TOWARDS A UNIFIED FIELD THEORY OF HUMAN BEHAVIOR: GLOBAL CULTURAL EVOLUTION

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ABSTRACT

A model of human consciousness based on Earth's geologic history of mass-extinction & recovery (evolutionary dynamics). Five Earthly dynamics trigger within humanity's adaptive psychology an "adverse relationship" with environment – a Paradox that sparks human consciousness with intellectual and spiritual questions of unity vs. diversity (Earth/Mother vs. humanity). Humanity adaptively mirrors Earth's five evolutionary dynamics with five gender-based archetypes (bio-cultural dynamic) that unfold in a mythologizing of natural adversity as foundation for all human knowledge.

The intellectual lineage used to develop this model includes:

- Evolutionary biology and Earth systems science establish an overarching context for this study – answering Chalmers' "hard question,"
- Paleoanthropology defines the circumstance of humanity's emergence from Gaia,
- Psychology monitors humanity's shift from animal-self to modern creative-self, using work of Hegel > Freud > Jung > Joseph Campbell > Arnold Mindell as a new structural psychology,
- Fractal geometry then offers a holographic design for modeling consciousness,
- Memetics, finally, presents a tool for measuring humanity's conscious traits, with a variation of the Hall-Tonna values inventory.

This work presents a "general hypothesizing model" of human consciousness, in attempting a science of consciousness.

Keywords: human, global, culture, evolution, psychology, cognition, awareness, consciousness, archetype, myth, fractal, holographic, creativity, paradox, duality.

INTRODUCTION

I herein purpose a model for the study of human consciousness. This model focuses on human cultural evolution, with scant attention given to biological aspects. I do not offer a hypothesis, theory, or the like. Neither is this a research paper, nor a proof.

With a subject as grand as consciousness, and given its rather poor status within scientific understanding, the only standard one can possibly apply in a "model of consciousness" is a simplified measure of intuitive fit.

> *Science may be described as the art of systematic over-simplification.*
> *Karl Popper,* The Logic of Scientific Discovery

Albert Einstein, with his famous "streetcar thought-experiment," was a poster-boy for such modeling. He continually strove for proper intuitive fit, to first frame the problem, before proceeding to mathematical models. The goal of such a fit is to discover accessibility and utility with otherwise intractable problems (Silvert 2001). Such is the case here, as I attempt with human consciousness (hereafter: consciousness).

> *Everything should be made as simple as possible, but not one bit simpler.*
> *Albert Einstein*

In attempting a general model of consciousness, there are some basic matters to confront. First, are the many hurdles, abundantly discussed elsewhere (Tye 1995, Block 1997, Searle 1990), in developing such a model. For the sake of brevity, and as the point here is to transcend "insurmountable problems," I eschew discussing these complaints, and simply present a model. Rather than explore these issues, I rely instead on the reader's already established gestalt of such matters, and seek an intuitive reaction, as noted above.

Beyond the immediate problems of "a science of consciousness," a second issue is perhaps of more import. That is: our *reasons* for studying consciousness. Of course, a motive is readily assumed, such as seeking some as-yet unrealized benefit for humanity. But of what exactly that benefit might be, one must be most careful. As example, repeated "eugenic errors," "missionaries saving natives," and naively engineered "pharmacological solutions" to necessary vagaries of consciousness, all inhabit our era.

Still, despite abundant, obvious, and well-versed snags to advancing an effective study of consciousness, none excuse us from the challenge of finding new ways to view this tough issue. So, with these few opening comments dispensed, I forthwith develop the model.

THE BACK-STORY OF EVOLUTION AND CONSCIOUSNESS

> *Evolution is the one theory that transcends all of biology. Any observation of a living system must ultimately be interpreted in the context of its evolution.*
> *Martin Nowak*, Evolutionary Dynamics, *p. ix.*

There is of course a long back-story preceding this modern question of consciousness. We perhaps know this story better as *evolutionary biology*, but with *evolving consciousness* necessarily parallel to *evolving Life*. Within this interoperation of Life and consciousness, a 3.5 billion-year filtering and sorting of organisms and systems, upon vast evolutionary landscapes, provides some basic parameters for framing consciousness. A schema of this *evolutionary landscape*, as currently understood, follows (Table 1).

First, and most obvious here, is that the aforementioned filtering and sorting deprives us of many comparative living examples to otherwise ease our grasp of how consciousness, and indeed Life, emerged and evolved. This presents significant informational voids in our understanding of these matters (e.g. so-called missing links, etc.).

Elimination of "deficient" competing systems is well known within evolutionary biology (natural selection) – but then this fact seems often ignored in many studies of consciousness. That is: consciousness in many ways appears to be treated as emerging

and existing *autonomously*; as if separate from biology and natural selection. This of course relates to Descartes' well-known dualism (separation of body and mind), but also includes more recent versions like Chalmers' "hard problem" (Chalmers 1998). [1]

Table 1.

Progressively Complex Life Forms	**First Appearance Millions of Years Ago (Ma)**	**"Big Five" Extinction Events and "*Others*"**
Microbial (prokaryotic)	3,500 (primitive DNA)	*Late Archean*: 2,600+
Complex cell (eukaryotic)	1,400 (1st common ancestor)	*Early Proterozoic*: 2,400
First multi-cellular animals	670 ("Snowball Earth")	*Precambrian ice age*:
Shell-bearing animals	540	*Late Cambrian*: 488 Ma
Vertebrates (simple fishes)	490	End Ordovician: 440 Ma
Amphibians	350	Late Devonian: 360 Ma
Reptiles	310 (biggest mass extinction)	End Permian: 250 Ma
Mammals	200	End Triassic: 200 Ma
Nonhuman primates	60	End Cretaceous: 65 Ma
Earliest apes	25	
Earliest hominids	8	*Würm glacial* 0.10-
Homo sapiens	**0.15 (150,000 years)**	***Holocene* (modern era)**

(Assembled from various standard texts on evolutionary biology, geology, and earth systems science.)

This possibility of "consciousness" as existing *apart* from evolving embodied organisms is clearly salient. But in this model, I look only at a specific ***embodied*** *human lens*. I test how far a "unified view" of consciousness can be developed, before resorting to ever-more abstract tactics. In the course of events, it is likely unavoidable to flirt with

[1] Chalmer's work is ironic as it already points to an answer to his "hard problem." "One might say an organism is conscious of an object in its environment when it can discriminate information about that object . . . and do something with it" – clear interoperation of consciousness *and* environment (consciousness as a "continuous" phenomena). But Chalmers never explores this *environmental* affect (natural selection), or the "something" consciousness is "doing with it." Instead he waxes abstract on "redness as opposed to the quality of blueness . . . their similarities and differences . . . why they have their specific intrinsic natures [in our consciousness]" – qualia. This introduced abstraction tends to violate Occam's razor, and suggests consciousness is somehow an autonomous phenomenon. Is it hard to imagine natural selection giving advantage to one who discerns "red ripe fruit" from "blue poisonous fruit?" A naturalist, anthropologist, biologist, etc. makes no such oversight (Attenborough 2002a). In *Facing Up to the Problem of Consciousness* (Chalmers 1995) he speaks of 1st person subjectivity and a vague "something it is like to be . . ." again ignoring natural selection, which acts in very subjective 1st person ways – survival or demise of the individual.

questions of such *dis-embodied consciousness* (mind, god, soul, etc.), but it is not "the mission" here.[2]

Second, is the "stair-stepping" of more diverse and complex *Earthly* Life (left column, Table 1). Stair-stepping phenomena are quite obvious in evolutionary biology, with an implicit teleology of "more Life information."

And while this *escalation of information* is central to most notions of evolution, this fact of evermore "living data" seems implausible, to some, as a coincident *expression of consciousness* – that is, consciousness existing mostly as a means of creating more Life information. This exclusionary perspective allows a further decoupling of consciousness from evolution, which I suggest is spurious, and presents a hard problem in consciousness (note 1).

The presented model argues that consciousness is deeply entwined in producing "more information" (teleological), coincident with evolutionary biology's "more diverse and complex Life." But to suggest consciousness simply emerges from the backdrop of Life, with humanity somehow exempt from evolutionary biology (autonomous), implies a *deus ex machina* – requiring yet another creation story, not yet named but postulated as a "hard problem."

Third in this evolutionary back-story is that Life's "stair-stepping" is achieved via iterative cycles of destruction and re-invention, both subtle and profound. "A thing" implicitly seen in the familiar phylogeny recapitulates ontogeny.

That mass-extinction and recovery is part of Earth's natural biotic process is manifest in the "Big Five Extinction Events," with some 20 total events speculated upon (right column, Table1; Raup & Sepkoski 1982). But such "cyclic re-invention" also appears in natural selection – a daily spectrum ranging from extreme competition to inspired cooperation. Differences in such gross and subtle selection forces continually vary the evolutionary pressures seen by all organisms.

Without this heritage of recursive destruction and re-invention, the emergence of stair-stepping phenomena seems unlikely. That is to say, invention alone without destruction leaves no new raw material for *new information*. Invention in fact, survives only as destruction permits – a Life *Paradox* of: "creation," paired with an inevitability of death in all things.[3]

> *Remember that everything [living] adapted to the same invariant laws of the physical universe.*
>
> *Michael Gazzaniga,* The Mind's Past, *p. 90.*

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[2] *Non-human consciousness* can't be studied without a full grasp of the *living human lens*, to first discern human artifacts from genuine encounters with anything we might regard as "other consciousness."

[3] This ties to entropy, the second law of thermodynamics. A need for such conflict in Life is noted by Schopenhauer, Nietzsche, Hegel, Sartre, and others; with each giving the matter different texture.

Fourth, for an organism to find its way across this 3.5 billion-year evolutionary landscape, it must have means of access and orientation. All organisms must *enduringly* capture information and material from Earth's dynamic environments. Better access allows the organism greater evolutionary persistence and range. Organisms with relatively poor access perish, along with their particular form of "consciousness."

This capacity for access is physically and behaviorally encoded. An organism's capacity for such access, I label *general consciousness*. This is not far from what Chalmers says: "One might say an organism is conscious . . . when it can discriminate information about objects . . . and do something with it" (note 1).

