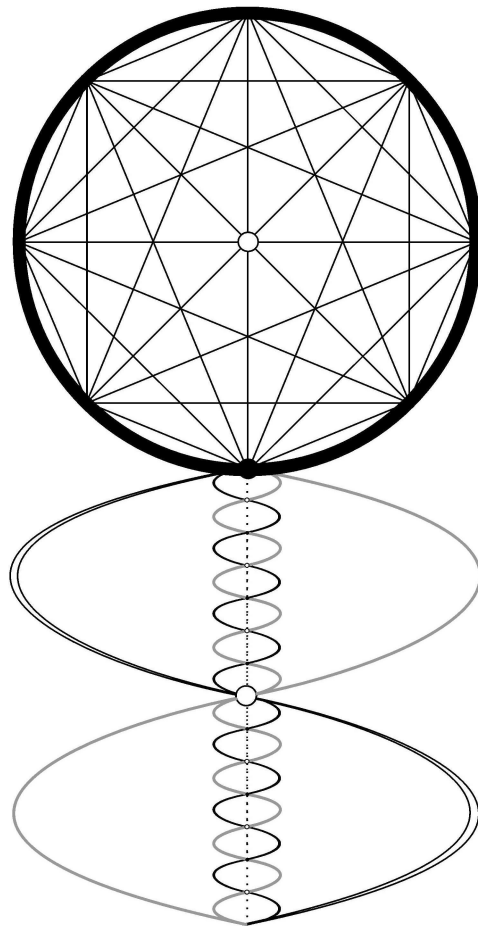


# THE QUANTUM RESONANCE: A THEORY OF LIFE



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LIFE IS DIVERSITY

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## ABSTRACT

Quantum resonance theory is a theory of consciousness and a theory of everything. The term ‘quantum resonance’ refers to the singular and unified (“quantum”) process (“resonance”) behind any existential being or contextual event. A ‘unit’ in quantum resonance theory is a living phenomenological self that is measured in time and possesses the complementary aspects of consciousness and awareness. Quantum resonance selves self-organize as a holarchy, and the complex interactions of the holarchy are interconnected in a quantum manner. (This proposal *very* closely resembles—although does not imitate—the Great Holarchy proposed by Ken Wilber.) Quantum resonance theory combines quantitative and qualitative, and argues using some empirical support while appealing to the *a priori* senses. Both halves of the mind are required for a proper understanding, and the paper may be shocking to some readers. Lastly, quantum resonance theory is inaccurate to some degree.

## INTRODUCTION

*What is reality? What is real? What does it mean to be unreal?* Questions such as these lead in many directions and inevitably they will question themselves. Other questions include: *Why do things exist as they do? Do things exist? Why do we perceive existent things? How does perception happen? What does existence imply?*

A thorough existential discussion would be well beyond the scope of this paper. The introduction very briefly explores the existential in five sections: singularity, transcendence, change, logic, and perception.

### SINGULARITY

There is something about the concept of a singularity that leads to a wonderland of nonsense. Not the singularity of apples, for example (i.e. ‘one apple, singular’), but the concept of an absolute singularity—a conceptual unity existing completely alone. Absolute oneness is better represented by 4 or 0 rather than 1. It is not logically possible to compare an absolute oneness to something else and thereby count it with or against something else. The concept of a thing existing independently of *anything* else by definition is odd indeed. The singularity must exist independently of any theoretical observer. What would this mean?

In physics, the ‘singularity’ is a point in space-time at which the space-time curvature becomes infinite. A singularity lies at the theoretical origins of our universe, and the laws of physics and mathematics do not operate within a singularity. Indeed, not much can really be said concerning it. A singularity is beyond description.

...even if there were events before the big bang, one could not use them to determine what would happen afterward, because predictability would break down at the big bang. Correspondingly, if, as is the case, we know only what has happened since the big bang, we could not determine what happened beforehand. As far as we are concerned, events before the big bang can have no consequences, so they should not form part of a scientific model of the universe. We should

therefore cut them out of the model and say that time had a beginning at the big bang.<sup>1</sup>

## TRANSCENDENCE

An absolute singularity implies transcendence. For example, consider the philosophy of Aristotle (384-322 b.c.e.)<sup>2</sup> and his concept of the unmoved mover. The unmoved mover is *the* eternal and transcendent cause of being which gave initial motion to the universal physics. According to logic, the first cause transcends the cosmos that it somehow creates. Logic admits no interaction between the transcendent and that which it transcends, and yet the interaction is implied. Ultimately, Aristotle never explained how the cosmos came to be. He was interested rather in explaining things that could be described and tested through empirical observation.

The paradox of transcendence appears also in the Tao Te Ching, attributed to Lao Tsu.<sup>3</sup> The Tao Te Ching begins

The Tao that can be told is not the eternal Tao  
The name that can be named is not the eternal name  
The nameless is the beginning of heaven and earth  
The named is the mother of ten thousand things...<sup>4</sup>

As with Aristotle, the first cause is transcendent. Then again, the mystical poetry of the Tao Te Ching is remarkably different than Aristotle's empirical approach. These differences are unfortunately beyond the scope of this paper, and such remarks will not be made here.

## CHANGE

Heraclitus (*fl.*c.500 b.c.e.) asserted that the fundamental element in the universe is fire, existing in a continual state of flux, and that apparent stability is an illusion of the senses. For him, this was the only explanation capable of explaining the many changing forms apparent in the universe. Another philosopher who asserted the fundamental importance of change was Anaxagoras (500-428 b.c.e.). He believed the stuff of the world is eternal, and always in motion.

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<sup>1</sup> Hawking, Stephen W. (1988), A Brief History of Time, New York: Bantam Books, p. 46.

<sup>2</sup> The dates for Aristotle and the other Greek philosophers are taken from Honderich, Ted (Ed.) (1995), The Oxford Companion to Philosophy, Oxford: Oxford University Press. The date notation has been changed to b.c.e. from BC.

<sup>3</sup> There is some doubt as to the measure of historical validity behind the life of Lao Tsu. Simply for purposes of this paper let us assume that he did live (probably during the sixth century b.c.e.).

<sup>4</sup> Feng, Gia-Fu & English, Jane (trans.) (1989), Tao Te Ching, New York: Vintage Books, p. 3.



Anaxagoras also believed that “in everything there is a portion of everything”.<sup>5</sup>

The early Greek philosophers did not collectively view change in the same way, however. There is a problem with change. According to the rules of logic, it shouldn't happen. This was pointed out as early as Parmenides (*fl.*c.480 b.c.e.) and his student Zeno (c.470 b.c.e.). ‘Zeno’s paradoxes’ demonstrated in a logical fashion the impossibility and self-contradictory nature of change. Let us consider Aristotle’s version of one of these paradoxes. “Before any distance can be traversed half the distance must be traversed. These half-distances are infinite in number. It is impossible to traverse distances infinite in number.”<sup>6</sup> At root, Zeno’s clever problem is based on the observations of Parmenides’ regarding what it means to be or not to be. For example, if something changes from what it is now (e.g. A) to something else (e.g. not-A), this something A must cease being A before it can become something else. This being the case, how can ‘A’ be considered the same (albeit changing) thing as ‘not-A’?

Moving West to East, three passages from the Tao Te Ching also comment upon the deep and elusive issue here. Chapter two begins

Under heaven all can see beauty as beauty only because there is ugliness  
All can know good as good only because there is evil  
Therefore having and not having arise together...

The end of chapter 14 reads

...Stand before it and there is no beginning  
Follow it and there is no end  
Stay with the ancient Tao  
Move with the present  
Knowing the ancient beginning is the essence of Tao

And chapter 25 begins

Something mysteriously formed  
Born before heaven and earth  
In the silence and the void  
Standing alone and unchanging  
Ever present and in motion...<sup>7</sup>

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<sup>5</sup> Jones, W. T. (1980), The Classical Mind: A History of Western Philosophy, Fort Worth: Harcourt Brace, p. 28.

<sup>6</sup> Jones, p.22.

<sup>7</sup> Feng & English (trans.), pp. 4, 16, and 27, respectively.

## LOGIC

Logic is limited in dealing with life. As it happens, life is not entirely rational. The inadequate relationship between logic and life is well illustrated in the field of fuzzy logic, which recognizes that life experience is multivalent (or qualitative) while traditional logic presents a bivalent (quantitative) reduction (e.g. binary—0 versus 1). At the midpoint between the bivalent labels ‘full’ and ‘empty’, the proverbial half-glass becomes neither and both at the same time. Life is a paradox and reflects a diverse and changing reality—i.e.,  $A = \text{not-}A$ . According to fuzzy logic, life cannot be reduced to linear bivalency.<sup>8</sup>

Fuzzy logic recognizes that ‘actual’ things possess qualitative aspects, and therefore overlapping *fuzzy sets* are applied to deal with life experience. What is a fuzzy set? The mathematics can be compared with language. “Words stand for sets. The word house stands for many houses.... Words are public but the sets we learn are private. And we think in sets.”<sup>9</sup> Incidentally, Wittgenstein’s philosophical concept of a *family resemblance* is virtually equivalent to the fuzzy set. A family resemblance is “a network of overlapping but discontinuous similarities”<sup>10</sup> wherein a word (such as ‘game’) holds different but overlapping meanings in differing contexts.

Fuzzy logic also asserts that as the part is found in the whole, the whole is also found in the part.<sup>11</sup> This parallels the thinking of Anaxagoras—in everything there is a portion of everything—and arises also in holography (discussed briefly in *Holomovement*, p. 11).

## PERCEPTION

Questions surround the phenomenon known as perception, especially insofar as consciousness is involved. What is consciousness? According to a reasonably authoritative text, “consciousness exists, but it resists definition.”<sup>12</sup> Although many theories have been proposed, the matter remains very much a mystery. Even worse, some find the question of consciousness irrelevant to science altogether.

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<sup>8</sup> A line exists as a relationship between two points (ends or limits).

<sup>9</sup> Kosko, Bart (1993), *Fuzzy Thinking*, New York: Hyperion Press, p. 122.

<sup>10</sup> Honderich, p. 269.

<sup>11</sup> Kosko, pp. 55-56.

<sup>12</sup> Honderich, p. 152.

Regardless the mainstream perspective, consciousness bears fundamental importance. My views are similar to those of Roger Penrose, the Rouse Ball Professor of Mathematics at Oxford, who states

...an essential ingredient is missing from our present-day scientific picture. This missing ingredient would be needed in order that the central issues of human mentality could ever be accommodated within a coherent scientific world-view. I shall maintain that this ingredient is itself something that is *not* beyond science—although, no doubt, it is an appropriately expanded scientific world-view that we shall need.

...A scientific world-view which does not profoundly come to terms with the problem of conscious minds can have no serious pretensions of completeness.<sup>13</sup>

My views differ with Dr. Penrose insofar as he wishes to explore the mysteries of consciousness from a more conventional view of ‘physical’ reality. He demonstrates the connections between consciousness and physical reality, and then from a different paradigm he reaches a more traditional conclusion. In his closing words, he writes

The study of neuroanatomy, of neurological disorders, psychiatry, and psychology has told us much about the detailed relationship between the physical nature of the brain and our mental conditions. There is no question of our being able to understand such matters merely in terms of the physics of critical amounts of coherent mass movement. Yet without such an opening into a new physics, we shall be stuck within the strait-jacket of an entirely computational physics, or of a computational cum random physics.<sup>14</sup>

Despite differences in our views, both recognize the significance of consciousness in the development of scientific method as well as the need to escape purely linear thinking.

Given the significance of consciousness, the significance of paradigms follows naturally. Perception is influenced by paradigm, and the paradigm of the West values the rational at the expense of the irrational.<sup>15</sup> Rationality allows for systematic prediction and control, and Western culture in general prefers control rather than the lack of control inherent in the unpredictable. There is a down side to control, however—our humanity suffers when logic assumes the leadership role. For example, the humanities have declined steadily since the advent of mass

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<sup>13</sup> Penrose, Roger (1994), Shadows of the Mind, Oxford: Oxford University Press, pp. 7-8.

<sup>14</sup> Penrose, p. 420.

<sup>15</sup> Given: this and other generalizations necessarily allow for *dynamic* “norms” within spectrums of diversity. Quantum resonance theory reflects this in any complementary relationship, such as the alpha and omega aspects.

industrialization in the late 1800's. More importantly, our global environment has suffered. While amazing achievements have been made through scientific method, the heritage of the West demands a heavy toll and our technological Icarus may soon reach his limit. What the world needs now is emotional and not logical.<sup>16</sup>

Metaphorically speaking, Western culture has been viewing the world with one eye closed most of the time. It has become commonplace to speak of empirical reality (or that which is validated through external experience) as the *world of the senses*, while employing terms such as *imagination* or *mental constructs* for psychological (or inner) reality. Science is empirically validated, and therefore 'objective' reality is 'real' and 'subjective' reality is 'unreal'. These assumptions are unnecessary, inadequate, and ultimately dangerous.

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<sup>16</sup> This position is essentially proposed by Heyneman, Martha (1993), *The Breathing Cathedral: Feeling Our Way Into a Living Cosmos*, San Francisco: Sierra Club Books.

## QUANTUM RESONANCE THEORY

Quantum resonance theory relies heavily on the mystical implications of quantum dynamics, and in so doing it requires a complete reinterpretation of the ‘standard model’ of physics. Few ideas in this paper are original, and many respected minds stand behind them. Nevertheless, these ideas are radical when seen with a purely rationalistic eye. As a result, a proper consideration of the theory may require the suspension of disbelief by some readers.

Let us assume two general theory types: hard and soft. For example, compare Newton’s theory of gravitational attraction to Darwin’s theory of evolution through natural selection.<sup>17</sup> Darwin’s soft theory does not provide the high quantitative standard of Newton’s hard one, and therefore does not enjoy the same level of predictability. The quantum resonance represents the union of soft and hard (or yin and yang, etc.)—two complementary aspects existing necessarily together as a moment of time. As a result, quantum resonance theory cannot support itself using only the rationalism of hard empiricism.

As a rule in Western culture, hard sciences have been valued more highly than soft ones. In a similar manner, the masculine has been elevated at the heavy expense of the feminine. And to make matters worse, in the modern era (especially in contemporary times) a rich and diverse spectrum of art, myth and religion has been devalued even further as ‘non-science’ (the author includes them in the ‘humanities’). Quantum resonance theory rejects the classification of the humanities as a non-science. Theoretically, the humanities are soft sciences waiting to happen—especially in areas of art, myth and religion.

According to this theory, literal representations (or static perceptions) manifest along one end of a two-ended continuum (field or qualitative spectrum) necessary for existence. This continuum is something like a wave that vibrates between the literal and the indescribable. Consider language. The literal word (sign, symbol, etc.) is static and cannot convey the

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<sup>17</sup> Honderich, p. 871.

