



Research Article

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Physics and Consciousness

What Physics started, Consciousness will Accomplish

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Abstract

The paper proposes a transdisciplinary framework that extends beyond physics, integrating Supracortical Consciousness, the Pentaune Model of Nature, the Information-Split Phenomenon, System Psyche, the Cognitive Ladder, and Cell Biology, and leading science towards a Cognitive Multiverse. Within a hundred-year temporal symmetry, the physical insights of the twentieth century find their complete, cognitive-informational resolution in the twenty-first century.

Keywords: Limits of Physics, Dionysian approach to science, Multiversal Consciousness, Pentaune Model of Nature-consciousness, Information-split phenomenon, System Psyche, Ladder of Cognition, Wisdom, Century leap of science

Introduction

I do not have a theory of consciousness. Consciousness is fundamental, ineliminable, irreducible, and non-negotiable. It is inviolable, invariant, nonlocal, and scale-invariant. It is undivided and immune to duality. Consciousness is the ground without any background, not an inert ground, but an active ground, supportive, participating, intervening, creative, and a will-making ground. It is absolutely non-violent; it disarms any army. It does not operate as any field, force, or energy, but operates with will and intention. Consciousness exhibits holonomy.

Max Planck, the father of Quantum Physics, said, "I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness."

Several other pioneering quantum physicists, including Erwin

Schrödinger, Eugene Wigner, John von Neumann, and David Bohm, considered consciousness fundamental. "We can admittedly find nothing in physics or chemistry that has even a remote bearing on consciousness. Yet all of us know that there is such a thing as consciousness, simply because we have it ourselves. Hence consciousness must be part of nature, or more generally, of reality, which means that, quite apart from the laws of physics and chemistry, as laid down in quantum theory, we must also consider laws of quite a different nature" (Niels Bohr). Among contemporary physicists, Sir Roger Penrose and Henry Stapp strongly support the view that consciousness is fundamental.

Has physics completed its role?

I am not a physicist by any scientific definition. Physics has served the science of the 4D world best. However, I identify five reasons why physics has stopped growing.



1. The stagnation of physics is due to its three inviolable constants that confirm spatial duality, temporal duality, and the

purposal/teleological duality (Table 1) in explaining events, entities, and natural phenomena.

Table 1: Three inviolable constants.

Three constants under umbrella of which the present Physics works	The discipline of Physics	Excludes possibility of	Promotes Duality of	Excludes
Einstein's constant, Velocity of light	Classical and Relativistic physics	Simultaneity of events	Space (Here vs. There)	Spatial nonduality
Planck's constant, Cognitive limits of Time and Space	Quantum physics	Continuity of events	Time (Discrete vs. Continuous)	Temporal Nonduality
Entropy barrier	Cybernetics	Identity of events	Teleology (Cause Vs. Effect)	Purposal/Teleological Nonduality

The three constants are the essential boundary conditions that define our local 4D spacetime. Although these constants have done their best to map the 4D world, physics is hunting for the impossible under their umbrella: immunity to duality, infinity, and

the singularity.

2. Physics itself has established that each of the three great theories of Physics has one insurmountable problem (Table 2).

Table 2: Insurmountable Problem of the three great Theories of Physics.

Three Theories of Physics	Their fundamental problem	The Reason
General Theory of Relativity	Problem of Singularity	Effort to connect event or entity from their respective depth directly to a comprehensible ultimate depth, to a Ground having no background
Quantum Theory	Problem of Measurement	
Quantum Field Theory	Problem of Infinities (requires mathematical taming of infinity with 'normalization')	

To resolve the crises of modern physics—such as Singularity in Relativity, measurement in Quantum Mechanics, and infinities in Quantum Field Theory—one approach in science is to move from a metric coordinate space constrained by these constants to a non-metric, subquantum topological space where these constants do not apply.

3. Three dilemmas in physics are stalling the flow of discovery: whether the world/nature is certain or uncertain? What is responsible for the incessant symmetry-breaking and symmetry-making in nature? What is the source of the magnificent dark sector of energy? These dilemmas, coincidentally, have human psychological ramifications in three common psychiatric disorders: anxiety resulting from the problem of uncertainty-certainty homeostasis; stress resulting from the failure of symmetry-breaking and -making homeostasis in life; and depression originating from the failure of homeostasis of conventional energy, dark energy, and subtle energy across the metabolome-proteome-genome-epigenome spectrum! At a time when material science suffers from these three unsolved dilemmas, a large population of humanity suffers from diseases of similar origin. We have not paid attention to what keeps our brain in a zero-point energy state!

4. Classical physics has stopped at Einstein's cosmological constant and at ZPE. Quantum physics has ceased at the quantum

discontinuity, in an apparent void. Quantum Void and Zero Point Energy are not the ultimate boundary, or the end of nature. A hundred years ago, based on the cognitive limits of the human brain, physics assumed so! Still, we observe in physics the taming of, and compromise with, Infinity, instead of listening to or negotiating with it, and investigating some of the physical fields (e.g., quantum fields), extraordinary force (e.g., scalar force), and energy (e.g., subtle energy) which could be the messengers of Infinity.

5. Super Force, Big Bang, and String Theory: Despite physicists' strong motivation to conclude on the Super Force, it remains far from reality and calls for a reexamination of spacetime metrics themselves. The Big Bang theory has not led Astrophysics and Cosmology to the height of Singularity. The string of particles exists with powerful theoretical consistency but with a discontinuity that never leads to singularity and gets lost in infinity. On the other side, physicists move microscopically from gluons to 'glueballs' and call them mysterious [1]! However, glueballs do not represent the proto-consciousness of panpsychism!

Method: The way through

What are the possible ways to wade through? First, "overcome the idea, so prevalent in both academic and bureaucratic circles, that the only work worth taking seriously is highly detailed research

in a speciality. We need to celebrate the equally vital contribution of those who dare to take what I call “a crude look at the whole” (Murray Gell-Mann).” Second, if possible, don’t be a classical or an Apollonian, who tends to develop an established line to perfection, resulting in incremental growth of science. Be a romantic or a Dionysian, who relies on intuition and is more likely to open new, unexpected alleys for research [2].

I recommend becoming an ocean swimmer of nature rather than swimming in a pool, shifting our mindset from an equation to a relationship on a larger scale, and moving beyond twentieth-century conditioning on physicality to make the best use of our hundred-year-long, cognitively evolved brain. I wish to remind the readers that “The universe looks more and more like a great thought rather than a great machine” (Sir James Jeans).