Beyond this physical and behavioral encoding, *psychological dexterity* (defined later) further improves this general consciousness. "Dynamic access" then appears in many organisms, particularly humans, and serves as an enhanced "primitive antenna" by which one may navigate Earth's dynamic landscapes. All organisms capable of such dynamic access (psychological dexterity) hold such an antenna.

It is this **composite** *primitive antenna* (physical, behavioral, and psychological) that I suggest is selected "for or against" in Life's enduring evolutionary struggles. And it is this antenna, in this multilateral form, which is studied here as *consciousness*.

This *primitive antenna's* specific traits drive the organism's effectiveness in resource access, and efficiency in resource use. Without such antennae, recursively and directionally honed by eons of selection, evolutionary history would appear more as a "random walk" than a stair-stepped order.

With this basic understanding of "general consciousness as capacity for access," a crude but effective base for the study of consciousness is established. Additionally, this typified notion of "general consciousness" leaves the work open to further comparative study of human consciousness, with other likely consciousnesses. But as noted earlier with *dis-embodied consciousness*, study of *other-embodied consciousness* is not the mission here.[4] Rather, it is humanity's specific antenna that I examine in detail.

A WORKING DEFINITION OF CONSCIOUSNESS

From this now-summarized evolutionary back-story, I define this antenna of general consciousness as:

> An operating schema for spontaneous energy-matter exchange, which begets more information.

Again, this seems not far removed from Chalmer's earlier note, but with a key addition of "information." This *realization of information* now becomes the "something" consciousness is "doing with its" environment (note 1). To further clarify these terms:

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[4] Attention is given to comparisons and conflicts in consciousness, and other-consciousness in the full manuscript, as is the case for many topics introduced in this paper.

- **spontaneous energy-matter exchange** – is access to and use of resource and information (energy release and capture) upon the evolutionary landscape, towards maintaining identifiable organisms and systems;
- **more information** – is a byproduct of this exchange, where matter and information are converted from one form to another, with a frequent result (but not always) of "new information;"
- **information** – as a physical or abstract form, is anything intelligible to (further utilizable towards) an organism's or system's presence (persistence) upon the evolutionary landscape.

And, for **operating schema,** the *basic form* used here is (Figure 1):[5]

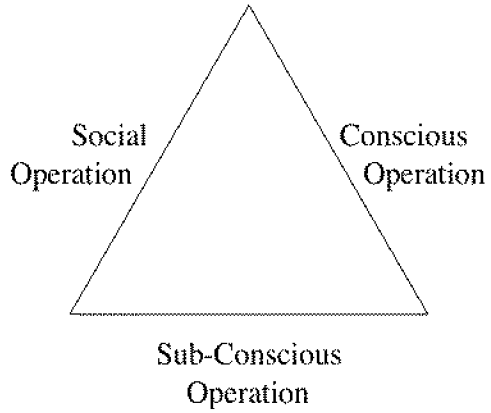

Figure 1.

. . . with an understanding that "Sub-Conscious" is a controversial term, which is later explained, as are the additional concepts of Social and Conscious Operation.

To define consciousness in these relatively simple and direct terms has an advantage. It allows the use of basic scientific and systems reasoning for the model. And with consciousness presented in this "Core triune" form, a simple mathematical design is rendered unto an otherwise elusive concept. But in this unadorned layout of "a type of triune consciousness," no clear "human and other" differentiation is really possible. It offers no insight into how humans might contrast from rats, as conscious beings.

REFINING GENERAL CONSCIOUSNESS

To arrive at a model of consciousness that is both descriptive and explanatory of humanity, this simple form needs to expand. We must explore how this antenna is "improved and used" within and by humanity. To this end, I now enlarge this Core triune with additional information in multiple layers, externally and internally, as shown below (Figure 2). Those familiar with fractal geometry will quickly see that I develop a fractal

[5] Given here as a simple assertion, with analysis omitted for brevity. This is done, as some might say I argue an obvious point – except for the use of "sub-conscious" in place of "unconscious." Development of this "Core triune" is presented in the full manuscript.

model to expand the original form. Whether this structure grows via interior or exterior dimension is of little import as both have the same function in fractal geometry.

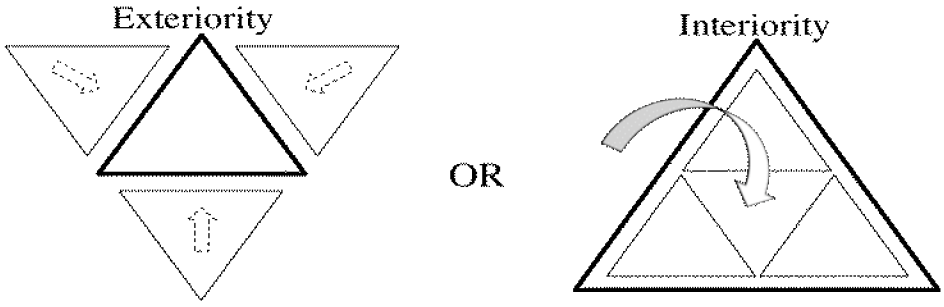

Figure 2.

The first facet of the original triune I develop is *Social Operation*; to which I give three sub-facets of Memetic, Bio-energetic, and Economic Operation (Figure 3).

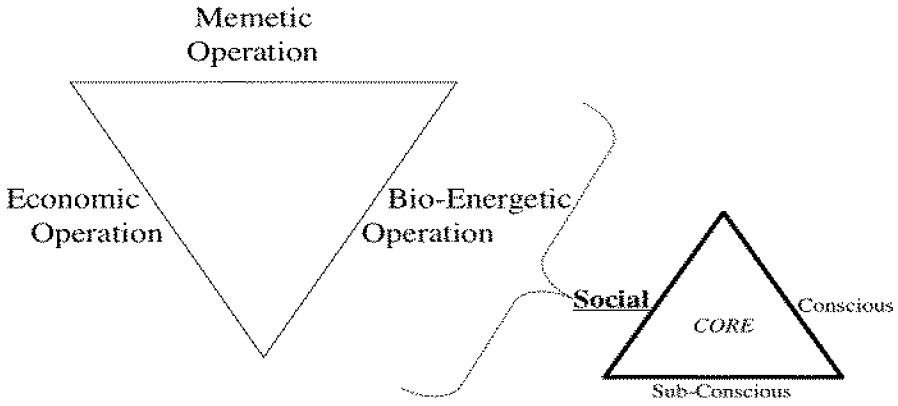

Figure 3.

Memetic: anything seen as information, knowledge, tools, structures, or symbols passed from one generation to the next, and used in attempting to perpetuate humanity.
Bio-energetic: a direct physical ability to navigate the evolutionary landscape, access resources, and physically manipulate and transform resources, in perpetuating humanity.
Economic: intellectual and volitional command of resources (knowledge, goods, and services) upon the evolutionary landscape, whether achieved by competition, cooperation, autonomy, or other means.

The second aspect of the Core triune I develop is that of *Conscious Operation,* with sub-facets of Cognitive, Sensate, and Imaginal Operation (Figure 4).

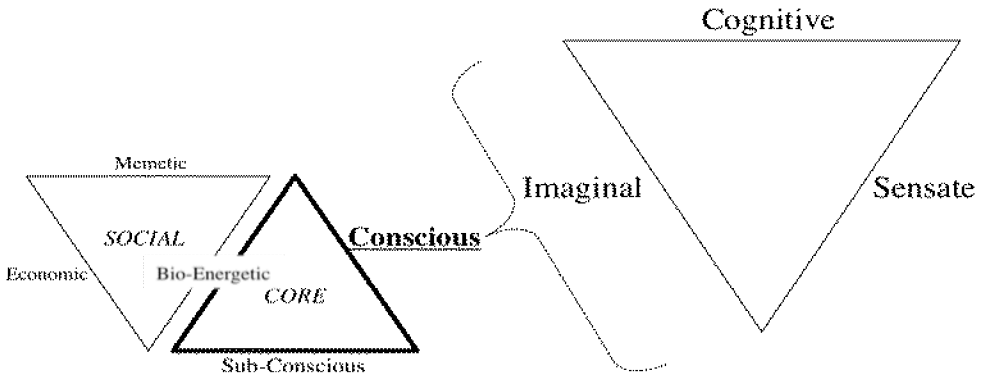

Figure 4.

Cognitive: analytic orientations of oneself in time, place, and circumstance, relative to events on the evolutionary landscape.
Sensate: all sensory input and output, including internal emotional and homeostatic operations.
Imaginal: association of possible events and outcomes (future) with one's volitional acts and reactions (present), based upon one's memory of realized events (past).

With the first two Core aspects just outlined, *Social* and *Conscious Operation*, the concepts used here are not unique. Nor is this their only possible presentation.[6] As such, terms used here carry less weight than the *framework* in which they are placed – since a specific mathematical design is desired, one commensurate with these terms.

MAPPING A "SUB-CONSCIOUS MIND"

These first two triunes are derived from well-developed disciplines. This is not so for the third triune, *Sub-Conscious Operation* – more often called the unconscious mind. Modern concepts of unconscious mind, a virtual *mare incognitum,* give little clarity for modeling and studying consciousness (Table 2, Figure 5).

Table 2.

Conscious Functions	Unconscious Functions
Serial	Massively Parallel
Self-Consistent	Massively Diverse
Limited Capacity (finite percepts)	Huge Capacity (e.g memory)

(Baars 2008)

[6] These areas are later developed in "archetypal form" but generally refer to traditional disciplines such as sociology, economics, biology, kinesiology, semiotics, etc.

> *Ninety-eight percent of what the brain does is outside of conscious awareness. No one would disagree that virtually all our sensorimotor activities are unconsciously planned and executed.*
>
> *Michael Gazzaniga,* The Mind's Past, *p. 21.*

To attend the problem of an unstructured unconscious mind, which Baars and Gazzaniga point to above, I present a concept of *human creativity* as Sub-Conscious Operation. Others call this particular expressive aspect of humanity "the dynamically active part of the unconscious mind used in creativity."[7]

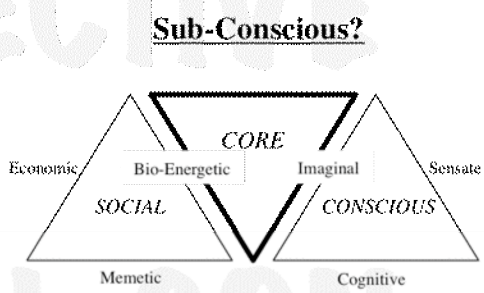

Figure 5.

