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The Biological Effects of Quantum Fields

by Glen Rein

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http://healingmindn.com/Quantum%20Field%20Biological%20Effects.pdf

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Summary of main ideas

Cope obtained preliminary evidence that certain biomolecules act as superconductors. This was confirmed by Frohlich, Popp, and Smith in the 1980s, who also demonstrated that EM fields emanating from the body (and their particle counterpart, biophotons, are coherent.

Glen Rein's Quantum Energy Healing Model proposes that the bio-energy field is composed of at least three types of fields: EM fields, potential fields, and quantum fields.

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Smith points out that since the body is a quantum system, it may respond not only to EM fields, but also to potential fields (magnetic vector potential, electrostatic scalar potential), and quantum fields. Rein says potential fields may be considered a bridge between quantum and EM fields. QFs are similar to those described in QF theory, and by David Bohm's "subtle information fields". Classical EM fields exist at the level of Bohm's explicate order, which has imbedded within it the potential field, which in turn has imbedded within it the QF. "According to Bohm the implicate order is composed of a series of levels, each imbedded within the next, where each level is increasingly more subtle and fundamental. If one adds to this model the quantum physics of hyperspace, eventually a subtle level will be reached which is higher dimensional. The assumption is made in this paper that quantum field exist in this higher dimensional level. Rein proposes that healing information originates at the most fundamental level in the implicate order, that of spirit.

As early as 1960, physicists showed that potential fields, in the absence of classical EM fields, have physical effects ie; change the phase of electrons. (Chambers, 1960) In the 1980s, two patents appeared for the use of potential fields to transfer information (Gellinas 1984, Wekroma, 1989) In the early 1990s, Smith experimentally demonstrated that potential fields can produce macroscopic effects by imprinting water with coherent

information (Smith, 1994). Ho, using the same methodology as Smith, showed that potential fields can increase the abnormalities in Drosophila embryos (Ho 1994)

Since biological systems function at the quantum level (DelGiudice et al, Smith, Popp, 1979) they should contain internal QFs which would theoretically respond to potential fields.

Rein's contribution was inspired by N. Tesla's research, Cope's research, and a relatively obscure body of research on "free energy". Some electrical engineers had demonstrated an anomaly known as "over unity", where the total power emitted from an electrical system was greater than the input power. Other anomalies were also observed with respect to temperature, inertia, mass and gravity measurements. (Aspden, 1991). It has been proposed that the additional energy comes from higher dimensional "zero point energy" (ZPE) (King, 1990). Although ZPE is normally considered a a universal background EM field, its higher dimensional counterpart can be considered a quantum field.

Many of the over unity devises have a coil wound in a special geometry which causes self canceling of the EM field. These non-inductive self canceling coils are different from the toroidal coil used by Smith and Ho which traps EM fields inside and allows potential fields to radiate on the outside. Self canceling coils are composed of two sets of windings where current flows in opposite directions, thereby canceling the EM field. These coils have unusual windings, known as caduceus windings (Smith 1964) and mobius winding (Seiki, 1990) which have been proposed to warp space time and generate higher dimensional quantum fields. (King, 1990; Reed, 1996; Seiki, 1990) These coils are reminiscent but different from the more familiar bifilar winding which is also self canceling. Caduceus coils do oppose the current flow by exactly 180 degrees and therefore do not entirely cancel the EM or potential fields. These three types of coils will generate EM, potential, and quantum fields in varying ratios.

The first application of self canceling coils was by Tesla. His magnifying transmitter used two spiral coils where the oscillations were phased to generate opposing EM fields (Sector, 1916). He demonstrated that such coils could transmit energy over long distances without losses. (Tesla, 1904). Tesla used the term non-Hertzian to describe this new energy field because it did not behave according to standard Maxwellian EM theory. Today physicists use the term non-Maxwelian, non-Abelian and non-dispersive. These are also called longitudinal waves (classical fields are transverse) scalar waves (classical field are vectors), standing waves (classical waves propagate) force-free fields (classical fields have force), time reversed waves (classical fields travel forward in time), solitary waves and tachyon energy. Rein uses the inclusive term quantum field.

Rein used the mobius and caduceus coil in various experiments.

In 1979 it was reported that a mobius coil produced a change in electrical conductivity of the skin. Anecdotal reports suggested that a commercial devise, the Teslar Shielding Devise, which used a mobius strip in a crystal oscillator circuit, (Puharich, 1984) provided protection from the effect of power lines. Rein tested various types of cells,

including lympocytes, using two types of shielding devises, with and without the mobius coil. The mobius coil was assumed to produce quantum fields. Both shielding devises worked, but the one with the mobius coil had a greater effect.

Rein also tested lympocites using a caduceus coil. He found that the caduceus and mobius coils, as well as EM fields, stimulate growth of lympocites, but the growth is more pronounced using the caduceus coil. He concludes that quantum fields produce larger biological responses than EM fields.

Rein also showed that water treated with a variety of self canceling coils shows altered absorption of UV light. (Rein 1992).

A bifilar coil, using more simplified geometric windings, was used to determine the relative roles of quantum, potential, and EM fields. William Tiller of Stanford provided calculations for the strength of the magnetic (B) and vector potential (A) fields. Both were found to be very small. 10-12 for B and 10-14 for A. the primary field present then, was the quantum field.

In spite of this, this bifilar coil produced a small increase in UV absorption, and from this Rein concludes that quantum fields exist, are distinct from B (EM) and A (potential) fields, and are able to induce a measurable macroscopic effect on water.

Discussion

Although physical effects of classical potentials have been measured (Chambers, 1960), they are not considered to be real since they are not gauge invariant because they change when taken to a new location in space/time. According to classical EM field theory potentials can only be real if they are gauge invariant.

This has caused several responses from physicists. Some have modified Maxwell's equations. The new equations yield gauge independent potentials.

New mathematical expressions can also be used to describe potentials, which also describe energy fields with unique properties.

A third approach has been to decompose classical potentials into more fundamental components. Thus, classical potentials can be further decomposed into "super-potentials" and super-fields". These are often used in supersymmetry field theories and string theories. Super-potentials and super-fields have unusual global properties associated with negative energy states of subatomic particles. This decomposition of potentials has also revealed another type of energy field called the standing wave. Standing waves are generated by the same concept used in self-canceling coils. Thus, standing waves are generated when two EM force fields (of a special type referred to as circularly polarized) travel in opposite directions. Standing waves are an example of a non-Hertzian quantum field since the orientation of their electric (E) and magnetic (B) vectors is unique. Classical EM fields have 1) their E and B vectors oriented perpendicularly (orthogonal to one another) and 2) oscillate perpendicular to the direction of propagation. Standing waves may have both of

these properties altered: Some standing waves have their E and B vectors parallel, whereas others oscillate in the direction of propagation.

Standing waves are supposed to be scalar, so they have no vectors associated with them

These later are called longitudinal waves, and were first proposed by Tesla to explain the anomalous behavior of the non-Hertzian fields he was working with. Another type of standing wave is called “force-free” since the Lorentz force is zero. Force-free fields can be generated in plasmas.

Higher dimensional energy fields have been characterized by Rauscher as being complex; ie; they have a real and imaginary component. (Rauscher, 1968). Seiki also used the concept of complex numbers in describing the imaginary components of quantum fields generated from mobius coils. (Seiki, 1990). Imaginary particles are a part of quantum physics according to Dirac, although the energy fields associated with such particles is not part of mainstream quantum physics. The idea of quantum potential was introduced by Bohm (1975) in conjunction with Schrodinger’s wave equation.