NES HEALTH
Through Energy & Information

An Introduction to the Human Biofield

The twenty-first century has been billed as the Century of Biology, but it might be more accurate to call it the Century of Quantum Biology.

If frontier biologists are correct in their research and predictions, this is the century in which physics and biology will become integrated in ways science has so far deemed impossible.

The Background

Conventional science says that although everything in the universe is built from quantum building blocks, we cannot see or detect the signature of the quantum realm in our macroscopic world. Here classical physics reigns supreme. This belief is especially true in biology, where the warm, wet matter of the body and the body's intricate interactions with the environment drown out quantum signals. The body is classical, they proclaim, and is ruled by molecular biochemistry and nothing more. Not so, say frontier scientists across the board, from physics, biology, systems theory, medicine, mathematics, philosophy and other disciplines. We may indeed be quantum beings, and these scientists and independent researchers are discovering ways to detect and measure the quantum nature of the body.

Among the most important areas impacted by their findings will be medicine, as therapies move away from molecular and biochemical ones (pharmaceuticals) and "wet" matter options (such as surgery) to those based on the fields, forces and quantum nature of the body. These therapies will be 'bio-energetic" and "bio-informational" in nature, meaning they will trace the root cause of the loss of health to distortions, blocks or other impairments to the human "biofield" - to the structured network of energies and information that underlie cellular function. The return to health will be via correcting energy and information distortions through a host of possible mechanisms, from sound and light to vibration and hands-on healing, to encoding information into water or onto other kinds of carrier substances.

It's not open to question that fields and forces - even those we currently cannot easily detect - are causative influences in nature and evolution. What is open to interpretation is what kinds of fields are influencing the human body and its biofield, and to what degree they impact our state of health. Among the most well-known advocates of a quantum field-level view of the human body - to the human biofield - are Deepak Chopra, MD; Andrew Weil, MD; Amit Goswami, physicist; Rupert Sheldrake, biologist, James L. Oschman, biologist; Larry Dossey, MD; Peter Marcer, physicist and computer engineer, and Edgar Mitchell, PhD, former US astronaut and founder of the Institute of Noetic Science.

So, just what is this Human Biofield?

A sampling of a variety of the most respected and well-formulated theories follows.

Rupert Sheldrake believes the biofield is a morphogenetic field - an aspect of the larger morphic field that directs evolution and orders nature by imposing organisation on what are otherwise random and indeterminate activities (www.sheldrake.org). The morphic field is responsible for formative causation, not just at the level of the body, but at the species and even societal levels as well. The morphic field is not fixed, but evolves, driven by morphic resonance, which is a quantum "non-local field" resonance, meaning it operates not at the classical level of cause-and-effect but at that of quantum entanglement and "action at a distance." The morphogenetic field is the organising field for most organisms, including human beings. It interpenetrates the human body and not only influences our physical and psychological selves, but may be at the foundation of so-called "paranormal" abilities, such as telepathy and hands on healing.

Peter Marcer, along with Edgar Mitchell and Walter Schempp, the father of the magnetic resonance imaging (MRI and fMRI) machine, believe that we are essentially quantum beings sensitive to quantum fields. They propose that our world is awash in phase waves that encode the characteristics of each entity. So, for instance, an oak tree's phase waves differ from a maple tree's phase waves, even though they are alike in class (both part of the class of "tree" phase waves). We, too, have both a species-level phase signature - a body-field - and a personal one, with our personal phase waves encoding our unique characteristics and making us recognisable as individuals. We are bombarded with millions of phase waves every second, and we extract information from them both consciously and unconsciously, via sensory and non-sensory channels. Marcer's theory arises from the standard model of quantum mechanics, and he applies it mostly to explain the mechanisms of consciousness rather than those of health. (See Marcer, "A hquantum Mechanical Model of Evolution and Consciousness." Also see Mitchell, www.noetic.org).

Spirit-Mind-Body Influences

Deepak Chopra, Amit Goswami, Larry Dossey and others are less rigorous in exploring the specifics of the human biofield and take its reality as a given. They are more interested in exploring the therapeutic consequences of healing via quantum fields and forces, of taking healthcare outside the box of biochemistry and into the realm of the spirit-mind-body influences. While they delve into the quantum "non-local" aspects of healing, they are - with the possible exception of Goswami - more interested in being physicians than physicists.