In connecting creativity with Sub-Conscious Operation, I can then map the unconscious mind for "creative causal affects" in natural selection. By "creativity" I refer to a genesis of new information, as environmentally inspired within the psyche, regardless of how this information may manifest. In this linking of creativity with Sub-Conscious Operation, the unconscious mind is thus partly parsed for better form and language, to allow a formal study of consciousness.

> *We begin by considering . . . that natural selection is a creative process. We then review its relationship to evolutionary change.*
>
> *Robert Trivers*, Social Evolution, *p. 19.*

The term "sub-conscious" is oft criticized as too vague in meaning for scientific use. But it is precisely this vagueness that makes *Sub-Conscious* a perfect term. It mirrors the vagueness of knowledge, information, and temperament common to creative processes. As characterized before, "a thing" variously pointed to as: creative illness (Ellenberger 1970), mazeway resynthesis (Wallace 1956a), cultural revitalization movement

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[7] "Sub-conscious" is a term most used by the lay public, and it is hard to find traditional academics willing to speak of anything but an "unconscious mind." When I press such academics for a description of the creative process, such a phrase (as noted above) is typical. I use "sub-conscious" here, as its lay meaning generally fits my intended purpose, with literary economy.

(Wallace1956b), sense-making (Weick 1995), and gestalt effect. All these concepts evoke chaotic traits, or "emergent behavior,"[8] central in the development of complex integrative systems (chaos theory).

> *The failure of the conventional approach to visual perception to address Gestalt issues of perception suggests current concepts of neural computation are inadequate, and that novel principles & mechanisms of perceptual computation remain to be discovered.*
>
> *Steven Lehar*, A New Gestalt Model.

A major hurdle in mapping this *Sub-Conscious creativity* is a lack of comprehensive models for memory (WYNC 2007). To speculate on how memory performs in this creative role, I consider three factors: temporal breadth, depth of perspective, and dexterous association.

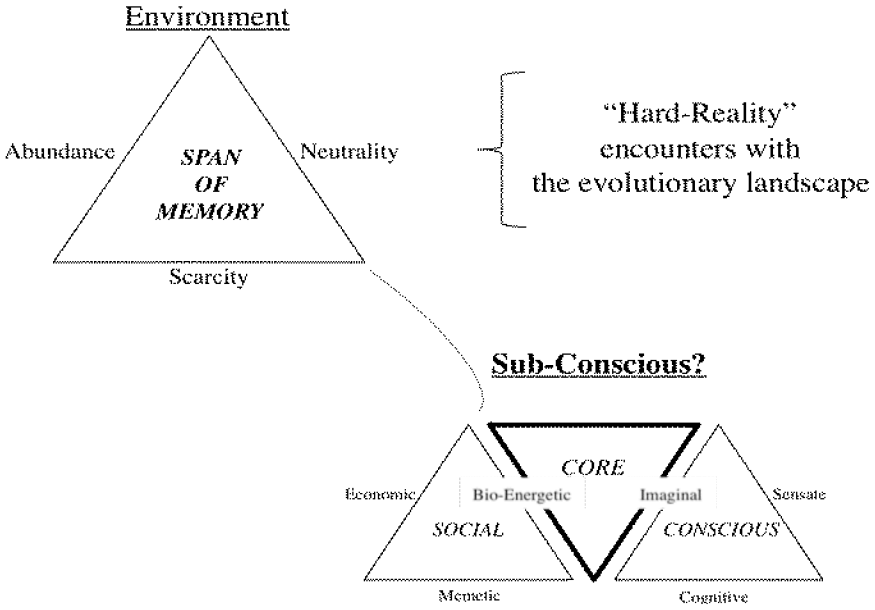

Figure 6.

Temporal Breadth of Memory

As an evolutionary device, memory helps in locating resource-rich, or avoiding resource-scarce, environments (Figure 6). Within an organism's map of environmental landscapes (abundant or scarce resources) the temporal breadth of that map affects resource access.

Organisms with memory "1 day wide," recalling events only one day to the next, are unlikely to *willfully* feed on seasonal vegetal swings. But in volatile environments, where fluid adaptation helps, "limited breadth" is a survival handicap. Organisms with memories 1 week, 1 year, 1 decade, or even 1 century wide, have an advantage in recalling more methods, means, and sites for accessing food, shelter, etc.

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[8] Novel and coherent tendencies and structures that arise during self-organization of complex systems.

> *All creatures, large and small, are locked into the presentational spaces they hold.*
>
> *Michael Gazzaniga,* The Mind's Past, *p. 90.*

Greater breadth of memory, gives a wider catalogue of environmental maps to antennae. And we can easily surmise that larger libraries inherently afford better access to important Life resources. This "library" concept certainly applies to the distributed machine intelligence and memory of our era, perhaps most notable today as the Internet.

Depth of Perspective

Second, as memories are encoded, each moment arrives as a cluster of experiences. Each memory exists as a "mini-complex" of simultaneous-coincident events and emotions. Every individual captures an impression of these events in his or her unique subjective sense of that moment.[9]

With differences in physical and mental ability, sensate acuity, and subliminal and emotional tendencies, "all" appears unique to the individual. Variance in personal experience is well known in trial law, as eyewitness accounts are notorious as the least reliable evidence given in court.

The particular "momentary spectrum" (depth of detail) any individual might capture defines their perspectival range. The more "aware" a person is in their *facultative bandwidth*, the more detailed information they gather for later recall. And accordingly, more information means more richly encoded antennae for better resource access.

Dexterous Association

Accompanying breadth and depth of memory, a third aspect can now be named – dexterity.

In exploiting evolutionary landscapes, our species has few purpose-built tools such as fangs and claws. Instead, we have an agile physical form that allows us to use rocks, sticks, etc. as pseudo fang and claw. In dexterously holding and manipulating rock and stick, we find tools for working the evolutionary landscape. It is a particular agility that in fact evolutionarily *demands* inventiveness of us!

> *The freeing of the hands of the early hominids was a preadaptation that permitted the increase in tool use and the autocatalytic concomitants of mental evolution and predatory behavior. Autocatalytic reactions in living systems never expand to infinity. Biological parameters normally change in a rate-dependent manner to slow growth and eventually bring it to a halt. But almost miraculously, this has not yet happened in human evolution.*
>
> *Edward O. Wilson,* Sociobiology, *p. 569.*

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[9] (WNYC 2005). This also appears in the work of Jean Piaget, but later (Schore 1994), and others – generally referred to as "affect regulation."

In the hands of early man, rock must somehow become missile, hand ax, nutcracker, hammer, etc. And stick must become back scratcher, fruit whacker, club, boomerang, fish spear, digging tool, and termite fisher. Individuals not making a *dexterous behavioral association* between their own physiology and the particular physical attributes offered by rock and stick, are clearly disadvantaged. They collect less fruit, prey, grubs, etc. But those who make this happy association find evermore inventiveness rewarded. Dexterous physicality – or rather, a lack of purpose-built fangs and claws – thus evokes, via necessity, an agile neuro-psychology, and "innovation" hence flourishes in survivors.

Integration of Memory Process Effects

Individual neuro-psychologies of varied dexterity then combine with memories of different depth and breadth, for a basic creative profile (Figure 7). This blending of memory's diverse traits amplifies over time, and is further compounded with other learned associations. We spontaneously recombine "our libraries" in sleep dreams (unconscious introspection), daydreams (conscious introspection), child's play, and in most anything we might call entertainment, art, sport, fantasy, or intellectual exercise.

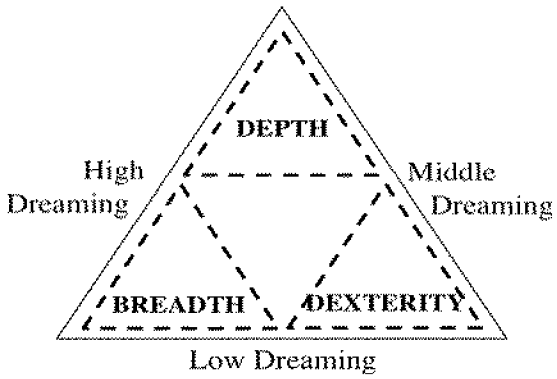

Figure 7.

This capacity for "recombinant creativity" is first evidenced in human artifacts of the Great Leap Forward – perhaps enabled by an emergence of mirror neurons (Ramachandran 2000).[10] Artifacts of this creative onset grow in richness and complexity, mythically remixing Earth's elements and creatures (sphinx, griffin), as our creative function builds momentum.

But these creative associations are not just crude, artistic, or fanciful. Early man associates and coordinates many of life's diverse forms. Stick is not just spear and so forth, but also "floats in water," "holds fire," forms an "impenetrable thicket," a "swing vine," and on. And when man sees "stick twisted with rock" (roots), he associates stick

[10] Typically dated 90,000BP, but with much earlier "likely evidence." Mirror neurons fire when an animal acts *and* when the animal observes similar acts performed by another, allowing imitation and learning.

and rock in an idea of "ax." Ax is then even further recombined to yield battle-ax, pole ax, ice ax, fire ax, mattock, etc.

Our ability to discern specific traits in objects, retain those traits in memory, and to make associations amongst them (depth, breadth, and dexterity) endows a powerful evolutionary tool. It allows us to see a rock rolling downhill, convert this image to a wheel, recombine that wheel with other patterns, and then arrive at "new information" that stretches from wristwatch, to airplane, and to further untold horizons.

To capsulize the foregoing speculation on emergence of human creativity – what begins as basic genetic variability, reframed over eons, derives a certain dexterous physiology (human, hardware), which then calls for an agile neuro-psychology (mind, operating system) . . . that in turn demands certain "applications" (culture, software) to fully realize the physical vehicle's potential value. But throughout, this "vehicle" remains intent on continuously improved energy matter exchanges, from necessity . . . as any lapse in this exchange will bring its demise upon the evolutionary landscape (selection, evolution).

