

DECODING QUANTUM CONSCIOUSNESS

by Lexi Neale

ABSTRACT

To propose an experiential code for Quantum Consciousness it has been necessary to establish two pre-requisites: First, the AQAL Cube model differentiating Consciousness, Mind and Energy, posted as a pre-paper on Integral World [www.integralworld.net/neale1.html]. It is an extension of both Wilber's Integral All-Quadrant, All-Level model, and of Rauscher's Complex Eight Dimensional Minkowsky Space model. Second, a Meta-Theory of Integral Relativity, as a non-local extension of General Relativity, posted as a pre-paper on Integral World [www.integralworld.net/neale3.html]. Its two Tenets claim (a) The Equation of Energy with Consciousness, and (b) The Law of Conservation of Consciousness. This proposal for a Quantum Consciousness code is corroborated by the ongoing collaborative work of Penrose and Hameroff in Quantum Consciousness; and by the recent confirmation of the empirical reality, as opposed to the probability, of the non-local wave function by Pusey, Barrett and Rudolph, 2011 and 2012.

INTRODUCTION

The single most profound scientific discovery of the 20th Century, in this author's view, was that of non-local reality. Non-local means energy existing in a non-physical state, and not conforming to Newtonian or Einsteinian laws. A contemporary of Einstein, Werner Heisenberg, introduced scientists to this non-conformist behavior with his Uncertainty Principle in 1927, which he linked to the experimenter's own consciousness. Einstein famously retaliated with "God does not play

dice”. Out of the resulting controversy emerged the field of Quantum Physics, shortly followed by the field of Quantum Consciousness. “Consciousness”, even now a forbidden word in empirical science, suddenly became a key word.

Key words like “consciousness”, “mind” and “energy” need to be redefined, often etymologically, to play their new definitive roles in the emerging field of Quantum Consciousness. In this paper I propose a Meta-theory of Integral Relativity, wherein the differentiation of consciousness, mind and energy as an integral system no longer allows these terms to be used synonymously, as they currently are.

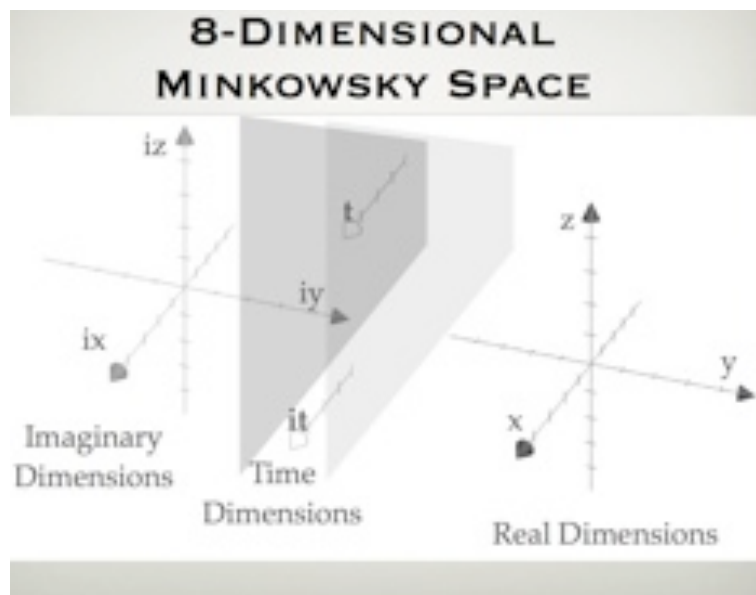
The model I use for this differentiation is the AQAL Cube (an acronym of All-Quadrant, All-Level). It is an extension of Ken Wilber’s cosmological model called the AQAL Square, which he introduced as the basis for Integral Theory[1]. The AQAL Cube’s third (vertical) axis differentiates non-local (non-physical) from local (physical) processes as co-evolving systems. In this paper I make the case that the AQAL Cube can explicitly model all local and non-local quantum processes, and may also provide the basis for a quantum-state code for transcribing non-local information into local effect via the process called “entanglement”.

COMPLEX EIGHT-DIMENSIONAL MINKOWSKY SPACE

The most important model being used in quantum physics, the CEDMS, also provides the most corroboration for the AQAL Cube. Well before Einstein, Minkowsky was the first to add the fourth dimension of time to three dimensional space. Einstein later adopted that model. Then

Minkowsky went a step further, where even Einstein feared to tread, and added to the four physical dimensions another four correlated but hypothetical dimensions that mapped a correlated hypothetical reality beyond the domain of conventional physics. It was an intuitive leap into a domain that would later become known as non-local, shown in Fig. 1, from K. Renshaw's "Why Quantum Entanglement Works"[2].

Fig. 1.



The person who adapted the CEDMS model to Quantum Physics was Elizabeth Rauscher, who continues to be its leading advocate. She explains "Events that are remote in four (dimensional) space... are contiguous in the complex eight-space... In this model, space-time events can become contiguous in the complex eight-space, demonstrating that the remoteness of the observer and the observed can become contiguous in the complex eight-space in which causality conditions are preserved and the acquisition of apparent remote information is allowed"[3]. In other words, a

direct connection can exist between local and non-local energy, a condition called entanglement, that can be modeled by CEDMS.

The CEDMS model set the stage for a truly astounding discovery published in arXiv [4] and reported in Nature a few days later on November 17th 2011, by Eugenie Reich: “Whereas many physicists have generally interpreted the wave function as a statistical tool that reflects our ignorance of the particles being measured, the authors of this paper argue that, instead, it is physically real.” “Physically real” means that the quantum wave function carries real information from what is now called “Superspace”, rather than mere statistical probabilities. This is a prerequisite to be able to model non-local reality. The findings of the paper received further validation in March, 2012, which in effect validates the basis of Quantum Consciousness as an empirical science.

QUANTUM CONSCIOUSNESS - EQUATING ENERGY WITH CONSCIOUSNESS

The main proponents of a non-local consciousness field are Stuart Hameroff and Roger Penrose who, as a team, began the process of empirically equating the Quantum Field with Consciousness [5]. In a recent candid EnlighteNext interview [6], Hameroff said: “You know, most people think that consciousness emerged over eons as a byproduct of random mutations and the inherent complexity of natural selection, but I look at it the other way around. I think a fundamental field of protoconscious experience has been embedded all along – since the big bang – in the Planck scale, and that biology evolved and adapted in order to access it and to maximize the qualities and potentials implicit within it.”

In other words, consciousness is inherent in energetic systems from the most fundamental levels of existence, as per Heisenberg's Uncertainty Principle, which demonstrates that the role of an experimenter-observer can influence the outcome of the experiment. Danish physicist Niels Bohr popularized a model called the Copenhagen interpretation, which claims that Consciousness causes the quantum wave-function to collapse, resulting in experimental quantum unpredictability. But there is also an alternative interpretation proposed by Roger Penrose. Hameroff continues in the EnlighteNext interview:

“Rather, he (Penrose) suggested that consciousness is the wave-function collapse, or at least one particular kind of collapse. It's a quantum collapse that gives off fundamental units of conscious awareness, just like an electron orbital shift gives off a photon of light. And like photons, quanta of consciousness come in a spectrum of different intensities, frequencies and qualities...

