## Resonance: Synchronized Swimming In The Quantum Sea

## By MARIE D. JONES

"Resonance (n): the effect produced when the natural vibration frequency of a body is greatly amplified by reinforcing vibrations at the same or nearly the same frequency from another body." Webster's New World Dictionary

As a kid, watching the synchronized swimming competition of the summer Olympic games, I was always struck by how silly the sport seemed. Not to mention how it looked! Later, as a wise adult, I came to understand and appreciate both the degree of difficulty of getting human bodies to move in perfect unison, and the beauty that results when they do.

Humans often operate in synch with others. I am reminded of groups of women who work or live together menstruating at the same times, as if their hormonal systems sought a certain resonance of unity and harmony, and adjusted the individual bodies accordingly. But bodies are not the only things that resonate. We know that there is no such thing as empty space, and that the so-called vacuum of space is teeming with quantum fluctuations that display a resonance, a vibration. Nothing does *not* vibrate. There is no such thing as zero, dead, still. Everything that exists gives off some vibration of a certain frequency.

Every planet, every person, every particle.

Musicians know that when a guitar string is plucked on one instrument in a music store, all the other guitars in the same room will vibrate to that tone. Healers refer to this

as "entrainment," when two objects (or people!) in close proximity, vibrating on different frequencies, begin altering their vibrations until they are vibrating at the same, or nearly the same, frequency. The Zero Point Field could act as a field of "entrainment" or resonance, where the vibrations of particles tune to specific frequencies, creating different forms of matter, energy and interactions. Other scientists believe this field has different names.

In 1998, physicist Paul Steinhardt and his colleagues coined a term that would describe a mysterious field of what they believed to be dark energy, or a "fifth essence." They called in "quintessence." Based upon an earlier idea proposed by Fermilab physicist Chris Hill and colleague Josh Freeman, quintessence suggested that, like the cosmological constant of Einstein's vision, this essence fills all of "empty" space with a form of matter-energy that is changeable in strength. Some parts of space might have a thicker quintessence, others a thin "layer," creating a field of invisible essence that has no direction, like a vector field, only magnitude, like a scalar field.

Described as kinetic energy by Tom Siegfried in "Strange Matters," the strength of this field would be measured by how quickly it approaches the zero point. Because quintessence is believed to exert negative pressure, it is said to be a slow rolling scalar field, one that does not change too quickly over a period of time. Whether or not quintessence is the dark energy so eagerly sought by physicists will decide the fate of the universe itself, because of its relationship to expansion. The presence of a negative energy in space would possibly stop the expansion. And, if dark energy were indeed the same as quintessence, the changeability of the field would suggest the universe's fate is simply one we cannot predict with accuracy.

Aside from the role quintessence plays in the outcome of our universe's destiny, it may also play a role in the way matter and energy interacts, or resonates. Nature is filled with signs of the importance of resonance and the beauty of synchronicity. From the physical foundation of all musical composition to the intricate mathematical ratios of the natural world, there seems to be an element of "arrangement" that results in a visible pattern.

Take the Golden Ratio, known since the dawn of Egyptian civilization, which is found in art, architecture and the human body. The Golden Ratio is a representation of the ratio 1.618, otherwise known as phi. This measurement of one-half the sum of 1 and the square root of 5, has been used in famous paintings as well as buildings such as the pyramids to create a perfect ratio that mimics those found in nature. The Golden Ratio, also referred to as the Golden Section, Golden Mean, divine proportion or "sectio divina," is found in the form of another phenomenon known as the Fibonacci pattern, or spiral. Look at the positions of leaves on a flower stalk, or the spiral shells of mollusks, or the positioning of seeds in a sunflower's face and you see evidence of a Fibonacci spiral.