‘original’ meaning entirely—the entire meaning is indescribable. Nevertheless, the phenomenon of language conveys enough meaning perhaps to be useful in life (practical language) or perhaps pleasurable (poetic). Language lives and interacts over time with those who use it.

Empirical science becomes quite uncomfortable and impotent beyond a narrow range at the literal end of language, given that the static representations of logic are inadequate for representing the entire spectrum of existence. Quantum resonance theory is impossible by definition by claiming to *represent the existential*. This is a very important point.

## A DEFINITION OF TERMS

Quantum resonance: absolute reality; the inexpressible wholeness.

Quantum resonance theory/model: one interpretation of the quantum resonance.

Lao Tsu casts a mysterious distinction between the nameless and the named with the statement, “the name that can be named is not the eternal name, the nameless is the beginning of heaven and earth”. So it is with the quantum resonance and quantum resonance theory. (The terms “theory” and “model” are used interchangeably). The theory attempts to express the inexpressible—essentially, to ‘capture’ life. Logically, this attempt is most futile. Despite the limitations of logic, such attempts do possess great significance.

Art provides an informing parallel to this confusing dilemma. In art, there is both process and product. Picasso, for example, believed that process was clearly the more important of the two. Art expresses the inexpressible—it is not the painted canvas framed upon the wall. For the viewer of the painting, art is the experience of the viewing (which is a process in time). For the artist, one very important process is the inspiration and creation of the art.

Life cannot simply be ‘represented’ because life cannot be reduced to external reality—our internal reality bears at least as much weight in the picture of truth. Life is an experience.

## A PREFACE TO THE MODEL

Quantum resonance theory is a process theory employing time as the fundamental unit—distance (space) is merely a form of time, or time viewed from a different ‘perspective’. More specifically, this field of time is a field of conscious experience measuring itself as a length of time and manifesting dualistic interactions (or complementary aspects) in the experience. The quantum resonance is a unit of consciousness—i.e., it is a ‘self’.

The quantum resonance reflects as a curious principle in physics, where it may appear as either particle or wave depending upon the conditions of the experiment (relative to time, for the observation necessarily includes the process and manner of observation). In this context, the quantum resonance is similar to a subatomic interaction manifesting complementary wavicles that are particle or wave—*depending upon how they are observed*.

The quantum resonance represents a contextual moment—a conscious field experiencing a single event (such as a particle or wave interaction) over a minimal period of time (such as Planck time—represented by  $h$ —which is equal to  $10^{-43}$  seconds, or the time at which “the force of gravity becomes unified with the rest of the forces. Before Planck time, there was only a single, unified force.”<sup>18</sup> The quantum resonance parallels a view common in the East, where reality is the dream of the dreamer. This implies that particles and waves are dreams and the holistic cosmos is the dreamer (manifesting both external and internal realities). Quantum resonance theory holds that the cosmos is a conscious and complex living system.

The dominant paradigm holds that reality is composed of objects, with the inanimate objects being more fundamental than the animate ones. Animation (or life) simply occurred when the proper objects were brought together in the right combination and at the right moment.

Before 1900, physicists thought of the material world as being composed of little, hard objects—atoms and molecules which interacted with one another to produce the variety of materials, living and non-living, that we see around us.<sup>19</sup>

This view is a little Frankenstein-ish, but it does serve well the purposes of science. Small objects combine to form larger objects and large ones break apart to create smaller ones. This is done according to the law of conservation of energy-matter (matter is energy, and therefore energy is just another type of object). It is given that objects are observed in empirical experience (e.g., people and cars), so objects must therefore exist. Animate (i.e. living) objects are inherently mysterious and are largely unexplained in this paradigm—this is no matter to science. Objects exist, and therefore reality is constructed of fundamental objects. Atoms are like chairs, and you can break them apart by smashing them with other objects (e.g. particles). This paradigm is reasonable, and remarkably incomplete.

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<sup>18</sup> Ferris, Timothy (1991), The World Treasury of Physics, Astronomy, and Mathematics, Boston: Little, Brown & Company, p. 376.

<sup>19</sup> Gribben, John (1998), The Search for Superstrings, Symmetry, and the Theory of Everything, Boston: Little Brown & Company, p. 10.

Inadequacies of the standard model become especially apparent in the areas of quantum dynamics and complex living systems. In the quantum world, subatomic interactions exist only as interactions, not as single identities—a profound challenge to object-based thinking. In complex living systems, the law of energy conservation is broken by properties such as synergy and regeneration. Furthermore, the significance of consciousness has become increasingly apparent in both areas.<sup>20</sup>

Awareness of the inadequacies of the standard scientific paradigm is necessary for a proper understanding of the quantum resonance model. The implications of quantum resonance may appear strange within a Western paradigm but they appear familiar within an Eastern one. Upon consideration, these implications are perhaps not so strange after all.

## THE QUANTUM RESONANCE MODEL

Given that a representation of the quantum resonance is a logical impossibility, conceptualizing the model of the quantum resonance becomes no easy task. Understanding quantum resonance theory requires both hemispheres of the mind, and this can be a difficult proposition for the Western reader since “our entire society reflects a left hemispheric bias (it is rational, masculine, and assertive). It gives very little reinforcement to those characteristics representative of the right hemisphere (intuitive, feminine, and receptive).”<sup>21</sup> Furthermore, my ability to communicate or even to understand the theory presented is not above question. This being said, the conceptualization of the model is broken into five sections: complementarity, holomovement, self-interaction, broken symmetry, and quantum resonance.

### COMPLEMENTARITY

Niels Bohr, one of the founders of quantum physics, coined the term complementarity for the phenomenon whereby two mutually exclusive conditions “actually complement each other in the sense that together they form a complete though ambiguous ‘atomic object.’”<sup>22</sup>

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<sup>20</sup> I apologize for the lack of support and citation behind this weighty assertion. Unfortunately, a lack of resources and research time has not allowed me to retrace my reading. Furthermore, a proper exploration would be immensely complex—beyond the scope of the paper and the author.

<sup>21</sup> Zukav, Gary (1979), The Dancing Wu Li Masters: An Overview of the New Physics, Toronto: Bantam Books, p. 40.

<sup>22</sup> Bohm, David & Hiley, B.J. (1993), The Undivided Universe: An Ontological Interpretation of Quantum Theory, London: Routledge, p. 16.



Bohr advocated the use of both pictures [particle and wave], which he called ‘complementary’ to each other. The two pictures are of course mutually exclusive, because a certain thing cannot at the same time be a particle (i.e., substance confined to a very small volume) and a wave (i.e., a field spread out over a large space), but the two complement each other. By playing both pictures, by going from the one picture to the other and back again, we finally get the impression of the strange kind of reality behind our atomic experiments.<sup>23</sup>

Bohr himself was awestruck with the strangeness of quantum reality. In a conversation with Wolfgang Pauli (another quantum physicist of great importance), he said

Some time ago there was a meeting of philosophers, most of them positivists, here in Copenhagen.... I was asked to address them on the interpretation of quantum theory. After my lecture, no one raised any objections or asked any embarrassing questions, but I must say this very fact proved a terrible disappointment to me. For those who are not shocked when they first come across quantum theory cannot possibly have understood it. Probably I spoke so badly that no one knew what I was talking about.<sup>24</sup>

Complementarity has often been related to the Tao, a union of opposites where yin and yang are compared with wave and particle.<sup>25</sup>

## HOLOMOVEMENT

When combined with complementarity, the concept of holomovement (developed by Bohm and physicist B. J. Hiley) explains the basic structure of the quantum resonance model.

We may suppose that the universe, which includes the whole of existence, contains not only all the fields that are now known, but also an indefinitely large set of further fields that are unknown and indeed may never be known in their totality. Recalling that the essential qualities of fields exist only in their movement we propose to call this ground the *holomovement*. It follows that ultimately everything in the explicate order of common experience arises from the holomovement. Whatever persists with a constant form is sustained as the unfoldment of a recurrent and stable pattern which is constantly being renewed by enfoldment and dissolved by unfoldment.<sup>26</sup>

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<sup>23</sup> Ferris, pp. 89-90.

<sup>24</sup> Ferris, p. 822.

<sup>25</sup> Commonly cited examples comparing complementarity and the Tao are Zukav (1979), and Capra, Fritjof (1976), The Tao of Physics, Toronto: Bantam Books.

<sup>26</sup> Bohm & Hiley, p. 357.

Enfoldment and unfoldment refer to two orders: the implicate order (a fundamental and unknowable reality) and the explicate order (our phenomenological reality). The implicate and explicate orders are complementary aspects which cyclically enfold and unfold the changing patterns of reality from and back into absolute reality. This produces continual movement—an endless loop resembling the geometry of the Möbius strip (discussed below).

The *holo-* portion of holomovement refers to holography. Interpreted in the manner of a hologram, our external reality is perceived (or is abstracted) from an underlying matrix of possible manifestations (the implicate reality) as an actualized reduction (the explicate reality)—similar to the Aristotelian concept of actuality from potentiality. Furthermore, in holographic principles there is a portion of everything in everything.<sup>27</sup> Bohm explains this using implicate and explicate orders, illustrating that one finds

...in the implicate order the totality of existence, that is, everything is enfolded within each region of space (and time). So, whatever part, element, or aspect we may abstract in thought, this still enfolds the whole and is therefore intrinsically related to the totality from which it has been abstracted.<sup>28</sup>

In quantum theory, “empty” space does not exist. Rather, “the calculations of the quantity known as the zero-point energy suggest that a single cubic centimeter of empty space contains more energy than all of the matter in the known universe!”<sup>29</sup> Zero-point energy may refer in some manner to consciousness, for consciousness is a vital ingredient in Bohm’s model. In the words of Bohm himself

My main concern has been with understanding the nature of reality in general and of consciousness in particular as a coherent whole, which is never static or complete but which is an unending process of movement and enfoldment.<sup>30</sup>

Bohm saw reality—as with art—as a process of form and content (or product and process) and believed that separating form and content limits every endeavor of knowledge (where knowledge is the static form of the existential content). Knowledge will always be

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<sup>27</sup> For a more complete discussion of holography and its relation to the new physics, as well as other areas including the body, brain, and the “dreamtime” refer to Talbot, Michael (1991), *The Holographic Universe*, New York: Harper Collins Publishers.

<sup>28</sup> Bohm, David (1980), *Wholeness and the Implicate Order*, London: Routledge, p. 172.

<sup>29</sup> Keepin, Will (1993), *Lifework of David Bohm—River of Truth*, online publication, <http://www.shavano.org/html/>.

<sup>30</sup> Bohm, p.ix.

limited to a very narrow arena, and there will always exist uncertainty. As a result, representing the “whole of reality” in a grand unified theory is highly problematic. For Bohm, there is a “trap of tacitly treating such a view as originating independently of thought, thus implying that its content *actually* is the whole of reality.”<sup>31</sup> In the words of Keepin

Bohm analyzed ways that our language deceives us about the true nature of reality. We generally consider ordinary language to be a neutral medium for communication that does not restrict our worldview in any way. Yet Bohm showed that language imposed strong, subtle pressures to see the world as fragmented and static. He emphasized that thought tends to create fixed structures in the mind, which can make dynamic entities seem static.<sup>32</sup>

### SELF-INTERACTION

On the quantum level, so-called ‘particles’ self-interact by emitting and absorbing ‘virtual particles’ within a time limit imposed by the uncertainty principle (e.g., these exchanges only occur when no one is watching). The phenomenon of self-interaction—the creation and destruction of virtual particles—is less than rational behavior for a mechanical entity.

A traditional way of representing self-interaction visualizes a particle moving along a

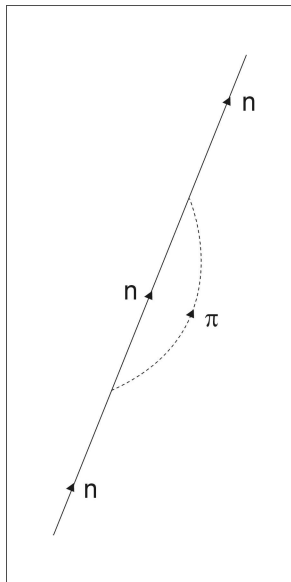


FIGURE 1:  
Self-Interaction

linear trajectory, emitting a virtual particle and quickly absorbing it (see Figure 1, taken from Capra, p. 206, representing “a neutron (n) emitting and reabsorbing a pion.”) This representation makes no reference to the uncertainty principle. This is a severe flaw, for it is only *the measure of time allowed by uncertainty* in which this self-interaction may occur.

There is another way of conceptualizing this event, if we abandon the particles and the waves and consider the ‘whole event’. The ‘self’ of the momentous experience is the fundamental unit. This necessarily has two complementary aspects. These complements manifest in diverse ways, but there always exist two bound within a dualistic experience. In accord with holography and the principle of everything-in-everything, this self necessarily exists or interacts on

<sup>31</sup> Bohm, p. 62.

<sup>32</sup> Keepin (online).

many levels simultaneously. (In quantum physics, the result here is *emergent interactionism*.) The self is both a specific identity and a collective one, and the whole scheme is interconnected.

One example of a self is the quantum field, bearing complementary aspects as a unified identity. As described by Capra

With the concept of the quantum field, modern physics has found an unexpected answer to the old question of whether matter consists of indivisible atoms or of an underlying continuum. The field is a continuum which is present everywhere in space and yet in its particle aspect has a discontinuous, “granular” structure. The two apparently contradictory concepts are thus unified and seen to be merely different aspects of the same reality.<sup>33</sup>

Beyond the paradox that each self is both a single self and many, it remains to explain how the selves organize themselves. Hungarian philosopher Arthur Koestler proposed the word “holon” to describe an organizational scheme that is common to living and social systems in which the organism is simultaneously a whole with subordinate parts and a part within a larger whole (e.g. holarchy). According to quantum resonance theory, every self is a holon—a living complex system that self-organizes (or interacts) as a holarchy. In complementary fashion, each self is a single holon interacting with sub-portions (a continuum of subholons) as well as a portion (or subholon) interacting with a larger holon. There is always a forest with the trees.

Multilayered selves can become immensely complicated (cf. living complex systems and chaos theory). Quantum resonance theory closely parallels “The Great Holarchy”—the spectrum of consciousness proposed by Ken Wilber. Interestingly enough, Wilber seeks for the “master template” of the Great Holarchy among the perennial philosophies of the great religions.<sup>34</sup> This is noteworthy as quantum resonance theory developed for the author as a radical interpretation of Jewish mysticism combined with other strong eclectic influences (discussed later).

The self is a single moment, and also a spectrum of moments. Interactions within the holarchy reflect on micro and macro levels, and every self is interconnected. Each self exists as a field of time allowed by the uncertainty principle relative to its holarchic identity—between its limits is the self, and beyond those limits the self is not.<sup>35</sup> The absolute complement are being

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<sup>33</sup> Capra, p. 201.