“In Roger's model, which he calls orchestrated objective reduction, you don't always need an outside observer. If a quantum system evolves to a critical threshold – which involves gravitational warping on the quantum scale – it will self-collapse. There's an objective, natural reduction of the quantum wave function that results in a simple moment of consciousness, or a simple “quantum” of consciousness, if you will. And when these collapses happen again and again in your brain, you get a series of conscious moments that give rise to your experience of a stream of consciousness. So consciousness, in this model, consists of a series of discrete events, yet is experienced as continuous. You can think of it kind of as frames in a movie, only with a movie you have an outside observer. In this case, the frame itself has the observer built into it. The conscious moment and the quantum wave-function collapse are one and the same event.”

DEFINING CONSCIOUSNESS, MIND AND ENERGY

The Quantum Consciousness issue brings in the older issues of “consciousness”, “mind” and “energy” quanta. To even begin a meaningful discussion of Quantum Consciousness, we must first define our terms. In Western science the terms consciousness and mind are used synonymously because they have not yet been differentiated. Amit Goswami in his book *The Self Aware Universe* [7] says that in the East there is a very clear differentiation: “Manas”, etymologically as Mind, is the field of reference within, where our Non-Local Consciousness-as-experiencer (Vijnanamaya) identifies our Local awareness as Mind-as-experience (Manamaya).

As the experiencer, Con-Sciousness means “knowing-with” - but knowing with what? Early Greek philosophers deduced that perception results from the interaction of three factors: The Knower, the Means of Knowing and the Known. We perceive the world out there as the realm of the Known, which is the realm of energy; but the problem all the philosophers and empiricists have had throughout the ages is to correctly identify the Knower and the Means of Knowing. It is called “the hard problem”. Quantum Consciousness makes the case that Consciousness, as the Knower-experiencer, is non-local. So I propose that the answer to the “hard problem” will be to show how non-local Consciousness, as the experiencer, operates locally through its experience of this Physical Universe as Mind.

In 1977, Ken Wilber proposed the evolution of our awareness through the Spectrum of Consciousness (subject) that correlates with a full Spectrum of Energy (object)[8]. The more subtle the consciousness, the more subtle the energy it is able to manipulate. This would suggest

a consciousness-energy continuum, as Hameroff was describing with his embedded proto-consciousness. It also suggests an Integral Relativity that inter-relates full-spectrum awareness as a continuum between Consciousness, Mind and Energy. It further implies that the Knower, in its essence, ultimately resides at the high-end of the Spectrum in “Ultra-Violet”, so to speak, where it would be the carrier wave of all the lower frequencies. We return to this later.

Consciousness as the experiencer is a non-local knower, an identifier with its own Level of identity on the Spectrum. Mind is the correlated experience of local sensations, feelings and thinking that add up to the experience of physical existence at that same Level of identification. Experiencer and experience, knower and known, subject and object all point to a core issue of perspectival relativity, a relativity between Consciousness, Mind and the realm of full-spectrum Energy. Energy, or “en-ergia”, means “at work”, implying that Energy can be correctly defined as the activity of a doer, aka the Knower. This is even more suggestive of an Integral Relativity, which we now investigate.

THE RELATIVITY OF PERSPECTIVES

Wilber divided his Spectrum of Consciousness into Three Tiers. In First Tier, through to Green on the Newtonian spectrum, awareness is physically-oriented. In an essay on Integral World [9], in making the differentiation between Consciousness (non-local awareness) and Mind (local awareness), I proposed that in First Tier, Consciousness has not yet differentiated from Mind but operates as a fused Consciousness-Mind entity. This is because First Tier Consciousness is so identified with Mind as to assume it IS Mind. It subsequently assumes that Mind is the Knower

of the Known out there, and that the Body is its Means of Knowing. This mistaken material Consciousness identity is called Ego.

As we evolve further along the Spectrum we enter Second Tier, Blue to Indigo, where Consciousness manages to differentiate itself from Mind by no longer identifying with it. This is a great spiritual feat, because the Consciousness identity now shifts from local (physical) awareness to non-local (non-physical) awareness. As a result it assumes a spiritual identity where it assumes it is the Knower, and that the Mind AND Body are now the mere Means of Knowing. The Ego has been humbled, and this new more subtle (yet still mistaken) Consciousness identity is called Soul.

Evolving ever further along the Spectrum to Third Tier, the Soul identity begins to become aware of Pure Consciousness as the One Knower; and that Soul Consciousness is yet another mere Means of Knowing along with Mind and Body - a humbling experience indeed. In other words the Knower, on whatever Level of the Consciousness Spectrum, is the true experiencer of a trail of mistaken identities. In Third Tier, the Knower or Witness ultimately makes Consciousness as transparent as Consciousness had made Mind. From initially being fused, Consciousness and Mind are ultimately non-dual in the Eye of the One Knower.

Stuart Hameroff anticipated this scenario in his EnlighteNext interview: "Of course, putting consciousness at the most fundamental level of the universe also has big implications for enlightenment and spirituality... In fact, the Kabbalah says that we have this world of wisdom

and light, and then we have the world of aggravation and strife, and that consciousness dances on the edge between those two worlds. And that's why I believe that if the quantum consciousness hypothesis is proven, it will give credence to the spiritual dimension of life..."

Our evolution through the Spectrum of Consciousness will inevitably lead each of us to this realization. However, it is because we do evolve individually through the Spectrum of Consciousness that we need a model of Integral Relativity to understand where our own awareness is right now, relative to where others are right now.

Amit Goswami, an early proponent of Quantum Consciousness, describes the individual "soul" as an evolutionary entity called a Quantum Monad [10]. An individual in "Red" (tribal) awareness experiences the world with a completely different perspective from another in "Yellow" (dominator) awareness. Wilber traced the stages of our psychological unfoldment through all the colors of the Spectrum, and the resulting perspectival relativity is the basis of Integral Theory.

Because the Knower is Level-specific, according to its position on the Consciousness Spectrum, any "reality" being witnessed is relative to that Level of witnessing. An illusion is therefore an "apparent reality" when it has no transparency on that Level of witnessing, where the greater reality behind it cannot be seen until moving to a higher Level. Wherever our Consciousness is located on the Spectrum, that is the Level of reality we identify with. The relativity between Consciousness and Energy is therefore Level-specific throughout the Consciousness/Energy Spectrums.

This hypothesis is also supported by Heisenberg's Uncertainty Principle, which demonstrates how subject and object, as observer and observed, are mutually inclusive as a perspective-induced illusion; and that in the relative realms of manifestation, nothing is certain. The inference here is that only the undifferentiated One Knower is the One Certainty, the One Reality, that pot of Gold at the end of the Consciousness Rainbow.