The amazing mathematical measurements found in the natural world, and replicated in the human world of art and architecture for aesthetic value, indicate a set of universal laws, or rules, that are at the very heart of creation itself. These laws indicate a profound resonance between energy and matter, resulting in the most intricate specifics of a tropical mollusk's shell or the petals of a rose. Scientists claim the Golden Ratio is

even present in snow crystals, viruses, and microscopic organisms, as well as in the behavior of light rays in experiments with layers of glass. If our universe is really finite, with boundaries, as suggested in earlier chapters, and that we are but one universal bubble floating in a sea of bubbles, we might speculate that, were we ever able to measure the boundaries of our universe against those of the larger field of existence, that measurement might be approximately... 1.618.

Sacred geometry utilized the patterns of nature and the presence of energy grids when constructing buildings such as churches, temples and places of worship. The term "sacred geometry" covers both Pythagorean and Neo-Platonic geometry and encompasses religious, philosophical and spiritual beliefs into the physicality of geometric design. Ancient Greeks especially assigned attributes to Platonic solids and geometrically derived ratios that had a spiritual meaning, and the Golden Ratio or Section was one of those dynamic principles that embodied the physical and spiritual power of patterns, and vibrations. In fact, sacred geometry has been said to both tap into and create vibratory patterns in the earth, and in the cosmos, as many sacred sites are often built in alignment with stars and planetary movements. Sacred architecture was built on specific locations, and in specific patterns that were symbolic of geometrical archetypes, which reveal the nature of form, reality and the underlying vibrational resonance.

The concept of vibrational attraction has been tested in a more scientific setting, including studies by quantum biologist Dr. Vladimir Poponin, who created a vacuum in a container. The only objects left were photons – light particles, which were measured and found to be randomly distributed...until Poponin introduced physical DNA into the

container. The photons then lined up in orderly fashion, precisely in alignment with the DNA. Once the DNA was removed, the photos *remained in the order of the DNA*.

The end result was surprising, suggesting a resonance between the photons and the DNA even after they were separated.

If we can speculate that there exists an underlying pattern or structure to reality that manifests on the visible scale, a field of essence, of pure vibrating energy present throughout space and time, then we may also speculate upon the nature of this field, and what might happen when those vibrations occur in a synchronized state, the way guitars in a music shop will hum "in synch" to create a harmonic convergence of sound.

Physicist David Bohm believed that underlying the physical, tangible world, there was a far more mysterious, deeper order of "undivided wholeness." He called the visible world the explicate order, and that deeper world the implicate order, and used the analogy of a flowing stream to describe his realization of unbroken unity.

"On this stream, one may see an ever-changing pattern of vortices, ripples, waves, splashes, etc., which evidently have no independent existence as such. Rather, they are abstracted from the flowing movement, arising and vanishing in the total process of the flow. Such transitory subsistence as may be possessed by these abstracted forms implies only a relative independence or autonomy of behavior, rather than absolutely independent existence as ultimate substances."

Those rather philosophical words came from Bohm's "Wholeness and the Implicate Order," which he wrote in 1980, and suggested the world of the implicate order was similar to a hologram, where the complex interference patterns appear to be chaotic and disordered to the naked eye, yet on a deeper level possess a pattern that is hidden or

"enfolded" into the whole object. Bohm even suggested the universe itself was like a flowing hologram, or "holomovement," that contained order on an implicit level. The explicate order would be the projection from higher dimensions of reality, and any apparent stability of objects and entities are really a sustained process of enfoldment and unfoldment. Nothing solid is really solid at the implicate level.

Bohm also believed there was a superquantum potential, or a higher "superimplicate" order operating in the universe, and that life and consciousness were enfolded within, with matter appearing in varying degrees of "unfoldment." He even stated that the separation of matter and spirit is nothing but an abstraction, that the "ground is always one."

The implicate order is the fluctuating sea of energy from which matter unfolds alongside it. One is visible, like a television. The other, invisible, like the electricity that powers the TV. The study of music (and the patterns of sacred geometry) suggests an invisible, "implicate" vibratory nature. Sympathetic Vibratory Physics is a term assigned to a "musical universe," an interesting alternative theory of reality proposed by Walter Russell in "A New Concept of the Universe." Russell believes that there exists nothing in nature other than vibration. He attempts to create a paradigm of reality using wave and vibration theory based upon the work of John W. Keely's concepts of a sympathetic vibration that connects all things and energies, and that the harmony of these vibrations creates what we see.