<sup>34</sup> Wilber, Ken (1999), *The Eye of the Spirit: An Integral Vision for a World Gone Slightly Mad*, Boston: Shambala Publications.

<sup>35</sup> Ironically (and complementarily), the self must necessarily extend beyond these limits as a result of interconnectedness. However, in a specific context, any given self is necessarily limited as well.

and non-being (i.e. absolute consciousness). This concept is familiar in the East, and reflects in Western concepts of *creatio ex nihilo* and the Big Bang. Life and death are universal concepts.

### BROKEN SYMMETRY

Symmetry is fundamental to physics and quantum resonance theory. Laws of physics are generally expressed in terms of symmetries. (Furthermore, the symmetry of the equation forms the basis for mathematics). In physics, an extreme example of symmetry is the theoretical balance of matter and antimatter existing as a null-state ‘before’ the singularity that transcends and defines the beginning of linear time—the Big Bang. Balanced symmetry is like the Tao in balance, reflected in the concept of *doing-without-doing*. “The great Tao flows everywhere, both to the left and to the right.... It fulfills its purpose silently and makes no claim.”<sup>36</sup>

The changing manifestations of life happen when symmetries are broken. Incidentally, symmetries are rather easy to break.

The breaking of symmetry in fundamental processes can be understood in terms of a ball in a valley. With one valley, the ball is in a stable, symmetric state. If there are two valleys, even though they are symmetric in themselves, if the ball is present the symmetric state is unstable and the tiniest nudge will send the ball rolling one way or the other, breaking the symmetry.<sup>37</sup>

By and large, the observable universe operates asymmetrically. A clockwork reality winds itself in one direction—down. This implies the necessary inevitability of a final end. Furthermore, why hasn’t the universe been reduced to an entropic state already? Why does it exist? A mechanistic universe leads to entropy, and yet the universe *as we know it* displays an abundance of life. A logical solution to the entropy problem would be abandoning a mechanistic universe and allowing the mysterious unknown known as life to enter the scheme. Phenomena such as synergy and regeneration explain the apparent discrepancy quite easily. In the quantum resonance view, the predictions of physics are like kicks to dead horses—if one employs boots that are cleverly designed enough or perhaps using enough power, analysis of the results can lead to amazing discoveries. Nevertheless, the living horse is far more interesting overall.

Phenomenological time is the most immediate form of asymmetry. Time progresses in one direction, and the implied complement to time remains undiscovered by *Western science*.

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<sup>36</sup> Feng & English, p. 36.

<sup>37</sup> Gribben, p. 103.

Quantum resonance theory postulates ‘dreamtime’ as a complement to our spacetime. The dreamtime—in various forms—is a religio-spiritual concept familiar to diverse human cultures throughout history. Dreamtime provides an enlightening solution for entropy; however, this discussion must wait until the quantum resonance model has been described in more detail.

### BREATHING LIFE INTO THE QUANTUM RESONANCE MODEL

The quantum resonance is a very complex organism, and the living nature of quantum resonance cannot be animated through a linear assembly process. The most attempted here is a description of a living complex system in rough detail. This begins with several postulates.

POSTULATE 1: *quantum resonance is alive.*

POSTULATE 2: *quantum resonance is recursive (self-interactive), therefore any fundamental identity also contains itself—this is termed the fundamental self-point. Absolute consciousness is the ‘self-point’ within the self.*

POSTULATE 3: *absolute consciousness is equivalent to the unified aspects of alpha and omega consciousness (consciousness and unconsciousness).*

POSTULATE 4: *when absolute consciousness is balanced (there is balance or symmetry between the complementary aspects of alpha and omega consciousness), only the consciousness exists—therefore it is absolute. Awareness occurs during imbalance when the alpha and omega aspects are extended into a new recursive ‘level’ of self-awareness.*

POSTULATE 5: *quantum resonance always manifests two or more pair<sup>38</sup> of complementary aspects, such as absolute consciousness and awareness (dreamer and dream) and the alpha and omega aspects (yin and yang).*

POSTULATE 6: *quantum resonance manifests as an experiential holarchy in the manner of a living complex system, and so ‘each’ quantum resonance (self) exists as one and many simultaneously on varying levels.*

POSTULATE 7: *quantum resonance levels are measured in discrete units of experiential time (such as Planck time).*

POSTULATE 8: *asymmetry or imbalance is not unhealthy by nature—rather, asymmetry results in life. Healthy life manifests homeorhetic cycles of asymmetry. Extreme asymmetry is non-homeorhetic and unhealthy.*

POSTULATE 9: *the meaning of life is healthy (or aesthetic) awareness.*

POSTULATE 10: *any absolute is relative to the holarchy (or meta-context).*

POSTULATE 11: *to any static rule there are continual exceptions.*

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<sup>38</sup> Given: the very concept of a ‘pair’ implies a ‘context’ and therefore another context must complement each pair.

Objects as we perceive them are thoughts within a living self. They appear as two types of objects—living and nonliving—relative to the conditions of the interactive perspective. The quantum resonance always manifests as complementary aspects aligned in some manner with the alpha and omega aspects (in contextual variations such as particle and wave). The alpha and omega could correspond to infinite complementarities, and any pair depends completely upon its holarchic reference for its identity.<sup>39</sup> The alpha and omega are clearly asymmetrical: linear time (i.e. spacetime) always moves in one direction, the conscious ego is a local ‘projection’ of the unconscious, and the Y chromosome is a specialized reduction of the X. Broken symmetry is a vital and elusive issue at the heart and nature of life. It is both dichotomy and singular identity.

TABLE 1: The Omega and Alpha Aspects

$\Omega$	A
Living	Nonliving
Indescribable	Describable
Macro	Micro
Implicate & Transcendent	Explicate & Immanent
Female (X)	Male (Y)
Feminine	Masculine
Holistic & Inclusive	Specialized & Exclusive
Cyclic & Systemic	Linear & Systematic
Collective	Individual
Experience-Oriented & Sensual	Goal-Oriented & Perceptual
Cooperative & Soft	Conflictive & Hard
Yin	Yang
Changing	Static
Emotion	Logic
Uncertainty	Predictability
Dreamtime	Spacetime
Psyche	Body
Process	Product
Particle (Circle)	Wave
Potential & General	Actual & Particular

<sup>39</sup> Note: complementarities do not reflect any given labels absolutely—there are always exceptions (and cf. note 41).

Life manifests the complementary processes of conflict and cooperation. It gives and takes. This is reflected in the Red Queen Effect, a topic that has been explored by Matt Ridley.

One of the peculiar features of history is that time always erodes advantage. Every invention sooner or later leads to a counterinvention. Every success contains the seeds of its own overthrow. Every hegemony comes to an end. Evolutionary history is no different. Progress and success are always relative. ...In history and in evolution, progress is always a futile, Sisyphean struggle to stay in the same relative place by getting ever better at things. ...Computers have no effect on productivity because people learn to complicate and repeat tasks that have been made easier. ...

Just as parasites depend on their hosts and yet make them suffer, and just as animals exploit their mates and yet need them, so the Red Queen never appears without another theme being sounded: the theme of intermingled cooperation and conflict.<sup>40</sup>

Omega is cooperative and alpha conflicts. It is tempting to grant a higher status to the omega: the alpha is a reduction of the fundamental omega, and the omega operates as a type of ‘messenger’ for the absolute. This would be foolish, however. Both aspects are special. Besides, the omega aspect cannot exist alone by definition. The omega, when considered as separate from the alpha, can only possess the lure of a mirage. Both aspects are intertwined and each defines the other. As demonstrated in the study of living complex systems, this manifests as homeorhetic pairs of complementary aspects. According to quantum resonance theory, a homeorhetic balance (health) is the desired state of the system. Health relates to psychology, physiology, sociology, aesthetics—in theory, health would relate to any study involving life or living systems from within a phenomenological paradigm (including physics, for example).

The concept of health in quantum resonance theory may require new assumptions for some readers. The concept of cosmic consciousness (also known as enlightenment or actualized holistic awareness<sup>41</sup>) corresponds as a rule to the omega aspect (e.g. collective mind). The concept of the heaven(s)—a spiritual counterpart for physical reality, the dreamtime—also corresponds naturally to the omega. The omega is glorified in this manner. East and West share gnostic tendencies—*heaven (or soul) is good and the world (or body) is bad*. This assumption is

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<sup>40</sup> Ridley, Matt (1994), The Red Queen: Sex and the Evolution of Human Nature (First American Edition), New York: Macmillan Publishing Company, p. 18.

<sup>41</sup> Note: “actualized holistic awareness” brings up a difficult point. Labels assigned to one axis may overlap with labels assigned to an ‘opposing’ axis as a result of multilayered spectrums (selves or meta-contexts). This is the case here. The *actualization of holistic awareness* is one of life’s diverse ironies via complementarity.



unhealthy. Indeed, any assumption that glorifies one aspect at the expense (or outright denial) of its complement using absolutistic labels is inherently unhealthy.

The Western mind labels what it can and uses its knowledge to identify anything that may be harmful or distressing based on past experience. In this way, the self protects the self-point (a fundamental core or nucleus). It filters experience for foreign elements and then labels various ‘things’ (*this or that experience*) with identifiers such as *wrong, bad, guilty, or inaccurate*. Often, an identity (e.g. inaccurate) becomes employed as a static label for purposes of classification and protection. The intent is natural, and logic requires these labels to function. On the other hand, health requires that logic and emotion exist as a homeorhetic balance, and ‘labeling’ emotion as inaccurate—or inner reality as unreal—is an unhealthy behavior.

Quantum resonance theory is a radical form of contextualism that rejects any absolute application of labels—using absolutistic labels applies a logical tool to an illogical extreme in light of the dynamic character of reality. For example, identifying ‘logic’ as ‘accuracy’ employs two clearly static labels—and *this is surely misguided*. (There is literal irony in this last statement. The quantum resonance likewise must reject any labels imposed upon it through quantum resonance theory.) Existence is contextual. Ethics and teleology are contextual. The many levels of language are contextual. The words of this document live and breathe with the author and his contemporary readership.

Ideally, the development of quantum resonance theory would coincide and refer to the study of living complex systems. In considering this, the theory of autopoiesis developed by Humberto Maturana and Francisco Varela is highly insightful.<sup>42</sup> Autopoiesis combines the Greek *auto-* (self-) and *poiesis* (creation).

‘An autopoietic system is organized (defined as a unity) as a network of processes of production (transformation and destruction) of components that produces the components that:

1. through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produced them; and
2. constitute it (the machine) as a concrete unity in the space in which they exist by specifying the topological domain of its realization as such a network.<sup>43</sup>

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<sup>42</sup> Maturana, Humberto R. & Varela, Francisco J. (1980), Autopoiesis and Cognition: The Realization of the Living, Boston: D. Reidel Publishing Company.

<sup>43</sup> Varela, Francisco J. (1979), Principles of Biological Autonomy, New York: Elsevier, p. 13.

Autopoiesis is self-replication (recursive self-interaction). An autopoietic system is phenomenological and composed of holons (i.e. identities within a holarchy). Living systems consist of dualistic processes or relations, such as (collective) organization and (individual) structures. There are clear limits to the direct parallel between autopoietic theory and quantum resonance theory. For a parallel to hold on deeper levels, autopoietic theory must be transplanted from traditional biology into a paradigm congruent with quantum resonance philosophy. This being the case, autopoietic theory could contribute a great deal to quantum resonance theory.

Another relevant theory is enformy, developed by Donald Watson, Gary Schwartz, and Linda Russek. Enformy is the tendency of life to manifest complexity as enformed systems. In their words, enformy is

...the capacity to organize. Opposing the entropy principle, enformy accounts for the universal tendency toward increasing complexity. As the organizing principle, enformy is foundational to Systemics. That is, enformy is to Systemics as energy and mass are to mechanics.

A holistic system is

...the sum of its parts plus one essential component: a four-dimensional map that specifies the relationships among those parts in spacetime.

And an enformed system is

...any system that is organized as a whole by enformy. Enformed systems can be: (1) material and physical; (2) nonmaterial and physical (dynamical energy systems); or (3) prephysical (enformation maps in spacetime—e.g., quantum fields, “nonlocal mind”).<sup>44</sup>

Enformy is proposed as a comprehensive theory of consciousness and reflects quantum resonance theory in some ways. One obvious similarity is the fundamental unit in enformy, termed a SELF (an acronym for Singular Enformed Living Field). As with autopoiesis, enformy bears differences as well. Quantum resonance theory operates from within a radical worldview, and enformy and autopoiesis both imply more traditional worldviews. Existing theories require reinterpretation to make complete sense in a quantum resonance context. However, despite the difficulties, expanded interpretations of these theories—among many others—could be useful in the development of quantum resonance theory.

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<sup>44</sup> Watson, Donald, Schwartz, Gary, & Russek, Linda (1999), *A Comprehensive Theory of Consciousness: Enformy and Enformed Systems*, online publication available at [http://www.flash.net/~dwatson/\\$poster.htm](http://www.flash.net/~dwatson/$poster.htm).

## A GEOMETRY OF THE QUANTUM RESONANCE MODEL

Geometry, like any representation, is best understood for both its meaning and its limits. It possesses the power to communicate, and inherent in this power is a destructive aspect (as with military science) along with a creative one (as with art). Being a representation, the geometry of the quantum resonance model could become unhealthy if applied dogmatically. The geometry is static and yet the model lives. The model reflects a living system and requires renewal through continual reinterpretation. The quantum resonance model can easily become a carcass for those willing to reinterpret the living system with ill-tempered rationalism. This being said, here it is.

**SELF-INTERACTION.** The interaction of the self involves the alpha and omega aspects, or the micro and macro respectively.<sup>45</sup> Macro reality (e.g. unconscious experience) occurs from a level of relative transcendence, and is therefore mysterious (or mystical) in nature. The macro provides *something from nothing* as an unknowable host that provides existence for the micro. These complementary aspects of being (immanence) and non-being (transcendence) behave like a one-dimensional circle seen either from the front (Figure 2A) or from the side (2B) —the circle disappears in the side view. The concepts of immanence and transcendence relate directly to the quantum resonance aspects of consciousness and unconsciousness (also referred to as alpha and omega consciousness). Micro reality is an experiential projection of the macro—a virtual and holomoving reality (2C). Macro reality (the root or self-point shown by the solid dot in 2C) is fundamental (and unchanging) in relation to the micro (the open-ended top), but only insofar as the omega aspect can be considered ‘fundamental’ to the alpha—they are interconnected.