The First Attempt

Physicists love equations. The preliminary mathematics required at this point is not to tame Infinity, but to draw a line between zero and us and stand on it. Anything, irrespective of its initial conditions, that stands on zero kisses Infinity. In practice, when we rest our brain in its Zero-Point-Energy state and stand on top of it – yes, you have got the point – supra-cortically on the cerebral cortex, we visualize the vast field of topological space, the deeper layers of nature in relationship with us, and the 4-D world. Let me put it in the language of the science of consciousness.

When self-consciousness stands on the brain-confined triune reptilian-, mammalian-, and human consciousness, supported by the brainstem-thalamo-cortical live neural circuitries at the brain’s zero-point energy state, and aims for the brain-independent multiversal consciousness, the first kiss the self receives is expressed as supracortical consciousness; with continued love affair, there is a passage through immersive neuroscience that culminates in supreme consummation, resulting in singularity within multiversal consciousness.

The higher emerges through the lower, rests on the lower but never comes from it. There is no dualism of any kind here, since the same substance, consciousness, moves from one state to another, passing from one neural framework to another, with a stepwise ascent from one set of coordinates and matrix to another. How this ascent of the conscious state from the zero-point state influences the physics, chemistry and biology of the brain is the science in demand. A hundred years after the discovery of the transformer and the locomotive engine, the theory of Supracortical consciousness (SCC) [3], proposed in 1985 without the causal inversion error, brings out the key concept that consciousness is the source; the brain is the organ for its manifestation (Figure 1). The ZPE interface between the brain and the self clears away local signals in the live neural network, providing perfect transparency of the biological system and achieving coherence with the primordial non-localizable source.

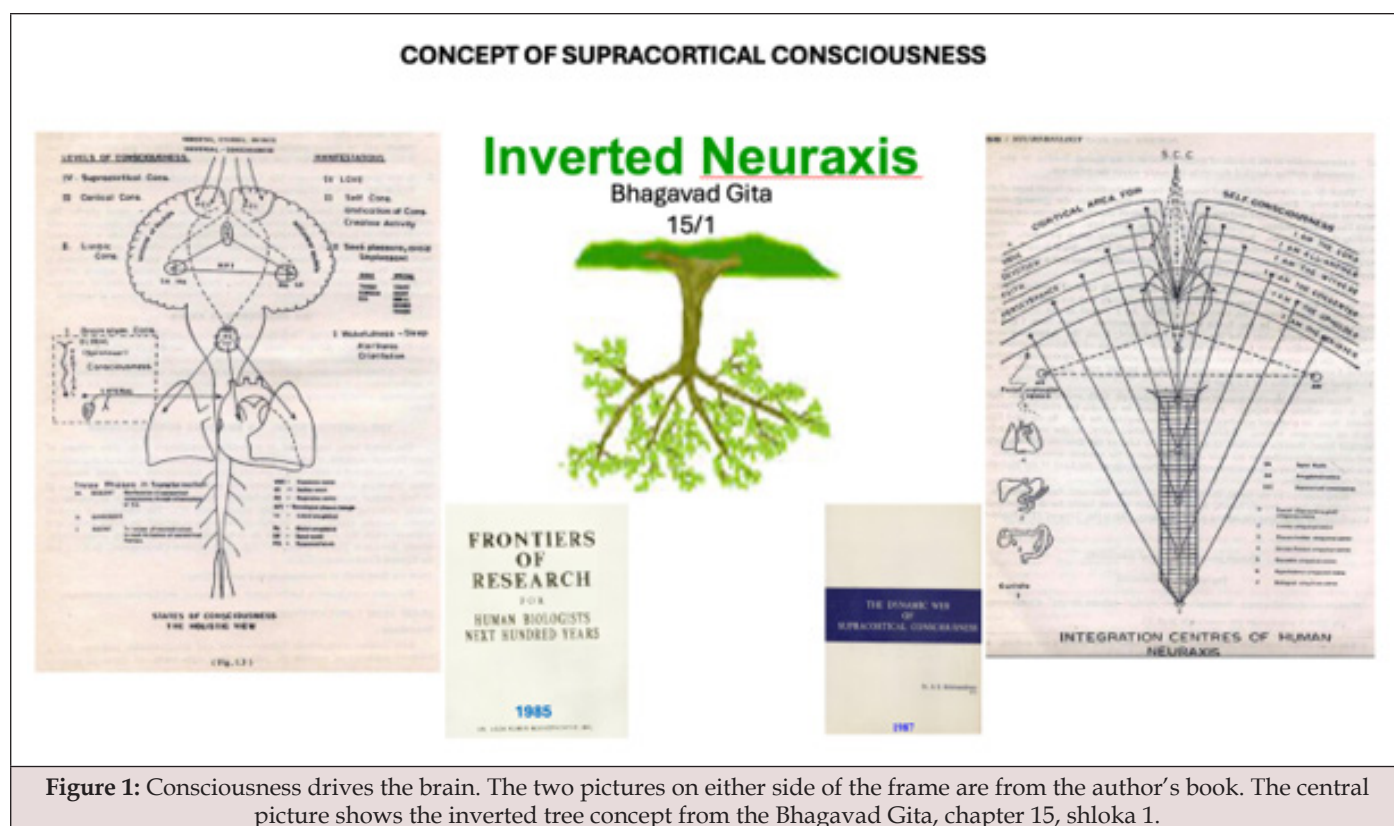


Figure 1: Consciousness drives the brain. The two pictures on either side of the frame are from the author’s book. The central picture shows the inverted tree concept from the Bhagavad Gita, chapter 15, shloka 1.