Russell and Keely suggest that music can be thought of as a model of the order found in the universe, with organized vibration or sound following principles of structure

and behavior that make sound into harmonies. These principles mimic those governing other vibratory patterns in the universe.

Take the idea that everything is the result of a vibration, and even Zero Point

Energy in the quantum vacuum has been shown to "jiggle" or vibrate. Everything has its

"jiggle." We can go on to say that different things have different "chords" or "vibration

signatures," and that is what makes one thing discernable from the next. Sounds a lot like

superstring theory, with tiny, vibrating cosmic strings at the very heart of existence.

Vibrations are dynamic, interacting with one another and their environment, creating different tones and chords and harmonics. In a sense, vibrations are more fundamental to reality than the tiniest subatomic particle, because in a sense, that is what the tiniest particle is...a vibration.

We can also add to the mix, pun intended, the various pitches and frequencies, as well as musical intervals, and easily see how the universe could be made up of harmonics. After all, isn't it called a "uni-VERSE?"

The most exciting thing about this invisible vibratory field, no matter what form it might take, is the potentiality it contains. Potential as a source of all other sources.

Potential as a pure energy field upon which all matter is created and thrown out into the explicate order. Potential even as a doorway to other dimensions or levels of reality, where things like ghosts, UFOs and psychic abilities are the norm.

Physicist Paul LaViolette writes extensively about "transmuting ether" in his book, "Genesis of the Cosmos: The Ancient Science of Continuous Creation." This ether, which is the basis of LaViolette's theory of "subquantum kinetics," is described as an active substrate that differs from the mechanical ethers once considered in previous

centuries. LaViolette states, "The concentrations of the substrate composing this ether are the energy potential fields that form the basis of all matter and energy in our universe."

The ether reactions cause wave-like field gradients that emerge and form the "observable quantum level structures and physical phenomena," including the various particles, forces, fields and electromagnetic waves.

Subquantum kinetics, which LaViolette proposes as a unified field theory that fills in the gaps conventional physics cannot, rests on the existence of this "primordial" transmuting ether present throughout space. "The transmuting ether is the wellspring of Creation, "he states, adding that were its activity to diminish, everything physical would cease to exist, coming to a state of "multi-dimensional consciousness" from which the physical universe is generated. A ground state, or Source of all Sources.

Again, this ether sounds a lot like the Zero Point Field.

Rupert Sheldrake, biologist and co-author of "The Evolutionary Mind: Conversations on Science, Imagination and Spirit" refers to this vibratory field as the "morphogenetic field." This "M-field" (and there can be many M-fields) is an underlying energy field that acts as an organizing principle to give form to various levels of reality. He also suggests there is "morphic resonance," or the resonance of memories which exist in the sort of "Akashic field" or "collective unconscious" of Jung. These memories shape our minds today, but subconsciously. Sheldrake, who has experimented with psychic pets and animals, theorizes that the existence of an invisible field of influence, although unproven, could be the link between humans and their pets. "Morphic fields also contain attractors, which draw organisms towards future states." This could explain how a dog

might pick up a change in the morphic field that lets it know it's owner is only a half block away."

This invisible field could also be the link between humans and their ghostly visitors, and between humans and poltergeists, as discussed in William Roll's "Unleashed." The presence of both electromagnetic anomalies and the theory of the Zero Point Field both played a part in Roll's investigation, detailed in earlier chapters. Playing off of the magnetic fields, the way birds do when homing, the poltergeist energy found an outlet for manifestation through the brain of a young teenager, and many ghost hunters will point to energy fluctuations and EMF changes present during a haunting or sighting event.

The morphogenetic field itself could be made up of "morphic wavelets" of resonating, vibratory energy that differ in scale and frequency. The wave could have a resonance that synchs up with the resonance of a pet, or a human, who then displays some "psychic" ability to predict a coming earthquake or disaster. And if they are tapping into a field that contains memories of past, present and future, a time landscape so to speak, they could access any event throughout the space/time continuum.