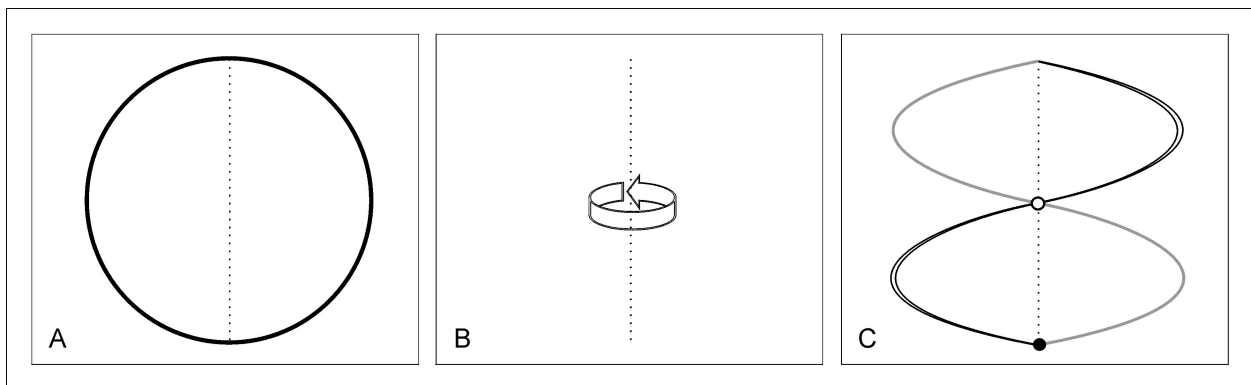


FIGURE 2: Transcendence and Self-Interaction

<sup>45</sup> Please note: the terms *micro* and *macro* in a quantum resonance context do not correspond to the same terms in a physics context, where the macro world is our perceptual world of macro (everyday) ‘objects’ and the micro world corresponds to the atomic and subatomic realms. Quantum resonance theory employs these terms quite differently.

Micro reality (related to our conscious experience) is the perceptual limit or ‘screen’ providing a virtual reality—in a phenomenological context, the outer world. This is recognized in the East as the world of illusion. A self also functions as a host to its virtual creations—an arrangement resembling the concept of karma. The alpha and omega aspects resemble the complementary *nadis* (channels) of *Kundalini* (vital energy) in *Tantric* tradition: simultaneously interwoven and separated (2C). The channels are named *Pingala* and *Ida* and are attributed respectively as masculine and feminine, sun and moon, and similar complements.<sup>46</sup>

Considered as separate aspects, the alpha and omega interact to produce a diverse range of experiences. On the other hand, despite how they are considered, the alpha and omega aspects form a single dynamic. If one aspect is attributed as black (or yin) and one as white (or yang), neither is completely black nor white (yin nor yang) because each aspect necessarily includes the other (as with the Tao). Furthermore, life employs a vast spectrum of living color in addition to black, white, and infinite shades of gray. The alpha and omega exist as a composite experience, and confusing them for two aspects that are completely separate is a simple and disastrous mistake. They cannot be clearly delimited from one another although the geometry may seem to do so. Also, while both aspects may be geometrically represented as linear waves or circles, the alpha aspect is inherently linear while the omega aspect is circular (or cyclical).

COMPLEMENTARY-INTERACTION. As given, the dynamic of alpha and omega parallels the concept of holomovement. Macro interaction correlates to the implicate order and micro interaction to the explicate order. The holomovement forms a Möbius strip:

[A] surface that can be formed by taking a long, rectangular strip of paper, rotating the ends 180° with respect to one another, and joining the ends together to form a loop. The Möbius strip is a two-dimensional surface that has only one side. This can be demonstrated by drawing a line down the middle of the loop; the line will eventually end up where it began. Another curious property is that if the Möbius strip is cut along the line down the middle of the loop, it will become a single two-sided loop, instead of falling apart into two loops. The Möbius strip is named after the German mathematician August Ferdinand Möbius, who was a pioneer in topology in the 1800s.<sup>47</sup>

The Möbius strip relates to the quantum resonance model in the following manner.

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<sup>46</sup> Mookerjee, Ajit (1982), *Kundalini: The Arousal of the Inner Energy*, Rochester: Destiny Books.

<sup>47</sup> “Möbius Strip,” Microsoft® Encarta® 96 Encyclopedia. © 1993-1995 Microsoft Corporation. All rights reserved. © Funk & Wagnalls Corporation. All rights reserved.

Consider a strip of paper. It is linear (with two ends) and two sided—this reflects the alpha aspect. For representing complementarity, assume that one side of the paper is black, and the other side is white. Now rotate the ends 180 degrees relative to each other and join them. The result is non-linear and one-sided (an endless loop)—and this reflects the omega. The point of self-interaction occurs where the two ends split (micro interaction) or join (macro interaction). In the example, black meets white where (or more properly, when) the ends join, representing a singularity. Quantum resonance theory parallels string theory, where the fundamental unit is a vibrating string whose ends may be either separated (open) or joined (closed). String theory is more complicated in application and conflicting theories exist, but the basic comparison stands.<sup>48</sup>

**ALPHA AND OMEGA REPRESENTATIONS.** A geometry of linear waves with two ends (2C) reflects the alpha aspect while including both. When the ends are joined, the geometry becomes circular (2A). With more description (3A), the circle includes a self-point (the solid dot) and two superimposed circles representing the alpha and omega (the gray line and double lines). As with an alpha representation, the omega necessarily includes both aspects.

**HEALTH AND SYNCHRONICITY.** The self adapts with the dynamic holarchy, and through its lifespan the changing self becomes healthy or unhealthy to some composite degree. As stated earlier, health is a state of homeorhetic balance between the alpha and omega aspects—in other words, synchronicity (since quantum resonance is measured in time). The self maintains homeorhetic balance when the alpha and omega are ‘in-sync’ (indicated by the white dot in 2C, 3A, and 4A-C). When the alpha and omega are *asynchronous* (i.e., out-of-sync), the result is

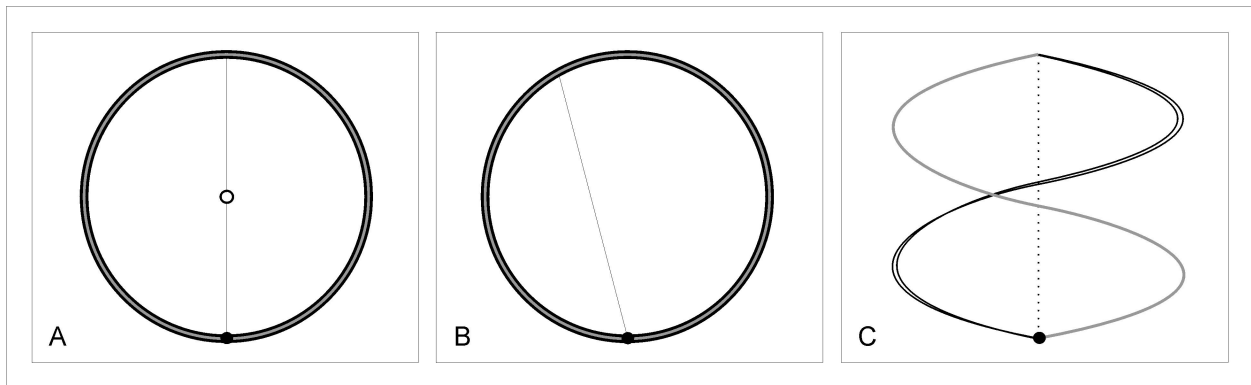


FIGURE 3: Synchronicity and Asynchronicity

<sup>48</sup> For a readable discussion of strings and their role in the search for supersymmetry (SUSY) cf. Gribben, Chapter 4, *Desperately seeking SUSY*, pp. 144-184 (esp. pp. 167-180).

imbalance (shown in 3B and 3C where the white dot is absent). Healthy synchronicity manifests in ways such as harmony or beauty. Furthermore, inherent in these concepts is the concept of meaning. Each self lives so the collective holarchy might be healthy and beautiful, and the holarchy lives so the individual selves might be healthy—this is necessary since the two are also one. According to quantum resonance theory, health (or synchronicity) is the meaning of life.

In the quantum resonance case, the alpha and omega reflect in two types of meaning: teleological (i.e. with the purpose of health—the alpha) and semantic (i.e. providing some cognitive-affective experience—the omega). Words live to communicate experience.

The meaning of a word looks, as it were, both ‘outwards’ into the world, and ‘inwards’ to other words. ...Whatever else is involved in meaning, it is clear that these two roles are clearly essential: for if one knows the meaning of the word ‘tiger’, one must have a grasp of how it applies in the world, and one must also be able to employ the word in an indefinite number of sentences. A theory of meaning—a ‘semantic theory’—is therefore obliged to explain how words can perform this dual function.<sup>49</sup>

Quantum resonance theory provides the template for a semantic theory. Words perform complementary functions because they live—the alpha looks “outwards” and the omega looks “inwards”. Self-interaction is a dialogue, and social communication is a self-interaction. The self is a unit of communication (with both deep meaning and literal expression). Health depends on the proper exchange based on homeorhetic limits of distortion (expression and perception) of the fundamental meaning. Meaning applies to physiology insofar as the body regulates its own internal messages. Whether in physiology or elsewhere, disease usually results when the natural ‘meaning’ of messages becomes distorted in some way.

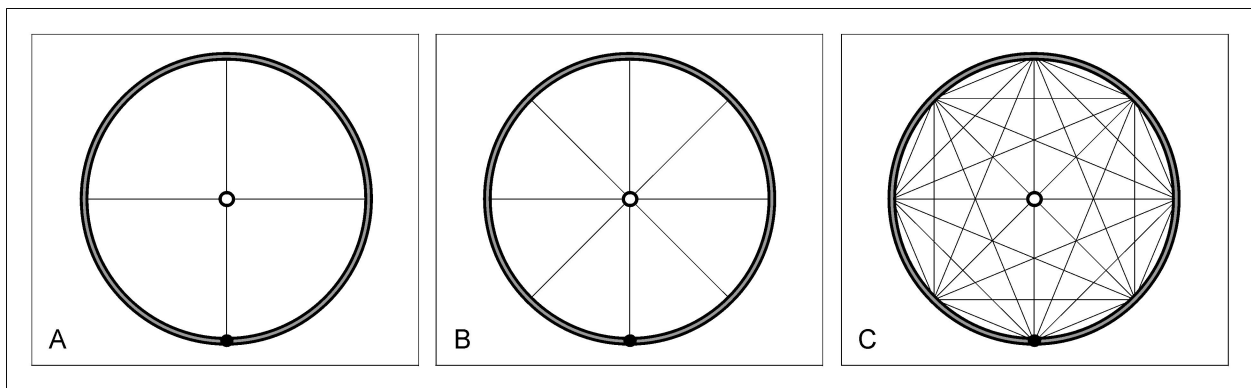


FIGURE 4: The Aspects of Healthy Quantum Resonance

<sup>49</sup> Honderich, p. 541.

For example, consider one cell within a body. In theory, the cell-self lives each moment as a relational identity between the macro level of the body and the cell's micro identities that manifest for the cell as perceptual interactions. The cell reacts to influences from the (macro) transcendent body and to its own (micro) internal processes. The cell does not experience the reality of the body as a whole, and yet it responds to it through macro interaction.

In an example involving human language, macro interaction (interaction with human experience and culture) provides life for words (symbols *et al.*) and determines when they die. Some expressions become virtually universal. A few of our stories become myths, and select writings are remembered throughout history. The select few live on within our memory (individual and collective). Some become diseased, such as a collective symbol that becomes distorted and unhealthy to some degree (e.g. the swastika has become unhealthy for many in the West—although its meaning in the East seems relatively unaffected by Nazi distortion).

Returning to synchronicity, Carl Jung applied the term with meaning in mind.

As its etymology shows, this term [synchronicity] has something to do with time, or to be more accurate, with a kind of simultaneity. Instead of simultaneity we could also use the concept of a *meaningful coincidence* of two or more events, where something other than the probability of chance is involved.<sup>50</sup>

A transcendent reality is implied in Jung's synchronicity. This mysterious level somehow determines the nature of synchronistic behavior—in other words, the “something other than the probability of chance”. Jung recognized the importance of this:

Synchronistic phenomena prove the simultaneous occurrence of meaningful equivalences in heterogeneous, causally unrelated processes; in other words, they prove that a content perceived by an observer can, at the same time, be represented by an outside event, without any causal connection. From this it follows either that the psyche cannot be localized in space, or that space is relative to the psyche. The same applies to the temporal determination of the psyche and the psychic relativity of time. I do not need to emphasize that the verification of these findings must have far-reaching consequences.<sup>51</sup>

Health manifests itself in many ways depending upon the context. Within quantum resonance theory, concepts such as synchronicity, meaning (both teleological and semantic), harmony, beauty, equilibrium, and homeorhesis are all implied by the term ‘health’.

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<sup>50</sup> Campbell, Joseph (Ed.) (1976), *The Portable Jung*, New York: Penguin Books, p. 505. The italics are original.

<sup>51</sup> Campbell, p. 518.

THE FUNDAMENTAL AXES. The circular form of the omega representation has a fundamental axis, and so does the alpha wave—however, these axes are quite different. The omega axis lies between absolute consciousness and awareness (Figure 5), and the alpha axis lies between omega and alpha consciousness (Figure 6). Quantum resonance theory operates from a healthy geometry, therefore ‘healthy awareness’ is used—unhealthy awareness is also possible.

When quantum resonance geometry is imagined as a living system (using alpha or omega representations), the living geometry dances. While the ‘center’ of the self is ‘active’ (i.e., the white dot is present), the dance is a healthy one and the quantum resonance truly ‘resonates’. The eight quantum resonance aspects provide points of reference for labeling the wave or circle into a spectrum—or basic aspects—and assuming many shades with one label (e.g. blue or yellow).