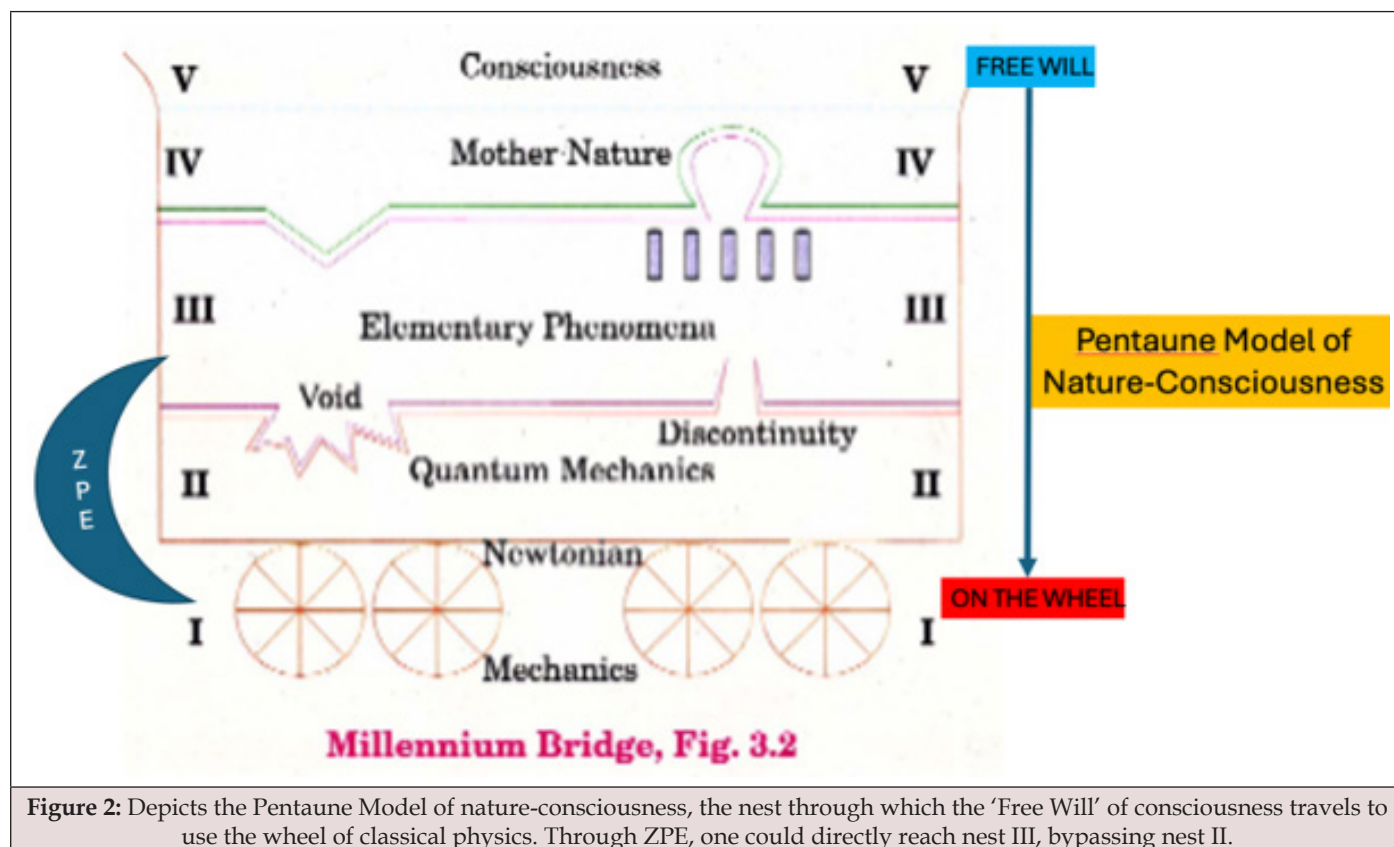
Avoiding the Empirical-Deductive Trap, the idea that the human brain is a transformative hub, essentially a transmissive chokepoint for condensing infinity into a 4D world, was consolidated in the author's two subsequent publications, *The Dynamic Web of Supracortical Consciousness* [4], cited in the 'Books Received' section of *The New England Journal of Medicine* (1987, 37(18):1167), and *Conquering the Brain* [5]. The titles expanded the idea of SCC but could not offer a framework or matrix for fifteen years because of a profound lack of expertise to distinguish a normal brain from a lifeless brain. A brain on life support models a physical brain. Consciousness cannot manifest through such a brain. The brain is not physical; it is biological. Consciousness manifests only through life. The mechanism of the brain's live wires cannot be unravelled by studying and doing ANN, circuitries, topology, sculpturing, mathematics, or any grade of computation that assumes and conflates signal as information. SCC has laid the sovereign foundation. We require a series of breakthroughs and must reach the final frontier: what is life, the most sacred mystery to unpack! Until then, we continue with science for consciousness instead of science of consciousness.

Some Breakthroughs: Emergence of the new Framework

Both common sense and wisdom suggest that the solution to any deep conflict, disagreement, or contradiction within or between the theories is not found on the same plane. The answers lie on a deeper plane, within a nest of larger sensible truth. In 1900, Max Planck delved beyond the observable classical nest, ushering in the development of quantum physics. The theory grew over almost three decades until Schrödinger developed his ultimate equation in 1926.

"For Christopher Columbus, it must have been the most difficult decision to leave all known land and sail so far west that the storage on board would not allow him to return. In a similar way, completely new land in science cannot be discovered unless one is prepared to leave at a certain point the foundation on which traditional science is based and try to jump into emptiness" (Werner Heisenberg).

In 2000, fifteen years after the publication of SCC, I published *The Millennium Bridge* [6] (cited in the 'Books Received' section of *Science*, 290, 5490, October 13), in which I constructed a five-nested Pentaune model of nature. If the classical and quantum nests are considered nests I and II of nature, a deeper drive reveals a subquantum nest (nest III), a sub-subquantum nest (nest IV), and an unfathomable ground, without any background, called nature's nest V (Figure 2).



Nest V embodies 'free will'. Nests V and IV define the teleology, the purpose. Nest III creates phenomenology for the same to be

scrutinized before manifestation at the micro (quantum, Nest II) or macro (classical, Nest I) level. Once approved, free will from Nest V

runs on the wheel in Nest I. Every nest of nature has its own entry and exit points to the next, and its own mechanics. Nests II and I run on matter-sourced conventional energy, while Nests III and IV run on information-sourced dark energy, which is universal. Subtle energy is consciousness-sourced and can be used individually. Nests II and I constitute *natura naturata*, Nest IV *natura naturans*, and Nest III *natura transformans*. Nest V is the residence of nondual Consciousness, from where Mother Nature, the nature as source of the rest of the nature, acts as the executive front, kinetic pole, and mobile facet of the ground with no background.

