

# Cracking the Hard Problem of Consciousness

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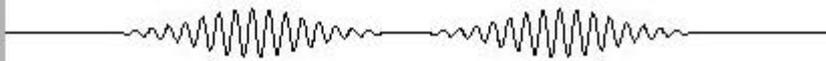
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**Abstract:** David Chalmers articulated in 1994 one millennium-old philosophical issue regularly encountered by the consciousness researchers how the physical transits into non-physical and vice versa, as “Hard Problem”. He, although, a non-beginner in finding out a solution of the problem, stood since as a stumbling block and contributed generously to turn down several propositions claiming to have solved the problem. On this background, the author looks beyond the nature measurable under Planck’s scale, and proposes existence of a sub-quantum and a sub-sub-quantum nest of nature sandwiched in between the revealed nature where the physical interactions obey the laws and principle of quantum physics, and unconditional consciousness, which is the home of all experiences. Three consecutive operations in nature namely those of mind, ‘self’ and ‘life’ are required respectively to convert signal into information, to format information into knowledge, and to transform knowledge into experience. The operations are specific but interlocked, could direct top-down and bottom-up flow of events and offer a solution of the reverse hard problem as well, how experience-based ‘will’ of consciousness comes down on Newtonian wheel! The proposition could usher a new direction for consciousness study.

**G**enesis of experience from the neural signaling and networking is the hard problem in science of consciousness. David Chalmers [1] stormed the scientific session of first Tucson Conference, “Towards Science of Consciousness” (TSC) in 1994, when he first coined this term. With his continuous outpouring on this view in the run he remains as a

major significant player in the field of consciousness study, culminating in his TSC-2014 presentation, “Hard Problem twenty years on.” Hard problem is hard because we yet cannot ‘reduce’ the function of consciousness. Earlier, Joseph Levine [2,3] had a similar view while explaining genesis of ‘non-physical’ from physical phenomenon, which according to him is the special ‘Explanatory gap’. How to close this explanatory gap is the hard problem! Thomas Nagel [4], had pointed out the same problem with the phrase, “How it is like to be bat - *for* the bat!” These three contemporary philosophers are philosophers of repute who articulated the problem very well. There are, however, scientists and philosophers much earlier also who had identified the problem and the issue. Examples are Newton, Locke (physician and philosopher), Leibniz (Polymath and Philosopher), Mill (Philosopher and political economist) and biologist Huxley.

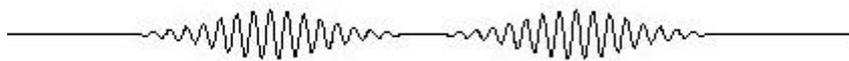
The grade and the spectrum of response to this ‘problem’ range from zero to absolute covering almost all of intellectual community. One response is, functional consciousness does not exist. Whole responsibility of functioning is that of mind. Consciousness thus can be eliminated from discussion. Oh lo! We are out of the problem (eliminativism)! Consciousness is identical to mind! There is even no need of distinction between the two! Other response is that some functions of consciousness are tractable and that is all about what *seems* to be the functional role of consciousness (strong reductionism) in the process! Another response takes the view of putting the issue in appropriate perspectives, experience is in First person’s perspectives and the physical is in Third person’s perspectives, otherwise it is an identity (weak reductionism). Besides, there is cognitive closure theory of Colin McGinn that consciousness will ever remain a mystery. As monkeys do not understand quantum mechanics so human being could not understand consciousness. In this response, we reach a dead end, which might be solved only when we die! The view also does not consider the evolving ability of human brain and on the ground the



neural plasticity. Dualism in its various form has tried to address the issue as interaction between two categorically different substances but not succeeded to solve it yet. Epiphenomenalist makes a causal closure of physical from having any influence from the phenomenal, although phenomenal is a company of physical. Finally, there are responses such as dual aspect theory and neutral monism. Panpsychism is at the other extreme end of the spectrum.

### **Hard Problem as Perceived in Different Schools of Spiritual Philosophy of India**

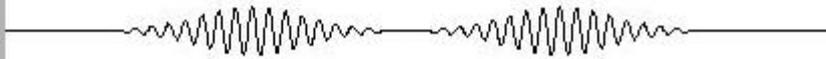
Millennium -old ancient Indian Spiritual Philosophers found hard problem in their deliberation on the relational matrix between nature and consciousness with spectrum ranging from nature is mere illusion and consciousness is the only real to the view that distinction between nature and consciousness is inconceivable, not necessary in human cognition or the view that consciousness and nature form an indivisible *biune* reality. If all experiences were in consciousness and what is observable is only nature, this is really the hard problem how a physical neural signal leads to an experience in our brain, mind or existence! Shankaracharya's emphasis remained only and only on consciousness while nature to him in any form is merely an illusion (*Keval-advaita*, pure non-dualism)! Acharya Ramanujam propounded the view that although consciousness cannot be defined within the boundary of language, its nature can be qualified (*Vishista-Advaita*, Qualified Monism). This qualified nature is as relevant as consciousness itself. According to Vallabacharya both consciousness and nature are pure One substance and could be perceived as such (*Shudda-advaita*)! Madhavacharya's emphasis was on a unified dualistic relation (*Davaita*) between nature and consciousness where nature is always up-transforming into consciousness, and consciousness has been down-transforming into nature, and in spite this duality is always maintained. It is Acharya Nimbark who propounded the view that both