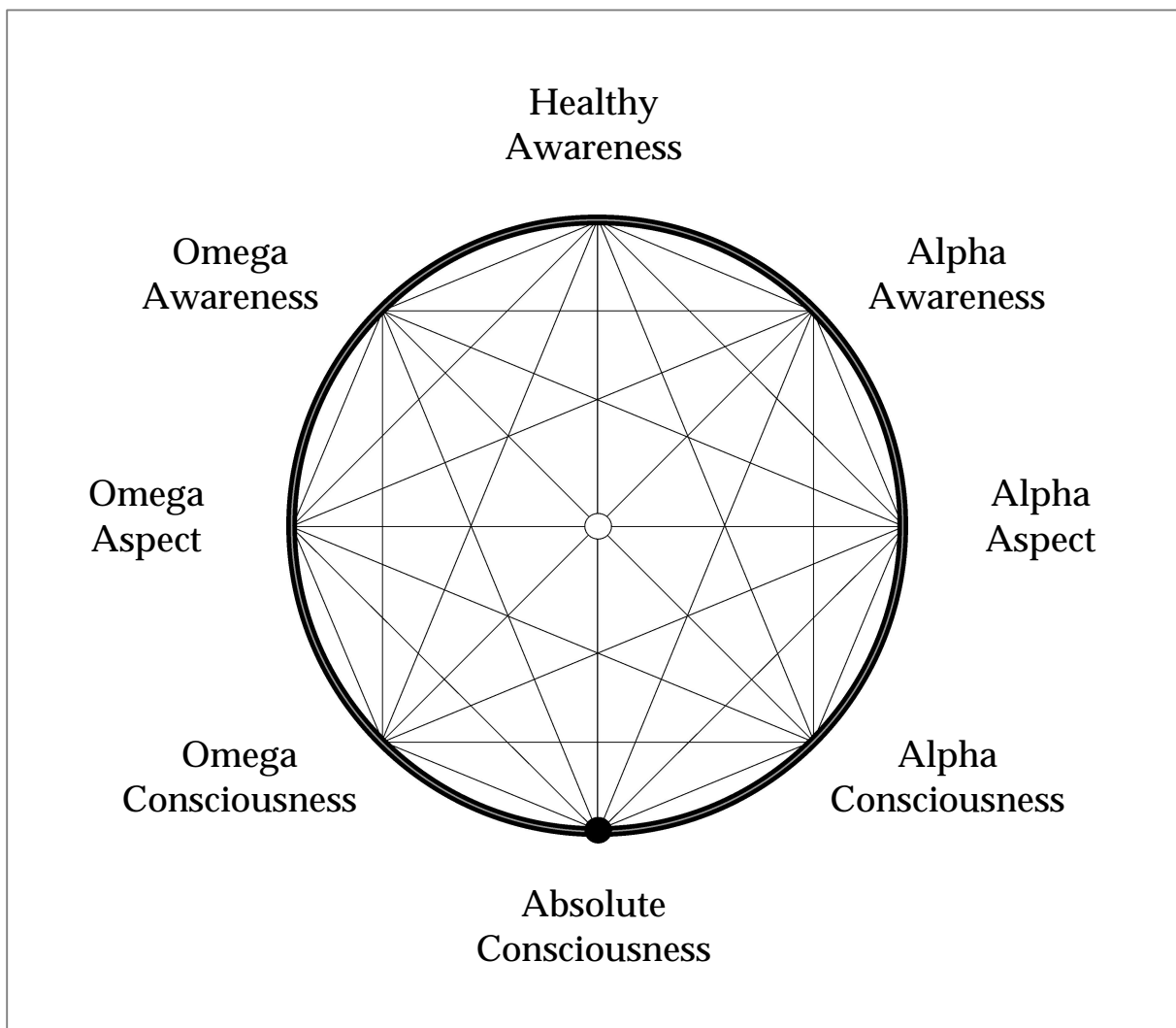


FIGURE 5: The Quantum Resonance Omega Representation



Absolute consciousness is absent in the alpha representation (or rather implied beyond and between its end-limits) because transcendence is invisible from within immanence (Figure 6). As mentioned earlier, the alpha representation *resembles* the structure of Kundalini in Tantric tradition (an anatomical comparison requires placing the self-point at the top), where the aspects ranging from alpha to omega consciousness correspond roughly to the following *chakras*: *Muladhara* (“the root centre of physical experience”<sup>52</sup>), *Svadhithana* (“the centre of whatever constitutes the individual’s personality”), *Manipura* (“the ‘gem-centre’ ...,” “...related to the element fire”), *Anahata* (“meaning ‘unstruck’ ...,” “In the center is a golden triangle, ‘lustrous as ten million flashes of lightning’”), *Visuddha* (“meaning ‘pure’”), *Ajna* (“meaning ‘command’ ... commands one’s whole personality”), and *Sahasrara* (“meaning ‘thousand’, is the ‘Lotus of the Thousand Petals’,” “the meeting place of Kundalini Sakti [≅goddess] and Siva [≅god],” “...the centre of quintessential consciousness, where integration of the polarities is experienced”).

Quantum resonance theory ‘separates’ the quantum resonance into eight overlapping identities (i.e. one self composed of eight selves). Despite these labels, limiting the number of aspects to eight does not imply that there are *only* eight of them—the model is simply limited to

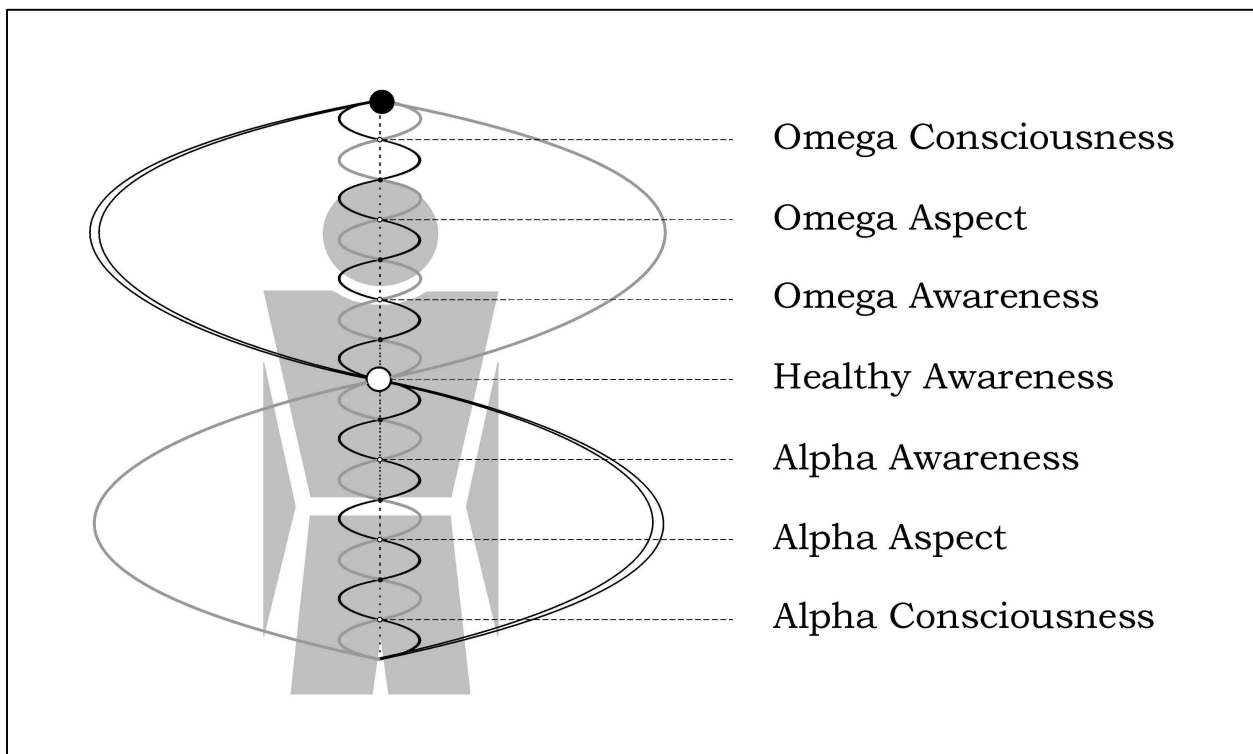


FIGURE 6: The Quantum Resonance Alpha Representation (Inverted)

<sup>52</sup> All quotes for the chakras taken from Mookerjee, pp. 39-44.

a number. (Although absolute consciousness is not shown in the alpha representation, it is implied since it may be defined as the union of alpha and omega consciousness.) The quantum resonance aspects are defined relative to the fundamental point (and axes), and coincide roughly with a naïve conception of the archetypes of experience. The term ‘archetype’ indicates an original form or pattern, and various individuals have applied the term in specialized ways. Quantum resonance aspects could be contrasted with several conceptions of archetype (Jung and Plato provide notable approaches). However, quantum resonance theory *redefines the archetype* as an aspect within a quantum resonance context, and so an overview of existing conceptions is unnecessary in this paper.

Any ‘specific’ aspect is also an entire self that includes eight aspects (given there are more than eight aspects). As already discussed, complementarity reflects in the alpha and omega aspects, or any aspectual dualism, or any self. This is because each implies the existence of the other (interconnectedness). The specific identity of any aspect reflects the alpha and the collective identity involving eight aspects reflects the omega. Given that the alpha and omega include one another, so it is with any aspect and its complementary aspect. Furthermore, neighboring aspects ‘overlap’ in their identities. Each aspect can therefore be identified as the union of its two adjacent aspects, as well as the complement to its alter-aspect. This is a necessary condition since existential phenomena occur as relationships rather than singular ‘things’. These are all vital issues to remember when considering aspects.

The fundamental axes identified earlier in the paper are the defining relationships of reality: absolute consciousness and awareness (the omega axis), and omega and alpha consciousness (the alpha axis). The fundamental pairing of complementary pairs is rather difficult to explain. Rather than approaching this dualism of axes directly, it is easier and informative to consider existing concepts of the *axis mundi*:

The “axis of the world,” a wide-spread image from the cosmology of ancient civilizations. ...An imaginary support was referred to as holding up the heavenly firmament—in some versions a crystalline pillar rotating like a spindle; in others a world-mountain or -tree. In cultures including shamanistic trance religions, the axis mundi was also thought of as a pathway along which the shaman could journey from one layer of existence to another...<sup>53</sup>

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<sup>53</sup> Biedermann, Hans (1989), Dictionary of Symbolism: Cultural Icons and the Meanings Behind Them, translated by James Hulbert (1992), New York: Facts on File, p. 25.

The top of the sky told the ancients there was foundation and structure in their lives. ...It was an anchor that held the world in place. ...Wherever the sky was pinned into place, that 'top' of the sky symbolized stability, order, and transcendental celestial power.

Each of those pivots in heaven was also linked to earth by a world axis. It might be described as a pole, a pillar, a tree, or a mountain. The world axis was a vital element of creation; it had strength and stamina, but it was threatened by chaos.<sup>54</sup>

In these views, the world axis provides the basis for stability in the cosmos. "That's what the word *cosmos* means—'the ordered whole' ...".<sup>55</sup> The concepts of order and chaos presented here correspond to concepts of health and unhealth. While the axis mundi and the fundamental axes in the quantum resonance model hold tantalizing parallels, there are also striking differences in the specifics. Besides, the concept of a single axis mundi already presumes to represent many worldviews—close analysis would be an arrogant presumption. A basic parallel will suffice, although exploration into the similarities and differences would be otherwise informative.

SUMMARY AND ANALYSIS. A short list of considerations was provided on the previous page, and some of these will now be explored in more detail.

Any 'specific' aspect is also an entire self that includes eight aspects. This statement can be useful in conceptualizing the concept of a single quantum resonance self but it is misleading. A better way to express this might be that the self is the relationship between the specific and collective limits (alpha and omega consciousness). This relationship is a continuum.

The specific identity of any aspect reflects the alpha and the collective identity involving eight aspects reflects the omega. Quantum resonance theory necessarily includes the relationship between the reader and this paper—a relationship that's hard to discuss. The apparent fact that any experience can be seen from complementary perspectives is as obvious as it is mysterious.

Given that the alpha and omega include one another, so it is with any aspect and its complementary aspect. The strange implications of this are vital to quantum resonance theory. Complementarity provides the description whereby two identities form a single identity—and this is crucial. While it is useful to separate identities into dualities, these separate dualities still exist as a single identity. Any two limits define a continuum rather than two different things.

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<sup>54</sup> Krupp, E. C. (1991), Beyond the Blue Horizon: Myths and Legends of the Sun, Moon, Stars, and Planets, New York: Harper Collins Publishers, p. 275.

<sup>55</sup> Ibid.

Neighboring aspects ‘overlap’ in their identities. As stated, “each aspect can therefore be identified as the union of its two adjacent aspects” (p. 28). A quantum resonance self lives in a state between health and unhealth, and so the term ‘absolute awareness’ has been substituted for ‘healthy awareness’ in the following general analysis:

**Alpha consciousness** is defined as the relationship between absolute consciousness and the alpha aspect. In other words, alpha consciousness is the time or temporal ‘limit’ (membrane or boundary) where<sup>56</sup> the alpha aspect meets absolute consciousness.

**The alpha aspect** is defined as the union of alpha consciousness and alpha awareness (i.e., the state of being both of them).

**Alpha awareness** is defined as the relationship between absolute awareness and the alpha aspect (i.e., alpha awareness is the time where absolute awareness and the alpha aspect overlap).

**Absolute (healthy/unhealthy) awareness** is defined as the union of alpha awareness and omega awareness (where a homeorhetic balance of the two defines health).

**Omega awareness** is defined as the relationship between absolute awareness and the omega aspect.

**The omega aspect** is defined as the union of omega consciousness and omega awareness.

**Omega consciousness** is defined as the relationship between absolute consciousness and the omega aspect.

**Absolute consciousness** is defined as the union of alpha consciousness and omega consciousness.

In addition to the eight defined aspects, there also exists a myriad of interconnected relationships. An exact number of geometric relationships based on some number (such as eight) is irrelevant—it is better to simply call it a myriad. The fundamental relationships (involving absolute consciousness, absolute awareness, alpha aspect, and omega aspect) have already been discussed. The implied relationships involving alpha and omega consciousness and awareness will now be given some consideration.

The complementarities are straightforward. Alpha consciousness complements omega awareness (e.g. spacetime versus emotional/inner awareness), and omega consciousness complements alpha awareness (e.g. dreamtime versus rational/outer awareness). Any two

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<sup>56</sup> Proper usage would be “time...when” but “time...where” is used as a reminder that space is another form of time.

complements are *like* a double-sided coin: although they are the same ‘thing’, only one side can be seen at a time. *This image is somewhat misleading.* Complementarity is better described as an inverse relationship, as described in Heisenberg’s uncertainty principle: “one can never be exactly sure of both the position and the velocity of a particle; the more accurately one knows the one, the less accurately one can know the other.”<sup>57</sup> According to the given example, rational (outer) awareness cannot pierce the mysteries of dreamtime, while emotional (inner) awareness cannot accurately predict the behavior of spacetime—and *outer or inner awareness operates in degrees.* Increased alpha awareness leads to a decrease in omega awareness, and *vice versa.*

From an omega perspective (Figure 5), the whole self-event is perceived as a contextual unity. Omega perspectives correspond to semantic meaning where the relationships are circular (systemic) and interconnected. (An alpha aspect viewed from an omega perspective appears circular.) Aspects in the omega perspective appear as unified identities—archetypes or deities, for example. Viewed from an alpha perspective (Figure 6), relationships appear linear. Omega and alpha consciousness form limits of the holomoving interaction, and the complementary aspects move like waves in opposing linear directions. (The omega may appear to move in a linear direction from an alpha perspective.) Alpha transitions appear causal (cause and effect), teleological (ends and means), developmental (a process), and as other temporal relationships. The alpha and omega aspects may take many appearances within a diversity of multivalent phenomenological contexts. Life abounds with paradox because it is the identity of life to be so.

