>

Grebennikov, V, S., (2005), An anti-gravity platform of V. S. Grebennikov, *New Energy Technologies*, 3 (22): 58-77.

Grebennikov, V, S., (1997), My world, in <http://bronzovka.narod.ru>; chapter 5, *The Natural Phenomena of AntiGravitation and Invisibility in Insects due to the Grebennikov Cavity Structure Effect (CSE)*, in <http://geomagnetics.org/sitebuildercontent/sitebuilderfiles/myworldbyviktorgrebennikovfinpdf.pdf>

Haisch, B., Rueda, A., Dobyns, Y., Inertial Mass and the Quantum Vacuum Field, *Annals of Physics*, 10 (5): 393-414.

Hameroff, S. R., (1996), Conscious events as orchestrated space-time selections, *Journal of Consciousness Studies*, 3 (1): 36-53.

Hameroff, S., (2012), How Quantum Brain biology can rescue conscious free will, *Frontiers in integrative neuroscience*, 12 (6): 93.

Hameroff, S., (1998), Quantum computation in Brain microtubules?, *Philosophical Transactions of the Royal Society, London*, 356 (1743): 1869-1896.

Hameroff, S., (1987), *Ultimate Computing - Biomolecular consciousness and nanotechnology*. Elsevier Science Publishers.

Hameroff, S., Penrose, R., (2003), Conscious Events as orchestrated Space-Time selections, *NeuroQuantology*, 1:10-35.

Hameroff, S., Penrose, R., (2014), Consciousness in the universe. A review of the 'Orch OR' theory, *Physics of Life Reviews*, 11 (1): 39-78.

Hameroff, S., Penrose, R., (1996), Orchestrated reduction of Quantum coherence in Brain microtubules: A model for Consciousness?, *MIT Press*: 507-540.

Hawking, S., (2001), *The Universe in a Nutshell*. United States & Canada: Bantam Books.

Heidemann, S. R., Lamoureux, P., Buxbaum, R. E., (2000), Opposing views on tensegrity as a structural framework for understanding cell mechanics, *Journal of Applied Physiology*, 89: 1663-1678.

Hopfield, J. J., (1982), Neural Networks and physical systems with emergent collective computational abilities, *Proceedings of the National Academy of Sciences*, 79 (8): 2554-2558.

Hotary, K. B., Robinson K. R., (1990), Endogenous electrical currents and the resultant voltage gradients in the chick embryo, *Developmental Biology*, 140 (1): 149-160.

Houston, D., Phantom-Crystal: meanings, properties and powers, in <https://meanings.crystalsandjewelry.com/phantom-crystal>

Hu, H., Wu, M., (2002), Spin-Mediated Consciousness: Theory, Experimental Studies, Further Development & Related Topics, in <http://arxiv.org/abs/quant-ph/0208068>

Ishimaru, A. Jaruwatanadilok, S., Kuga, Y., (2007), Time reversal in random media and super resolution with shower curtain effects and backscattering enhancement, *Radio Science*, in <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2007RS003645>

Jahn, R. G., (2007), The Complementarity of Consciousness, *Explore (NY)*, 3 (3): 307-10, 344.

Jahn, R. G., Dunne B. J., (2005), The PEAR Proposition, *Journal of Scientific Exploration*, 19 (2): 195-245.

Jakovleva E., Korotkov, K., (2013), *Electrophotonic applications in medicine: GDV Bioelectrography*, CreateSpace Independent Publishing Platform, Luxembourg.

Javadi, H., (2017), What is meant by the frequency of photons?, in <https://www.quora.com/What-is-meant-by-the-frequency-of-photons>

Jefimenko, O. D., (1966), *Electricity and Magnetism, An introduction to the theory of electric and magnetic fields*, N.Y. Appleton Centuri Crofts, Division of Meredith Publishing Company.

Johnson, J. A., (2014), *Chinese medical qigong therapy*, The international Institute of medical Qigong publishing house.

