

THE EXPRESSION OF LOVE IN *BIOS*-CONSCIOUSNESS©  
by  
Patricia Elyse Terrell, PhD

In the wake of red-hot security alerts around the world, international organizations have launched a serious effort to bridge dialogues between very different cultures using the most plausible, least emotionally charged means possible. It was clear that the natural course of religious passions were a threat to world peace, therefore, academics engaged in the interdisciplinary study of “science and religion” symbolically met at Alhambra, Spain (August 2002), to find commonalities for communication between cultures, if not in religion—then, along scientific lines.

A few months later, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) International Bioethics Committee (IBC) assembled a “round table” featuring another configuration of the “science and religion” dialogue in which invited experts commented on “bioethics in light of spiritual values and religious traditions.” Members and Observers of the IBC were listening for “points of convergence” between religious and/or biomedical perspectives. Theists and non-theists alike, who were commenting on bioethics, agreed that “life” (Lat., *bios*) in the here and now had a sacred value.

*Bios*-Life: An International and Universal Value

At the UNESCO IBC in Montreal (November 2002), President Michele Jean (Canada) set the tone in wisdom: “Be humble, respect science, and know that we have much to learn.”

- ◆ Buddhist Professor Aramaki (Japan) noted that all religions experience “*life* itself in the here and now” (respecting individual cellular life [*bios*] as well) while recognizing “life is beyond itself.”
- ◆ Jean-Marie Mpendawatu (Vatican City, Italy) spoke on behalf of the universal Christian church, emphasizing “metaphysics” as the basis of the God-human relationship. He said *all* religions believe in that which is greater than oneself, a Supreme Being who is a symbol of love and truth, affirming humanity as “God’s family” – regardless of one’s religion (humanness was “not to be reduced to religion”).
- ◆ Muslim Hisham Nashabe (Lebanon) spoke of the convergence of everyday *life* and religion, stating that “humankind is God’s vice-regent on earth,” chosen to respect the environment and creation. Like Buddhism and Christianity, Islam supported research for improving human health while respecting “life” – *bios* - as holy.
- ◆ Professor Sehdev Kumar (Indian-Canadian) cited Hindu texts about God-humans who were wise, kind, and compassionate—as well as subject to Higher Authority. Ethical behavior flowed from a spring of life that sought justice in the social economy out of love for one’s neighbor.
- ◆ French philosopher, Bernard Kanovich, located “principles” rooted in love that drove *bio*[s]logical research for the good of humanity and he cited biblical examples about human love for one another, God’s love for His creatures—arriving at the station of personal equality.

◆ Daniel Weinstock (Canada) described bioethics in terms of “moral architecture,” valuing the rationale of every person because justice requires a voice for all sectors of society, noting that “majority rule” does not make a principle right.

Regardless of the philosophy, “life” was the singularly most revered value and it was the very reason international law guarantees entitlement rights and personal freedoms.

### Bios-Life: Christian Doctrines and Scientifically Compatible Meanings

Conclusively, “life” had a “universal” value among scholars and professionals interested in education, science and culture, so the exploration of the possible “meanings” for the term “life” deserves attention. The formulation of an epistemology or a sensible causal explanation for the existence of unbounded, endless universes and “life” on earth requires an original Creator or Source (common to many traditions). Astrophysics’ models correspond well with Orthodox (Christian) references to the “Energies” of the Creator because “energy and matter can occupy the same space at the same time.” In the process of creation, energy drives the development of “forms” of many physical shapes and sizes. Indeed, “energy” is the common denominator in creaturely reactions, relationships, and even conscious “reflection”—as the diagrams will serve to illustrate.

This paper will briefly explore scientific data and theological precepts for meanings of “life”: (1) as an unbounded creative energy; (2) as an energy that generates, moves, replicates, and/or responds to itself and to other creatures; (3) as an emerging consciousness; and, (4) as a manifestation of the power – to “love” self and other/Other—“love” mirroring descriptions of a gracious Creator or Higher Power. This paper is anthropocentric, but acknowledges the affinity all “life” has with others. Primitive mammals resembled humanity, such as the Neanderthal man and *Homo erectus*, but the *Homo sapiens* developed a particular sophistication in language, consciousness, and self-reflection—properties that differentiate human beings from other species.