The aspects are like characters in a quantum resonance drama. On one side, standing beyond the drama, we find archetypes—non-temporal identities<sup>58</sup> such as nature, or the gods. Standing within the drama, we find a myriad of temporal ‘creations’. Whether using the case of transcendence or immanence, a diversity of perceptions (or expressions)<sup>59</sup> is always possible through holarchic self-interaction. The Great Holarchy<sup>60</sup> provides as many questions as answers in any given context (or meta-context) when characters are identified. In theory, the quantum resonance model can be applied to any situation in the recursive manner of a fractal—assuming a healthy awareness of the ‘relevant situation’ can be translated into healthy representations.

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<sup>57</sup> Hawking, p. 187.

<sup>58</sup> These identities only appear non-temporal from an immanent perspective. Time is still a fundamental unit.

<sup>59</sup> Perceptions and expressions generally correspond with omega and alpha awareness, respectively.

<sup>60</sup> Cf. Ken Wilber.

HEALTHY REPRESENTATIONS AND ART. Employing 'live' representations that come in complementary varieties and change their meaning based on context becomes a tricky business. Furthermore, when describing a context (or self) using quantum resonance topography (following a holarchic scheme) it is seldom adequate to include a single context (or self)—or even two or three—because relationships bear so much importance. On the expansive side, the recursive nature of quantum resonance implies that any representation could be expanded to an infinite and unwieldy degree. According to quantum resonance theory, a healthy balance exists between too few and too many as defined by the homeorhetic boundaries of the dynamic context.

Consider an example. A woman wishes to remove an old tree growing on her property. Who are the players in this drama? The desires of the woman and those of the son who built the makeshift house it holds. The tree is a player. Perhaps the woman's ability to fell the tree is a player, and perhaps the local geography is also a player depending on the landscaping, or the traditions of the local inhabitants, or the ecosystem. Is an environmental impact study required? Are the neighbors players? Should the son contact the ACLU when the mother decides to remove the tree anyway? Should the ACLU be considered an absent player in the drama if the son decides not to do so? And what happens should the woman wait too long (say, 70 years) and lose legal rights to her estate? How soon should the government be included as a viable player? The questions are endless, and only common sense knows when to stop asking them.

There is an art to quantum resonance theory. Healthy representations include the subjective with the objective. If quantum resonance theory were applied to a legal system, there would never be a judgment made without consideration for 'how does this make you feel?' Constructing a healthy representation requires mind and heart as well as trial and error. There is no easy formula for doing so. The best measurement of success in constructing a healthy representation is the 'aesthetic' value of the representation, where aesthetic identity implies both collective and individual validation to some contextual degree (i.e., 'beauty is in the eyes of the beholder'). Aesthetic identity is art.

Healthy (i.e. aesthetic) representations tend toward living while unhealthy ones tend toward dying, and therefore one might expect that healthy representations would endure longer. To some extent, this is the case. Our perennial traditions attest to enduring representations. On the other hand, life is dynamic. A healthy representation can become unhealthy by not changing. 'Premature' representations die from bad timing. In the end, there is no adequate definition.

# APPLICATIONS

Theoretically, if the quantum resonance is the fundamental dynamic behind reality, quantum resonance theory should demonstrate applications in virtually every field of knowledge (see Figure 7 for a recap). However, only a few select examples must suffice. There are many areas discussed and so the presentation is brief—i.e., some assembly required. Please keep in mind that these figures are intended as theoretical proposals. There is no assertion that these models are proven or trustworthy. They are presented in hopes of provoking exploration.

## PSYCHOPHYSIOLOGY

One primary candidate for application is psychophysiology (Figure 8). The dualism of

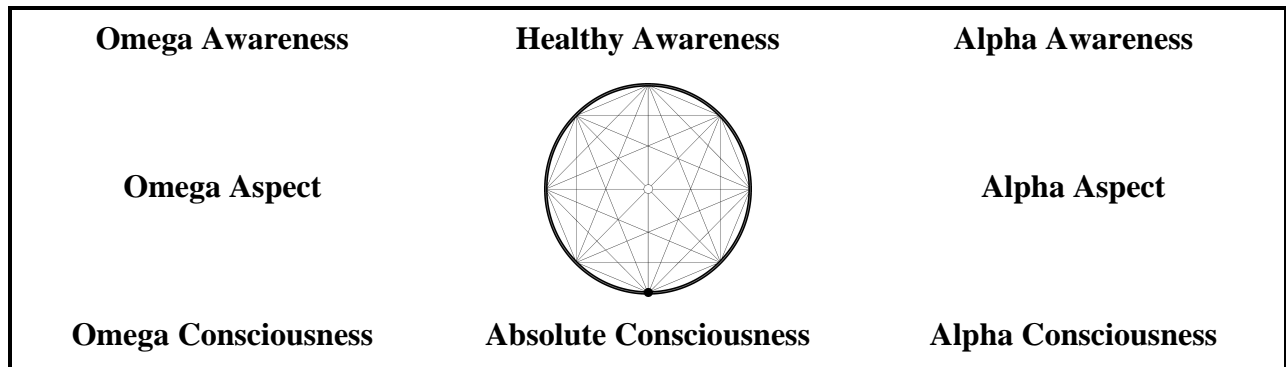


FIGURE 7: A Legend of the Aspects

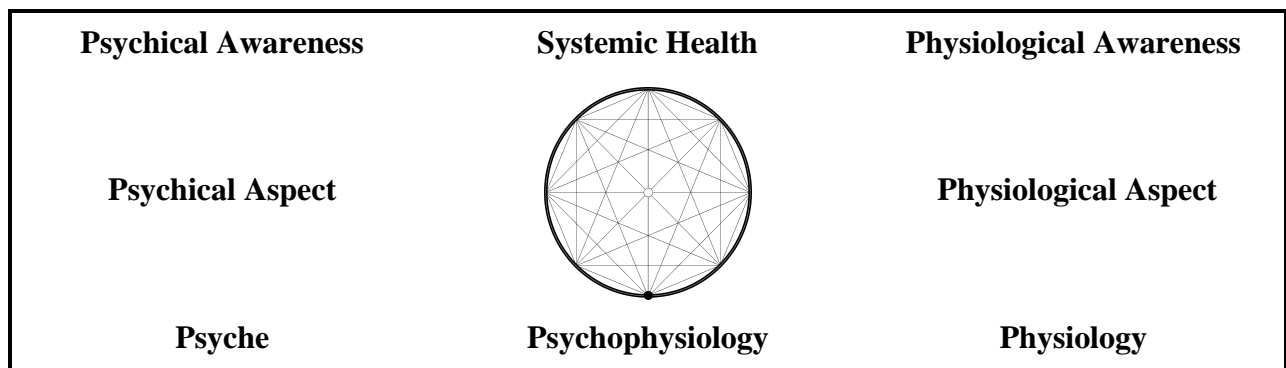


FIGURE 8: Psychophysiology

body and psyche is easily explained within a quantum resonance paradigm. Parallels have been shown with autopoietic theory<sup>61</sup> and the theory of enformy<sup>62</sup>. Regarding a biological approach to consciousness, Roger Penrose and Stuart Hameroff have developed a model of consciousness in which the conscious experience of ‘now’ is postulated as a periodic cycle in the ‘Orch OR’ model.<sup>63</sup> In the Penrose-Hameroff model, the collapse point of conscious experience could correspond with alpha consciousness, and the preconscious processing period could correspond with the alpha transition from omega consciousness to alpha consciousness.

In the field of psychology, quantum resonance theory applies nicely within a humanist constructivist paradigm. There are many possible ways of mapping the mind’s topography, and two interpretations have been provided. The first interpretation (Figure 9) is a personal favorite. The second one (Figure 10) provides a *new* twist on some psychoanalytic terms. Please note that

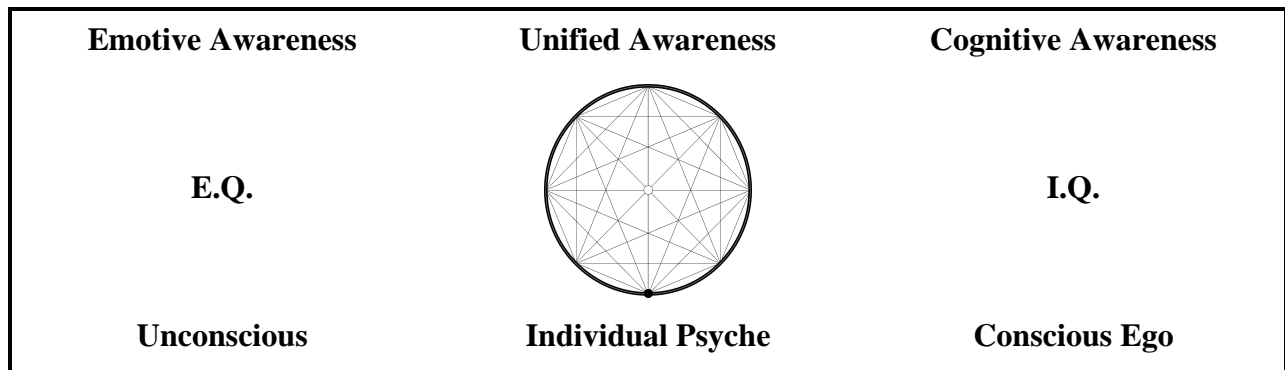


FIGURE 9: The Individual Psyche

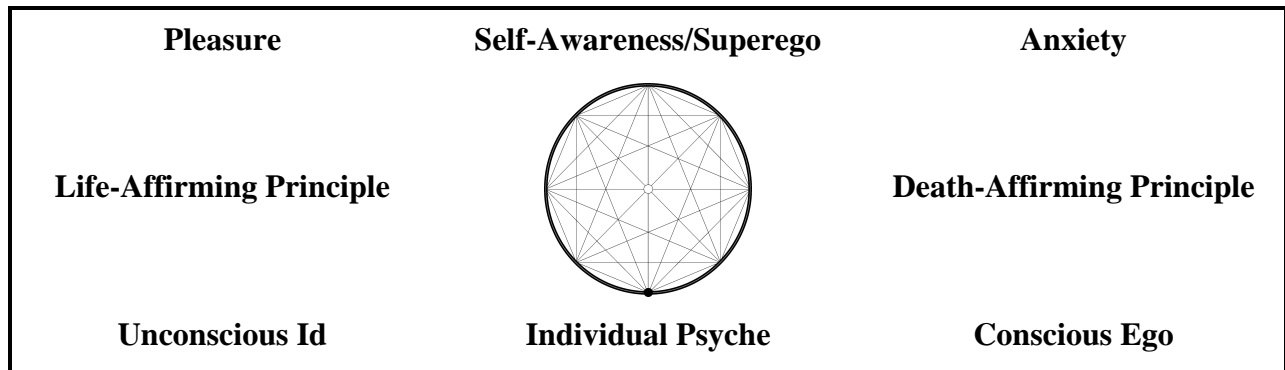


FIGURE 10: The Individual Psyche, Reprise

<sup>61</sup> Maturana & Varela.

<sup>62</sup> Watson, Schwartz, & Russek.

<sup>63</sup> Hameroff, Stuart (current), Quantum computation in brain microtubules? The Penrose-Hameroff “Orch OR” model of consciousness, online publication available at <http://www.u.arizona.edu/~hameroff/royal.html>.



contextual labels for the aspects may be expressed in many ways. Healthy representations are more concerned with meaning than consistency—although consistency can be useful too. Other contextual examples given are emotions (Figure 11) and life span development (Figure 12).

Quantum resonance psychology proposes a solution that is pluralistic (i.e., accepting multiple perspectives) and integrative (combining multiple aspects). Like many fields of study in our postmodern world, psychology is weakened by the problem of overspecialization and a bias for linear approaches.<sup>64</sup> A template such as the quantum resonance model might help alleviate this problem. Another consideration is the growing importance of process in current psychological models. “The acknowledgment of process as primary in human experience is significant in itself, a step that requires a fundamental acknowledgement of time and the lifespan dynamics of ‘temporal becoming.’”<sup>65</sup> Process is fundamental to quantum resonance.

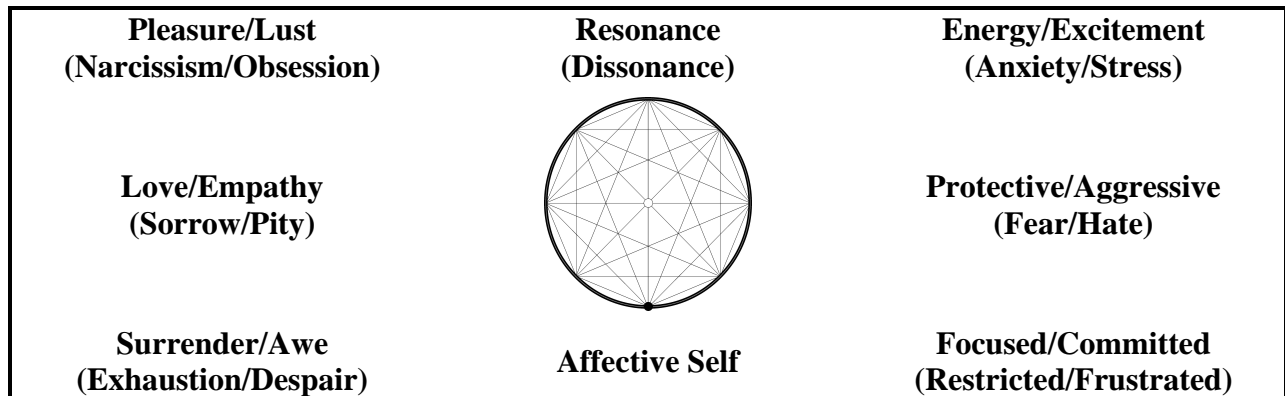


FIGURE 11: The Emotions

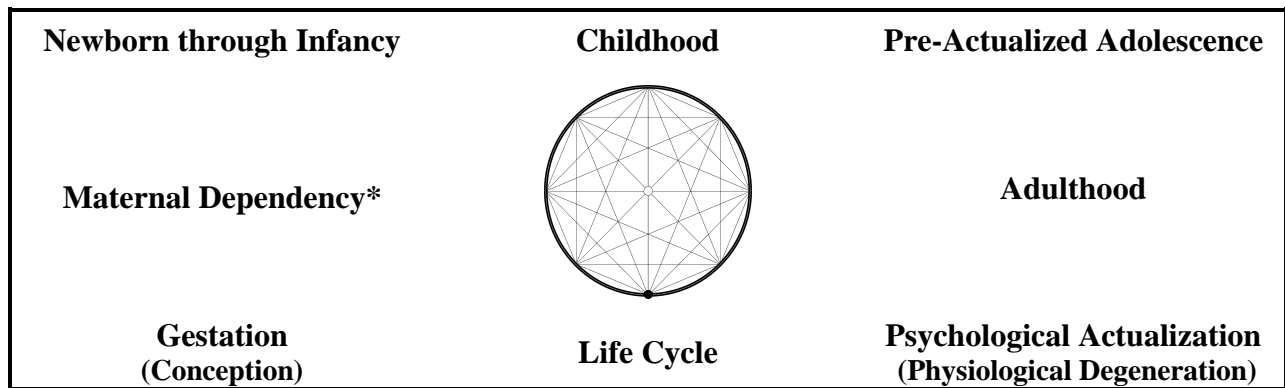


FIGURE 12: Lifespan Development

\* This indicates term of pregnancy and breast-feeding period during which the developing self in question is dependent initially on the womb and then on the breasts of the mother.