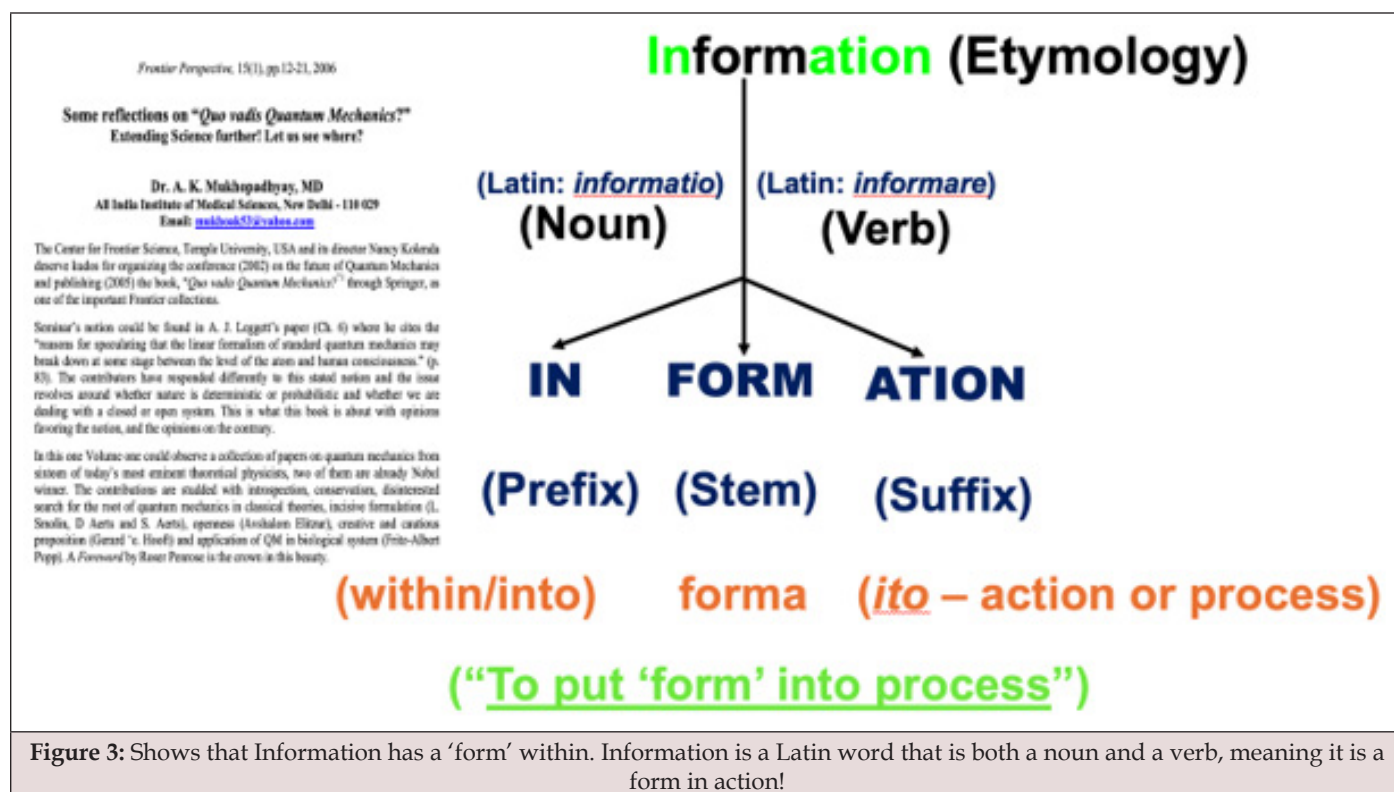
This five-nest construction of nature consciousness spans from multiversal, nondual consciousness to the 4D world and can serve as a model framework for an emergent informational ontology fueled by the energy triad. One point to emphasize is that the demarcation of nests is not very rigid. Whether top-down or bottom-up, it

depicts a spiral dynamics describing phase transitions from one to the next, deeper or more superficial.

From Nest III, the flags of creation unfurl, creating multiple space-time universes and the 4D world. Dark energy is created through the information-split phenomenon. Let us see how.

Information-Split Phenomenon

In 1905, Einstein's special theory of Relativity redefined the boundaries of classical physics by fundamentally changing our understanding of space and time. We learnt about the fabric of the universe. A century later, the publication of the Information-split theory in 2005 brought the information's inside 'form' into the open. The intuitive idea found a linguistic basis (Figure 3), a metaphorical description in the author's poem (see box below), and eventually gained a robust scientific contour.



The information-split phenomenon describes how the physically observable universe emerges from an underlying nonphysical entity, such as raw information, whose content and location are non-addressable. *In-form-ation* is a form in action. In the non-observable deep subquantum nest of nature, metaphorically

information impregnates the 'mind', the event-maker. The mind delivers space, time, and energy (Figure).

Through Cosmic Prism Metaphor, Information is the Father, Mind the Mother, and in the superficial nests, space, time, and energy appear as their three children (Figure 4).