*Bios* may be defined by the very primitive concept – “life” (Lat.), hence the expression “*bios*-life.” In one sense, “primitive” refers to unbounded energy *prior* to creation, *creatio ex Nihilo* (Lat., created out of Nothing). Below, Figure (1) illustrates original “life,” unbounded by time or space (the circle represents limitlessness). The neurological term “resting” aptly describes unmoving energy. In the Figure (2a), creative activity begins with a simple “arousal” of energy that took place within a limitless infinity (igniting internal “combustion”). The “rest- to-arousal” shift initiated a bi-polar environment so, in Figure (2b) subsequent multiple, undifferentiated frictions instantiated the maximum combination of bi-polar reactions/sensations—one arousal excited multiple bursts of energy that created exaggerated bi-polar eruptions of divergent energies. The hyper-excitation generated an intelligent response one that chose to isolate the myriad of conflicting sensations (creative joy/love—pain!!!). Figure (3) shows confinement of hyper-exciting [sensations] energies in an electro magnetic force field, configured by nuclear fusion (i.e., “boxed-in”).

Fig. 1: "Life." Unbounded Energy. Resting. (Sheer silence.)

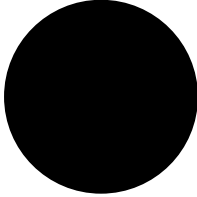


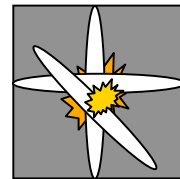
Fig. 2a: Combustion. Energy Arousal. Co-bipolar states (Rest-Arousal).



Fig. 2b: Multiple, undifferentiated, energy arousals; Bi-polar sensations implode (creative joy v. pain).



Fig. 3: Response Restrict energy. Bi-polar sensation in an Electromagnetic force field.



*Creatio ex Nihilo* was certainly woven throughout the commentaries of John Polkinghorne's edited volume, *The Work of Love: Creation as Kenosis* and yet the consular *doctrine* itself, as explained by Kallistos Ware, places *ex Nihilo* in the age when the church authorities declared that the knowledge of God was far too great for mere human comprehension—the Creator could [should] not be described using affirmative language. Therefore, accurate references could only assert *what God was not* – hence, *Nihilo* referred to God, not nothing. (*Nihilo* was capitalized.)

In fact, when experts on Christian Orthodoxy, such as Vladimir Loskey or Kallistos Ware, refer to the "Energies" of God, the term Energies was chosen for the similarity this value holds to electro-energy. Although the proper representation for *Nihilo*-Energy would better resemble an electric, luminescent web, in the following figures the lightning bolt signifies the connective force resounding throughout creation.

Fig. 4: Unbounded energy invades force field.

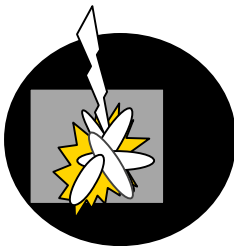


Fig. 5: Explosion. Big bang loses stars into electromagnetic fields (chaos)

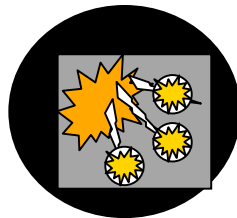


Fig. 6a: Response: Stars joined orbital pattern

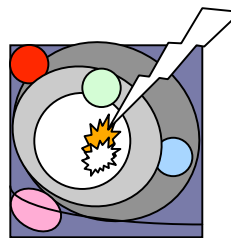
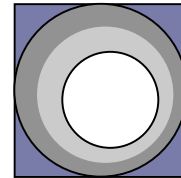


Fig.6b: Target pattern/radio-wave CDH-B2 reaction. *New J. Physics*, (2003): 58.

