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Inside, and Beyond "Nothingness"

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Inside, and Beyond "Nothingness"

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Rezumat

O scurtă introducere în domeniul subcuantic, în care putem găsi originea tuturor evenimentelor și proceselor observabile în lumea noastră habituală. Coborând pe scala oferită de divizibilitatea cuantei în structuri din ce în ce mai fine cu sarcini electrice fracționale, până la valorile infinitezimale la nivelul cărora Informația e cuplată la spațiu și timp, în fața ochilor noștri se conturează o realitate nouă, încă puțin explorată, care însă e suportată de legi ale fizicii moderne. Începem să înțelegem proprietățile vidului fizical populat de entități ale căror comportament agregativ colectiv și coerent stă la baza tuturor manifestărilor descrise de mecanica cuantică. Se postulează aplicarea acestor înțelegeri la mecanismele sinergetice ce leagă creierul uman de procesele ce decurg în spațiul informativ prin tiparele morfogenetice ce-i produc structura special adaptată prelucrării câmpurilor informative cu care este interconectat de-a lungul vieții biologice a individului. Vehicularea Informației are loc prin intermediul fluxurilor sub-cuante la viteze superluminale, neexcluse teoretic dincolo de domeniul de aplicabilitate a teoriei relativității. Controlul tuturor acestor procese are loc la nivelul ordinilor super-implicate descrise de Bohm.

Cuvinte cheie: nothingness

Abstract

A brief introduction to the subquantum regime, where the origination of all the observable events and processes of our physical world can be found. Descending along the scale supplied by the divisibility of Quanta toward increasingly fine structures bearing fractional charges, down to the infinitesimal values where Information couples to space and time, we penetrate into a new, still barely explored reality, which nonetheless is supported by the laws of modern physics. We just begin understanding the properties of the physical vacuum, where entities displaying collective coherent behavior patterns are at the background of all the manifestation forms described by

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Quantum mechanics. We postulate that these understanding apply also to the synergetic mechanisms linking the human brain to processes that run in Informatic space, due to the morphogenetic blueprints responsible for its specially adapted structure for processing Informatic fields that are encountered along the biological entity's worldline. The Information transfer is accomplished by subquantum flux vectors propagating at super-luminal velocities, velocities that theoretically are not prohibited beyond the application range of relativistic constraints. All these processes run under higher control instances embedded in Bohm's super-implicated orders of Reality.

Keywords: nothingness

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The Quest the readers of this journal obviously pursue is the one for 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.

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.

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 subquantum, by examining the diverse Information-driven infinitesimal events which constantly arise in the subquantum (smaller than the Planck length) domains.

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

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

Our readers are invited to follow us in this mind-boggling trip into previously uncharted waters, finally deciding for themselves which tracks to follow for verifiable understandings of such topics as Life and Consciousness, and of themselves as self-conscious processors of Reality.

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.

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Because of such understandings, a subquantum 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 subquantum 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 subquantum 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 subquantum 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 subquantum 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 subquantum particle fluxes, such that information from each entity instantly influences every other entity nonlocally, given that the radiated subquantum 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 subquantum background - where infinitesimal subquantum entities with fractional charge and fractional masses are supplying the physical environment which the "elementary" particles and forces are operating in, according to subquantum tenets of collective behavior principles (as described for example, by the Fermi-Pasta-Ulam lattice model).

Such Sub-Plank 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 subquantum 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 subquantum 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 subquantum 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

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in a subquantum environment, and exhibit permanent bidirectional Information-driven exchange properties, with other sub-atomic environmental components. Subquantum 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 subquantum informational tendencies, by their resulting space/time manifested forms.

Convictional propagations of subquantum 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 subquantum. Convictional fluxes in the Subquantum Regime supply reliable links for non-locally connected entities, without violating any of the rules which might apply beyond the subquantum. 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 Subquantum 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 subquantum structures and dynamics, as being pro-active precursors of all quantifiable and "ponderable" forms of matter and energy.

Regretfully enough, the incompleteness most of the existing subquantum 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 subquantum paradigm of Reality, to the originating Information Source(s).

In our model, increasingly fine subquantum 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 subquantum domains.

Organizing functions originating in, and evolving through, the subquantum 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, is directly designed and constructed by direct and adaptive morphogenetic subquantum 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 fundamentals of the Brain/Mind relationship hypotheses, is beyond the scope of this early stage of our explanatory sequence. More interdisciplinary basics have to be first converted to more familiar ones for our readers, in order to address in a most coherent way, this topic.