Kaivarainen, A., (2000), New Resonant Bivacuum Mediated Interaction as a possible explanation of Psi phenomena, in http://www.karelia.ru/~alekx/new_articles/index.html

Kaniadakis, K., (2001), Statistical Origin of Quantum Mechanics, in <http://arxiv.org/pdf/quant-ph/0112049>

Kanwisher, N, O'Craven, K. M., (2000), Mental imagery of faces and places activates corresponding stimulus-specific brain regions, *Journal of Cognitive Neuroscience*, 12 (6): 1013-23.

Kiehn R. M., (1999), An Extension of Bohm's Quantum Theory to include Non-gradient Potentials and the Production of Nanometer Vortices, in <http://www22.pair.com/csdc/pdf/KIEHNpdffiles,1994-2000/bohmplus.pdf>

Keihn, R. M., (2006), A Topological Theory of the Physical Vacuum, in <https://arxiv.org/abs/gr-qc/0602118>

Kiehn, R. M., (2003), Cosmology as a turbulent non equilibrium van der Waals gas near its critical point. (*Vigier III Conference - Paris*), in <http://www22.pair.com/csdsc/pdf/vig2003.pdf>

Kelly, E. F., Kelly, E. W., (2007), *Irreducible mind*, Rowman & Littlefield.

Kinsbourne, M., (1988), *Integrated Cortical Field model of Consciousness*, Oxford University Press.

Klein, A., (2018), Consciousness and causality: a sub-quantum time-symmetric approach, *IQ Nexus Journal*, 10 (3): 47-96.

Klein, A. (2019), *Paradigma Holistică Polidimensională*, Ed. Floare Albastră, București.

Kohane, M. J. , Tiller, W. A., (2000). Energy, fitness and information-augmented electromagnetic fields in *Drosophila melanogaster*, *Journal of Scientific Exploration*, 14 (2): 217-217.

Korotkov, K., (2011), *Energy fields, Electrophotonic analysis in humans and nature*, Eds. Dr. Berney Williams and Lutz Rabe, Saint-Petersburg.

Korotkov, K., (2014), *Energy of consciousness*, Kindle Edition.

Korotkov, K., (2014), *Light after Life*, Kindle Edition.

Kozyrev, N. A., (1991), *Selected Transactions*, Leningrad University Press.

Kozyrev, N. A., Nasonov, V. V., (1980), On some properties of time, discovered by astronomical observations, *Problemy issledovaniya vselennoi*, 9, (in Russian)

Krasnolovets, V, Ivanovsky, D., (1992), Motion of a Particle in the Vacuum, in <https://cds.cern.ch/record/402754/files/9910023.pdf>

Kronn, Y., (2009), Subtle energy, the Universe and Us. The Science and theory behind Vital Force Technology, in http://www.vitalenergetik.com/fileadmin/images/Vital_Force/Subtle_Energy_the_Universe_and_Us.pdf

Kurakin, P. V., (2005), Hidden variables and hidden time in Quantum Theory, in <http://arxiv.org/ftp/quant-ph/papers/0504/0504089.pdf>

Lashley, K., (1950), In search of the engram, *Cambridge Univ. Press*: 454-482.

LaViolette, P., A., (2011), The Cosmic Ether: Introduction to Subquantum Kinetics, *Physics Procedia*, 38: 326– 349.

Leiter, L. D., (2002), The Vardøgr, Perhaps Another Indicator of the Non-Locality of Consciousness, *Journal of Scientific Exploration*, (16) 4: 621–34.

Lesica, N. A., Stanley, G. B., (2004), Encoding of natural scene movies by tonic and burst spikes in the lateral geniculate nucleus, *Journal of Neuroscience*, 24 (47): 10731-10740.

Levin, M., (2003), Bioelectromagnetics in morphogenesis", *Bioelectromagnetics*, 24 (5): 295-315.