However, the underpinnings of these perspectival processes have yet to be integrated as a framework of Integral Relativity, which we deal with next.

A META-THEORY OF INTEGRAL RELATIVITY

Einstein's General Relativity pertains to this Physical Universe, in describing the inter-relationship between Energy (E) and Mass (M) within the boundary of the Physical-Universal Constant (C), called the speed of light. The behavior of local/physical Energy states within Wilber's Four Quadrant Physical Domain is predictable according to the Laws of General Relativity.

One of the physical proofs of General Relativity involves the space-time continuum, where space is a function of Mass, resulting in gravitation as a function of curved space; and where time is a function of Energy, as motion in space, resulting in time dilation as a function of Mass accelerating towards the speed of light. Even within a closed system such as the Physical Universe of physical energy, General Relativity implies Integral because Energy, Mass and the Speed of Light constant are interdependent.

Incidentally, the General Theory is in the process of being revised by the physicist Julian

Barbour [11], who is reconciling the General Theory with quantum mechanics by making Energy, Mass and quantum locality even more relative. Instead of Einstein's fixed space-time fabric, Barbour does away with time as a quantifiable entity and instead maps the changing relationships between phenomena. It is leading to a model of quantum gravity that accounts for the 96% of so-called missing matter in the General Theory. Nevertheless, all this is still within the constraints of the Physical Universe.

On the other hand, the non-local domain has Laws of Consciousness that operate in tandem with the Physical Laws. They all have yet to be integrated into a Theory of Integral Relativity that equates Consciousness with Energy. With an Integral model we would expect that local Energy, local Mass and the local Universal Constant, inter-relating as $E = MC^2$, would equate seamlessly with their counterparts of non-local Energy, non-local Mass and the non-local Kosmic Constant, if they can all be identified. (Kosmic Constant as a non-local absolute, rather than cosmological constant as local acceleration).

Quantum Physics has demonstrated a continuum between local and non-local Energy, effectively saying that Energy is Energy, local or non-local; and that it still conforms to the Laws of Conservation of Energy when transforming from non-local wave to local particle and back.

Because the Quantum Consciousness research of Penrose and Hameroff is equating non-local Energy with Consciousness, the inference is that non-local Mass would equate with the momentum of Consciousness, operating as Intent, to exert a local effect as a quantum of Mind.

Consciousness identifies with, or attaches to, a specified Level on the Spectrum of Consciousness, according to its Level of Attention. The Attention is the Knower "holding on" to

that Level. There are three Levels of Attention that exactly correspond to the Three Tiers. The First Attention holds on hard to everyday physical reality; the Second Attention lets go of local reality to non-local reality; and the Third Attention is the big let-go to non-dual reality. From the Attention, on whatever Level, Consciousness can operate with Intention. I propose that Intention, or “holding in”, is how Consciousness initiates a wave-collapse, thereby initiating a local effect through a correlated quantum of Mind. Mind is therefore the Ex-tension, the “holding out”, of Consciousness to project a non-local Intent into locality as a particle with Mass; and that Mass then achieves the desired Local effect.

I propose that this differentiation of non-local Consciousness from local Mind can model a reconciliation between the Bohr and the Penrose interpretations of Consciousness and the quantum wave collapse: Non-Local Consciousness initiates its own wave-collapse through Intent, as per Bohr; and in so doing releases a local quantum of Mind, as per Penrose, through which a correlated local behavior can be enacted. The higher the Level of Consciousness we access, the greater the gamma-synchrony we produce at the correlating Level of Mind, resulting in an increasing capacity to act on an intention.

The converse is also true: To pass from Mind to Consciousness, such as in meditation, we non-locally intend the suspension of Consciousness wave-collapse into Mind, resulting in the suspension of Mind, which is meditation. The conscious intent of a First Tier (fused) Consciousness/Mind to meditate is to let go of Gross identification, and so dis-identify with the Mind. This is the first step in moving towards a Second Tier perspective. Similarly, the conscious intent of a Second Tier Consciousness to meditate is to suspend its collapse into Mind, resulting

in No-Mind. In other words, in Second Tier Consciousness we, as the self-aware Knower, can choose to remain in non-local awareness instead of, and as well as, in local awareness.

This brings us to the final element of the Integral Relativity equation, the non-local Kosmic Constant as the One Knower, the Kosmic Light, of which physical light is the local equivalent as Einstein's Universal Constant. If Consciousness is the "heads" side of the coin, and Mind is the "tails", then the coin itself is the Kosmic Constant, the Knower. As such, the Knower would be the true Unifier, the carrier wave of all superimposed modulations of Consciousness and Mind. Without any Intent there is only the carrier wave, the "Primordial Vibration", the "OM", which is Pure Consciousness, or No-Mind.

When the Spectrum of Consciousness is viewed in parallel with the Spectrum of Energy, our evolution through the Spectrum of Consciousness leads us to Who we are; our evolution through the Spectrum of Energy leads us to What we are; and the Knower intends the difference in its process of Kosmic manifestation. We have now arrived at a basis to formulate a fundamental hypothesis of "A Meta-Theory of Integral Relativity".

The First Tenet of Integral Relativity is a transcendent but inclusive interpretation of General Relativity, that Energy and Mass are inter-relatable. I propose that:

The First Tenet of Integral Relativity is "**The Equation Of Energy With Consciousness**", which states: The Knower taking perspectives is Consciousness; and the Knower acting through those perspectives is Energy; where full-spectrum Consciousness is the Knower taking full-spectrum perspectives as Intent, and where full-spectrum Energy is the vehicle of that Intent.

In other words, Full-Spectrum Consciousness at work is Full-Spectrum Energy, whether local or non-local. The Energy Spectrum is therefore the matrix, the vehicle, of the Consciousness Spectrum. Car and driver on all Levels.

The Second Tenet of Integral Relativity is a transcendent but inclusive interpretation of the Law of Conservation of Energy - that Energy cannot be created nor destroyed, but only transformed from one state to another. I propose that:

The Second Tenet of Integral Relativity is “**The Law of Conservation of Consciousness**”, which states: Consciousness cannot be created nor destroyed, but only transformed from one state to another. In other words, Consciousness, like Energy, is eternal.

In this light, the Equation Of Energy With Consciousness and the Law of Conservation of Consciousness essentially become spiritual laws, in bearing out Gautama Buddha’s assertion in the Pali Canon[12] of the continuity of Consciousness between incarnations.

As Stuart Hameroff said in the EnlighteNext interview: “Neutral monism says that there’s one common underlying entity that gives rise to, on the one hand, matter, and on the other hand, mind. In our model, that underlying entity that gives rise to both matter and mind is quantum spacetime geometry. In the Vedic traditions you could call it Brahman, the underlying ground of being. So it’s not materialistic – it goes below matter... You can call it whatever you like – Spirit, the cosmos, quantum gravity – whatever it is that gives rise to both mind and matter and underlies all of reality.”