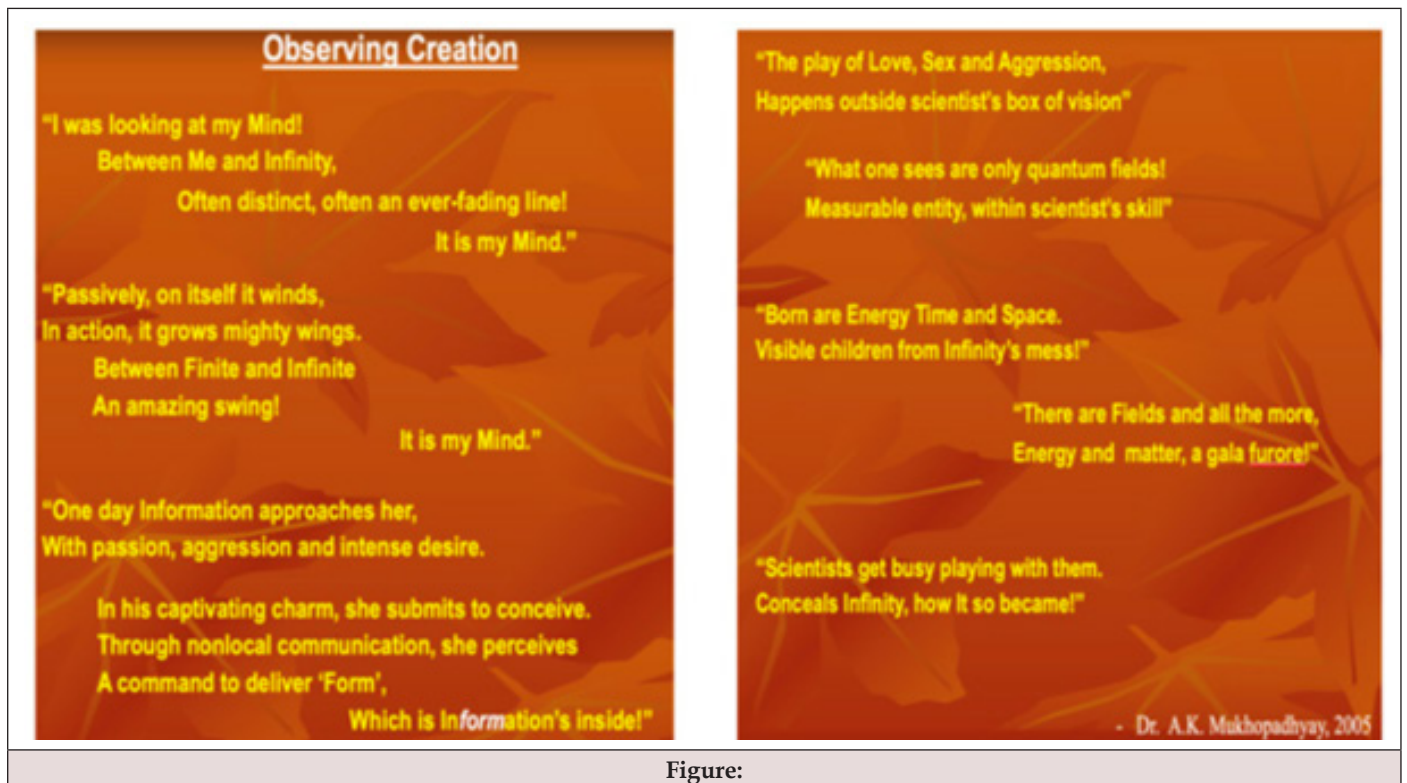
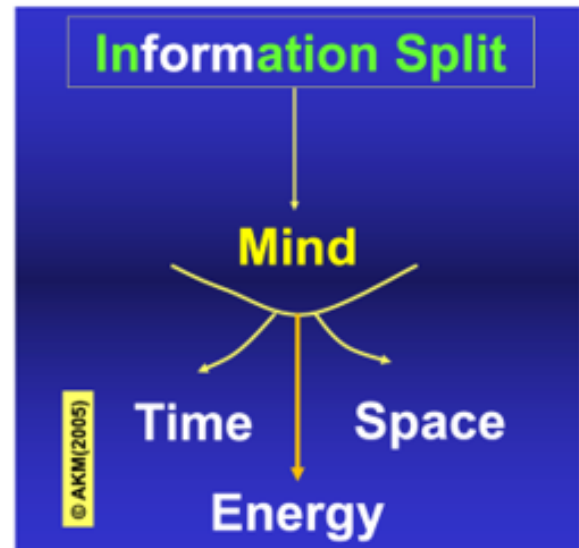
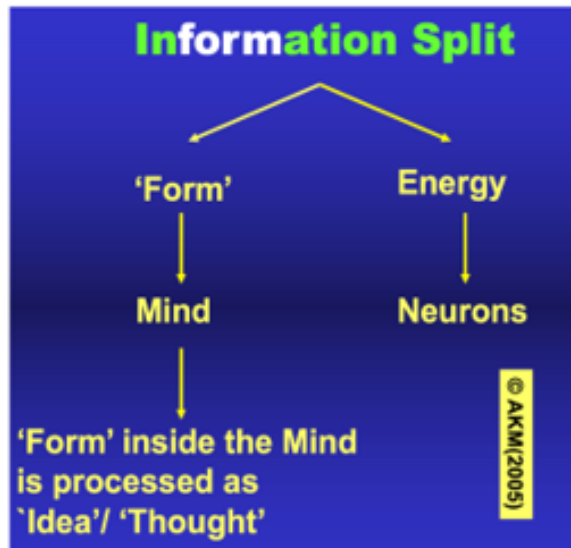


Figure:

From **EQUATION** (of Matter, Energy & Field world) to **RELATIONSHIP** (world of Intention)



Published in 2005 in the Abstract Booklet of the World Congress for Psychotherapy in Buenos Aires, and in a Book on Psychotherapy, yoga, and Spirituality, as a Chapter, published in Delhi

Figure 4: Shows the Information-split phenomenon executed by the mind, or a mind-like structure and process, in nature. No mathematical equation binds space, time, or energy with information. The split shows a parent-offspring family relationship among five members, without involving 'genes'. When such an event occurs within the brain, the 'form' moves within the mind as 'thought' / 'idea'.

“The true laboratory is the mind, where behind illusions we uncover the laws of truth” (Sir Jagdish C. Bose).

Let us now examine the information-split phenomenon in the language of science. Beneath the observable space, time, and energy, and the signal, data, and facts, the undivided, non-digitizable information fractures to generate the observable space-time and digitizable signal reality across ZPE. Information splits to construct space and time. The splitting process is a thermodynamic phase transition that leaves behind an energetic byproduct, the massive, intangible shadow of the split, which is dark energy. This is a thermodynamically irreversible phenomenon. Consequently, space, time, and dark energy are not irreducible physical fundamentals; they are the structural consequences of a deeper informational split. The material universe is not an accident; it is the structural outcome of the interaction of information and mind, or mind-like structures and processes in nature.

The information split is the precise cosmological mechanism that drives the bifurcation of Pauli-Jung neutral monism into physical space-time and cognitive thought.

Special Relativity (1905) mapped the behavior of the fabric; the Information-Split (2005) reveals the source. “Thought experiment is in any case a necessary precondition for physical experiment. Every experimenter and inventor must have the planned arrangement in his head before translating it into fact” (Ernst Mach).

That space and time arise from a deeper reality is the *essence* of information-split, an echo of which has been heard in Archibald Wheeler’s “it from bit” and Landauer’s Principle. This deeper reality is defined here as nondigitizable but factorizable information, conceived by mind-like structure and process in nature at the level of ZPE.

Information’s structural split crystallizes the coordinates of space-time, leaving behind a massive, intangible shadow of dark energy. Two kinds of reality emerge: mental (psychic: thoughts - ordinary and higher-ordered, arising from reflection or contemplation, dream and imagined, sentiment and intent, as Jung’s archetypes) and physical (physis), the space-time and energy. This reminds us of Dual Aspect Monism and the Pauli-Jung conjecture. Jung’s archetypes are the *products* of the interaction of the self or life with the mind in nest III, not the self or life in nest IV.