Li-gang, W., Liu, N., Lin, Q., Zhu, S., (2002), Effects of coherence on the superluminal propagation of light pulses through anomalously dispersive media with gain, in <https://iopscience.iop.org/article/10.1209/epl/i2002-00292-4/meta>

Llinas, R. Ribary, U., Contreras, D., Pedroarena, C., (1998), The neuronal basis of consciousness, *Philosophical Transactions of the Royal Society B: Biological Sciences*, 353 (1377): 1841-1849.

Lord, V. M., An infamous theft: The stone of Scone, in <http://ultimatehistoryproject.com/infamous-theft-the-stone-of-scone.html>

Malklaka, L., A brief explanation of holographic Subquantum-Mind theory, in <http://world-within-worldss.org/holographicsq.php>

Malklaka, L., (2015), *Holographic sub-quantum Mind*, Louis Malklaka.

Maier, A., Logothetis, N. K., Leopold, D. A., (2007), Context-dependent perceptual modulation of single neurons in primate visual cortex, *Proceedings of the National Academy of Sciences USA*, 104 (13): 5620–5625.

Marom, D., Panasencko, D., Rokitski, R., Sun, P. C., Fainman, Y., (2000), Time reversal of ultrafast waveforms by wave mixing of spectrally decomposed waves - *Optics Letters*, 25 (2): 132-134.

Marshall, N., Zohar, D., (1960), ESP and memory: a physical theory, *British Journal for the Philosophy of Science*, 10 (40): 265-286.

Marshall, I. N., Zohar, D., (1990), *The Quantum Self. Human nature and consciousness defined by the new Physics*, Morrow, N.Y.

Mauron, A., (2001), Is the genome the secular equivalent of the soul?, *Science*, 291 (5505): 831-832.

McDonald, F., (2016), Physicists confirm there's a second layer of Information hidden in our DNA, in <https://www.sciencealert.com/scientists-confirm-a-second-layer-of-information-hiding-in-dna>

McKusick, E., (2014), *Tuning the Human Biofield*, Publisher: Healing Arts Press.

Mei, W. P., (1994), About the nature of biophotons, *Journal of Biological Systems*, 2 (1):25-42.

Meijer, D. K. F., Geesink, J. H., (2018) Is the Fabric of Reality Guided by a Semi-Harmonic, Toroidal Background Field?, *International Journal of Structural and Computational Biology*, 2 (1): 1-15.

Miller, I., (2005), Bioplasma: human microvibration and micropulsations, in <http://photonichuman.weebly.com/bioplasma.html>

Minsky, M., (1985), *The society of mind*, Simon and Schuster Paperbacks.

Montecucco, N., (2000), La ricerca sulla Coerenza e la Sincronizzazione cerebrale, in *Cyber, la Visione Olistica*, Ed. Mediterranee, Roma.

Morse, M., (1998), The right temporal lobe and associated limbic lobe structures as the biological interface with an interconnected Universe, *The Scientific and Medical Network Review*, 68: 3-7.

Mossalam, B. E., Schram, R. D., Tompitak, M., van Noort, J., Schiessel, H., (2016), Multiplexing genetic and nucleosome positioning codes: a computational approach in <https://doi.org/10.1371/journal.pone.0156905>

Mukhopadhyay, A. K., (2000), *The Millennium Bridge: Towards the Mechanics of Consciousness and the Akhanda Paradigm*. New Delhi: Conscious Publication.

Murphy, B. D., (2013), Time-space and the Etheric Template Body: Formative Causation and Morphic Fields Rebooted, *Science meets spirituality*, in <http://www.unicusmagazine.com/PDF/science-meets-spirituality.pdf>

Neppe, V. M., Close, E. R., (2014), EPIC Consciousness: A pertinent new unification of an Important concept, *Journal of Psychology & Clinical Psychiatry*, 1 (6): 1-14.

Neppe, V. M., Close, E. R., (2015), Explaining psi phenomena by applying TDVP principles: A preliminary analysis, *IQ Nexus Journal*, 7 (3): 7-154.

Neppe, V. M., Close, E. R., (2012), TDVP as a fundamental model, *Dynamic International Journal of Exceptional Creative Achievement*, 1202: 2079-94.