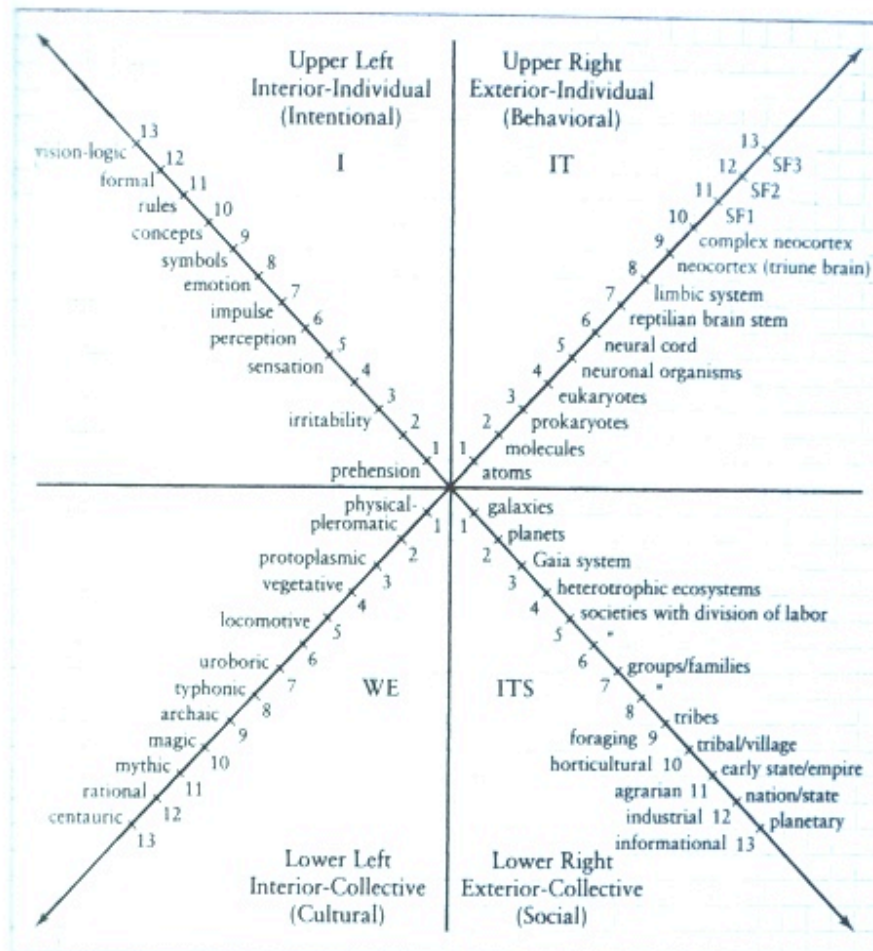
This brings us to an integral model needed to map that process of “whatever it is that gives rise

to both mind and matter...”

THE AQAL CUBE

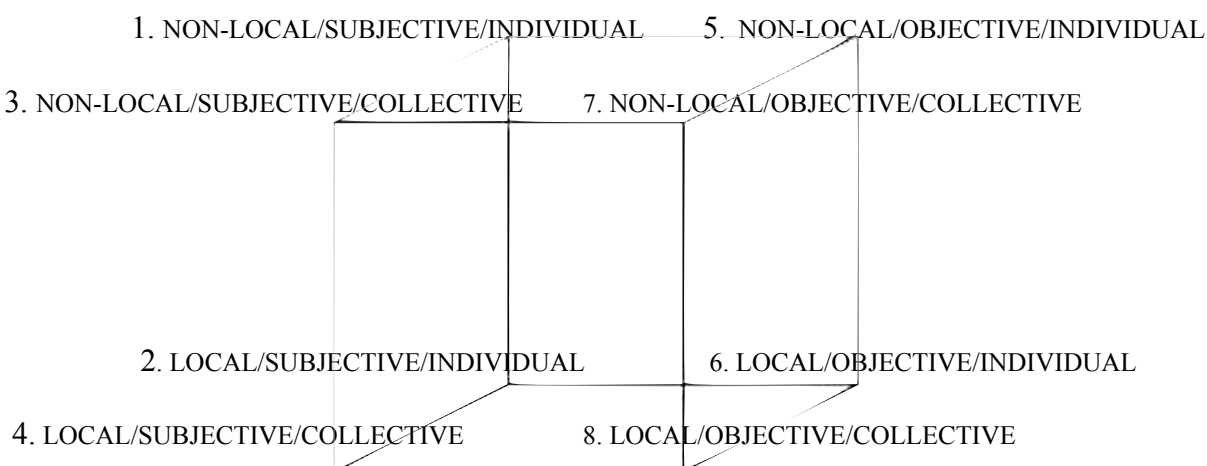
In 1995 Ken Wilber modeled the physical universe of manifestation as an expanding All-Quadrant, All-Level (AQAL) Square[1]. It maps all known physical phenomena on a Four Quadrant grid, of $2 \times 2 = 4$ perspective-polarities (Subjective-Objective and Individual-Collective), that expands through the Consciousness and Energy Spectrums, shown in Fig. 2.

Fig. 2. Ken Wilber’s AQAL Square.



Later in 2006 he differentiated an additional perspective-polarity, “Inside-Outside”[13], which resulted in $2 \times 2 \times 2 =$ “8 Fundamental Perspectives”. However, he failed to account for how the third perspective-polarity emerged into existence. My contribution to Integral Theory transforms his AQAL Square to an AQAL Cube, where the third (vertical) axis differentiates local from non-local existence. In compliance with the CEDMS model, the AQAL Cube maps locality and non-locality as co-existent, co-AQAL realities. The Eight Perspectives emerge from the six perspective-polarities of the Cube. At each corner of the Cube, three faces come together as a unique triplet recombination. The Eight Perspectives are numbered as per Wilber, in Fig. 3.

Fig. 3. The AQAL Cube as Eight Fundamental Perspectives.

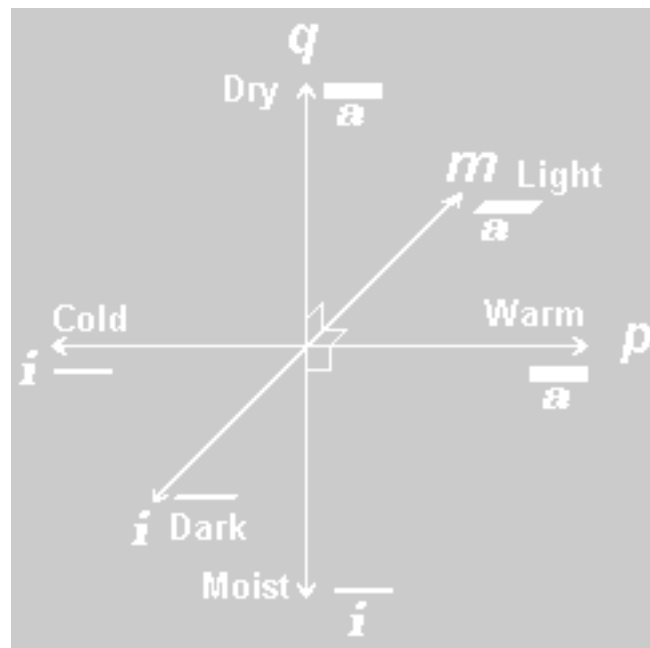


From their earliest beginnings, organisms had to be able to identify and orientate themselves in relation to their environment as a basic survival necessity. To do this they had to have a basic use of perspectives. If, according to Hameroff’s hypothesis, proto-consciousness is a fundamental (pre)condition of cosmic manifestation, then I propose that proto-consciousness emerges from

the very outset into both local and non-local manifestation through the Eight Fundamental Perspectives of the AQAL Cube.