<sup>64</sup> This is similar to suggestions made in DeBerry, Stephen T. (1993), Quantum Psychology: Steps to a Postmodern Ecology of Being, Westport: Praeger.

<sup>65</sup> Mahoney, Michael J. (1991), Human Change Processes, New York: Basic Books, p. 155.

## PHYSICS

Quantum resonance theory also applies to physics in different ways. One implication is that spacetime is a holographic projection of the dreamtime (Figure 13). Another scheme may be implied within the context of spacetime (Figure 14). Parallels have been discussed in quantum and superstring theory. The presence of consciousness in the model manifests as aether—a necessary component according to Einstein’s relativity theory. “According to the general theory of relativity space is endowed with physical qualities; in this sense, therefore, there exists an aether. According to the general theory of relativity space without aether is unthinkable.”<sup>66</sup> Although the idea of an aether has been largely rejected, quantum resonance theory revives it.

One theory that merits a special mention is Virtual Chaos (the authors of this online project remain anonymous). The parallels are striking. According to the online source:

“What is Virtual Chaos?”

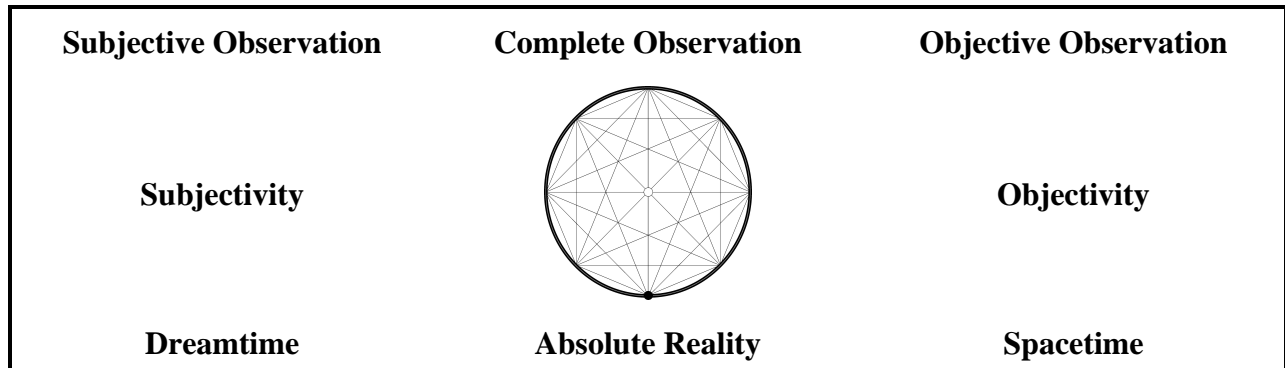


FIGURE 13: A New Physics Paradigm

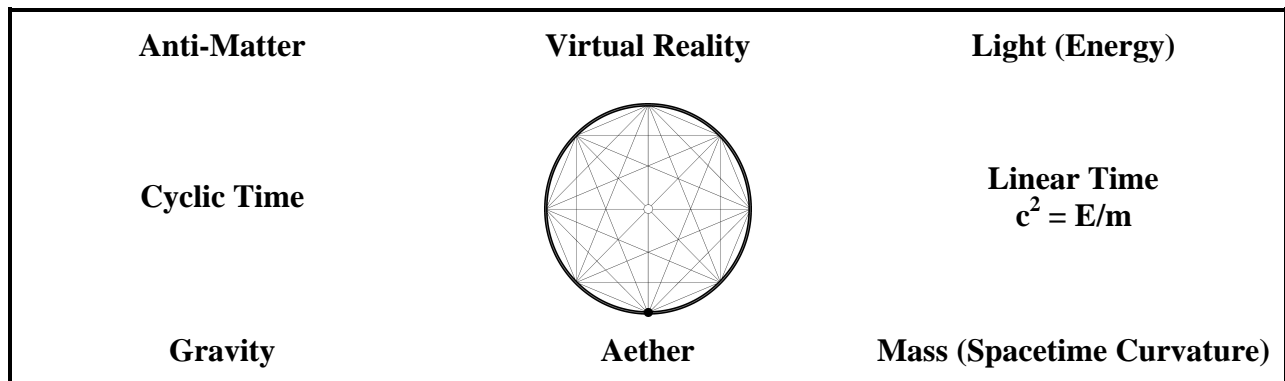


FIGURE 14: A Spacetime Model

<sup>66</sup> Einstein, Albert (1922), Sidelights on Relativity, London: Methuen, p. 23.

Virtual Chaos is a Theory of Everything. A Theory of Everything is designed to explain how everything works with a single set of rules. These rules would have to apply to all known (and unknown) phenomena and work with all of them.

We have tried to break Virtual Chaos using everything we could think of, testing it against Relativity, Quantum Mechanics, Gyroscopes, Solar systems, Metaphysics, Religion and anything else we could think of. The result: It ended up uniting everything in a common framework.<sup>67</sup>

Virtual Chaos' beauty lies in its simplicity. It says that like the other dimensions, Time began in the middle. A wave moving from Unity to Infinity in one direction and from Unity to Zero in the other. The first is redshifted, the other blue. The first is twice unity, the second, half. The Universe is Exploding and Imploding at the same time!

Each constituent part of the Zen, (the Yin and the Yang), are red or blueshifted as well. Where they overlap something happens Now.

The Zen naturally gives rise to a Symmetry of six Quarks, six leptons, three intermediate vector bosons, a photon and eight colored gluons. It might also explain the Charge, Spin, and Color of particles, as well as the general strengths of the forces, the Distances they operate at, and how they are all expressions of the same underlying force, Angular Momentum. In Virtual Chaos the same law governs events at every scale, this is Time as a Logarithmic dimension at right angles to the dimensions of space.<sup>68</sup>

## LINGUISTICS

The communication of something involves the expression of meaning through language, including levels of deep and surface meaning (Figure 15). The concept of a universal grammar might be replaced with the concept of a meta-context that lies behind any context of language.

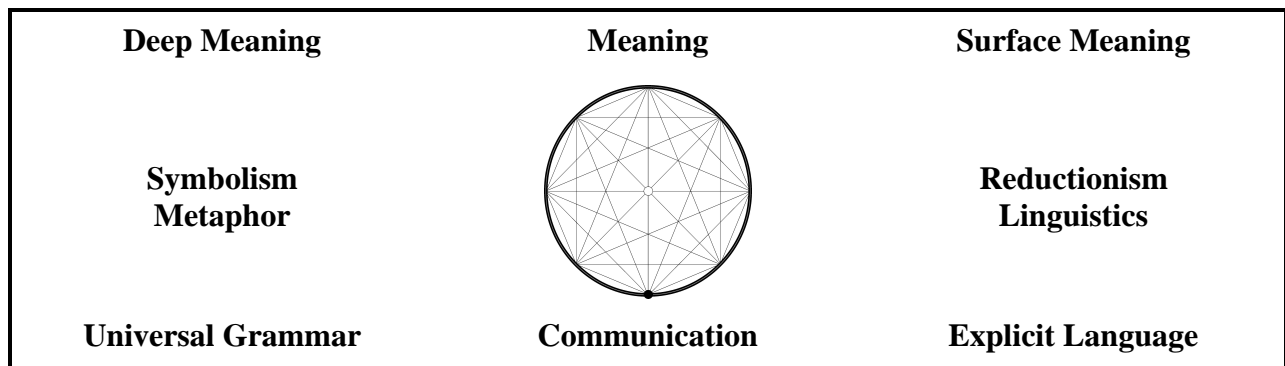


FIGURE 15: Communication

<sup>67</sup> VirtualChaos.Org (1995-97), *A Theory of Everything: Virtual Chaos*, online at <http://www.virtualchaos.org/>.

<sup>68</sup> VirtualChaos.Org, <http://www.virtualchaos.org/science/abstract.html>.

## HUMANITIES

“Quantum resonance theory rejects the classification of the humanities as a non-science. Theoretically, the humanities are soft sciences waiting to happen—especially in areas of art, myth and religion” (p. 7). Art is inherently mysterious and involves experience, a subject that has been discussed to some degree already. For the remainder of the discussion silence is the best commentator on art—except to say that art is *very* important. Before discussing myth and religion, two other areas in the humanities are briefly discussed: drama and humor.

Drama explores the human experience. We live our lives more completely during dramatic moments or through possessing dramatic awareness. This is the basic message of Frederick Perls when discussing the Gestalt psychological approach to life. In the Gestalt view, the self is an organism that exists in a relationship with its environment and self-regulates. “Health is an appropriate balance of the coordination of all of what we *are*.”<sup>69</sup> Life acquires meaning through embracing the experience of life. Health results in lucid moments when life simply seems to fit together (i.e., synchronicity). Incidentally, Perls believed “objectivity does not exist. The objectivity of science is also just a matter of mutual agreement. A certain number of persons observe the same phenomena and they speak about an objective criterion.”<sup>70</sup>

In this context, humor implies both a general state of mind and also the experience of humor (e.g. laughing). In its experiential sense, humor occurs as an omega phenomenon—spontaneously. In this manner humor is similar to phenomena such as inspiration or orgasms. Humor is a mechanism whereby the macro interacts with the system and resets the state of the system (so to speak). There are clear examples of this resetting phenomenon. It resembles the function of a capacitor that holds energy in increasing amounts until a critical point is reached and the energy is released—resetting the system state of the capacitor. Neurons in the brain function like this, as does the Penrose-Hameroff OR model of consciousness. Humor is the resetting of our emotive or affective state (i.e. omega consciousness). Furthermore, humor is more than this. Humor involves the experience of pleasure during the process of resetting the self-system (as with an orgasm). Due to the presence of both omega awareness (pleasure) and omega consciousness (resetting the system), humor is best correlated with the omega aspect.

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<sup>69</sup> Perls, Frederick S. (1974), *Gestalt Therapy Verbatim* (11<sup>th</sup> printing), Toronto: Bantam Books: p. 6. This reference is obviously relevant to psychology and could have been included earlier. However, a discussion of Gestalt philosophy seemed more appropriate in reference to art and drama. Besides, the categories are intended to overlap.

Coupled as it is in a proverbial relationship with politics, religion can be a sensitive area—especially when it’s referred to as myth. Despite the dangers inherent in the topic, it must be discussed because the implications of quantum resonance theory are fundamental to religion. As already stated, the development of quantum resonance theory began primarily as a personal exploration of Jewish mysticism, combined with various eclectic influences of a religio-spiritual-philosophical nature.<sup>71</sup> Quantum resonance theory frowns upon an excessive bias toward dogma, and this is a difficult implication for the extremely conservative individual. There is no escaping this implication despite the interests of pluralism (except perhaps with the use of exceptions). Dogma is a manifestation of alpha consciousness and a ‘living myth’ (a term used by Joseph Campbell) implies a living religion or mythology that combines dogma with true religious or mystical experience (see Figure 16). The dogma is the means to mystical experience or spiritual enlightenment (omega consciousness). Dogma is not the truth of the mystery. The Tao that can be named is not the eternal Tao. The written Torah is only a portion of the true Torah.

Please understand that the theory of quantum resonance does not disparage dogma. Religious dogmas (rituals, texts, organizations, etc.) are the potential means to genuine ends included within the living expression of a religious phenomenon. (Note: although the apparent relationship of means and ends exists in this context, the experiential manner of mystical experience is spontaneous or timeless rather than linear.) It is best to value existing traditions for as long as they may live, and in the interests of cherishing a tradition its health depends on homeorhetic change through periodic renewal.

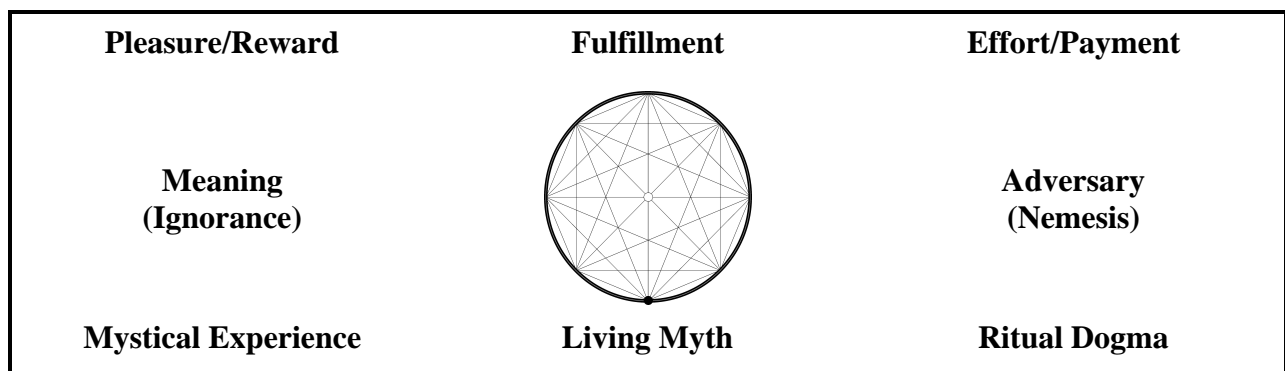


FIGURE 16: Living Myth (or Religion)

<sup>70</sup> Perls, p. 13.

<sup>71</sup> The author has a strong personal interest in Judaism, Jewish mysticism and Jewish Renewal, a B. A. in Middle Eastern Studies with an emphasis in Hebrew, and a B. S. in Philosophy with a focus toward religious studies.