This interleaving of "hardware, operating system, and software," refined over millennia, regardless of whether its information is physically or abstractly encoded, allows human evolution, as we know it, to occur. Such a *continuous process* argues strongly for unified treatments of consciousness, over more divisive Cartesian mind/body views.

But then – evolutionary rates between *gene* and *culture* clearly differ, where culture is much more plastic than gene. This plainly suggests a legitimate "mind/ body split." As a result, effective worldviews *must* take this into consideration. While this paper focuses principally on *culture*, this does not necessarily argue for such a separation of mind and body. The intent here is rather to argue for a well-reasoned integration of these important, although temporally distinct elements.

> *We are at least 5 million years separated from a common ancestor with the chimpanzees. Traits that differentiate us from chimpanzees have passed through at least 200,000 generations of selection. Most of the rapid increase in brain size took less than 100,000 generations . . . development of religion and art has probably experienced about 10,000 generations . . . By contrast, the last 10,000 years [not generations] have seen enormous changes in human life. Yet this time is too short for any but the strongest pressures to have produced much change.*
>
> *Robert Trivers,* Social Evolution*, p. 29-30.*

CREATING – THE DREAM FIELD

The spontaneous creative ability, just described above, I now develop further as a Dream Field (Figure 8). Dream Field points to a highly imaginative psyche, calling upon varied memory elements, in novel ways, to create new information. This concept is perhaps

best typified by a general sense of Australian indigenous People's "Dream Time" (Mindell 2000).[11]

> *This is why memories, dreams, and imagination are all the same process, for the mind uses the same interpretations whether it is dreaming at night, recollecting infancy, or imagining a new home . . . we experience the world the same way we remember it and dream about it.*
>
> *Robert Ornstein*, The Evolution of Consciousness, *p. 10, 167.*

In this Dream Field, all objects and beings have a dream life (encoded traits) we interact with in ordinary and non-ordinary reality. The Dream Field conveys all knowledge, thoughts, feelings, and impulses as imaginal/ dreaming elements that organically arise to sustain evolution. In fact: human evolution as creativity emerging from (or as) consciousness – a seemingly "spirit infused" (*inspired phantom)* like primitive antenna.[12]

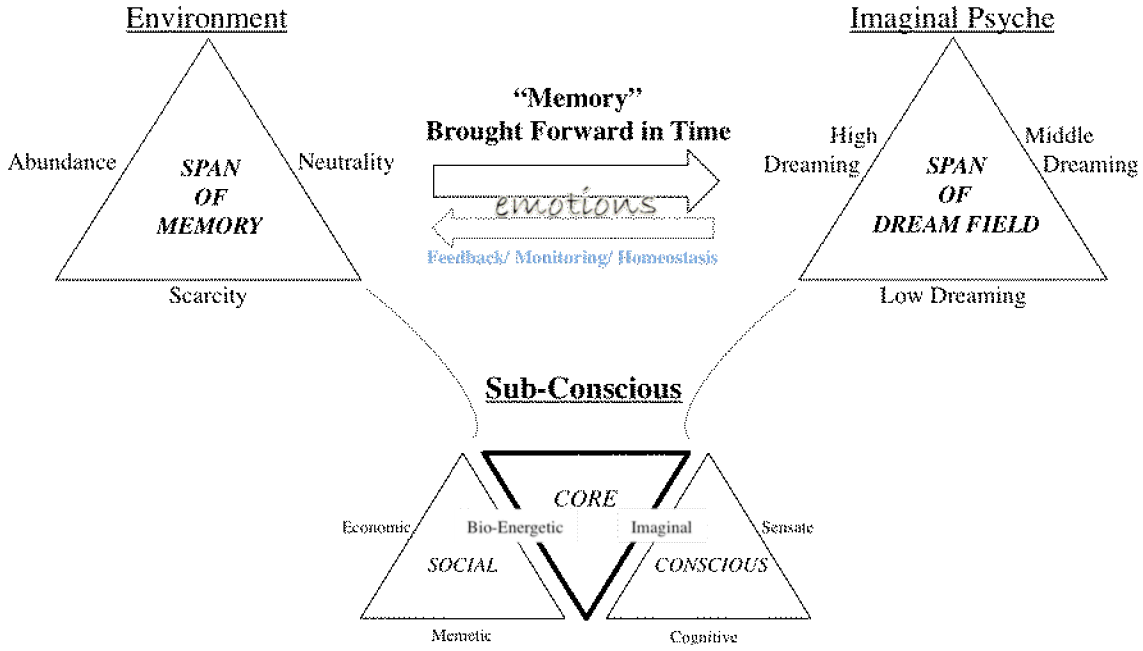

Figure 8.

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[11] Dream Field, as developed here, might be taken as rough kin to Global Workspace Theory (Baars 2008). Physicists Steven Weinberg also speaks to mythic aspects of "reality" as science in *Dreams of a Final Theory,* p. 46-7 (Weinberg 1992).

[12] An "inspired phantom," perhaps related to Chalmers' vague "something it is like to be . . ." (note 1) but also pointing to a human need for belief systems. This "need for belief" is better seen as *requisite faith* in our ability to creatively advance energy-matter access. Without a "community of shared myths," as base, no *generally agreeable* sense of "knowledge," or "science" (abstraction, culture) is even plausible. When we can no longer reasonably believe in our *creative capacity* (or "myths"), we would have then achieved an evolutionary terminus, a realized "animal maximum ability" (McNeil 1982). All further evolution must then come through genetics and a grim reality of brutal natural selection. This perhaps explains the persistence of "war" – our species' lack of natural predators, then stirring a genetic disposition to self-predation when cultural access is weak. "Need for belief" is also noted by Nietzsche (in *The Gay Science*), by Freud (*Moses and Monotheism*), and modern writers such as Daniel Dennett (*Breaking the Spell*), Bruce Lipton (*Biology of Belief*), Andrew Newberg (*Why God Won't Go Away*), and Donald Brown (*Human Universals*).

> *Our experience of the world assembles in a fleeting instant, with no time for thinking but just enough for producing a best guess of the world . . . this process is much like a dream . . . fabrication of reality happens from moment to moment, underlying all of our experiences, from the most simple to the most complex.*
>
> *Robert Ornstein*, The Evolution of Consciousness, *p. 150.*

The Dream Field gives rise to, and sustains, a variety of Platonic Forms, Jungian archetypes, and other meta-figures recombined from humanity's early roots. To some, such "dreaming" may seem an odd concept to propose in "attempting a science of consciousness." But associations between "the dream" and an appropriate environmental context lend substance to this otherwise turbid notion.

In making this human propensity for dreaming "present in time," its evolutionary utility can be gauged by natural selection. So typically, only "*effective* fantasy dispositions" will survive. In these surviving fantasies we might then learn to associate:

- environmental *abundance*, *scarcity*, and *neutrality* with . . .
- population *growth*, *decline*, and *no-change*; and further, with . . .
- fantasy operation of *high-dreaming*, *low dreaming*, and *middle dreaming*.[13]

> *Our civilization . . . has not yet fully recovered from the shock of its birth - the transition from the tribal or 'closed society', with its submission to magical forces, to the 'open society' which sets free the critical powers of man.*
>
> *Karl Popper*

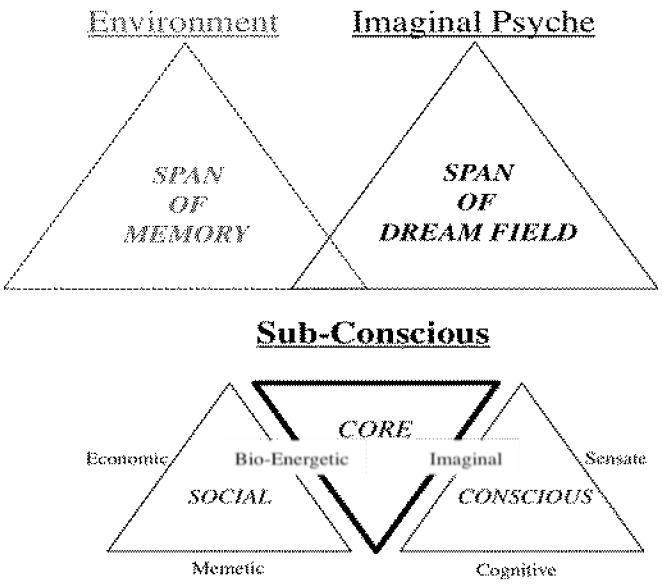

Figure 9.

[13] High & low dreaming is a concept taken from lectures of Arnold Mindell, but significantly expanded herein. Marshak & Katz 1999, also look at similar triune "dreaming."

Though this greatly over-simplifies the range of imaginings and experiences we have, at a minimum it helps structure the desired model. The challenge then falls to regulating our dream-states so they materialize somewhere between absurd apophenia and extreme dullness – eventually arriving at effective evolutionarily outlets, as perhaps some kind of well-balanced synesthesia.[14]

I would now collapse *memory* (maps of the evolutionary landscape) with *imagination* (real-time use of these maps) to yield "Sub-Conscious Operation as a creative function" (Figure 9).

This combining of memory and imagination to frame *creativity*, also suggests a mechanism for meme generation and maintenance (Figure 10). As organisms wander the evolutionary landscape, memetic encoding comes to reflect that organism's composite *facultative bandwidth* (competence) in interacting with its environment. Individuals with a skilled grasp of their *sub-conscious* processes, balanced with an equal grasp of *conscious* and *social* processes (i.e. highly intuitive), would seem to have greater bandwidth.[15] In fact it is just such a *longing* for this implied deep intra-subjective dialogue of disparate psychological parts (tension) that consumes many artists in the midst of their "creations" (Csikszentmihalyi 1996).