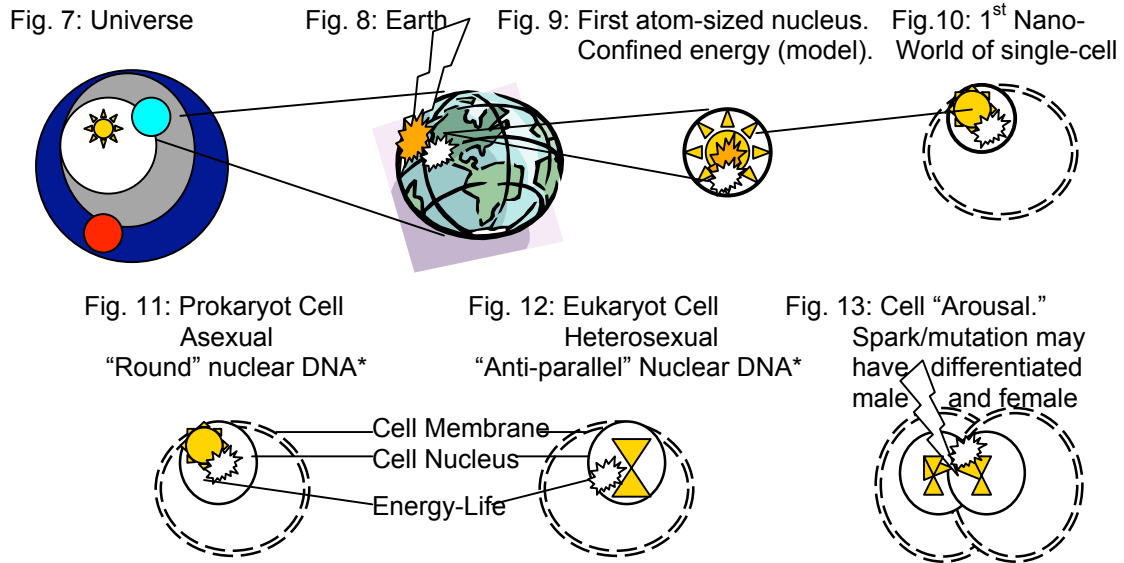


\*Please note the likeness between the orbital organization (Fig. 6a) and patterns for radio waves (Fig. 6b). Electromagnetic bands conduct energy using nano-scale holes-in-dielectrics to control photons and/or atoms in crystals control electrons in semi-conductors (c.f., rainwater conducting electricity in a lightening storm).

Many believe *Creatio ex Nihilo* was the divine energy that issued the Big Bang. This Friedman, LeMaitre, et al. theory about an explosion large enough to create universes out of *Nihilo* also implies creation was taken from God's Own Self (Keith Ward would add, "God is in universe, but is not *the* universe").

According to the authors of *The Work of Love*, the Creator sacrificed Perfect "comfort" and set aside "Bliss" to lovingly create and be in relationship with "other" – an act of *kenosis* (c.f., the sacrifice of personal happiness). The Creator's creatures were

configured in the image of God (*imago Dei*) with the true character of the Most High—the signature “ethic” was to sacrifice One’s own Self for the love and well being of the other. Stars/stardust emerged through natural processes into conscious *life*. Through the process of development, the “ethic” was the most “primitive” aspect of the living *bios*—and it was, according to Bonaventure, the summit of the mind.



\*Nuclear DNA is the brain-information center of the cell (in Nano-measurements).

Thus far, the paper has elucidated the transmission of “life” as a form of energy-*qua* Energy. In the inter-stellar environment, energy formed bands that carried radio waves—these were physical without being solid and could be traversed by NASA’s satellites, etc. Eventually energy generated and inhabited biological (and other) life forms and these were capable of self-reproduction. This type of scientific data was useful in connecting the Infinite with the finite and even the nano-minute so that the discussion could build-on the “energy” theme as a “life-force” pursuant to a communiqué for all levels of consciousness.

### The Journey into Consciousness

Bonaventure was a scholar from the old school of tonsured clerics and, although he knew nothing of telescopic or microscopic worlds, he wrote one of the first books about the development of consciousness, *Itinerarium Mentum ad Deum – The Mind’s Journey to God*. His conclusions were based on the religious and scientific knowledge of his age. Bonaventure believed that over time and through an intentional process, one could develop the properties of the mind—intelligence, reason, understanding, imagination, and moral discernment. By observing the environment, one became aware of his/her own physical and natural powers (c.f., Greek, *anima*). Contemplation and appreciation of the “good” through traces found in nature” developed one’s consciousness to a very high degree of competency, aiming toward Union with the Creator of the universe. The properties of ascent were a natural property, chiseled on a person’s mind, heart and soul—for the pursuit of God’s love (c.f., Dt.; Mk. 12:30). Contemplation was the path for a Christian (community and/or individual) to ascend to the Holy.

“Guilt” was one of the counter-forces in the process. It resulted from the disobedience of humanity (i.e., the “fall” in the garden of Eden). However, the wounded human soul also had a “conscience” to mediate the guilt so a person could be reconciled with the Creator. Jesus, the mediator between the Creator and human beings, was crucified in order to “transport” the problems of humankind back to God. Bonaventure affirmed that following Jesus as an Exemplar of the perfect *imago Dei* meant suffering was a definitive part of the journey to holiness—something akin to *kenosis* (suffering love). Bonaventure described seven signs on the journey toward higher consciousness.