An early insight into this comes from a web paper by Charles Higgins, “The Quantum State of Alchemy”[13]. By “Alchemy” he is making the association between Quantum States and Quantum Consciousness:

“The *Quantum State* is the complementation of three different binary lines. As an example, using the three binary lines, luminosity, humidity, and temperature, this complementation produces a three-dimensional model with the binary lines now labeled *p*, *q* and *m*...



“Instead of four elements as in the First Complement State, the Quantum State has eight elements. Each one of these eight elements is a complementation of active or inactive elements from the three binary lines. The eight elements of the example are *light-dry-warm*, *light-dry-cold*, *light-moist-warm*, *dark-dry-warm*, *dark-moist-warm*, *dark-dry-cold*, *light-moist-cold* and *dark-moist-cold*.

The equation for this 3-dimensional model is derived in a similar manner as the two-dimensional equation. Each element in the Quantum State is a *quantum field* more simply called an *octant*...

“The algebraic and symbolic notation for the eight quantum fields is shown by their different combinations of bold and thin lines.



The diagram above also shows the algebraic summation of the eight quantum fields. This summation can be shown by the dimensional equation

$$f(m_3) = a^3 + 3a^2i + 3ai^2 + i^3$$

and by factoring this summed equation, we arrive at the general equation for the three-dimensional or *Quantum State*.

$$f(m_3) = (a + i)_p \times (a + i)_m \times (a + i)_q$$

or

$$f(m_3) = (a + i)^3$$

I CHING CORRELATION

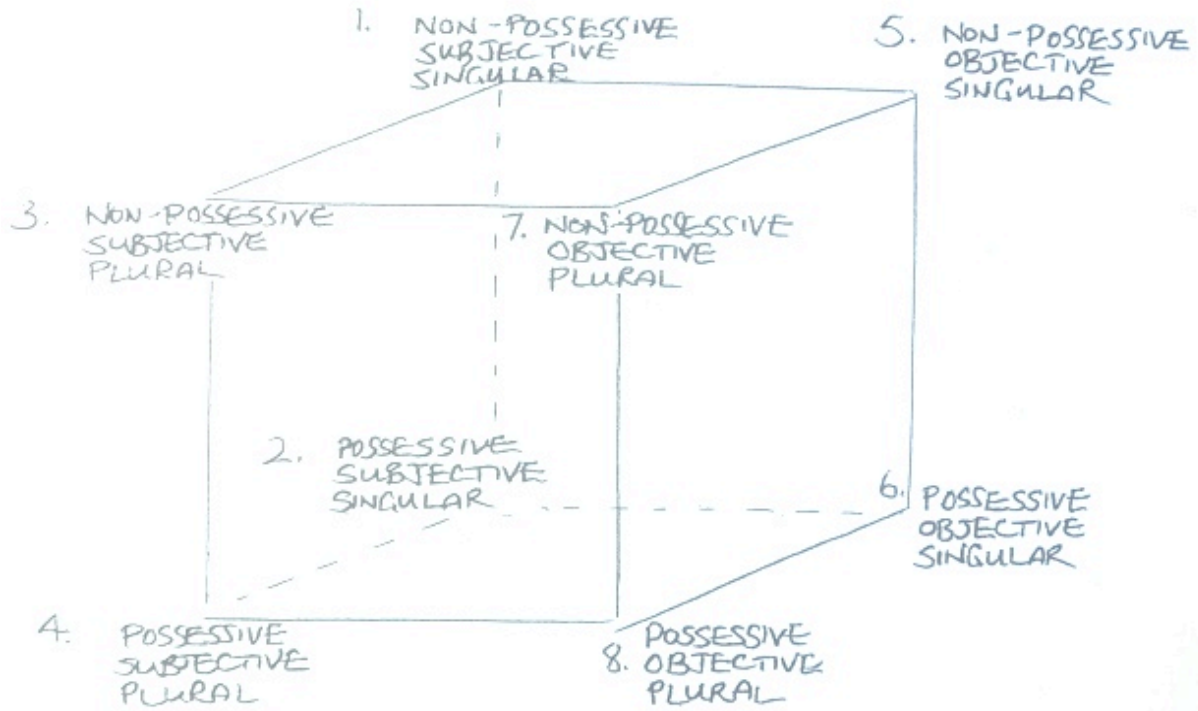
“ The eight quantum fields of the ether discussed above correspond to the trigrams of the I Ching as shown below.”



(End Quote)

The I Ching's eight trigrams were supposedly formulated by the Enlightenment master Fu Hsi, some 5000 years ago. It therefore comes as no surprise that, from time immemorial, a fundamental Eight Perspective model has existed in human evolution, a model that even generates the personal pronouns for any language. The personal pronouns are the foundation of descriptive awareness, and of language: "Me Tarzan, you Jane". So it is inevitable that the AQAL Cube maps our consciousness perspectives in language, because our perception is a composite of these eight fundamental pronoun-perspectives. They are formed as triplet recombinations of the Cube's six polarities: Subjective-Objective, Singular-Plural and Possessive-Non-Possessive, shown in Fig. 4.

Fig. 4. The AQAL Cube as Personal Pronoun Perspectives.



Each Person (First, Second, Third etc) forms an octad of the above pronoun-perspectives. Figs. 5 & 6 show the First and Third Person Cubes. To my knowledge, this is the first time the personal pronouns have been modeled as octant-perspective Cubes.

Fig. 5. First Person Cube.