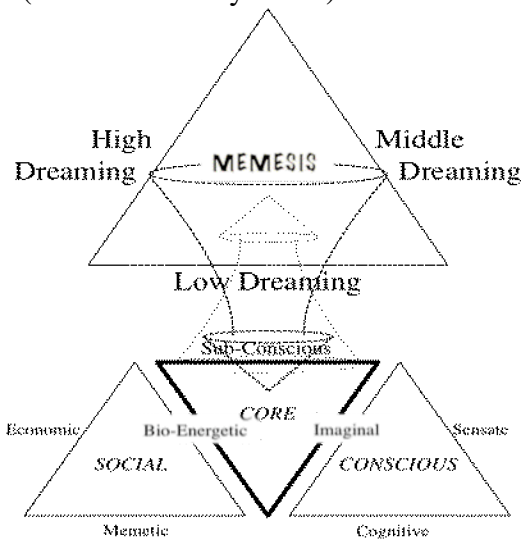

Figure 10.

> *Today the function of the artist is to bring imagination to science and science to imagination, where they meet, in the myth.*
>
> *Cyril Connolly*

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[14] Apophenia: abnormal meaningfulness, seeing patterns or connections in random or meaningless data. Synesthesia: cross-sensory experiences often associated with the creative processes of artists, writers, etc. Regulation is achieved via emotions (figure previous page) and points to work of Antonio Damasio 2003.

[15] "Intuition" might evidence an advance in one's "theory of mind," for self and other. Such "intuitive" *intellectual plasticity* is cross-cultural, and appears as a type of "shamanic shape shifting" (focused empathic acts) in modern and early man. Attenborough 2002b shows this clearly with !Kung San peoples, and in a similarity of tracking skills between early and modern hunters.

Those memetic seeds born of this creative process, and which survive, then carry on to influence language and symbol development, personal and social values. And if the organism sees enough survival utility in a given meme, that meme then persists as a full-formed reified abstraction. Memes find a life of their own within human culture, serving as "the gene" of cultural evolution; reflecting our species' *collective* bandwidth for environmental competence. Memes grow, are pruned, bud, branch, and become extinct, reflecting a species collective awareness – again showing a "leaderless" emergent behavior (Blackmore 2000).[16]

With this model of Sub-Conscious Operation now nearly complete, a more synergistic view of consciousness, as a somewhat whole thing, is presently possible. This map points to a richness of human culture beyond the earlier simple Core triune illustration of Social, Conscious, and Sub-Conscious Operation.

This design also serves as a type of evolutionary kaleidoscope (Figure 11), with different facets aligning – as ability, circumstance, and environment require. Such a map of course does not define *all* of the unconscious mind, and leaves much space for other concepts of mind, god, spirits, morphic resonance, competing systems, and the like. As William James once put it (James 1892): "The attempt at introspective analysis in these cases is in fact like seizing a spinning top to catch its motion, or trying to turn up the gas quickly enough to see how the darkness looks." But in placing these "conscious elements" within a fractal model, our subject matter is *not* suddenly robbed of all dynamism or mystery.

Further, this fractal map allows for *mythic profiling*. The Greco-Roman pantheon of gods and myths can be easily plotted: Sisyphus for low dreaming; Icarus for high dreaming; Vulcan or Prometheus for Bio-Energetic; Venus, Bacchus and Pan for Sensate; Croesus or Midas for Economic; etc. With this mythic facet now added to the cultural, psychological, and mathematical features already shown, we find an ever-more complete and richer model for consciousness.

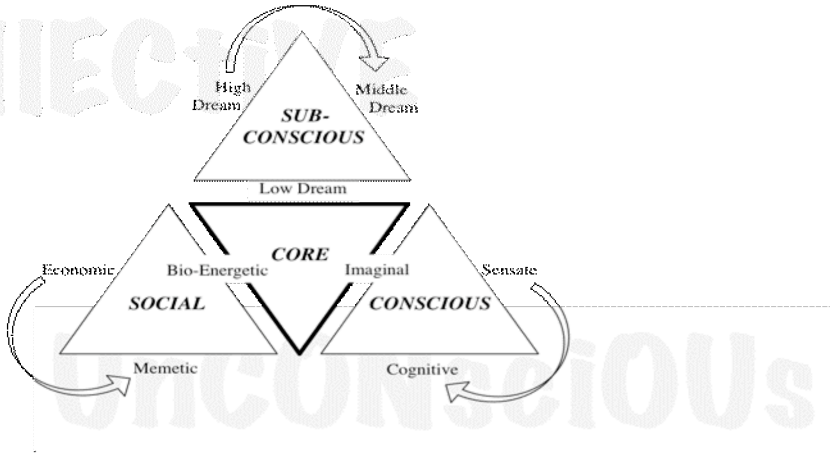


Figure 11.

[16] Absence of true "leaders" is another emergent trait, note 8.

This model points to a likelihood of unified structures for consciousness in several ways:

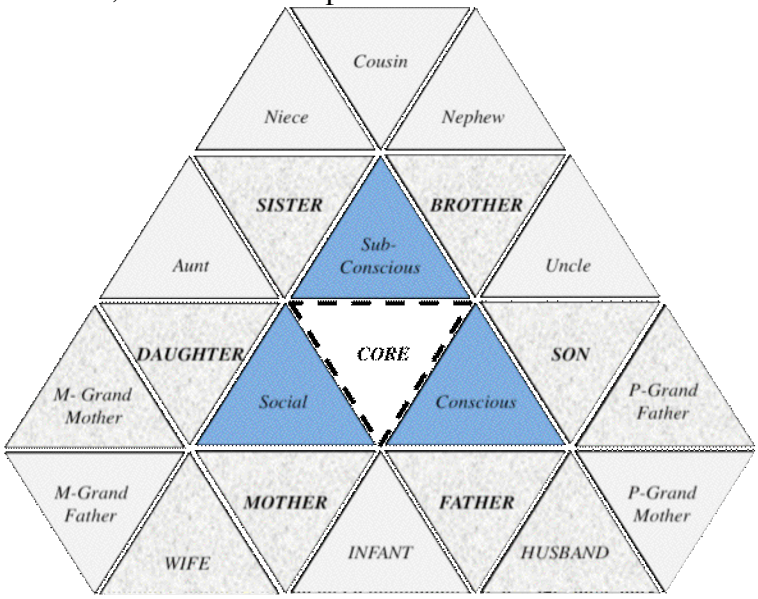
- Jung strongly argued against any formal structure for the unconscious mind, as this would destroy its creative role. This unstructured view rather defeats Jungian psychology as a science, while more structured behaviorist and Freudian views prevail. But in this new model we now have structure *and* **creativity**, which neither Freudians nor behaviorists address (Davis 2003).
- Levi-Strauss saw myth as a universal human language (as did Jung, Joseph Campbell, and Freud). Much of his later work attempts to define a topology for this imaginative function, which the proposed model now presents (Buchler 1968).
- With meme generation and maintenance now given a formal order, cognitive testing of consciousness (via Hall-Tonna values mapping) is plausible, along with a later promise of possible predictive models (Hall 1994). Further likely "testing tie-ins" also appear between Browne's anthropology of human universals and the Hall-Tonna values map (Brown 1991).
- Damasio's work with emotions suggests structural consciousness as having core and extended facets, which this model echoes (Damasio 2000s). This structural split of core and external elements also appears in anthropologist Adlof Bastian's Elementargedanke (elementary ideas) and Gesellschaftsgedanken (folk ideas), which led directly to Jung's theory of archetypes, also used by Joseph Campbell (Campbell 1959).
- David Bohm and Karl Pribram speak of a holographic *cosmos* and a holographic *brain*, predicting the mathematical design used in this model (Talbot 1991). And with a *cultural hologram* herein presented, it now seems possible to plug an implied Bohm-Pribram "cosmology-neurology gap." Similar holographic explorations might then lead to further expansion of unified perspectives across multiple disciplines.
- Finally, the proposed model conforms to Steven Pinker's five ideas for a new "computational theory of mind" (Pinker 2002). Those ideas being:
  - the mental world can be grounded in the physical world by concepts of information, computation, and feedback;
  - the mind is not a "blank slate";
  - finite combinatorial programs in the mind generate an infinite range of behavior;
  - universal mental mechanisms underlie superficial cultural variations;
  - and, the mind is a complex system of many interacting parts.

Realizing – The Dream Field

With this basic psychological map in hand, we can now move on to a *physically realized* human culture. At birth, already, we transcribe these archetypal forms onto physical kin relations (and vice versa – Figure 12).

We populate this template with living characters, while these same characters refine the psychological patterns of our nascent world. As vulnerable and impressionable infants, kinship provides for our needs (conscious, sub-conscious, and social) via physical and emotional paths. But these physically *realized archetypes* of kinship quickly expand as

we grow, gain perspective, and enter tribal life. In the tribe, with all inhabitants still personally known to us, our realized map of individual characters and traits swells.



[17]

Figure 12.

These physical-ized maps then inflate further yet as we "intellectually" move beyond kin and tribe. Clans and guilds appear on distant horizons as our species fills new terrains (Figure 13). We may not directly know these new members, but we readily accept them "as real as" anyone we *do* know. Still, our knowledge of these increasingly diverse individuals is now second-hand, *abstracted*. This "abstract quality" also shows in the skills, languages, and resources these distant clans and guilds use, control, and represent (knowledge, expertise, trades, goods).

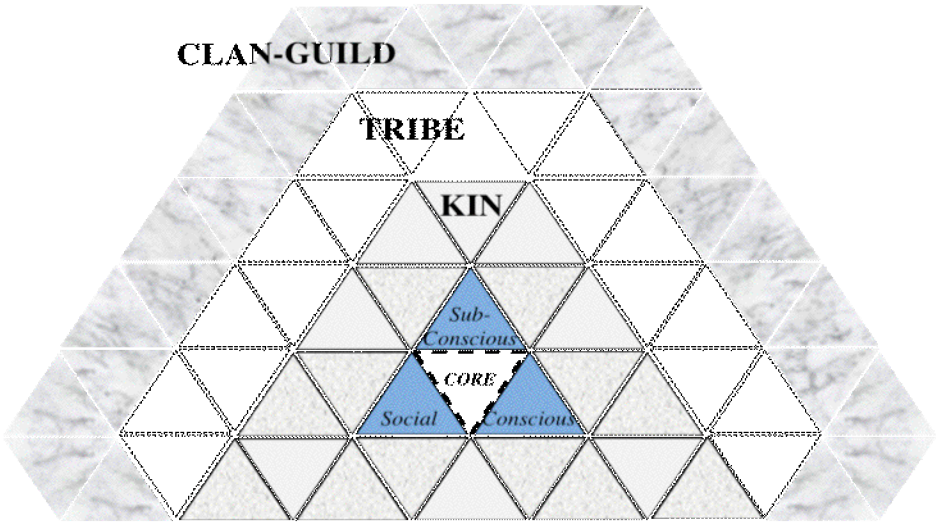


Figure 13.