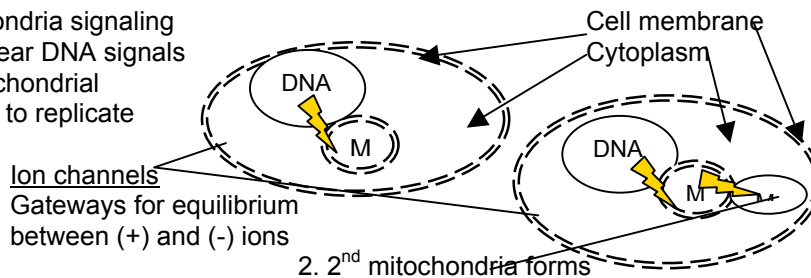
This paper offers a more generalized text than Bonaventure—evaluating three levels of consciousness: the lower, intermediate, and higher orders. The *lower level* addresses “basics,” building upon the theme that Creative energy was not only in the cosmos but was pervasive throughout the natural world and maintained continuity with its Source—to the effect that radio patterns in the cosmic zone resembled the “signaling” taking place in the Nano-world, intra and inter-cellular. Glancing only briefly at the chain of neurological processes, the *intermediate* level moved to consider components of mental and emotional causation and the contribution these make to rational thought so a person can make responsible decisions and even entertain intellectual reasoning that would be an asset for ascending into higher consciousness. The point of disciplined reason was to imitate the holy in mind and body in such a way as to invite “Creative Energy” into a shared contemplative experience. Some scholars consider this as the penultimate potential in the evolution of a human “life.” The highest level cannot be manipulated because it is “The” sovereign act of an invisible Other.

#### Lower-Level Consciousness: Down to Basics

From the cosmos to the microscopic world, “radio wave” communication becomes functional to the palpable biological realm. Molecular structures “signal” instructions and “organize” into tissues and organs—this constitutes basic, lower-level consciousness. Communication and organization were the first orders of conscious life, albeit very primitive. Douglas Wallace (UCI College of Medicine) described the inner-cellular process of nuclear DNA instructing/signaling the Mitochondria to replicate itself.

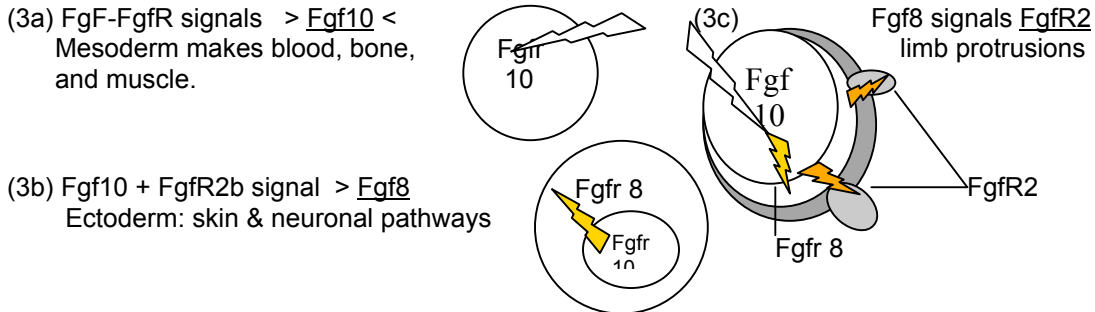
Fig. 14: Mitochondria signaling

1. Nuclear DNA signals Mitochondrial DNA to replicate



Another example occurs during Meiosis when embryonic DNA signals multiplication, polarization, and differentiation—cells organize for particular functions. Communication begins by: (1) polarizing the fetal cells, top to bottom; (2) triggering Hox-gene colinearity (3) engaging the reproductive cell’s Fibroblast Growth Factors (Fgfr) to bond; (4) initiating the “signals” sent by Sonic Hedge Hog (SHH), Indian Hedge Hog (IHH), and Desert Hedge Hog (DHH). The Hedge Hogs instruct *differentiation* – skin layers, tissues, organs, etc. DNA amino acids signal the protein-formation of tissues and organs, orchestrating the complex functions within the human architecture.

Figure 15: Fibroblast Growth factor signaling differentiation



Differentiation processes are internally consistent, coherent, and collaborative operations at the earliest stages of vivified cell life. The *life* driving the cellular communication cannot itself be differentiated from the cell – it literally enlivens as *bios* (Lat., life).