Terence McKenna, psychedelic visionary and co-author of "The Evolutionary Mind," points out "Once nonlocality is accepted, some of the things we're interested in are permitted – telepathy, information from other worlds arriving by the morphogenetic field, and so on." We know that experiments have proven nonlocality to be a reality on the quantum level. Two particles continue to affect one another at extreme distances. The same actually happens on a macrocosmic level all the time.

We call it synchronicity.

Advanced physics tells us that an event at Point A in the universe does not cause an event in Point B to occur a little later. Actually, both events occur at the same time. Carl Jung used the term "synchronicity" to describe this same phenomenon on a human level. Synchronicities are evidence of an all-inclusive field that goes against the normal cause-and-effect rationale for events that occur that challenge our illusion of the line between subjective and objective reality.

Perhaps, the universe itself is based upon principles of synchronization. Physicist Claude Swanson, educated at M.I.T. and Princeton, believes it is. He even believes his "synchronized universe" theory leaves the door wide open for a variety of paranormal phenomena to exist in a reality where our own matter operates in synchronized fashion with everything else.

In his book, "The Synchronized Universe," Swanson points out that parallel universes superimposed upon our own can differ in phase or frequency of their synchronization. Basically, people can only access their own universal "sheet" of existence, and thus believe that is the only one that exists. Same goes for anything moving around on all the other parallel "sheet" universes.

But alter the phase or frequency just so, and an object can disappear from one reality, and appear in another. Like a ghost.

The synchronized universe theory could explain how UFOs can appear and vanish instantly, as reported in hundreds of sightings, and how teleportation might be achieved. It could also explain the existence of "subtle energy," which, Swanson theorizes, arises from the motions coupled across the layers of parallel universes. Subtle energies, Swanson states, are the "coherent structure which crosses several of these parallel

realities, and therefore is 'higher dimensional.''' The interesting thing about synchronization is that it allows every particle a fundamental frequency proportional to its mass, and also explains how particles can become synchronized, like those Olympic swimmers, at small scales. This "synchronizing" of matter and energy would indeed allow for paranormal events to occur, and would no doubt explain why they might occur in transient, unpredictable ways. Ghosts, out-of-body experiences, remote viewing, psychokinesis and poltergeist activity all may be the result of the synching of particles and matter between various levels of existence, creating a literal means for moving between dimensions of reality. Swanson states, "Paranormal effects and 'subtle energy' cause a synchronization across adjacent parallel universes. When this occurs, these adjacent universes become to a degree synchronized with ours. The interaction becomes more coherent, more in phase."

When there is no synchronization, we experience the other universe or dimension as "random noise."

Coherence might also reduce the random noise between systems, allowing more cooperation between two parallel systems, or universes. Swanson calls this coherence between parallel systems a 'hyperdimensional' structure which crosses the dimensions. He suggests these may also be possible models for human consciousness and the concept of a soul.

A healer or someone who can move objects at will (or, in the case of poltergeists, not at will) can be using the concept of synchronization, even if they don't understand what they are doing. Perhaps this explains the dynamic results of John Hutchinson's experiments in his lab, where objects moved about and levitated when exposed to a

variety of electromagnetical stimulations. If just the right frequency was achieved, stuff went crazy. If not, the lab was quiet but for the hum of the machines.

Even teleportation fits into the synchronized universe theory. Swanson points out, "The behavior and position of matter is dependent on its radiation field, which keeps it in place, gives it inertia and allows it to interact with other matter in the universe. If we shift the phases of radiation coming into the particle and coming out of it from the past and the future, we may be able to shift it's position." This may be the key to a form of "hyperdrive" that causes teleportation.

Physicist F. David Peat suggests that synchronicities are "flaws" in the fabric of reality, momentary fissures that offer those sensitive to them a brief peek into the implicate, underlying order of nature. We know from the Law of the Conservation of Energy that the total inflow of energy into a system must equal the total outflow of energy from the system, plus the change in the energy contained within the system. In other words, energy never dies. It is converted into another form. Ghosts, if they represent trapped energy, may move between parallel dimensions or universes by this process of synchronization (possibly using the ZPF as a vehicle for moving between the dimensions) and become visible in our world because they are still energy. Many ghost sightings involve balls of plasma and changes in electromagnetic field measurements, as well as visible signs of energy manipulations. Lights flicker or pop, static appears on radios and televisions, and people report the feeling of their hair rising on their skin or the back of their head.