Newton, M., (2009), *Destiny of souls*, Llewellyn Publications.

Niggli, H. J., (2003), Biophotons: ultraweak photons in cells, in F.-A. Popp and L. Belousov (eds.), *Integrative Biophysics*, Kluwer Academic Publishers: 361-385.

Ochsner, K. N., Bunge, S. A., Gross, J. J., Gabrieli, J. D., (2002), Rethinking feelings: An fMRI Study of the Cognitive Regulation of Emotion, *Journal of cognitive neuroscience*, 14 (8): 1215-29.

Payne, B., (1981), Discovery of the biofield. A different type of magnetism? Unpublished.

Penrose, R., (1994), *Shadows of Mind*, Oxford University Press

Perkins, M. L., Benzinger, D., Arcak, M., Khammash, M., (2020), Cell-in-the-loop pattern formation with optogenetically emulated cell-to-cell signaling, *Nature Communications*, 11: 1355.

Persinger, M. A., Caswell, J. M., Dotta, B. T., (2014), Cerebral biophoton emission and non-local human-machine interaction, *NeuroQuantology*, 12 (1): 1-11.

Phillips, S. M., (1999), *ESP of Quarks and Superstrings*, New Age International Pvt Ltd Publishers.

Pitkanen M., (1985), Topological Geometrophysics and Consciousness, in https://www.stealthskater.com/Documents/TGD_04.pdf

Podkletnov, E., (2001), Impulse Gravity Generator Based on Charged YBa₂Cu₃O_{7-y} Superconductor with Composite Crystal Structure, in <http://xxx.lanl.gov/abs/physics/0108005>

Polchinski, J., (2012), Comment on Small Lorentz violations in Quantum Gravity, *Classical and Quantum Gravity*, 29 (8).

Presman, A., (1970), *Electromagnetic Fields and Life*, Plenum Press.

Pribram, K., (1971), *Languages of the Brain*, Prentice-Hall, Englewood Cliffs, N.Y.

Pribram, K., (1986), The cognitive revolution and mind/brain, *Issues American Psychologist*, 41 (5): 507–520.

Rajnicek, A. M., Britland, S., McCaig, C. D., (1997), Contact guidance of CSN neurites in grooved quartz, *Journal of Cell Science*, 110: 2905-2913.

Ramos, S. B., Laederach, A., (2014), Molecular biology: A second layer of information in RNA, *Nature*, 505 (7485): 621–622.

Rancourt, L., Tattersall, P. J., (2015), Further Experiments Demonstrating the Effect of Light on Gravitation, *Applied Physics Research*, (7) 4: 1-10.

Riek, C., Seletskiy, D. V., Moskalenko, A. S., Schmidt, J. F., Krauspe, P., Eckart, S., Eggert, S., Burkard, G., Leitenstörfer, A., (2015), Direct sampling of electric-field vacuum fluctuations, *Science*, 350: 420-423.

Rubik, B., (2002), The Biofield Hypothesis: Its Biophysical Basis and Role in Medicine, *The Journal of Alternative and Complementary Medicine*, 8 (6): 703-717.

Ruegg, P., (2018), Regulating gene transcription using light Cell & Microbiology, in <https://ethz.ch/en/news-and-events/eth-news/news/2018/10/regulating-gene-transcription-using-light.html>

Que, E. L., Bleher, R., Duncan, F. E., Kong, B. Y., Gleber, S. C., Vogt, S., Chen, S., Garwin, S. A., Bayer, A. R., Dravid, V. P., Woodruff, T. K., O'Halloran, T. V., (2015), Quantitative mapping

of zinc fluxes in the mammalian egg reveals the origin of fertilization-induced zinc sparks, *Nature Chemistry*, 7 (2): 130–139.

Sarkar, P., R., (1991), *Microvitum in a Nutshell*, Ananda Marga Publications, Calcuta.

Sarmiento, U., (2015), What is the fundamental particle of matter in the physical universe?, in <http://bigpicturequestions.comthor/umsar>

Setterfield, J. B., (2012), Zero Point Energy, Light and Time, *Proceedings of Natural Philosophy Alliance*, Vol.9.