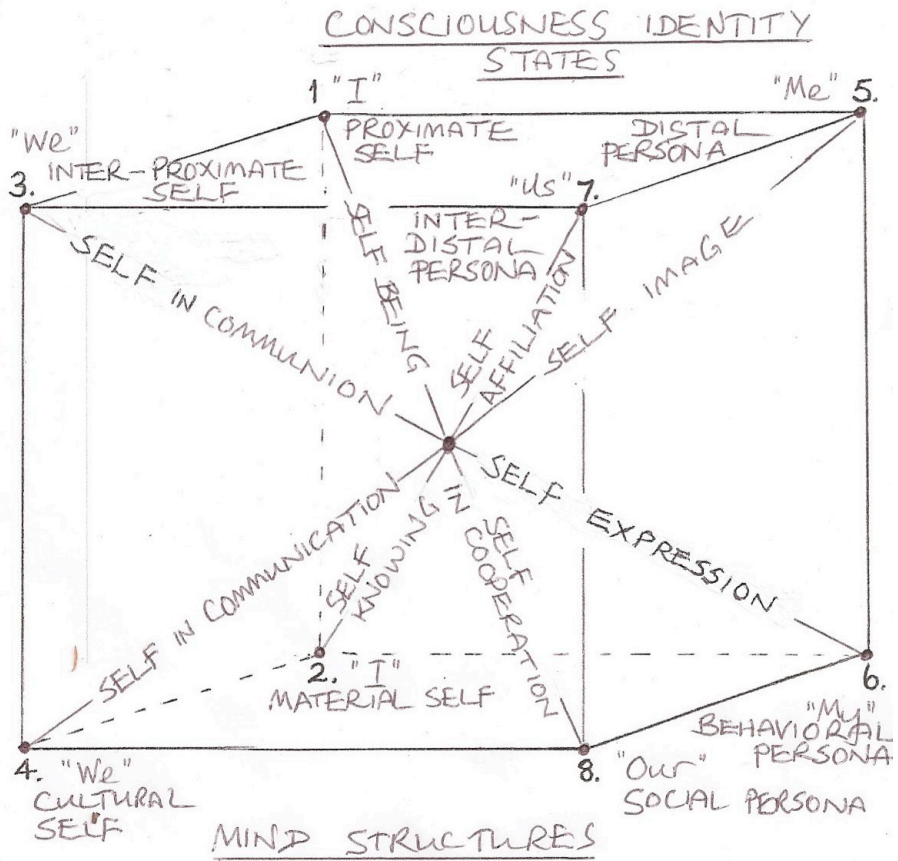
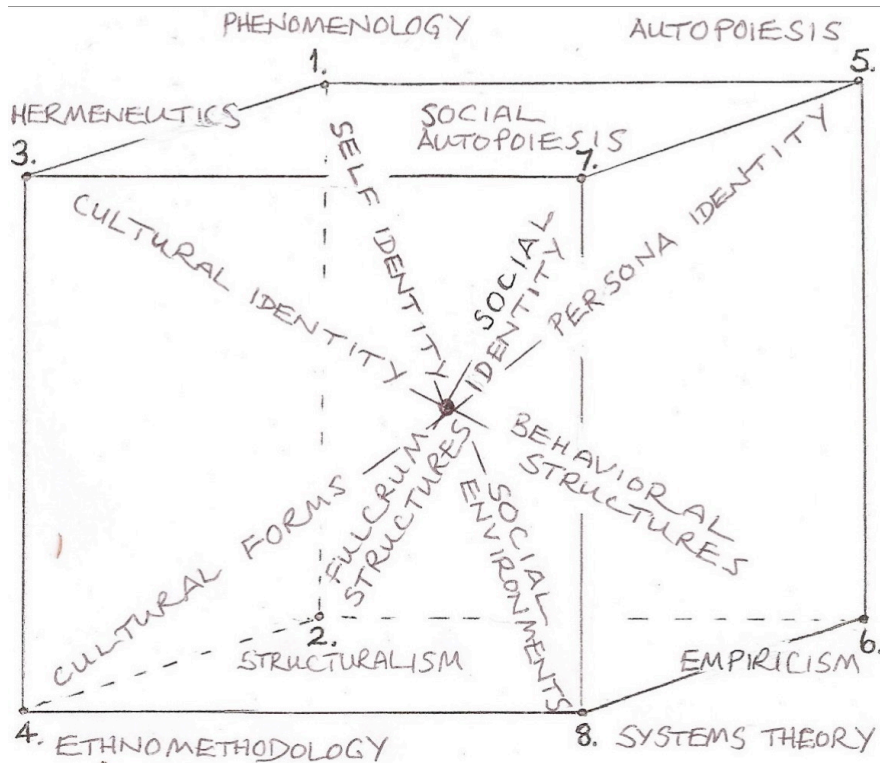


Fig. 6. Third Person Cube.



The First-Person Cube is the Self-on-Self system, the Second Person Cube is Shared-Self system and the Third Person Cube is the Impersonal-Self system. In a very simplified analogy, each Person-octad corresponds to a color on the Spectrum of Consciousness: Red for First Person, Orange for Second, Yellow for Third, Green for Fourth etc.

Each new Person-octad comes “on line” as a new phase of psychological unfolding that transcends and includes the previous Persons. They are all present from the beginning, as a fused state, but then differentiate serially as we evolve through the Spectrum. Each Person-octad continues to evolve beyond its Level of differentiation; so the First Person Cube, differentiating at Red, continues to evolve through Violet; likewise with the Second Person Cube, differentiating at Orange; and our Third Person sense of the hard reality “out there”, as our own Impersonal-Self view differentiating at Yellow, is actually not a universal given shared by everyone else. Implied

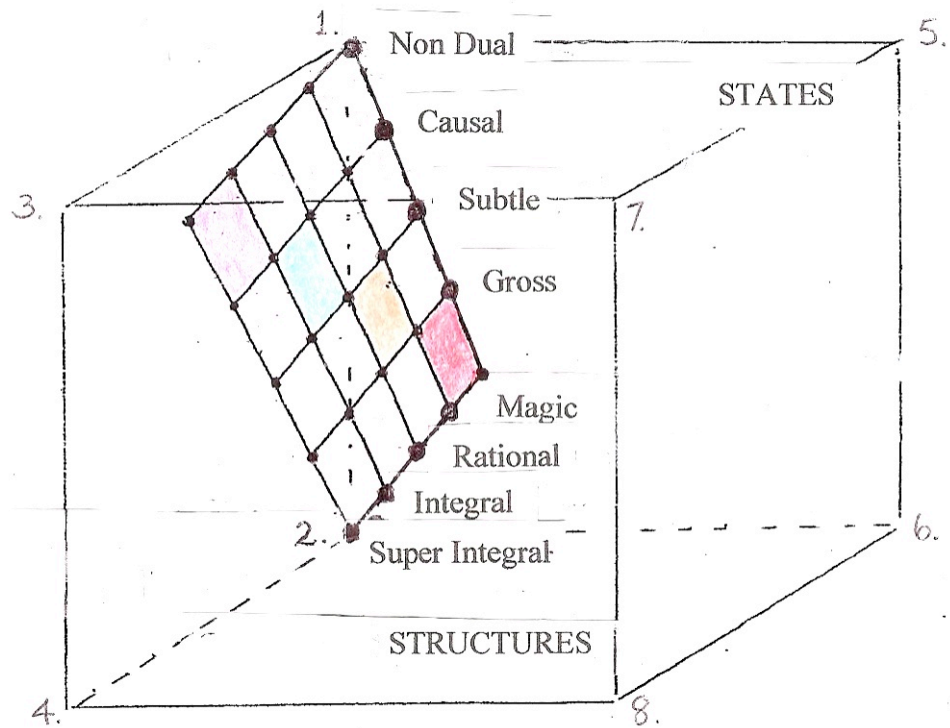
is that our sense of reality “in here” or “out there” is based on the binary perspectives of our own Self.