Dark Energy

Dark energy is the information-energy gradient. It drives the expansion of the universe, expressed mathematically as a cosmological constant. It constitutes more than 70% of the universe and seems untamable; it can be contained by generating dark matter. Here is an intriguing role for life, both as a life principle and as a life form. According to the author, one reason life-forms were created is to contain dark energy’s expansive nature. A biological cell is a robust model for the universe, while our body models the Multiverse. The system psyche is entirely financed by dark energy

and can be mapped along the stated nested hierarchy of nature and cell biology layers (see below). Trillions of life-forms harness dark energy. From this phenomenological observation, it is suggested that some kind of biotechnology could protect us from the fallout of the crisis of limited conventional matter-sourced energy on our planet.

Emergence of the Actors and the Matrix

All great theories of physics belong to the twentieth century. Quantum Field theory, conceived in 1927, was completed in 1970. While these theories have established firm foundations, leading to the growth of their technical applications over the last hundred years, the ongoing cognitive evolution of the human brain, although largely ignored, has been changing the worldview. “Humanity is now too clever to survive without wisdom” (EF Schumacher). People have started distinguishing mind from consciousness, life from mind, signal from information, and information from wisdom. The focus of mental state and health is shifting from the mind to lifestyle, or to ‘self’ (individualized medicine). With such cognitive evolution from signal to wisdom, the human cognitive limits, as set in Planck’s equation at 10^{-32} cm of space and 10^{-43} seconds of time, in maintaining spatial and temporal duality during measurement could be left behind for a deeper dive.

One obvious outcome of this cognitive evolution in brain architecture is our ability to comprehend ever-larger systems. Scientific outreach expands from a single observable universe to the Multiverse, a system comprising a vast number of parallel, potential universes. The largest intellectually comprehensible system in astrophysics is no longer confined to stars, galaxies, or even a single universe! The outreach is the Multiverse, the system of a large number of universes. Accepting the source of the Multiverse as the ground without any background, we intellectually reach the *essence* of the largest intellectually comprehensible system, called the Multiversity. Max Tegmark’s Mathematical Universe [7] opens up several possibilities far beyond the dilemma of whether Schrödinger’s cat is alive or dead in quantum mechanical interpretation.

Two developments follow this cognitive evolution. The science of consciousness received its first system in 2016 with the development of the concept of System Psyche [8], which incorporates consciousness into the system. In 2017, the ladder of cognition [9] was identified and developed, describing the steps signals take to reach the level of wisdom. Both theories fit snugly within the earlier-developed pentaune model of nature and help develop a science of different information states.

System Psyche

System Psyche is designed to manage information across its states in nests IV and III, with Consciousness as the President of the System in nest V, Self as its CEO, Life as the homeostatic Manager in nest IV, and the Mind as an Event-maker in nest III for a 4-D

world. This is a business model for System Psyche to manage the entire information ecosystem! All players are non-observable yet highly influential: Mind acting from the subquantum void (Nest

III), Self and Life acting from the sub-subquantum void (Nest IV), and Mother Nature as the executive front, the kinetic pole of Consciousness from Nest V (Figure 5).

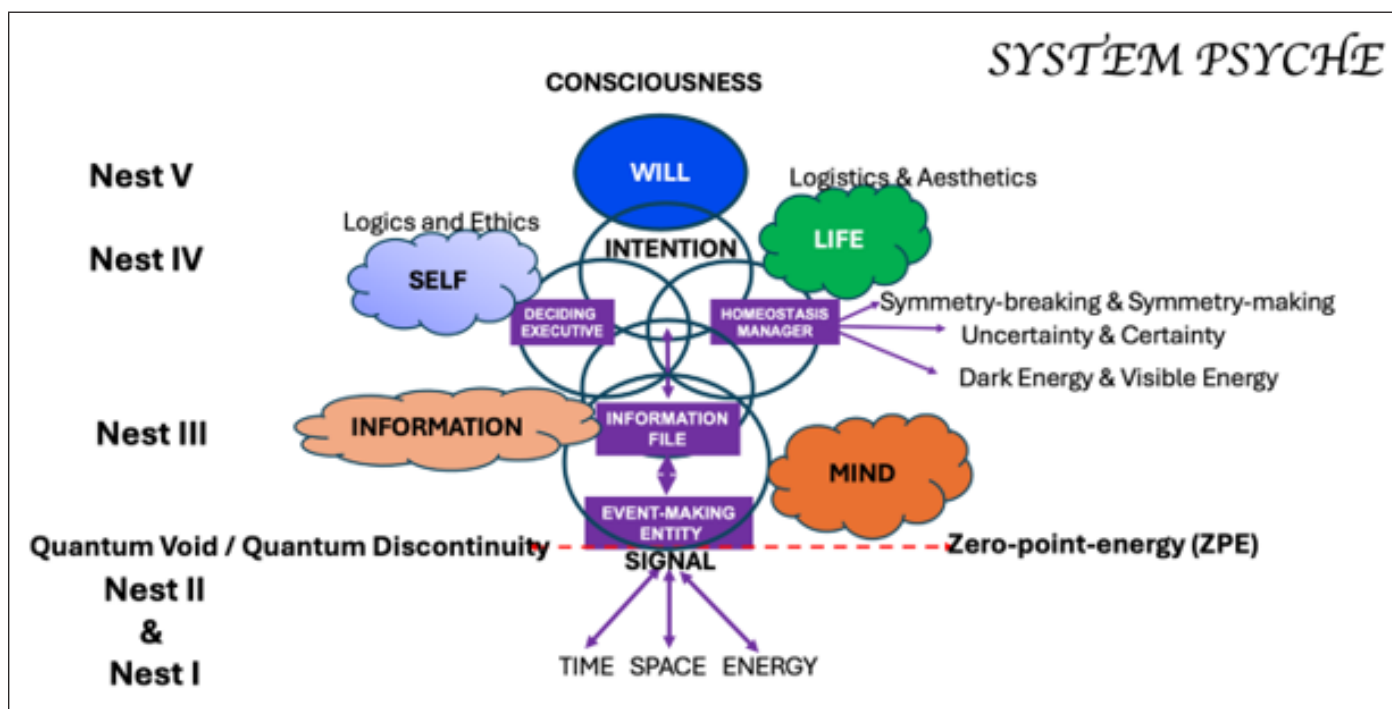


Figure 5: Shows the members of the system psyche: consciousness, self, life, mind and information, and their actual residence in five different nests of nature. Nests II & I across the ZPE/quantum void/discontinuity are the residents of space, time, energy and signal. In the system psyche, consciousness makes the 'will'. Intention within the will is handled by self and life to produce the instruction sheet of information, which is handed over to the mind.