These are also widely reported elements of UFO sightings (stalled car engines, black-outs, phone interference...). Obviously, energy is present, and affecting its environment.

In a paper titled "Searching for the Universal Matrix in Metaphysics" by Hal Puthoff published in "Research News and Opportunities in Science and Technology," he made a similar assumption in regards to the presence of Zero Point Energy as universal background energy. "Rather, to the degree that 'energy' is involved not only in the physical but in nominally non- or para-physical phenomena (including perhaps such 'mundane' phenomena as thought, charisma, etc., let alone psychokinesis), then such energy patterns might in principle emerge as a result of cohering or patterning the otherwise random, ambient zero-point energy."

Again, one is reminded of music. When two or more notes are played together, they either create a beautiful harmony, or a noisy discord. The notes that work well together create a resonance. Those that don't "make sweet music" together create a dissonance. The sonic vibration or waveform, since sound is made up of waves, will either be in synch, or way off, and your ear, and body, can tell the difference.

If paranormal events can only occur when the "right two notes are struck," then something in the brain, or the body, is responding to those notes and "tuning in" to the phenomena that is otherwise beyond perception. Or perhaps it is always there, but we rarely are in a state of mind to perceive it. This would explain why die-hard skeptics never have a paranormal experience. They just plain aren't "in tune."

Sound waves act like any other waves and vibrate to varying frequencies. Even magnetic waves vibrate, and most paranormal phenomena are associated with physical

effects that imply the presence of energy, often electromagnetic, but sometimes even sonic energy.

Music serves as a great example for this theory of resonance, because it operates much like the universe itself does. To take it a step further, healers suggest that the human body is also a harmonizing machine, one that either is in synch with health or with disease. In his intriguing book "The Secret Life of Water," Dr. Masaru Emoto photographed water crystals exposed to various emotions, thoughts and intentions, and found stunning results. The photographs showed remarkable differences in the beauty and symmetry of water crystals that were exposed to positive information as opposed to negative.

Emoto believes that resonance has a lot to do with how water is able to respond to someone's prayers, or even a nice piece of music. It's all about vibration. He even experimented with a man named Alan Roubik, an American pianist. Roubik based his career on his belief that music can heal. Emoto had Roubik play a beautiful musical score, which was recorded and exposed to water crystals. Using a Magnetic Resonance Analyzer, which detects the minutest vibrations, they were able to take measurements of the photographs of the amazingly delicate crystals that formed, showing how the water itself was affected by the music.

Emoto espouses "hado medicine." Hado is the subtle energy that exists in all things, like the organe energy of Wilhelm Reich, or "chi" energy. Emoto believes that the human body, which is made up of 70% water, responds like the water crystals do to music and prayers and words, all of which are sound waves. In hado medicine, the body is likened to a universe of its own, with trillions of cells doing their specific jobs while

"simultaneously harmonizing" with other cells. "The organs, nerves, and cells of the body have their own unique frequency," Emoto writes, and the body is like a grand orchestra that harmonizes the various sounds.

When there is discord, or "dis-chord," there is disease.

Neurosurgeon Karl Pribram spent decades pondering the secrets of the human brain and memory, and eventually discovered that the brain worked somewhat like a hologram, and that when you first see something, specific frequencies resonate in the brain's neurons, which then send information about the frequencies to other sets of neurons, and the process continues until your neurons construct an image of what you are looking at. That the brain seems to process information in wave-frequency patterns suggested that human memory could hold amazing amounts of information "in storage," and, using the same holographic model, be able to access and recall a memory as a three-dimensional image.