*Dvaita* and *Advaita* are correct and the *dvaita* and *advaita* relationships between nature and consciousness may exist simultaneously. Finally, Sri Krishna Chaitanya brought this relationship into proper scientific perspective stating that when your nature becomes Radha-nature, you are in Krishna-Consciousness. The ultimate evolution in nature is to achieve this Radha-nature. Nature of consciousness is Radha-nature, the nature in its purest form. According to him, this is an *inconceivable dvaita-advaita (Achintya-bhedabheda)* indescribable reality. Following this, *Advaita-Saivism*, which originated from Kashmir, India propounded the Biune reality of nature and consciousness. In last one hundred fifty years, from Ramakrishna Paramahansa to Sri Aurobindo to Akhandamandaleswar Swami Swarupananda Paramahansa dev, who all looked into this *nature* neither as illusion nor to be something avoidable, but revered as ‘Mother’ [5]. Mother nature in the perspective of science could be described as executive front, mobile facet or kinetic pole of consciousness. Since all of nature has differentiated from this nascent nature, it is Mother Nature!

### **Role of Experiencing Death Phenomenon in Cracking the Hard Problem**

Consciousness is transcendental and the nature is said to be immanent. Transcendental essence is immanent in nature (Perennial philosophy). Sri Aurobindo observed that transcendentalization of nature and naturalization of the Transcendent is not realistically possible by ordinary human mind unless the person goes through a complete experience of death while alive, and in the process develops a mind what Sri Aurobindo termed ‘supermind’. According to him, “death is the question Nature puts continually to Life and her reminder to it that it has not yet found itself” and “Death is meant for awakening consciousness in the matter.” His epic work *Savitri* [6] discusses different phases in his personal passage through death. In my work, *Conquering the Brain* [7], I have tried to distinguish the different



phases of death such as near-death experience, transcendental death experience, transformational death experience and the experience of getting reborn in the same physical body. Possibly, the hard problem could be sorted out by those scientists who have had this experience of transcendentalization of nature and naturalization of the transcendent while experiencing death phenomenon in life. Following this, it is expected that one will be able to relate the electrical signal in the neural firing at classical level with the experience at the level of 'self' or consciousness.

### Cracking the Hard Shell of Consciousness

Since 1985, I have tried to crack the hard shell of consciousness. And let me take this opportunity to quote verbatim from my published work, chapter One of *The Dynamic web of Supracortical Consciousness* [8].

“Consciousness cannot be defined. It can be qualified. It is immortal, eternal and infinite, conceived in biology as ‘Ananda’, the ecstasy of Divine perfectness. The Thing, which does not satisfy these criteria, is not consciousness. Infinite but

*The consciousness, by definition, is immortal, eternal, infinite, biologically perceived as Ananda — the ecstasy of Divine perfectness.*

not immortal, immortal but not infinite, eternal but not infinite and like all such, - are not consciousness. The consciousness, by definition, is immortal, eternal, infinite, biologically perceived as *Ananda* — the ecstasy of Divine perfectness.”

#### ***“The transcendental and non-transcendental Qualities:***

A number of questions crop up. What is immortal, what one means by



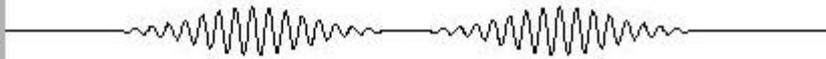
eternal and what is infinite? What is that which produces ‘*Ananda*’, a feeling of supreme ecstasy in limbic nuclei?”

“The cardinal sign of ‘life’ is creation. The cardinal sign of immortality is ceaseless creation - the CAUSE of everything. The eternal is that which is beyond TIME. All times are swallowed in it. That is infinite, to which everything else is finite, limited by SPACE. Thus the physical qualifications of consciousness transcend SPACE, TIME and CAUSE. When this immortal, eternal and infinite consciousness plays with that of phase specific consciousness in the pleasure triangle of limbic brain, there is *Ananda*. *Ananda* transcends PLEASURE and with physical attributes of consciousness, it is immortal, eternal and infinite.”