System Psyche is the first attempt to bring the science of consciousness into a system: a top-down model that links local and nonlocal domains while preserving a robust informational energy gradient. Here, spirit (consciousness), science (Mother

Nature, self, and life), and the humanities (mind and body) are integrated, accommodating panpsychist realism and consciousness within analytic idealism. Table 3 lists the members of the Cognitive Orchestra and their dynamic, distinguishing properties.

Table 3: On the Members of the Cognitive Orchestra: their dynamic and distinguishing properties.

Member of Cognitive Orchestra	Dynamics	Identifying Properties
Consciousness	Generative/Vectorial/Active	Consciousness makes "Will". It weaves the net, but itself is outside the snares of the net
Self	Generative/Vectorial/Active	Makes decisions for the System. Deals with Ethics and Logics
Life	Homeostatic/Relational/Receptive	Takes care of the homeostasis of the System. Deals with aesthetics and logistics, memory formation, feeling and development of quality (qualia)
Mind	Homeostatic/Relational/Receptive	It makes a signal from Information and vice versa Involved in the formation of Thought, Imagination, Dreams, Visualization etc.

Information	Generative/Vectorial/Active	Has a content, an intent, and can reduce uncertainty. Cannot be digitized. Remains in different States (see the ladder of cognition)
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In the implementation of 'Free Will' of Consciousness, Mother Nature determines the purpose; the Self offers logic and ethics, and Life offers logistics and aesthetics. Both convert the intent into a purpose and an instruction sheet of information for handing it over to the event-making Mind. Mind at ZPE creates space, time and energy.

1916 was the year of Einstein's General Theory of Relativity and the prediction of gravitational fields. A hundred years later, in 2016, as Einstein's prediction came true, psychology reinvents its own gravitational waves, diffusing through the depth and architecture of human psychology and establishing the intentional and informational fields of interaction among the members of the system psyche.

Cognitive Ladder

The location and content of a signal are addressable in a 4D world, but the location and content of information are non-

addressable by any physical means! To trace this nonlocality, one needs to dive into the sub-quantum nest of nature, where information is omnipresent and requires only activation, not communication. My earlier paper [10] describes what activates inactive information. Intentional information is not amenable to statistical probabilities, whereas a non-intentional signal is. Signal communication obeys the constancy of the speed of light. Both non-living and living entities can read a signal. Only a living entity can read information, although it can enter the physical or biological world as a signal. This reminds us of the Physics-Life layer. Information itself creates a new discipline of science, which is trans-physical, trans-biological, and trans-ZPE. Information creates scope for transdisciplinary research in addition to interdisciplinary and multidisciplinary investigations.

There are five information states. Their properties are summarized in Table 4.

Table 4: On five Information states and their properties.

State	Knowledge Type	Dynamic Structure	Location	Movement & Communication	Coding
Signal	Data/Factual	Space-time construct of Information	4D World Sensory World	Follows 'Einstein' constant of Velocity of light	Arithmetic/ Algebraic
Information	Informative	Factorizable but Nondigitizable Information	Subquantum World as Perception	Omnipresent. Requires no communication	Geometric
Knowledge	Formative	Non-Factorizable and Non-digitizable Information	Subquantum & Sub-subquantum World as Conception	Communication by human organogram, written documents, video, audio-message	Mathematics of Symmetry
Experience	Transformative	Information Manifold	Sub-subquantum World as Theory	System-confined. Intersubjective agreement or disagreement	Mathematics of Manifolds
Wisdom	Sublime	Information Crystal	Nest V of nature as Worldview	No communication. To be achieved individually.	Point Mathematics

Information cannot be digitized. Its geometric structure resembles a trifoliate leaf. It can be factorized into a content leaf (semantic cognitive payload) that interacts with the mind, an intent leaf (Teleological vector with logic & ethical boundaries) that interacts with the self, and an uncertainty-reduction leaf (Thermodynamic and kinetic) that engages with both the mind and the 4-D world to bring certainty. Non-digitizable and non-factorizable information is knowledge, a unified bundle of related information that maintains a logical (static) and intellectual (dynamic) balance and, therefore, can be used without further deliberation, but only by a live cognitive

entity. Knowledge has a structure of mathematical symmetry. The experience is a system-confined information manifold. Each system's curvature of experience differs because of its unique life-journey. It follows manifold-mathematics of invariance, a continuous topological surface that curves dynamically based on the system's life journey. The information-state, immune to duality, that works across systems, is wisdom: an information-crystal, a topological limit, expressed by zero-dimensional, coordinate-free Point-mathematics. Wisdom cannot be communicated; it must be earned individually; it originates from the direct intervention of

consciousness, which distils and crystallizes the curves in manifold personal experience into a singular point. Wisdom is the point of collapse of observer, observation and the observed, and in point mathematics is the ultimate language of multiversal consciousness.

In the terminology of the knowledge system, signals/data constitute factual knowledge; information yields informative knowledge; conventionally called knowledge is formative knowledge; experience is transformative knowledge; and wisdom is sublime knowledge. A signal produces sensation; information produces perception; knowledge produces conception; experience

produces theory; and wisdom produces a worldview. Mind converts a signal into perception; Self converts perception into conception; Life transforms conception into a theory. Consciousness transforms a theory into a worldview (readers are referred to figures 1 and 2 of my earlier publication in this journal [11]). The theory of the Cosmological Constant (1917) represents a rigid, classical-mechanical framework and a static universe. In 2017, the ladder of cognition rejected the static view of cognition and framed it as a dynamic flow (Figure 6).