One example of religious renewal is Jewish Renewal. A leading figure in this movement is Reb Zalman Schachter-Shalomi who writes,

I have moved from... [the position] we call “restoration,” one seeking to restore Judaism to its pre-Holocaust status. I am no longer interested in the Noah’s Ark. Instead, I have embraced and propogated a vision of Jewish Renewal, one in which we metamorphose in the paradigm shift to be transformed again now as we have been transformed in the past.<sup>72</sup>

Through religious renewal our perennial traditions can be cherished and maintained rather than being abandoned. The renewal process is difficult but required since a paradigm shift periodically resets the religious system and helps maintain systemic health. On the other hand, differences are also natural in a pluralistic reality. Truth is relative. Religious traditions need not be renewed because they are growing toward some final ‘truth’ or developing toward a single unified expression. Differences in religious dogma will always exist because symbols are contextual and there is no final truth that dogma alone can capture.

Quantum resonance theory has its roots in the mystical traditions of Judaism—the Kabbalah, or the Kabbalistic structure of the Tree of Life. However, the road that led from the Tree of Life to the quantum resonance has taken many strange turns. The resulting theory now only *resembles* the original system (and this doesn’t intend to devalue the theory or the original). The correspondences given (in Figure 17) are incomplete and merely provide hints of the metamorphosis that led from one to the other, but this isn’t explored here. Another influence from Kabbalah is the relationship-oriented approach holding that each person is a complete ‘world’ while another ‘world’ exists between each person.

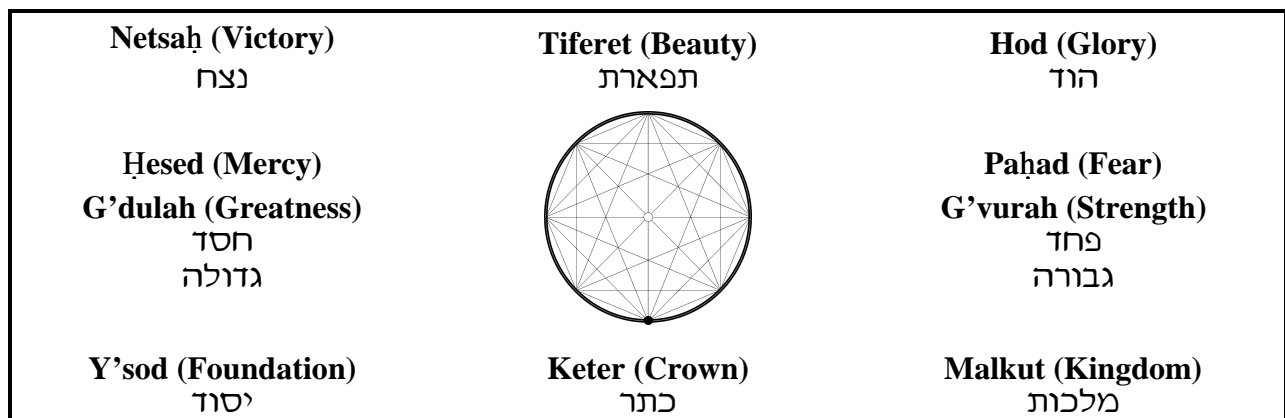


FIGURE 17: Jewish Mysticism (Kabbalah)

<sup>72</sup> Schachter-Shalomi, Zalman (1993), Paradigm Shift, Northvale: Jason Aronson Inc., p. xix.

The religious traditions of Taoism and Tantra (Hinduism) have already been mentioned. Other influences behind quantum resonance theory include Alchemy (Figure 18) and the I Ching (Figure 19). Alchemy provided an insight behind overlapping categories of meaning (earth = cold + dryness, fire = heat + dryness, etc.). On the other hand, alchemical attributions reflect a Renaissance paradigm quite unlike quantum resonance philosophy, so as a means of adapting ‘old’ for ‘new’, ‘neo-alchemical’ correspondences have been proposed (including planetary attributions). The I Ching also provided an influence, although the dichotomy of Heaven and Earth seems inverted when compared with the quantum resonance model. A very interesting Chinese idea holds that “heaven and earth act and meet each other through fire and water.”<sup>73</sup> There have been many religious influences in the course of developing the theory of quantum resonance, and the phenomenon of mystical experience is vital to understanding it.

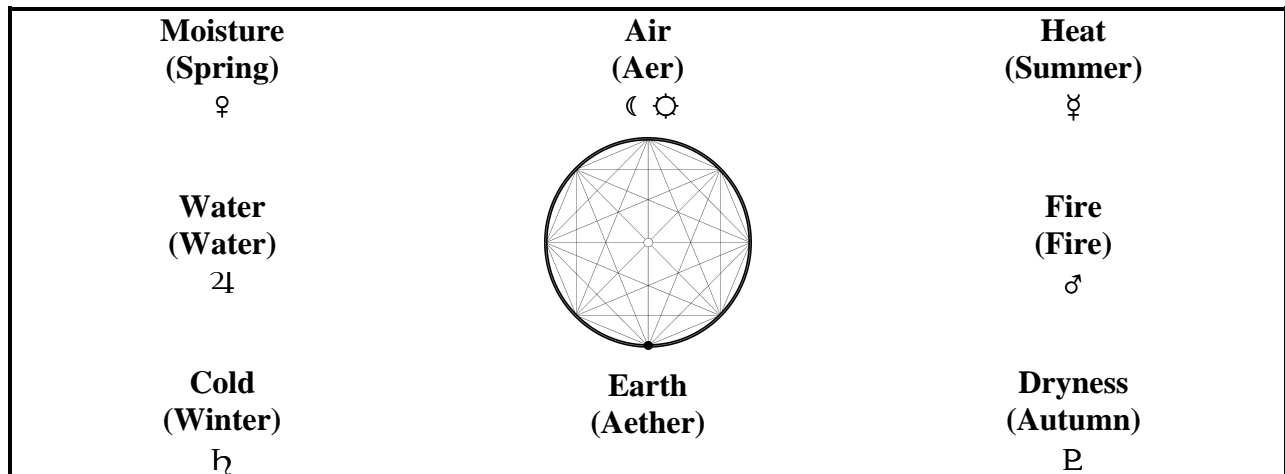


FIGURE 18: Alchemy (and Neo- Substitutes)

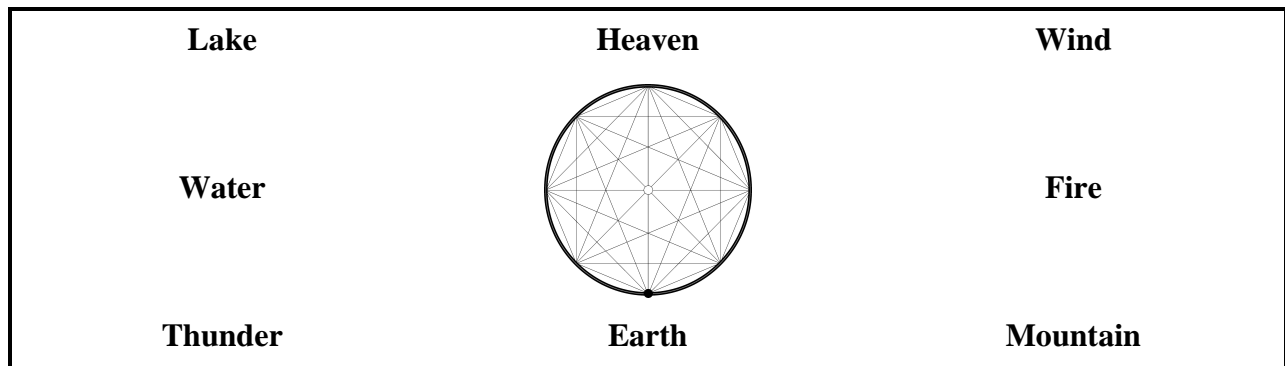


FIGURE 19: An I-Ching Arrangement

<sup>73</sup> Perrottet, Oliver (1987), The Visual I Ching: A New Approach to the Ancient Chinese Oracle, Topsfield: Salem House Publishers, p. 30.

Finally, while still on the topic of the humanities, an experimental color scheme has been included (Figure 20). One color set (black *et al.*) corresponds to the painter’s palette (black = all, brown = yellow + black, orange = red + yellow, green = blue + yellow, and purple = blue + red). This color set arose from common color attributions in Kabbalah. Another set (white *et al.*) corresponds to the visible electromagnetic spectrum divided according to the traditional ROYGBV. The two sets likely relate to alpha and omega, but the relationship is unclear.

**SEXUALITY**

Sexuality is resonance (Figure 21). Complementary relationships are inherent in any sexual context regardless of sex, gender, sexual preference, or number. Many approaches could be taken with the subject. For example, a person’s multilayered sexual identity—including biological sex, gender, and sexual preference—could be explored from a quantum resonance perspective, or applying the model to feminist theory might provide insights into gender politics.

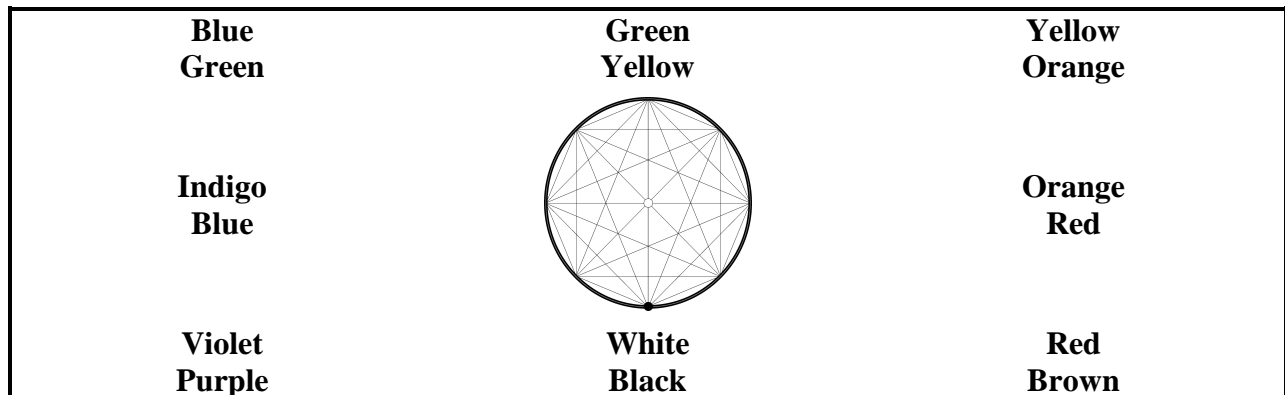


FIGURE 20: Color Correspondences

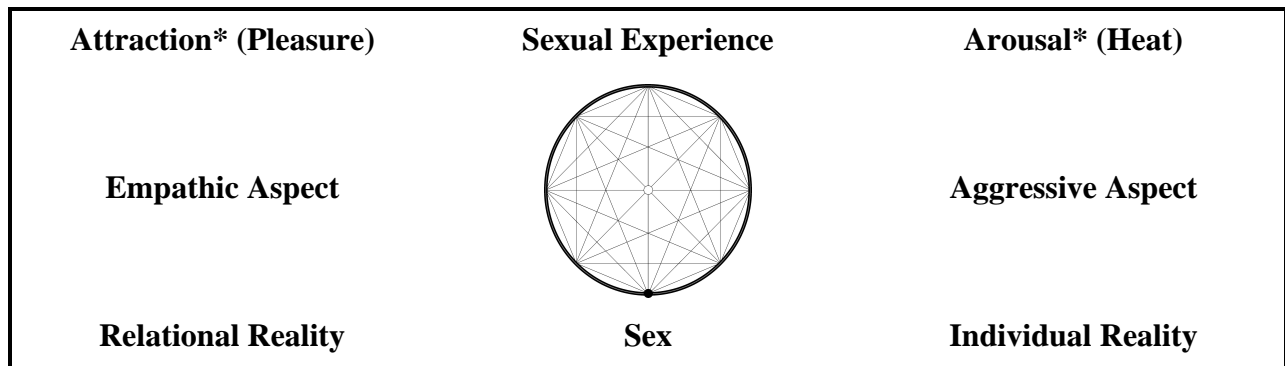


FIGURE 21: Sexuality

\* The effects of arousal on attraction have been the topic of recent psychological research in: Foster, Witcher, Campbell, and Green (1998), *Arousal and attraction: Evidence for automatic and controlled processes*, *Journal of Personality and Social Psychology*, 74(1), pp. 86-101.



There is one topic in this area begging for attention: the concept of sexual health. Contemporary Western attitudes towards sex sometimes reinforce issues of procreation and social or family order while minimalizing or rejecting issues of pleasure and enjoyment. From a quantum resonance perspective, pleasure is inherent in healthy sexuality. Furthermore, sexuality is a core aspect of a person's identity (more or less, depending on the person), and so the topic of healthy sexuality is vital. Limits are necessary for any healthy balance (especially with concerns of disease and population control), but excessive restrictions on sexuality are demonstrably unhealthy and lead to sexual dysfunction. There is a homeorhetic balance between 'free love' and 'sexual taboos', and Western attitudes lean heavily toward taboos. Expanded attitudes toward sexuality are required for healthy sexual attitudes to develop. How might one define healthy sexuality in simple terms? According to the Society for Human Sexuality, "Sex is just how adults play and have a good time together."<sup>74</sup> This description sounds just about right.

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<sup>74</sup> Society for Human Sexuality (1998), *A Sex-Positive Primer*, online at <http://www.sexuality.org/aspp.html>.

## CONCLUSIONS

There are strengths and weaknesses to quantum resonance theory. The most significant weakness is a very limited degree of quantifiability and empirical verifiability. The qualitative belongs in the quantum resonance model as a complement to the quantitative, and so mixed methods provide the best ‘empirical’ approaches possible. (Hard quantification methods belong to specialized models and do not require a quantum resonance perspective.) The most significant strength to the quantum resonance model is a potential for universal application. In theory, the model can be applied to any contextual situation. If this is so, the quantum resonance model provides a Rosetta template for contextual translation. Given that contemporary humanity suffers from gross over-specialization, the value of cross-disciplinary models is clear. Further, Western culture is in a postmodern crisis. God is dead. Violence is rampant. And the global environment is following a downward spiral. An ecological paradigm would be useful.

Quantum resonance philosophy implies that reality is consciousness-based and operates ecologically, and following from this the meaning of life is healthy living. These assertions are impossible to prove rationally. On the other hand, the evidence (both empirical and *a priori*) may be compelling enough to merit further investigation—and the theory is presented with this in mind. Only a collective effort can determine the value of this theory. There are far too many areas implied behind a universal application for any single person, or even a small group, to adequately consider a significant number of them. Only a larger effort involving many experts and amateurs in each field might provide the resources necessary for this enterprise.

In the quantum resonance view, our choice is straightforward. We can continue with our empirical obsession and worship rationalism, aggression, information and technology (consider the movie Enemy of the State, for example), or we can include passion, sexuality, the arts and ecology (consider the movie Pleasantville). Paradigms reflect priorities, and the choice is ours.

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