Sheldrake, R., (1992), An experimental test of the Hypothesis of Formative Causation, *Biology Forum*, 85: 431-443.

Silvertooth, E. W., (1986), Experimental Detection of the Ether Speculations, *Science and Technology*, 1 (1): 1-5.

Slawinski, J., (1987) Electromagnetic radiation and the afterlife, *Journal of Near-Death Studies*, 6 (2): 79-94.

Smith, T., The compton radius vortex model, in www.valdostamuseum.com/hamsmith/Sidharth.html

Snivasan, T.M., (2017), Biophotons as subtle energy carriers, *International Journal of Yoga*, 10 (2): 57-58.

Soucek, J., (2014), Subquantum Models, Basic Principles, Effects and Tests, in <http://arxiv.org/pdf/quant-ph/0107040>

Srinivasav, T. M., Sympathetic resonance, in <http://www.emf-health.com/qlink-srt.htm>

Srinivasan, T. M., Sympathetic resonance Technology: A subtle energy technology for noise reduction in physical and psychophysical systems in <http://www.emf-health.com/qlink-srt.htm>

Srinivasan, T. M., (2007), What are subtle energies fields? in <http://homepages.ihug.co.nz/~sai/subtle.html>

Stapp, H. P., (2004), *Mind, Matter and Quantum Mechanics*, 2nd ed., Springer.

Stapp, H. P., (2017), *Quantum theory and free will*, Springer-Verlag.

Stapp, H. P., (1996), The hard problem: a quantum approach, Publication: *Journal of Consciousness Studies*, 3 (3): 194-210.

Storm, L., Rock, A., (2009), Imagery Cultivation vs. Noise Reduction: Shamanic-Like Journeying as a Psi-Conductive Alternative to the Ganzfeld Protocol, *Australian Journal of Parapsychology*, 9 (1): 5-31.

Suzuki, Y., Tanimura, Y., (2008), Exploring a free energy landscape by means of multidimensional infrared and terahertz spectroscopies, *The Journal of Chemical Physics*, 128 (16): 164500-1 - 164501-13.

Tamulis, A., Grigalavicus, M., (2010), The emergence and evolution of life in a 'Fatty acid world' based on quantum mechanics. *Origin Life Evolut, Biosphere*, 41: 51-71.

Tewari, P., (2005), On the space-vortex structure of the electron, in *What is the Electron?* 221 edited by Volodimir Simulik, Montreal: Apeiron.

Thomson, D., Bourassa, J., (2007), *Secrets of the Aether*, 3th ed., The Aenor Trust.

Tiller, W. A., (2010), Psychoenergetic science applied to the mind-body concept, *White paper XXI*, in <https://www.tillerinstitute.com/pdf/White%20Paper%20XXI.pdf>

Tiller, W. A., (1999), Towards a predictive model of subtle domain connections to the physical domain aspect of reality: The origins of wave-particle duality, electric-magnetic monopoles and the Mirro Principle, *Journal of Scientific Exploration*, 13 (1): 41-67.

Tiller, W. A., (1993), What are subtle energies?, *Journal of Scientific Exploration*, 7 (3): 293-304.

Togbey K., (2006), Fractal Dimension and the 4/5 Allometric Scaling, in http://www.unomaha.edu/wwwmath/OurArchive/KerriganMinigrants/2006_2007/KodjoTogbeyReport.pdf

Tosti, E., Boni, R., (2004), Electrical events during gamete maturation and fertilization in animals and humans, *Human Reproduction Update*, 10 (1): 53-65.

Valentini, A., (2002), *Pilot-Wave Theory: An Alternative Approach to Modern Physics*, Springer-Verlag.

Von Ward, P., *The Soul Genome*, Fenestra, 2008.