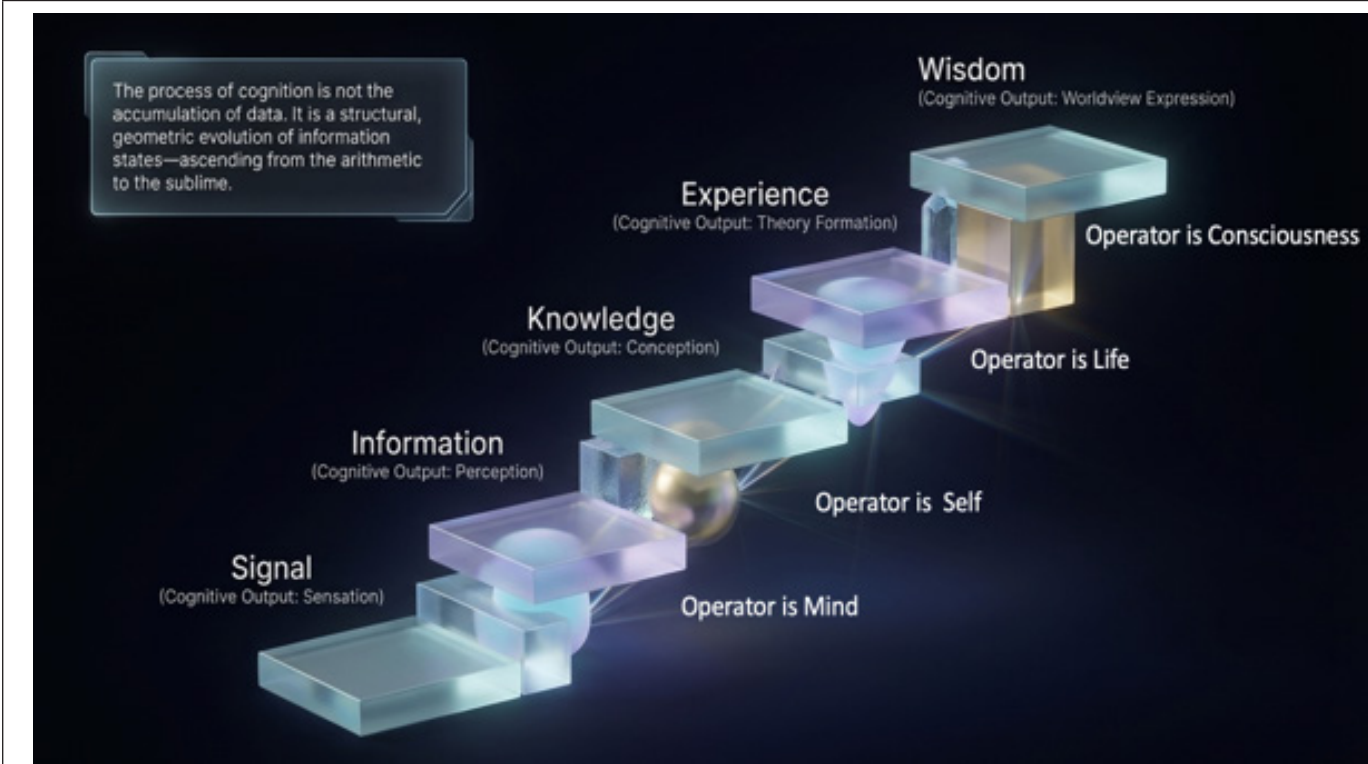


Figure 6: Shows the ladder of cognition. Cognition is not a static process. Given free rein, it intensifies and becomes more focused, leading to a stepwise rise from the signal to wisdom. Signals transmitted through sensory nerves lead to sensation; information generates perception through the operation of the mind; perception becomes conception through the operation of the self; conception enriches and becomes experience through the operation of ‘life’; and system-confined experience becomes system-independent wisdom through the direct intervention of consciousness. (Acknowledgement to Gemini for producing the figure).

Cell Biology Contextualized with the Pentaune Model, and Energy Triad

Table 5: Regulation of Cell Biology Layers in nested hierarchy of nature by System Psyche Members and the Energy Triad.

Cell Biology layer	Nests of Pentaune Model	System Psyche Member	Regulation & Energy Triad
Epigenome	Nest IV//V	Life//Consciousness	Top-down environmental, Coordinate-free intent, aesthetic regulation. Subtle Energy
Genome	Nest III//IV	Mind//Life/self	Subquantum Information Templates. Dark Energy
ZERO-POINT ENERGY			
Proteome	Nest II	No active member of psyche. Quantum/ sub-quantum interface	Instantaneous communication to all organelles through microtubules. Dark Energy
Metabolome	Nest I	Sensory / Physical	Physical Signaling, Conventional Energy, ATPs

At this stage, we can relate the cell biology layers to the Pentaune Model, System Psyche Member, and Energy Triad, as shown in Table 5.

A biological cell integrates the properties of Automation (Metabolome and Proteome), Autonomy (Genome), and Holonomy (Epigenome) by means of the energy triad.

Concluding Remarks and Perspectives

The physical universe is lifeless. Contemporary physics-based theories of consciousness are lifeless. So is the Physical Multiverse Theory (PMT). The Multiverse remains mathematical. This article remains immune to duality, proposing a top-down, information-directed model that bridges epistemological gaps across physical, biological, psychological, and cosmological sciences and brings the greatest homeostatic manager, life, into focus as a member of system psyche and a rung on the ladder of cognition.

The theoretical propositions discussed in this paper are grounded in the science of topological nests. This, in turn, is grounded in the Deep Science of Death, which concerns the emergence of life in a new form [12], not discussed here. The Deep Science of Death also yielded the Energy Triad: Matter-sourced conventional Energy, Information-sourced Dark energy, and consciousness-sourced Subtle Energy, along with their respective targets [13]. As discussed, dark energy is universal and used by the system psyche, whereas subtle energy, the cheapest of the three, is individualistic and targets specific biological substructures of the epigenome and genome, as well as the top of the cognitive ladder.

A hundred years after the completion of Schrödinger's wave equation for the probabilities of quantum states in 1926, we are able to construct the Cognitive Multiverse Theory (CMT) [14], establishing Singularity in consciousness with certainty and defining the Multiversal consciousness as the ultimate core, with a profound connection (relationship) to everything else that is superficial to it.

We contextualise the models discussed in this paper within a 100-year temporal symmetry of scientific discoveries, showing that the physical insights of the 20th century find their complete cognitive and informational resolution in the 21st century. In the science of consciousness, the biological cell models the universe, while our body represents the Multiverse.

What remains pending is modelling the brain as a transmissive hub, for which we need to know more about 'life'! What is protoplasm, the medium through which the epigenome-genome-proteome-metabolome functions?

Therefore, my own 'self' always loves to remain a Student of Consciousness, to stand on its own brain at the ZPE-state, and to

enrich itself through systems cosmology, systems biology, systems psychology, and systems physics. Every Dionysian sees that science does not always grow by crawling [15]. It leaps every 100 years.

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