[17] Terms and relationships implied here as kinship, only show one of many legitimate possible views.

Beyond the original *realized archetypes* of kin and tribe, early *reified archetypes*, as a new informational form, now emerge from our encounters with clan and guild. Early "intellect," and other abstractions arise in adventurous parables of the tribe's warriors, adventurers, and traders wandering strange lands. New information (and energy matter potential) abounds in the arrival of rare goods, exotic prey, wounded or dead combatants, strange captives, and terrifying invaders . . . all retold as storied "tactics, strategies, and lessons" around a campfire. *Drama* (life/death) from these stories fills our attention, and we readily forget the "story's role" is only secondary to an ultimate quest of simply meeting Life's hard demands of energy matter exchange – as much to escape Life's terror/ tedium, as anything else. [18]

Drama and story come to embody a rich, dense, multi-layered "informational encoding" readily passed across generations (Campbell 1949). Each individual within the tribe naturally focuses upon specific narrative elements most relevant to their own life, while ignoring other facets the story offers.

What I now call a three-part *psychological/ realized/ reified* **archetypal map** (Figure 14) then expands and contracts, as populations rise, fall, and shift. *Human drama* drives us through various cultural phases, and across years of tribulation. But, eventually we arrive at a view of the whole of humanity, in its full complexity (globalization). This sketch of the human journey obviously condenses and oversimplifies much of what occurs in real life, but still well illustrates the model. And as before, terms used here, while important, are ultimately not as crucial as the mathematical design we craft.

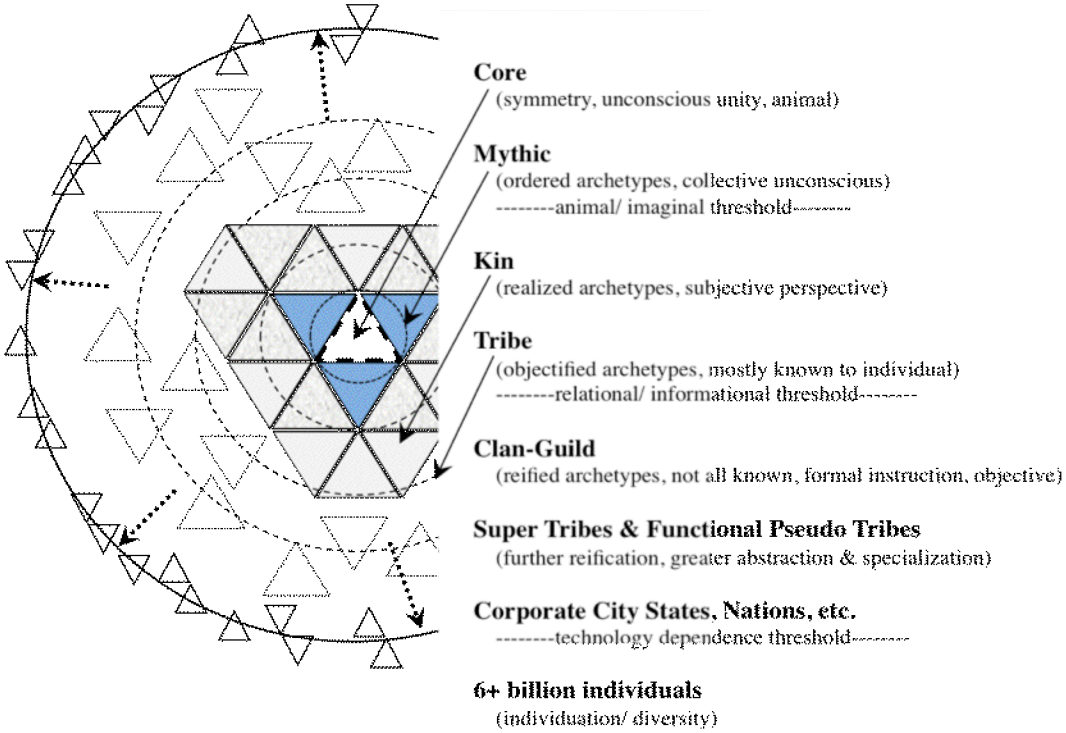


Figure 14.

[18] The Eternal Struggle, constructive confrontational Paradox, notes 3 and 12. A life of much tedium, punctuated with terror; Drama then becomes a "rehearsal" for real Life terror (selection or elimination).

In this expanded global map, we now find a holographic view. The triune form that resides at the center (Core/Mythic), also defines each habitant, individual, and system at the periphery, and at all points between. This portends a "center of consciousness" as residing everywhere and nowhere, a dynamic "center-less" form, again pointing to ever-emergent behavior. These evolving constituents and variables are plotted above (Figure 14).

> *Their roots may be looked upon as of immediate psychological interest to us all. The archetypes live in their realm, beyond time and space. This builds the bridge of understanding between men of all ages, and makes it possible to realize that we ourselves with our essential problems are bound up in the continuity of the eternal problems of mankind, as they are mirrored in myths. But the form in which the archetypes appear, their garments so to speak, depend on the historical conditions: the symbols in which they appear change.*
>
> *Rivkah Kluger,* The Gilgamesh Epic.

As typical to chaos theory modeling, we start with a simple figure, a "Seed of Consciousness" (general consciousness), which is then elaborated with self-similar iterating forms (Figure 14 & 15). The resulting "mandala of consciousness" profiles just one generation – a *snapshot* of human-evolution. It is easy to then expand this model in considering generation upon generation of unique human contributions. "Old information" endlessly remixed and iterated to give "new patterns" – a ceaseless emergence of more Life information (diversity and complexity).

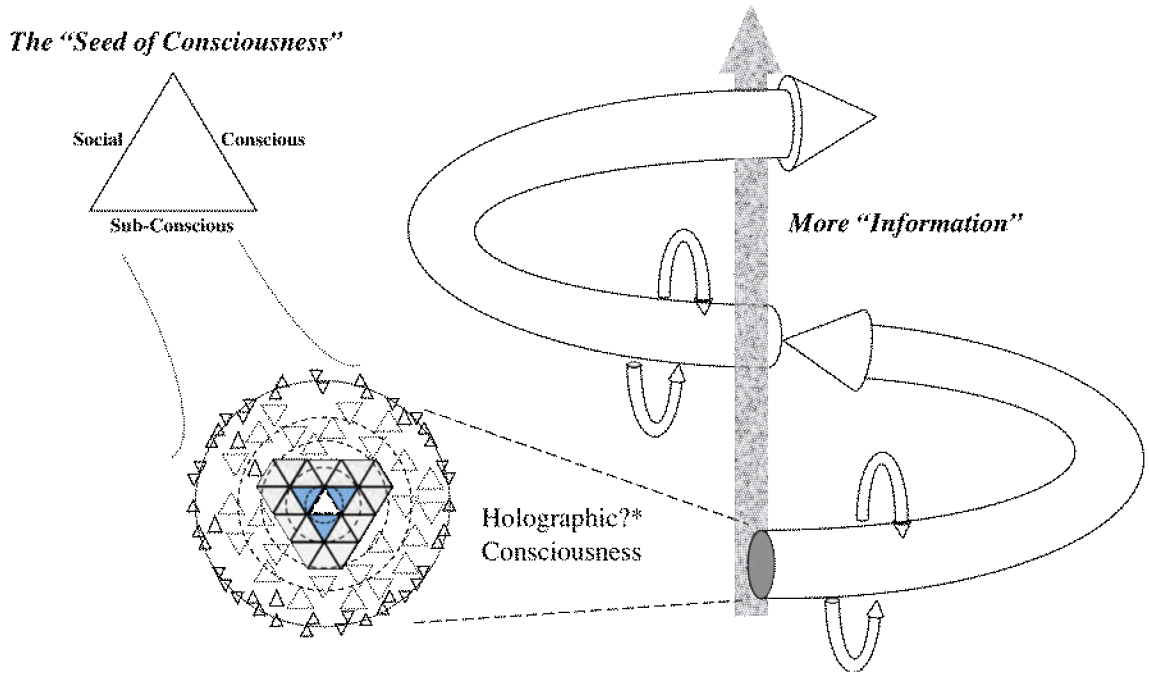


Figure15.

With each generation, the "mandala" takes different shape; reflecting events that precede it, the varied growth of individuals within, and Life's momentary pressures. This

mandala is shown here as neat rings of equilateral triunes, yielding a mere single concentric shape with a clear center. But everyday dynamic imbalances drive each facet within the mandala to take very unbalanced forms. A resulting cultural "amoeba-like" profile better typifies Life's reality, more than any circular form used here, but then such "cultural globs" do not render easy presentation of an already complex model.

To simply call this view "holographic consciousness" does not seem adequate. The iterative and emergent dynamics pictured here really call for more descriptive names. Notions of "coapt" or "aliquot" modeling seem perhaps more appropriate, but are also unsatisfying.

> *Our aim is to establish the human kingdom as a pattern of values distinct from the material world. Contrary to the philosophy of Descartes, and of Kant, we are discovering in the* cogito *not just ourselves but all others. Thus we find ourselves in a world of "inter-subjectivity" where man has to decide what he is and what others are.*
>
> *Jean-Paul Sartre,* Existentialism is a Humanism.

SO WHAT!? – REAL WORLD RELEVANCE

What I've developed so far may seem little more than a novel psychological/ mathematical view. "Real World" relevance is likely not yet evident. The utility of such a model as this is perhaps best evinced as a "reified epistemological map."

