

Philosophical foundations of the quantum universe and complementary and alternative medicine

Abstract

The universe is quantum. As such, complementary and alternative medicine has to adhere to the principles governing the physical universe. Physics, biology, health sciences and medicine, to name a few, are all based on a common underlying reality. This reality allows for convergence. The existence of universal principles in both science and medicine implies that one can explore their common applicability. What we have learned from quantum mechanics, phenomena such as entanglement and non-locality, the role of participation of the observer, apply to medicine in general. This brief communication examines the universal principles of Integrated Polarity, Recursion and Creative Interactivity and how they may apply to all levels of existence and all human activities, including healing and medicine. Complementary and alternative medicine traces its origins in holistic paths, applicable not just to ancient practices but very much to today's world. In addition to ancient and modern approaches to heal the body and achieve well-being, contemplative practices such as relaxation and meditation when combined with healing, aid the psychosomatic wholeness of the individual and allows the removal of different blocks to allow healing to take place. This is where the role of the observer as a participant is paramount. We can now have meaningful dialogue between science and alternative healing practices. If science is to be relevant to our lives and well-being, then dialogue between healing practices and spirituality can lead back to an integrated wholeness of the individual human being. The universal field that quantum physics implies a conscious and living presence. This is what we call the *Living Presence*. If we consciously live the Living Presence, and we are fully aware of our own healing, aided by alternative methods and techniques of medicine, complementing Western medicine, we can be a fully alive Integral Person.

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Introduction

The nature of being is beyond science. However, being is the most fundamental aspect of our existence and experience. In healing and medicine, we have to address the individual as an undivided whole. This view is much more in agreement with quantum mechanical reality than a classical worldview. Western medicine often accepts alternative healing modalities such as acupuncture. Yet, science still regards to a large extent the human organism as a biochemistry-driven entity. Complementary and alternative medicine treats the individual as an integral whole where parts are not separate from each other. This integral whole is in communion with other beings and in fact the entire universe itself.

In the quantum universe, the issue of the mind and consciousness in general play an important role. The universe is not just a "physical" entity, it allows for the role of the mind. In fact, a quantum universe with no consciousness makes no sense. What is the nature of *consciousness* is, as we pointed out, beyond external reality and can only be directly experienced. However, *how* consciousness operates, rather than *what* it is, can be put into a consistent, integrated framework. An increasingly accepted view that modern quantum physics has developed, in the original quantum mechanical theory and the quantum field theories that evolved out of it, is that *universal Awareness* (which includes all conscious and unconscious processes, awareness of one's own self as well as others) is the *foundation of the universe*. The capital A and C refer to universal, rather than individual, consciousness. This holistic approach, based on universal principles is at the heart of complementary and alternative medicine, and traces its origin to ancient contemplative practices which emphasize

well-being and spiritual wholeness. As such, quantum physics and complementary and alternative medicine, including Oriental medicine, may have much more in common than a strictly classical worldview would imply.

The reader is directed to the references at the end of the present article and other works cited therein.

Discussion and Conclusion

We need to achieve consensus on terminology related to A and C. Most workers in brain science and mental fields identify consciousness with neuro processes in the brain, presuming that consciousness is a derivative of neurophysical processes.

Modern quantum mechanics (QM) places a central role for the mind in the universe. The founders of QM regard this theory as a guidepost of how the mind interacts with Nature and objects contained within. Niels Bohr, Max Planck, Werner Heisenberg, Wolfgang Pauli, Erwin Schrödinger, Sir Arthur Eddington, and particularly John von Neumann, assigned a central role for observation and measurement. Standard von Neumann interpretation of orthodox quantum theory holds that a quantum system evolves deterministically through unitary time evolution of the quantum state but upon measurement, a particular value of the system emerges, as prescribed by quantum probability. What specific values will emerge, quantum theory cannot predict. Observational choices determine the contextuality of what is to be observed. Richard Feynman and John A. Wheeler held that without observation, quantum systems don't even possess any properties. As Wheeler often stated, "no phenomenon is a phenomenon until it is an observed phenomenon". The observer's choices as Henry Stapp

emphasizes play a fundamental role in shaping an understanding of the “external” reality we observe, in accordance with Bohr’s Copenhagen interpretation of QM. Quantum theory opened the door to consciousness but did not provide a solution on the nature of Awareness and conscious processes, what they really are.

As discussed in the references below, a mathematical formalism of the fundamental relationships between subjects and objects becomes paramount. It is important to understand the common framework that may be applicable to all levels of experience, as revealed primarily by quantum theory, and in agreement with ancient schools of thought. These are particularly relevant to complementary and alternative medicine. The world of experiences reveals three fundamental Laws of Nature, primarily reflected in quantum theory and applying to all science. It is the means in which Awareness objectifies the world: *Complementarity, recursion and creative interactivity*. *Complementarity* (termed *Integrated Polarity* in everyday language) is the Law that accounts unification of the *apparent opposites at deeper levels* of Reality. Complementary relations are to be found at every level of existence and for every system and sets of processes, providing a justification that QM is the starting point for developing an integrated scientific framework that includes alternative medicine, as well as Western medicine itself. A consequence of the complementarity principle is that it provides horizons of knowledge that are inherent in any system of knowledge and practice. However, such boundaries set up in knowledge systems, *are not absolute*, they depend on the act of observation.

The second Law of Nature is *Recursion* (termed *Correspondence* in everyday language), can be simply stated, “As here, so elsewhere”, “as above, so below”. Recursion assures that all particles of one kind (say electrons) are similar, in fact in this case, identical; all electrons obey the Pauli Exclusion Principle; all cells in different organisms are similar; all trees are similar; all stars share common properties. Without recursion, science and knowledge themselves would not make sense or even be possible: The world (and therefore Awareness, which is fundamental Reality) operate through recursive relations.

The third Law of Nature, *Creative Interactivity*, states that interactions at many different levels, between objects, between particles, between living organisms, between planets and stars, between galaxies, occur all the time. An example is universal interactivity through the law of gravity, interactivity through

electromagnetic interactions, etc. More fundamentally, interactions between subjects and objects; between sentient beings (the special form of *Sentience*); between objects and objects; between cells and cells, etc. Sentience is in a sense a fundamental aspect of Awareness, what forms the foundation of the Conscious Universe.

The three Laws form an undivided whole of operating principles and *give meaning to the universe*. They are the workings of how Awareness manifests the universe and they apply at all levels, beginning with the fundamental subject-object relationships and the mathematics of Conscious. They constitute *living the Living Presence*. These conclusions need to be explored in all their ramifications for the nature of Reality, pertaining to health and medicine.¹⁻⁶

Conflict of interests

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