Molecular consciousness takes on extraordinary dimensions when one goes beyond the limited lens of, say, a single cell placed under a microscope or isolating an organ that provides a service to the body. In fact, there are millions of cells “signaling” one another all at once and there are neuronal cells simultaneously firing electrical patterns that communicate feeling – millions of cells “chattering away” throughout each living body!

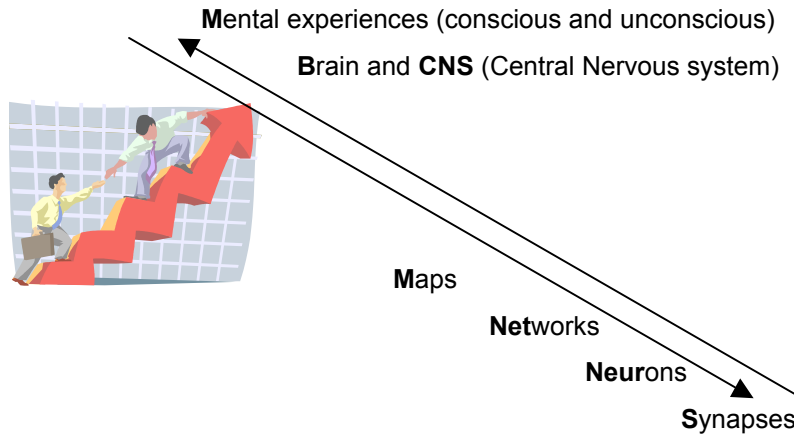
Fig. 16: Cells “signaling” all at once.



The reader was guided through cosmic principles of physics to the differentiation of cells that proceeded to evolve into several complex biological architectures—all driven by “life.” Clearly, life takes on greater meaning with embodiment because living systems are equipped with networks of nerves that eventually integrate both sentience and intelligence. In order to get to the intermediate level of consciousness one needs to at least be aware of the “basic” perspectives on cognitive neuroscience (Figure 17, below).

Arthur Peacocke’s many books, including *Paths from Science to God*, are exemplary in explaining natural developmental processes in light of theological precepts and are good reading for scientists and theologians who wish to delve more deeply into the subjects than can be accommodated by this paper. Peacocke says systems work in both bottom-up and top-down directions, but he emphasized the importance of the “total system-as-a-whole influences, especially at lower levels” (p.108-09). The following chart gives an overall perspective of the body’s neurological ladder because the type of consciousness the author is targeting has to do with rationale thought and one’s ability to intentionally reach beyond even that.

Fig. 17: Patricia S. Churchland and T.J. Sejnowski, "Perspectives on Cognitive Neuroscience," *Science* 242 (1988), 741-45. Two-way stream.



The following section moves the reader up the ladder fairly quickly in order to evaluate the brain, CNS, and mental experiences as these apply to reasoned response.

#### Intermediate Level Consciousness: Mind and Intention

"Mental experiences," the category on top, are far more complex in humans than other species. The more focused one's mental activities, the more advanced a person's self-consciousness becomes, which has a significant influence in the way one understands the divine nature. Experience, memory, education, biochemistry and the neuro-cortical circuitry all cooperate to produce rational thought and generate higher levels of intelligence. Mental activity has a physico-chemical basis that moves neurological impulses throughout the brain and body. Susan Greenfield used brain imaging to illustrate the electric assemblies (gestalts) that occur on the brain's surface as a person begins to think harder and harder (i.e., "arousal" patterns). Mental concentration increased the number and spatial size of the gestalts, but there was no consistency in the location of the epicenter or its relationship to its physiological stimulus (in many cases). In *Journey into the Mind*, Greenfield discussed A. Aertsen and G. Gertstein's research that was aimed at identifying specific biochemical labeling. For example, large gestalt assemblies initiated chemical cocktails where acetylcholine and Serotonin raised moods to manic-depressive levels.