In mapping this real-world relevance, I begin with an element common to all of natural selection – *environment*. In a certain sense, environmental concepts of *abundance*, *scarcity*, and *neutrality* seems to be a reasonable baseline worldview – for all species. If this is indeed the case, we already begin "evolutionarily" with a simple triune form we can further elaborate in the following four categories:

Environment	***Physiology***	***Psycho/Spiritual***	***Memetic***
-Scarcity	-Reptilian	-Freud	-Daily Life
-Neutrality	-Mammalian	-Gurdjieff	-Mythic
-Abundance	-Neocortex	-Hegel	-Science
		-Holy Trinity	-Religion
		-Oedipus	

To develop this elaboration, we might "imagine" an association between our triune worldview, with certain implied "states of existence," and a triune brain structure (MacLean 1990):

Scarcity >	*Survival* >	**Reptilian**
Neutrality >	*Social* >	**Mammalian**
Abundance >	*Creative* >	**Neocortex**

To be sure, reptilian, mammalian, and Neocortex, is not the only neurological triune we might use (Singer 2008). And, equally important is that this obviously is not the only way to visualize brain structure and commonly associated states of existence – as bilateral/ bicameral (right-left) brain models, and other more fine-grained views, are also evident.

But we can easily extend this triune relationship between environment, existential states, and physiology, to now include psychology, reasoning, and spirituality. Here we meet Freud's famous "id, ego, superego," and Gurdjieff's "emotion, instinct, intellect." And there is of course Hegelian dialectics of "thesis, antithesis, synthesis," as yet another close alliance.

Perhaps more famous is the Catholic "holy trinity – father, son, holy ghost." And a similar order appears as "father, son, mother" in Sophocles' Oedipus trilogy (with a Sphinx's three-part riddle). In his *Poetics*, Aristotle cited Sophocles' trilogy as having perfect (three-part) structure, viz. peripeteia, anagnorisis, and catharsis. When we look beyond these basic structures to more common memetic models, further triune forms simply burst forth:

Temporal Sense – past, present, future
Physical Dimension – height, width, depth
Mythic (storyteller's rule of 3) – 3 wishes, 3 little pigs, bears, brothers, sisters
Medicine: causes of all illness – environment, genetic, pathogens
Education: states of learning – cognitive, associative, autonomous
Evolution: forces of natural selection – purifying, directional, divisive
Information Theory – data storage, retrieval, transmission
(And many, many more.)

To answer the earlier question of "Real-World Relevance?" – this model appears to span humanity's entire experience of Life. Reaching across environment, physiology, psychology, reasoning, religion, and the memetic . . . a full human continuum is thus mapped. But clearly this does not suggest our only means for modeling information, nor does it claim a conclusive "scientific approach" is now suddenly in hand. Much work remains before attempting such claims.

> *Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem it was intended to solve.*
>
> *Karl Popper*

ORDERS OF COMPLEXITY

Overall, this "global holographic" map only suggests an order of complexity in our ways of creating, using, and managing information. It speculates on humanity's creation of informational paradigms and devices – an epistemological map, if you will, of "the thing" we might call consciousness.

As example of such an informational paradigm in operation, over the course of our 3.5 billion-year evolutionary landscapes, one thing is certain. Most *all* organisms now have a strong sense of self-importance, a dividend of survival, as it were. But this need for *healthy* narcissism now also appears in infinitely more complex social propositions amongst humans. In fact, such narcissism continually evolves towards broader and richer expressions of socially enlightened self-interest (i.e. love, compassion, etc.) . . . or so it seems "we might hope" (Csikszentmihalyi 2006).

> *There is no reason to believe during this final sprint [recent evolution] there is a cessation in the evolution of either mental capacity or the predilection toward special social behaviors . . . substantial changes can occur in the span of less than 100 generations . . . Aggressiveness was constrained and the old forms of overt primate dominance were replaced by more complex social skills.*
>
> *Edward O. Wilson*, Sociobiology, *p.* 569.

Primitive narcissistic awareness must certainly be seen as any organism's "true first order" (fear, ***survival***) for effective information management to even exist. But pure narcissistic survival strategies are severely pathologized today amongst humans – even though they were, and may yet be, a rather weighty factor in survival.

> *Natural selection is the morally indifferent process in which the most effective replicators out-reproduce the alternatives and come to prevail in a population. The selected genes will therefore be the "selfish" ones . . . An [successful] adaptation is anything brought about by the genes that helps them fulfill this metaphorical obsession, whether or not it also fulfills [personal] human aspirations.*
>
> *Steven Pinker,* The Blank Slate*, p. 53.*

But then a shift in our reasoning somehow occurs – we move towards something more complex, the ***social***. Beyond first order narcissism a *second order* awareness arises when basic survival is no longer a perpetual crisis. Incipient "excess resources" eventually allow time for reflection and the gathering of secondary information (curiosity, creativity).

This *repose of abundance* clearly appears in our first agrarian societies. But then "second order tenets" also surface in our earliest subject-object relationships - the *participation mystique*, an infant's traumatic separation from its unitary amniotic environment, induced to mother's "love" . . . prompting the early discovery of an archetype for all future anxieties (Grof 2000).

In Western philosophy, such analytic separation as a necessary element of consciousness is noted by Heraclitus (500 BCE), expanded by Christian mystic Jakob Böhme (1600's), later by Hegel (1700's), and then Nietzsche (1800's). Finally, anthropologist Claude Levi-Strauss uses "duality" as keystone in developing Structural Anthropology.

But this "dualistic consciousness" is noted even earlier in Eastern Taoism (600 BCE) and Zoroastrianism (1600? BCE); first dawning of what German philosopher Karl Jaspers calls the Axial Age. Regardless of its lineage, modern world examples *still* abound for "second order" reasoning. They appear as President Bush's pronouncement "you are with us or against us" in his invasion of Iraq. They entertain us as the bombastics of "conservative" talk-show hosts, and the like. Introvert/ extrovert, intuitive/ didactic, god/ demon, hero/ villain, either/ or – all are common to our already deepening sense of social expression and responsibility.

Duality in consciousness perhaps first arises neurologically, as couched in our bi-lateralized (right-left) brain functions, Julian Jaynes' bicameral mind, or even in our

obvious sexual dimorphism. A state of "thinking and being," in many forms, that allows us to argue with ourselves; a type of formative pseudo-schizophrenia that perhaps matures over time as an exploration of "the Self" and "Other." This also points, of course, to Martin Buber's *Ich und Du* (as translated, *I and Thou*), similarly developed as Ich-Es (self-object) (Buber 1996).

Yet another shift in reasoning then appears. A "third order" paradigm clearly surfaces with Hegel. Starting from second order views of "separation," Hegel deduces a process of thesis, antithesis, and synthesis to define "dialectics" – an ***intellectually creative*** mind emerges. Edwin Abbott's Victorian era satire, *Flatland*, then later expounds on second *and* third order reasoning as a comic mediation between two-dimensional and three-dimensional worlds (Abbott 1992).

Deepening dialogues on humanity's "perspectival ponderings," of similar stripe have since followed – *Sphereland* (Burger 1983), *Spaceland* (Rucker 2003), *Flatterland* (Stewart 2002), *The New Flatlanders* (Middleton 2007). All with a recurring theme of endless struggles to find "a right" paradigm fit to Life's diverse evolutionary challenges. These third order paradigms unfold as already detailed above.

With this shift to a third-order paradigm, such a 1-2-3 progression points to as-yet undefined futures. But by definition, "this future" lacks a body of work and language for easy discussion – it remains to be invented. It lies beyond the "normative zone" in which we comfortably work and live (Figure 16). Matters outside our usual range, often we demean, pathologize, or simply dismiss.

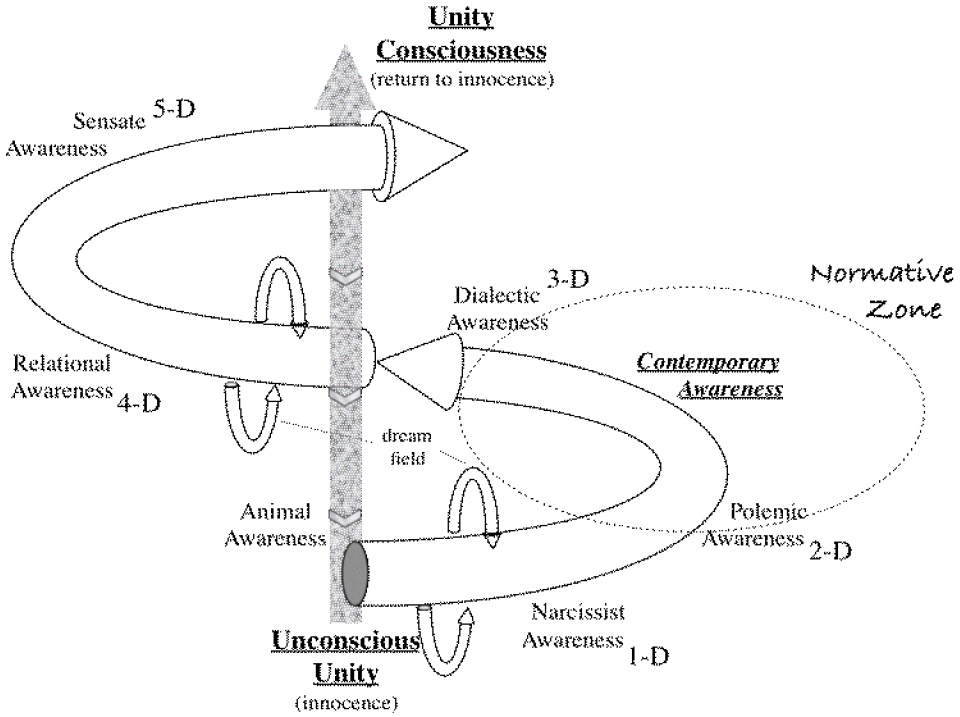


Figure 16.

> *Most of us live in cultures that discourage introspection and emotional closeness, particularly in work. We engage in social rituals, roles, and pretense with each other rather than expressing experiences openly and deeply. Rituals, roles, and pretense are social walls that stop us knowing ourselves, and one another, at deep levels.*
>
> *Gary Gemmill*, The Dynamics of Having Nothing to Say in Small Groups.