Pribram also proved to many skeptical colleagues that memory was distributed throughout the brain, rather than located in one particular system. He pointed to research using rats in a lab. The rats had major nerve pathways in their brains cut and some of their primary visual cortex removed, yet could still remember and perform complex skills. The brain, just like a hologram, stored every element of the original image over the entire system.

The holographic model of the brain could allow for ESP and telepathy, then, by the same process, according to Swanson. "If the sender can cause energy or information to refocus at some other point in space-time using the 4-D holographic principle, then it can be received if a person is there to sense the thought-form." ESP experiments in lab settings have shown that, indeed, people get the best results when they are calm, and in a certain state of mind, as well as when the sender and receiver are "in synch," Swanson adds.

Pribram's brain research didn't stop with the holographic model and its implications for a variety of interesting abilities. He also showed that the brain acted like a frequency analyzer that literally filters out unlimited wave information from the Zero Point Field, where all the information possible existed. This allows the mind to take and use only what it needs, and not be overwhelmed with a bombardment of unnecessary frequencies trying to compete for some "brain time."

In "The Field," Lynne McTaggart states that the human bodies ability to exchange information with a mutable field of quantum fluctuations had profound implications.

"The idea of a system of exchanged and patterned energy and its memory and recall in the Zero Point Field hinted at all manner of possibility for human beings and their relation to the world."

Dowsing involves the ability of the human dowser to sense, via the stick or rod, the presence of certain kinds of wave or particle emissions associated with the water substrate. Remote viewers may be tuning into a frequency upon which the information they are either sending or receiving is naturally "broadcasting," as a psychic might pick up on similar frequencies when doing a reading or having their own clairvoyant episode.

Electromagnetic radiation is but one of the possibilities that could serve as the playing field for paranormal experiences to occur upon. A telepathic impression or a past-

life recall might just be the result of picking up on an already existing source of information embedded in a field of emissions.

If paranormal elements operate on a different frequency, again we must think of the dog that hears a high-pitched whistle that is soundless to us. Many species of snake have organs that allow them to perceive the infrared range of the electromagnetic spectrum and "see" the heat of another living thing. Sharks and eels are ultra-sensitive to changes in electrical fields, and some insects can see ultraviolet light. These creatures are obviously observing things we humans simply aren't built to observe.

Yet somewhere there are humans who can hear these whistles, and sense EMF alterations, just as there are humans that can see auras and other forms of light energy the rest of us cannot. It could just be a matter, then, of perception.

Or it could be that some humans simply know what frequencies to tune into.

Whether energy is synching up, or emerging in a coherent pattern from the ZPF, or moving along a morphogenetic field, or even floating in a sea of quintessence, there is definitely fertile, dynamic ground for the movement of energy between our world and the world of the paranormal (which could in fact be our own world, or one parallel to ours). If indeed there are ways matter can disappear from one state of existence, only to reappear in another, then it begs one very important question, why don't we see more ghosts, UFOs and psychic activity on a larger scale? Why are we not hearing wives all over the world shouting at their bewildered spouses, "Honey, did you leave the door to the tenth dimension open? Here comes your dead Uncle Arthur *again*!"

We are limited to our five senses; sight, smell, sound, touch and taste. But what about this sixth sense? Perhaps that is the sense, underdeveloped in most, yet present in all, which allows us to turn on and tune in to the frequencies that reveal the other layers of existence. I think of years ago, long before cell phones, when I owned a CB radio and loved to listen to motorists and truckers chatter. Occasionally, there would be some bandwidth cross talk from a nearby Ham radio operator. Ghosts, UFOs, and other paranormal events may be cross-talk cutting into our normal bandwidth; chatter from another dimension, or universe, or somewhere in between. We don't normally hear it because it is usually operating on another frequency altogether, but sometimes signals get crossed.

What is the mechanism that links these various fields and forces and synchronized seas of resonance and vibration and matched scales and pitches and frequencies to our visible experience of reality? What is the door between the implicate and the explicate order of things? What is the one thing that stands between the normal and the paranormal, the natural and the supernatural, the science and the psience?

I'll give you a hint. If you are alive and breathing and reading this book, you have one. It's called consciousness.

5000 words

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