Fig. 18: Brain image:  
Low concentration/Small gestalt



Fig. 18: Brain image:  
Hyper-stimulation/arousals



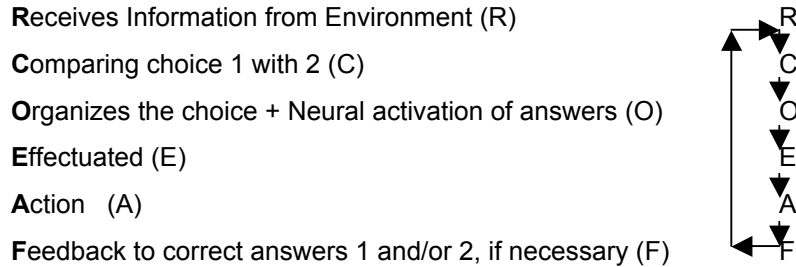
Fig. 19: Brain image:  
Meditation: "resting"



Bipolar tendencies were common among genius-level IQs, artisans, musicians, etc. (Remember the original bi-polar "environment," see Figs. 2a and 2b.) On the other hand, focused meditation brings mental activities, lower region, to a complete stillness and experience total rest (fig. 19). Genes, activities, and the environment influence biochemistry, which affects emotions and intelligence.

Nancey Murphy's lecture on "Mental Causation" at St. Edmund's College (2002) presented some interesting diagrams about the roles of environmental and social influences. Figure 20 refers to neuro-physiologist Donald McKay's picture of a normal, rational transmission of information between the brain and influential environmental resources. (The original drawings have been edited.)

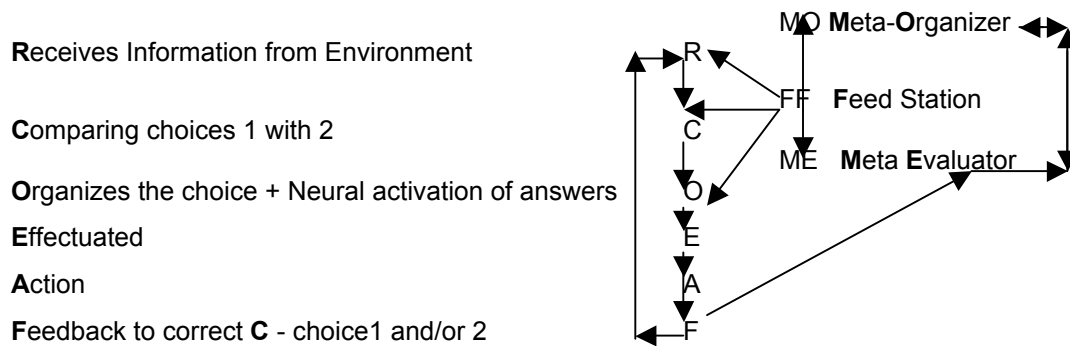
Fig. 20: Rational processes (Murphy's paper/McKay's fig. 6):



As one weighed and organized alternative choices (R, C, O), neural activation moved the solution into action (E, A), then the total process was re-evaluated for its accuracy (F).

In subsequent diagrams, a meta-organizer and meta-evaluator were added into the causal chain. McKay wrote: "[here is a]...meta-organizing system with a meta-evaluative procedure [that] take[s] stock of how things are going." Nancey Murphy said: "The process of adding higher-level supervisory systems has no limit." Many academics agree that it is plausible for physical science to be placed, comfortably, into a metaphysical superstructure. (See Murphy website for St. Edmond's paper.)

Fig. 21 – Meta-Conceptualization:



In *Paths from Science to God*, Arthur Peacocke agreed that biochemical and metabolic processes emerged into complex psychological responses, interplays of law and chance, to fulfill God's purposefulness for God's creation, reflecting ultimate good and welfare—eventually leading to the human religious response. Prayer, contemplation, and mediation train the person to limit the distractions—focused concentration creates a higher level of personal awareness and generates God consciousness (see Fig. 19).

Bonaventure accentuated discernment between creaturely likenesses vis-à-vis ordained signs, sacraments. Combining the vivified anatomical traits, *ex Nihilo*, with human cognition and discerning the holy accentuated the natural "primitive Ethic"—enhancing the whole person as a Soul. The energy and power that brought the cosmos into



existence was present in the smallest cells—and as burst of energy arose in the brain, the same Source empowered human thought, creativity, and moral behavior. In the process of discerning the highest good, memory and understanding encountered the genuine capacity to care (love) flowering into individual, domestic, and civic ethics. The Holy was among humankind filled with enduring love. The increase in consciousness reformed the values inherent to *bios*-life—it seemed to be drawn to its Parent-Creator (c.f., Aquinas).