Many traditional and non-traditional healers and complementary healthcare practitioners claim to work with the human energy field, either as a series of chakra-like fields or as a pervasive whole-body biofield.

Most, however, have not conducted research into the biofield.

"The Human Body-Field"

Among the most notable exceptions is former acupuncture professor and practitioner Peter H. Fraser. For more than 25 years, Fraser has explored the human biofield, what he calls the human body-field, and he has formulated a comprehensive theory that reveals the biofield as a complex, structured network of fields that interpenetrates the physical body and underlies all physiology. Fraser's theory stands alone in both its broadness and its level of detail, integrating as it does physics and biology and updating traditional Chinese medicine by correlating it to modern biology with astonishing levels of detail. Fraser and his collaborator, Harry Massey, explain their theory in their recent book, **Decoding the Human Body-Field: The New Science of Information as Medicine (Healing Arts Press/Inner Traditions, 2008)**.

The noted systems theorist, Ervin Lazlo, who himself has proposed a theory of a human biofield, says of Fraser and Massey's body-field model: "Information is as important as energy in the universe, and Fraser and Massey show that it is as important in the human body as well... The authors have succeeded in translating this basic insight into effective health-preserving and conserving tools: information-based diagnosis and information-coded remedies that will be the basis of medical science in the future." Information is the key to the coming revolution in medicine.

Information is Key

Eminent physicists such as Jacob D. Bekenstein claim that information is more fundamental than energy in nature and that information may, in fact, be the most fundamental aspect of the universe. As science reporter Mark Buchanan writes in New Scientist, an increasing number of scientists "believe that information is a kind of subtle substance that lies behind and beneath physical stuff." **(See "Beyond Reality: Watching Information at Play in the Quantum World Is Throwing Physicists into a Flat Spin," New Scientist, March 14, 1998, p 26.)**

Although energy is necessary as a moving force in nature - for the universe to be in an evolving, dynamic state - information is the key to its organisation, patterns, forms and functions. In the human body, energy ensures physiological action, but information underlies what the body does, why it does it and how. The body at the cellular level must work with astonishing precision and exquisite timing, efficiently managing millions of chemical reactions and molecular activities every second. It can do so because of the information fields that direct it at the sub-cellular level - most likely at the quantum level.

Key Researchers

Specific mechanisms and processes of the human biofield have been explored by a number of medical researchers, biologists and physicists.

As examples, Germany's Fritz-Albert Popp is considered the father of biophoton research. His work reveals that cells produce and use ultraweak coherent light and that this light has important influences on cell function and on a person's overall state of health. W. R. Adey, Robert Becker, and other medical scientists have shown that external fields and forces, such as electromagnetic fields, impact health and well-being. Biologist and biophysicist James Oschman reviews the long history of research into the perineural system and connective tissue matrix, which as a crystalline lattice network displays quantum-like characteristics. Others are exploring cavity physics as it applies to large scale structures, such as the brain, heart and lungs, and to micro structures, such as microtubules and nanotubes in the body.

This research is heavily influenced by quantum phenomena such as electron tunneling, entanglement and non-local fields. Even engineers and systems theorists, such as the late Herbert Fröhlich and the esteemed Ervin Laszlo, have proposed that the body displays evidence of being influenced by or actually creating coherent quantum fields, which they believe are crucial to explaining biological information processing.

The "science of the biofield" may be largely unknown in conventional academic circles and to the general public; however, to those with an eye to what's coming next in biology and medicine, biofield theory is the most exciting and promising path to a complete revamping of medicine, making it more noninvasive, effective, and humane. Every year millions more people make the shift, as patients move toward increasing reliance on alternative and complementary medicine and as allopathic physicians admit to the limitations of the purely biochemical model of the body. The pioneering research into the human biofield is moving us more swiftly every year from seeing ourselves as only physical beings to seeing ourselves as bio-energetic and bio-informational beings.

The paradigm shift we are now experiencing is bound to be every bit as shattering to the scientific status quo and our overall worldview as was the shift in medicine from medieval humours and phlegm theory to modern germ theory, and in physics as was the shift from classical Newtonian physics to the weird world of quantum physics.

In this "Century of Biology," the coming decades will likely be ones in which biofield theory finally gets the attention and funding that it deserves.