Zang, N., Duncan, F. E., Que, E. L., O'Halloran, T., V., Woodruff, T. K., (2016), The fertilization-induced zinc spark is a novel biomarker of mouse embryo quality and early development, *Scientific Reports*, in <https://www.nature.com/articles/srep22772>

Zeineh, M., Kang, J., Atlas, S. W., Raman, M.M., Reiss, AL, Norris, J, L., Valencia, I., Montoya, J. G., (2015), Right Arcuate Fasciculus Abnormality in Chronic Fatigue Syndrome, *Radiology*, 274 (2): 517-526.

Zyga, L., (2015), Photon "afterglow" could transmit information without transmitting energy, Phys.org. March 31, <https://phys.org/news/2015-03-photon-afterglow-transmit-transmitting-energy.html>

Walling, P. T., Hicks, N., (2009), *Consciousness, Anatomy of the Soul*, Author House.

Walling, P. T., Hicks, K. N., (2003), Dimensions of Consciousness, *Proc (Bayl Univ Med Cent)*, 16 (2): 162-166.

Warren, J. E., Sauter, D. A., Eisner, F., Wiland, J., Dresner, M. A., Wise, R. J., Rosen, S., Scott, S., K., (2006), Positive emotions preferentially engage and auditory-motor "Mirror" system, *The Journal of Neuroscience*, 2006, 26 (50): 13067-13075.

Whinnery, J. E., (1997), Psychophysiologic Correlates of Unconsciousness and Near-Death Experiences, *Journal of NearDeath Studies*, 15: 231-58.

Whittaker, E. T., (1951), *History of Aether and Electricity*, Vol. I, Chapter 8, Chapter 9, Nelson & Sons Ltd, N.Y.

Williams, A. T., (2007), Consciousness, Physics, and the Holographic Paradigm, in <http://hermital.org/book/holopara1-1.htm>

Winfrey, A. T., Strogatz, S. H., (1984), Organizing centers for three dimensional chemical waves, *Nature*, 311: 611-615.

Wolf, F., (1998), The timing of conscious experience: A causality-violating, two-valued, transactional interpretation of subjective antedating and spatial-temporal projection, *Journal of Scientific Exploration*, 1298 (4): 511-542.

*** A higher physics view of the ultimate atom, in www.Science.trigunamedia.com/anu-of-theosophy/UltimateAtom.htm

*** Fractional Quantum Hall Effect, in <http://css.sfu.ca/update/vol4/4.5-kirczenov.html>

*** Scalar Energy, in <http://members.iimetro.com.au/~hubbca/scalar.htm>

*** Whendoes conception occur?, in <https://www.thefertilityrealm.com/when-does-conception-occur.html>



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BOOKS & PUBLICATIONS

Bordon, A. R., Boyd, R. N., Klein, A., 2009, *The coming longevity of the Earth human biomaind*, Lulu press.

V. Christianto, V., Smarandache, F., Boyd, R.N., Klein, A., Nedic, S., Umniyati, Y., Mešina, M., 2018, *Going Beyond Tesla Recent developments of Laplace Gravitation, SubQuantum Plenum, and Aetherdynamics*, Cambridge Scholars Publishing, UK.

Boyd, R. N., Klein, A., 2019, *The Inners Workings of Reality*, in Old Problems and New Horizons in World Physics, Krasnolovets, V., Christianto, V., Smarandache, F., editors, Nova Science Publishers Inc.

Klein, A. , 2019, *Paradigma holistică polidimensională*, Editura Floare Albastră, București

Countless articles published in professional journals, many of them being found and weblinks:

<http://www.victorzammit.com/articles/Kleinindex.htm>, <http://worlds-within-worlds.org/>,

<http://www.itcjournal.org/?p=4739>, <https://iqnexus.org/mag.htm>

<http://blog.hasslberger.com/spirituality/>, <http://www.spiritfaces.com/pdfs/z9901.pdf>,

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It is a rare privilege to have known Dr. Adrian Klein, PhD for more than a decade.

He is an exceptionally brilliant, creative, highly responsible and moral individual. He is a man in his mid-seventies whom I regard as someone who has already contributed greatly to our world.

It is a privilege having someone like him in ISPE."

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