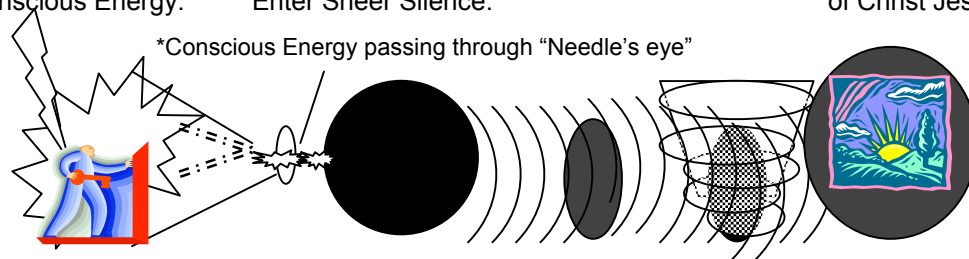
### Higher Level Consciousness:

There are numerous detailed reports and experiments applying scientific methodology to brain functions and the intellect that accompanies higher-level consciousness. Some experiments included electrode sensors and brain imaging during professional meditation, producing an identifiable location for neuronal rest (see Fig. 19). There were also many cases that had no data because the mental and physical arousals arose spontaneously while climbing mountains or listening to a symphony.

Bonaventure attributed higher-level mental states to discipline associated with religious commitment. In Christian terms, imitating the character Jesus Christ exemplified and promoted the manifestation of religious energies.

Jesus' own religious commitment took him to Mount Tabor (a geographical location in Israel and a symbol of higher consciousness). Authoritative texts report this to be the time of his enlightenment. The effects on Jesus' mind and body also constituted divine moral action—one that informed Jesus' five senses and raised his intellectual capacities to understand the full meaning of the pain and suffering of the Cross. In modern medical science terms – the act that occurred at Mt. Tabor was tantamount to being empowered for “fully informed consent.” As Jesus encountered the ancestral cloud (Fig. 25) of his tradition (Elijah and Moses), communication was taking place on several levels simultaneously: (1) spontaneous electrical animation, (2) abstract thought, and (3) environmental stimuli.

Fig. 22: Jesus' Process of Enosis. Super-arousal of conscious Energy.      Figs. 23a -23b (see fig. 1): Metamorphosis\* Enter Sheer Silence.      Fig. 23c: Ancestral Cloud.      Fig. 24: Enosis. *Qua Persona* of Christ Jesus

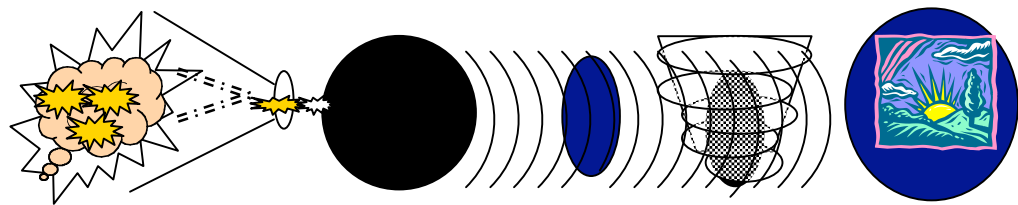


This type of mental causation was parallel-to or, perhaps, greater-than hyper-stimulating neural-assemblies in the hypothalamus region of the brain to the point where super-numerous assemblies triggered mental brilliance. Jesus remained peacefully balanced, showing compassion for his friends (Peter, James and John) who were also affected simply in witnessing this event. The enlightenment ennobled Jesus with God's sacrificial character to accept tragic humiliation and death on the cross. His natural *persona* was not artificial, but his mental and sensitive awareness was enhanced.

When brain-imaging technology located the “resting” state in a person’s neuro-cortical and biochemical physiology during religious mediation, it was significant because it corresponded with the peaceful, collected responses of individuals with higher-level awareness. Fraser Watts, an ordained scientist with expertise in neuro-psychology, began to test epileptic patients because they frequently reported dramatic religious experiences during epileptic spells. The patients were too agitated for Watts to confirm genuine higher consciousness because his research had proven that a deeply religious state had a sincerely peaceful composure.

My subject, a contemporary, went through the process of Enosis - encountering several stages: (1) brain arousals, with a distinguishable burst of mental energy; (2) a light-speed concentration of the energy; (3) an unaccountable lapse of time from which the person emerged very rested; (5) a forceful Ancestral Wind [or Cloud] covered the entire body for five [plus] minutes; (6) subsiding into a peaceful and overwhelming sense of joy and love (that continued for sixteen months). Interestingly, two days after these events the person was issued a prescription for a cystic enlargement. The artificial hormones produced exaggerated erotic sensations, “like the lights of Manhattan.” The exuberance was accompanied by an uncomfortable nervous reaction. Suspending the use of the drugs returned the person to a very joyful mental state with a markedly higher intellectual perceptibility for at least sixteen months. The Enosis was a peaceful electrification of the entire anatomy.