This is certainly the case with first-order narcissism, and with later "touchy-feely" or "new age" fourth and fifth order paradigm developments. We remain mostly focused on second and third order reasoning, with frequent narcissistic bouts. Even with our most progressive "practitioners of consciousness,"[19] almost any early practice of these later paradigms seems mawkish, confused, and uncomfortable. Again, a presence of emergent behavior. Examples of such complex, late order paradigms certainly do exist,[20] but unfortunately they offer little to the current scientific dialogue, except for with the most visionary of individuals.

> *Our knowledge can only be finite, while our ignorance must necessarily be infinite.*
>
> *Karl Popper*

To summarize humanity's unfolding of complex reasoning (paradigm development), the illustration above is a useful capsule.[21] Despite this figure's depiction of predominately upward trends, a potential for "systemic collapse" must be held always open, as acute environmental shift may demand at any time. Regardless of what paradigm we momentarily embrace, constraints of the macro-environment continue to hold sway.

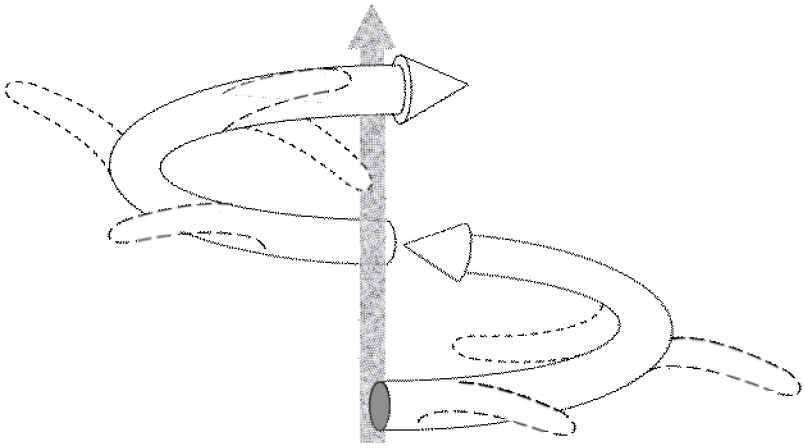


Figure 17.

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[19] Meditators, nuns, monks, yogis, artists, and most any esthete seem to require separation from influences of established paradigms (daily life), to manifest or appreciate elements of likely later paradigms.

[20] Mostly referring to work of Andrew Cohen, Ken Wilber, and compatriots. Other efforts wax and wane, such as "Humanism," "Non-Violent Communication," "Power Equity Groups," "T-Groups," etc. But sustained momentum of Cohen and Wilber's work currently seems to support an incipient paradigm shift.

[21] This spiral figure also points to work of Clare Graves 2005 and "Spiral Dynamics," as developed by Chris Cowan, Don Beck, and used in work of Cohen, and Wilber (note 20).

Further, in reconciling this "neat spiral" to Life's dynamic reality, as with the earlier noted mandala, this spiral too is driven to very unbalanced forms. *And*, as a holographic figure, "emergent centers" can seed new generational mandalas at most any point(s) and precipitate new evolutionary threads. Dynamics of complex vining, budding, branching, and extinctions flourish (Figure 17). Andy Clark coins the term "Escher Spaghetti," which seems most appropriate as an ultimate expression for this figure now shown as a neat spiral (Clark 1999).

Beyond this "Escher Spaghetti," yet other complex layers arise. I already mentioned a "normative zone," but even this is oversimplified. With the "center of consciousness" residing nowhere as well as everywhere, a true *singular normative zone* simply doesn't exist. Depending on how ambitiously one directs their attention, a "normative range" in fact exists for every individual, community, culture, state, species, etc. (Figure 18).

The challenge of existing within such a diverse reality is to then consider the intellectual and emotional plasticity needed to grasp a cluster of divergent points (individuation), understand the position of each point (compassion), and skillfully bridge the interstitial spaces between these points (love) . . . all as a means of utilizing a system's *distributed intelligence* (the capture of entropic "free energy").

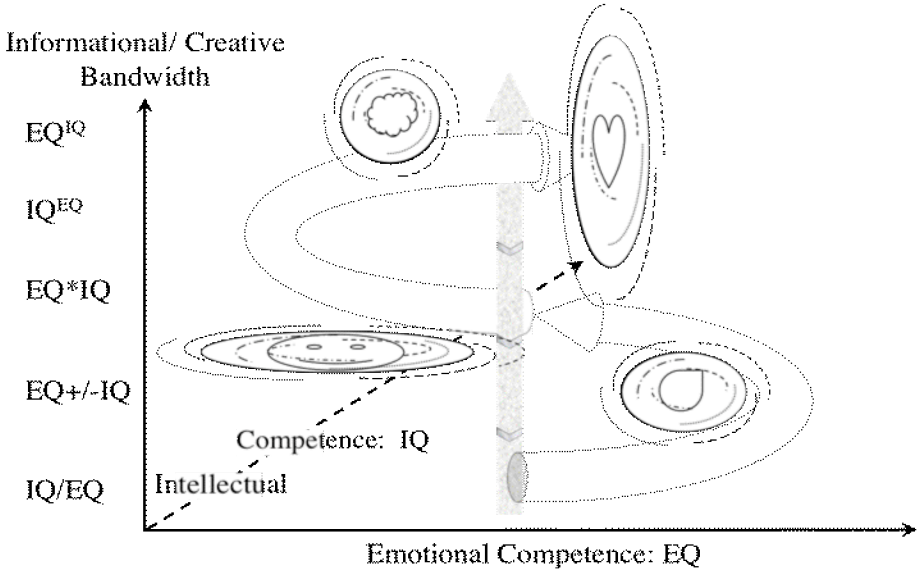

Figure 18.

While language used here begins to verge on 4th-5th order new-age-y-ness, this matter of "bridging" lies at the heart of every modern businessman and woman's, and every politician's mission. The question then remains: "How is this done effectively and efficiently?" To answer this question requires an exploration of elements shown above as IQ and EQ . . . but then this also begins to exceed the paper's original goal of "simply presenting a model." And so, I end here.

SUMMARY

With a subject as broad as consciousness, much is inevitably left unsaid in a paper of any length. Material herein is parsed from a larger manuscript. To capsulize what this general model depicts however, the figure below is perhaps useful (Figure 19).

What this model proposes, in a simple triune form, is a means by which humanity extends itself into the cosmos. Through our use and advance (complexification) of Conscious, Subconscious, and Social Operations, a collective of "human consciousness" confronts, captures, and metabolizes energy and matter upon the evolutionary landscape.

In this "extension of consciousness," humanity thus attacks the grim reality of Life's endless Chaos-Entropy and excretes Information. And in this excretion of Information, propels itself across the landscape. Humanity then wanders Earth in an eternal search for unique Life mandates . . . continually seeking "What does it mean, to be human?" This *exploration* is our single most enduring adventure of "self-awareness, and self-realization."

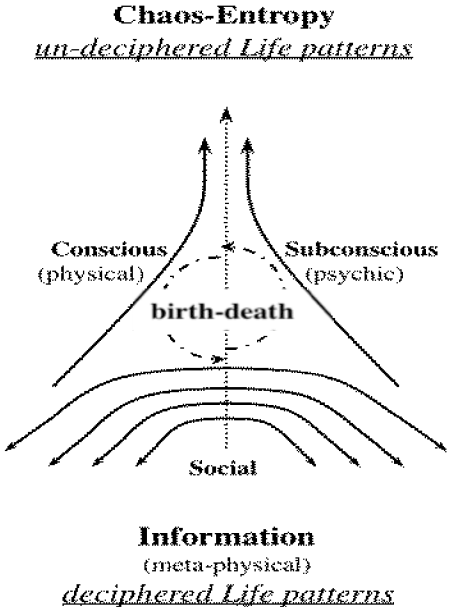

Figure 19.

While this model offers an epistemological map by which we might answer such a question, it neither posits nor assumes an answer, and is mostly non-teleological. Instead, ironically, it suggests a mechanism for just how such teleology is realized.

A map such as this is easily improved by ontological maps of Life, a unified field theory in physics, or better neurological maps – yet none exist. Perhaps of even more immediate interest: it is one thing to propose a mathematical design, but what of specific mathematical terms? How do these terms relate to any testing methodology we might use, or predictions we create? And, can we even pretend to test something like a "Sub-

Conscious" mind? If a predictive model is achievable, do we even really want one? Eugenics would certainly raise its head from a nest of rather unpleasant ethical dilemmas.

Of what *is* presented here, much more can be added but is necessarily omitted. Fourth and fifth order paradigms are only superficially mentioned. The original of this paper notes five "evolutionary dynamics" yet only three are explored here. And gender is never addressed, but must certainly be expounded.

The principal "eternal conflict" (Figure 20) of Life/Death, Feminine/Masculine, with its many faces – a *Sacred Wound* – if you will, is scarcely touched. To delve deeply into the ever-cryptic facets of this *Core triune* is needed to grasp the "emergent mentation" (seeding of new evolutionary threads) typical to humanity's enduring struggles.

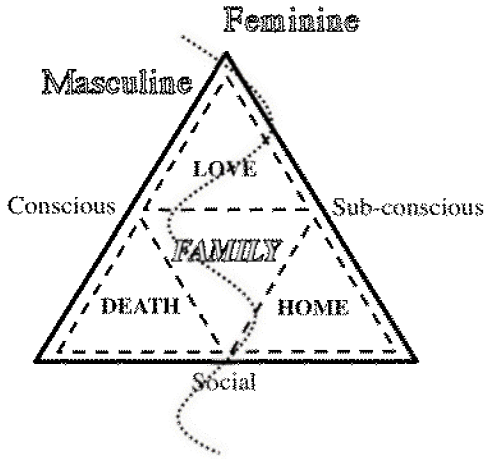

Figure 20.

When we begin to trip over such thresholds of 4th and 5th paradigm awareness, eyes are tempted to roll up in one's head, or at the least to "glaze over." Still, how is this skillfully done? Do we begin to speak of "infinitely unfolding relationships," of "aboutness," "becomingness," "suchness" and the like? Our language, grasp, openness, and wherewithal to such matters leave much to be desired.

Despite this brief presentation, I trust enough is conveyed to stimulate useful thought and discussion. Work like this demands further true cross-discipline efforts, well beyond the keen of any individual or specialty.

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