BINARY PERSPECTIVES

Our perception of reality is a resonance of Eight Perspectives per Cube, which operate in pairs as binary perspectives, with a dominant pole as the subject and a recessive pole as the object.

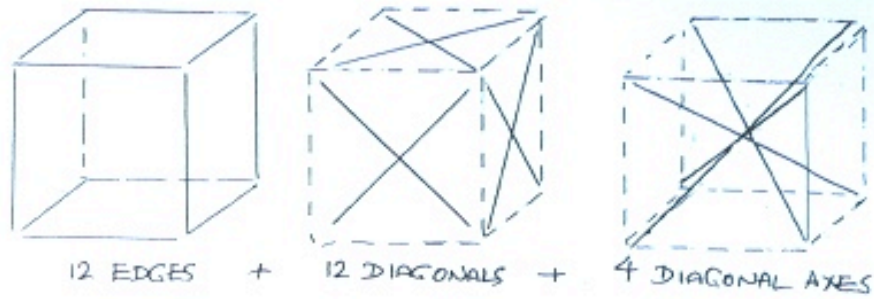
Perception is therefore a resonance of perspectives taking perspectives. For example, a binary perspective between two octants with four representative Levels forms a lattice of $4 \times 4 = 16$ binary perspective permutations. Fig. 7. shows one perspective lattice between four levels of Self-Identity States (Octant 1) and four correlated Levels of Cognitive Structures (Octant 2), which is an adaptation of the Wilber-Combs Lattice [14].

Fig. 7. A Binary-Perspective Lattice.

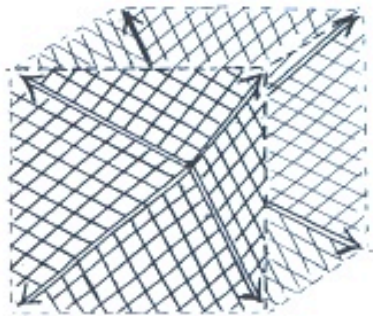


There are 32 such binary-perspective lattices per Cube, or 64 reversed-perspective lattices where one or the other Octant is the dominant pole, shown in Fig. 6.

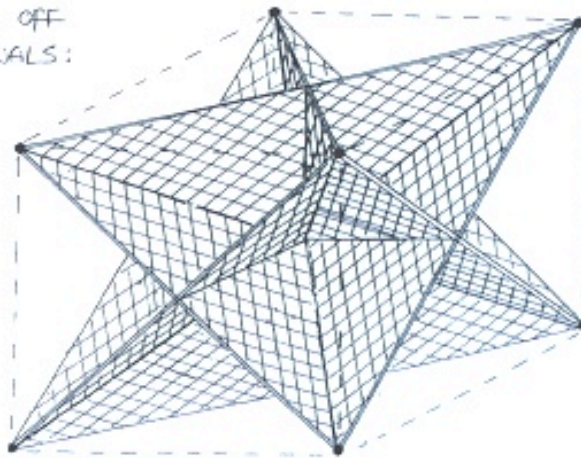
Fig. 6. 32 Binary-Perspective Lattices of the AQAL Cube.



LATTICES OFF
12 EDGES:



LATTICES OFF
12 DIAGONALS:

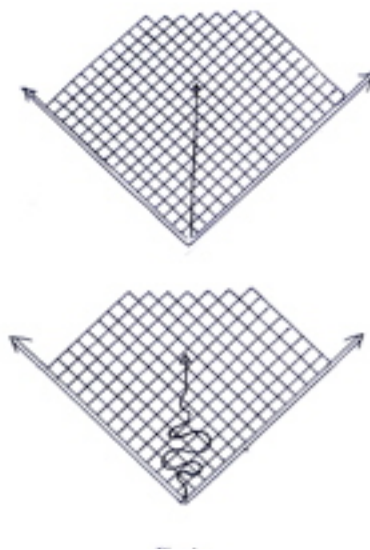


Each AQAL Cube-per-Person generates 32 binary perspective lattices, or 64 reversed-perspective lattices, where the subject becomes the object, and the object becomes the subject. Three Cubes through the Three Persons generate $3 \times 64 = 192$ reversed-perspective lattices, through $64 \times 64 \times 64 = 262,144$ reversed perspective permutations. If there are 10 Levels per

Octant, the permutations are 262,144,000. But each Octant is really a thick cable of Lines, where each Line is a different aspect of an Octant, so all the Octant Lines generate an almost incalculable number of perspective permutations. And when First Person Cube perspectives triangulate Second and Third Person Cube perspectives, or when the Fourth Person of placing ourselves into another's perspective comes into play, the trinary and quaternary permutations between Cubes grow exponentially.

Fig. 7. shows the evolution of a binary perspective on a lattice. Ideally, the evolution of any binary perspective is in a state of balance between the two Quadrants. But human nature is that we fumble for that balance through bitter experience, meandering though extremes at the lower end of the Consciousness/Mind spectra until we find balance higher up.

Fig. 7. The Evolution of a Binary Perspective.



KOSMIC ADDRESS

Any binary-perspective position on any lattice of any Person-Cube can be designated by coordinates, which comprise its Kosmic Address. This system of Integral Calculus, to determine

the location of any Kosmic event or phenomenon, was introduced by Wilber in “Integral Spirituality”[14]. For the purpose of the AQAL Cube, his “Zone” numbers are perfect for identifying Octants 1 – 8 for each AQAL Cube; and his First, Second, Third Person numbers (1p, 2p, 3p) when applied to each Cube is equally simple. Also, the Level of any Octant, as denoted by its color on the Spectrum, is designated by its color initial (r, o, y, g, b, i, v etc). So the calculus for “Me” (First Person Cube, Octant 5) on the level of Soul (Blue) would be “1p5b”.

More complex, however, is introducing the notion of binary perspectives; where any perspective can be the subject of any other perspective as object, as in “perspectives taking perspectives”. I would therefore propose that the subject of any binary perspective is the dominant pole, and featured in integral calculus as the first Octant number in a binary pair; and that the object as the recessive pole is the second Octant number. E.g. Octant 1 dominant, Octant 6 recessive is (1-6). So the calculus for I (First Person, Octant 1), on the level of Soul (Blue), witnessing your (Second Person) Ego-centric (Yellow) behavior (Octant 6) would be 1p1b-2p6y.

The use of this calculus to identify a perspective position on any binary-perspective lattice may prove invaluable in identifying quantum perspectives, dealt with next.

QUANTUM PERSPECTIVES

We have seen how each of the Eight Perspectives are produced as triplet-combinations from the three axes of the Cube with their six polarities: Individual/Collective, Subjective/Objective and Non-Local/Local. The point of intersection of those three axes represents Hameroff’s fundamental proto-consciousness.