Fig. 25: Process of Enosis. Brain arousals. Fig. 26a-26b-26c: Metamorphosis. Energy goes through Sheer Silence. Fig. 26d: Enosis. Ancestral Wind. Fig. 27: Enosis. Bliss!



The archives of narratives documenting accelerated religious awareness cross several centuries, including that of psychologist William James. The documentation reported a blissful state, a mystical ecstasy, illumination, and an abundance of joy. In case after case, a non-personal Energy produced higher-level awareness.

The states of higher consciousness were not produced by any type of human action or ritual/theological prescription, but were totally spontaneous. The effects were frequently made manifest by unembodied natural forces—Ancestral Wind, sudden enormous gestalt arousals, clarity of perception (c.f., tongues of fire), etc. and were, later, attributed to divine causation. The recipient’s mentality reached genius-level comprehension, articulation, and the capacity to accurately interpret information from several disciplines and cultures. These heightened states of consciousness translated into God’s dynamic love and the capacity to sustain greater depth of meaning and sentience—often *kenotic* (enduring and suffering). Although most persons can be educated in the arts of ethical conduct, it is likely that *kenotic* love is a transformative quality—a crescendo of self-sacrificial love. The image of God had acquired a meaning in genuine moral action (arousal). The potential for life in the here and now is incredible.

In Conclusion:

This study postulates a few meanings about *bios*-life borrowing from several disciplines. No individual has personal knowledge of Creator-creation data and there are a myriad of responses to the on-going debates about Theodicy, but there was a life-giving Energy at creation. In fact, an “arousal” during Sheer Silence would introduce time, space and all potentiality. The simple idea that a bi-polar environment resulted after the unanticipated “first arousal” provided “one more” hypothesis about the co-existence of good and evil in a universe authored by a good God. Life is composed of so many opposites. The whole spatial-temporal universe constantly changes—some events appear to be repetitious and yet each life is totally unique. Life moved in energy and energy was driven to communicate, albeit in electromagnetic fields or the cell-cytoplasm that conducts energy. Energy exists in everything that is “alive,” but it is independent of any particular causal chain outside itself.

There are several levels of consciousness as a result of macro, micro and meta-worlds. Prayer, meditation, and contemplation are a concentrated attempt to reach the Sheer Silence (that was the bi-polar nature was initiated)—a Perfect Peace that co-exists in a universe with many opposites. Human flourishing involves the practicability of investing one’s consciousness in peaceful pursuits of love, truth, and beauty and the stewardship of all creation. This provides an alluring argument supporting the conclusion that *bios*-consciousness is a very high value for every philosophy/tradition to uphold. It is not surprising that several unique religious humanitarians from a multi-national and plenti-cultural environment decidedly revered “life” as the highest value.



© All rights reserved. For permission to use this material please visit [internationalbioethics@yahoo.com](mailto:internationalbioethics@yahoo.com).

About the author:

Patricia Elyse Terrell, PhD  
2727 Island View Corona Del Mar, CA 92625  
Tele. 949-644-4569  
PC Fax (telephone first to turn-on) 949-644-4513  
Email: [patriciaterrell@yahoo.com](mailto:patriciaterrell@yahoo.com) – or – [Patricia.Terrell@theology.ox.ac.uk](mailto:Patricia.Terrell@theology.ox.ac.uk)

Biography:

Patricia Terrell’s PhD research focused on a theological approach to the ethics of genetic diagnosis. Desiring to investigate bioethics and legislation, she began her studies at Baylor University, TX. Patricia continued her research in the faculty of Science and Theology at the University of Oxford, UK. At Oxford, she investigated the stability of molecular medicine as well as applications for genetic therapy in neuro-muscular disorders. Dr. Terrell integrated her medical science research with theology by reading metaphysical writers such as Michael Polanyi,

Austin Farrar, etc. She explored multi-cultural approaches to bioethics by participating at the UNESCO IBC.

PhD dissertation: *The Word Made Flesh and the Flesh-Made Word: An Informed Theology and Christian Church Position Paper to Legislatures on the Ethics of Genetic Diagnosis.*

After graduating in 2001, Patricia remained active with UNESCO IBC while looking for a university teaching position. Terrell has found science and theology to be a vibrant resource for reconciliation and developing a wholistic, knowledgeable worldview.