Any physically-embodied organism transcribes its inner to outer existence via codes. The most famous code of all thus far, the genetic code, enables an organism to evolve according to its innovative needs via the DNA code of four basic amino acids. From such simplicity of four

endlessly-recombinant units emerges such complexity. Evidence invites a return to a quasi-Lamarckian view of evolution, where an organism's individual need (intention) may cause an appropriate mutation in its own DNA to meet that need.

It would appear that an equally simple transcription code could enable an organism's non-local Consciousness to intend an infinite complexity of local effects. For Quantum Consciousness, we are talking about a transcription code at a fundamental quantum level that could quantify the Eight Fundamental Perspectives.

The quintessential properties of any wave form, as a vibration, are Amplitude, Frequency and Polarity. A simple example of this are the three modes of radio waves: Amplitude Modulation (AM), Frequency Modulation (FM) and Digital or Polarity Modulation. In terms of the physical energy spectrum, Amplitude translates as amplification from an individual effect to a collective effect, resulting in such as in gravitation. Frequency translates as the charge differential resonating between inner and outer positions of a quantum state, resulting in such as in the electromagnetic spectrum. Polarity translates as the wave-particle quantum dynamic, resulting in such as locality and non-locality. These are the three fundamental quantum forces.

I therefore propose that all Eight Primordial Perspectives of the AQAL Cube are produced at the most fundamental level between the three fundamental vibratory axes: Amplitude (Large/Small), Frequency (High/Low), and Polarity (Local/Non-Local), or AFP. As a vibrating quantum state, or "string" in String Theory, or "membrane" in M Theory, the AFP triplet would be capable of encoding an incalculable number of perspective permutations in a quantum "wavicle" by using modulating variables of Amplitude, Frequency and Polarity. This would be a match for the incalculable number of permutations of Kosmic address generated by the AQAL Cube's 64 binary-perspective lattices discussed earlier.

Continuing in the EnlighteNext interview, Hameroff said “We know that consciousness in the brain happens at about forty times per second. It’s called gamma synchrony... And in the model that Roger and I have developed, we’ve proposed that Singer’s gamma synchrony is actually evidence of quantum-state collapses happening forty times per second – or more – among coherent, organized networks of the brain’s microtubules...

“And a few years ago, the Dalai Lama sent some of his best meditators to a lab up in Wisconsin. They found that, while meditating, the monks had the highest gamma synchrony ever recorded. They were actually operating at about eighty to one hundred hertz, whereas the experimental control subjects were at forty... Years of meditating had changed their brains so that they were just normally in this higher-frequency gamma range. That suggests they’re having a richer and more intense conscious experience more frequently than the average person.”

It therefore seems probable that the cellular microtubule lattices of tubulin could form the material framework of a cell’s binary-perspective lattices, where gamma-synchronous quanta of Mind, manifesting in Consciousness-intended locations on the lattices, produce a cohesive experience of correlated binary perspectives.

I propose that the AQAL Cube model predicts that the tubulin lattices within the cell differentiate the Eight Primordial Perspectives on a molecular level, where each of the 64 binary-perspective-lattices is encoded with its own AFP signature; and that each modulated quantum of Consciousness/Energy identifies its intended perspective-lattice with its own AFP triplet, as a key that opens its own perspective lock, resulting in a quantum moment of Mind experience from that perspective. This could further suggest that experiential pathologies may result from AFP

experiential distortions that get encoded on the correlated tubulin lattice, but which could be therapeutically erased once knowing their Kosmic Address. This is the quantum equivalent of gene replacement therapy.

For these reasons I propose that the AQAL Cube be examined as a viable model for the Penrose/Hameroff Quantum Consciousness hypothesis.

CONCLUSION

We have arrived at an amazing confluence of experience in our evolution. On the one hand, one proof of a relative truth equating Energy with Mass resulted in a “Light brighter than a thousand suns”, as Oppenheimer quoted from an ancient scripture when he saw the nuclear fireball he had unleashed. On the other hand, a proof of an Absolute Truth equating Energy with Consciousness resulted in an explosion of inner Light that inspired that very scripture in the first place. As science approaches its holy grail of a Unified Field of Energy, the human Consciousness is also approaching the true Holy Grail of a Unified Self, the Knowledge of which is the very cause of that amazing confluence, of that Unity, of that Peace welling up in our own being.

The wreckage we wreak in our evolution from the rational to the transrational is the result of our landscape shifting from a paradigm to a paradox; from “old concepts no longer apply” to “concepts no longer apply”. Toto, we are no longer in Kansas. But does our passage to Oz have to be on a maelstrom? When science, as “knowing”, similarly evolves from the practice of rational proofs to the practice of transrational proofs, we do not remain in Kansas either. Science as “knowing” becomes Scious as “Knowing”. Outer knowing becomes integral with inner knowing, just as outer turbulence becomes integral with inner turbulence. It is as if we are

accelerating through a sound barrier of the mind, with all the associated turbulence, but on the other side of the shockwave we enter silence and stillness.

This paper proposes, via Quantum Consciousness, how General Relativity is transcended and included by Integral Relativity, which will cause the same global shift in awareness as did the leap from Newtonian physics to General Relativity. The moment we integrate science with consciousness, we ourselves become the experiment and the proof. Twenty-five hundred years ago, Socrates defined the ultimate Science when he said: “Know thy Self”, which is to say “Know the Knower”, as the ultimate Knowledge. Ironically, the prototype Greek democracy made him drink the hemlock for that.

A LOCAL LEGEND

I end this hypothesis with a short story. Once upon a time, at the very Dawn of Creation, the Primordial Ocean of Peace, the Primordial Pacific, placid and flat-lined in its carrier-wave state of Pure Knowing, suddenly spiked with the Pure Intention of awakening Consciousness in a great Wave of Amplitude, Frequency and Polarity, of A Fundamental Perspective that opened the eyes of you, the Non-Local Primordial Pacific Surfer! Nobody knows where you came from, or where you spent the Night. You were Just There at the perfect place-time. With the Light in your eyes the Wave swelled, and you caught it and rode it. And then it crashed with a Big Bang. You can remember the rest of the story - you're a Local legend.

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1966-1969, B.Sc. Zoology and Psychology, London University. 1971 in Glastonbury he met his thirteen-year-old Master, Prem Rawat, just arrived from India. Prem Rawat teaches a time-honored practice that he calls Knowledge of the Self – as in Know the Knower. It is an Integral Practice involving deep absorption meditation (First Person), listening to guidance from the Master (Second Person), and participating in selfless activity (Third Person). Lexi Neale is affiliated with The Prem Rawat Foundation, an award-winning charity providing aid for the relief of human suffering. Contact tprf.org and wordsofpeaceglobal.org (wopg.org). He is also affiliated with the Integral Institute as an Integral Theorist. Contact Lexi Neale personally at lexneale.integral@gmail.com