“Out of four qualifications of consciousness, three are physical and one is biological (human). All qualities have their nontranscendental and transcendental counterparts; immortality for causation, eternity for time, infinity for space, *Ananda* for pleasure.”

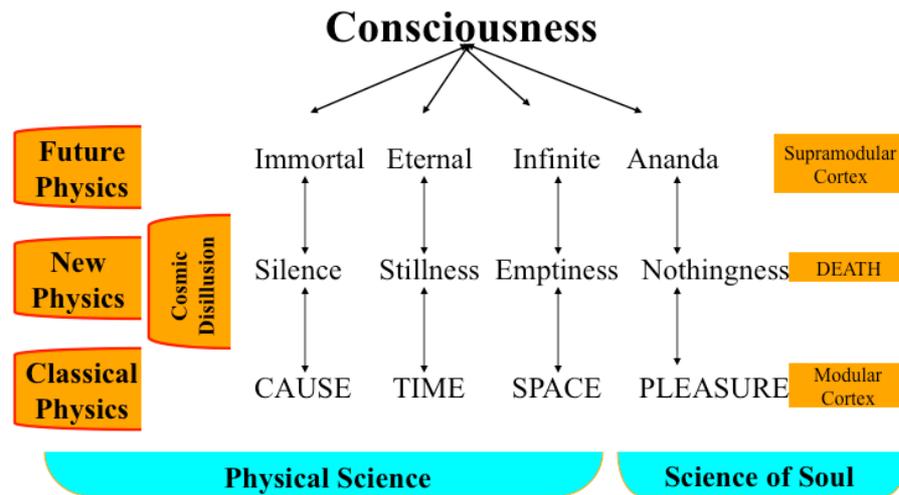
**“*Concept of cosmic disillusionment and death:***

The concept of cosmic disillusionment and death are products of mind, which is unable to bridge the gaps between non-transcendentals and transcendentals. In between four pairs of transcendental and nontranscendental descripts, there exist four additional phases. In between cause and immortality, there is SILENCE, in between time and eternity there is STILLNESS, in between space and infinity there is EMPTINESS. NOTHINGNESS stands and bridges the gap between pleasure and *Ananda* (Fig. 1). Before destruction of Mind (Mononash, monolay), the silence, stillness and emptiness, disillusion the cosmologist. The biologist’s mind conceptualizes death at the end of pleasure. To a conscious individual there is neither death nor disillusionment. There are only SILENCE, STILLNESS, EMPTINESS and NOTHINGNESS.”



**“Consciousness in a dozen of words:**

The physicists have described twenty four ‘fundamental’ building blocks for matter; three quark doublets, three antiquark doublets, three lepton doublets and three antilepton doublets. The concept of consciousness could be built up with twelve words”.



**Fig.1:** Consciousness in a dozen of words

**Looking Beyond**

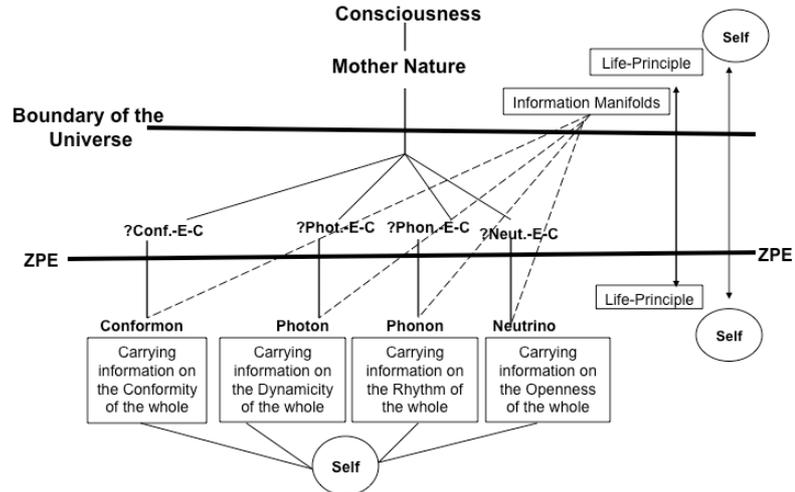
Philosophically, consciousness has always been associated with energy. In the field of high energy physics, let us now analyze the whole phenomenon of cosmic disillusionment. What all inventions and discoveries, what all theories and principles have disillusioned the high-energy physicists, who all have been trying to engage beyond space, time and cause.

It is possible to replace the “four” words, ‘Silence’, ‘Stillness’, ‘Emptiness’ and ‘Nothingness’, by the evanescent existence of some of the quantum



particles, which are omnipresent, beyond the polar opposites and travel from the quantum domain to sub quantum domain. Intuitively I replaced 'Silence' by Confromon, Stillness by Phonon, Emptiness by Photon, and Nothingness by Neutrino.

When these four particle/wave package of energy are traced in the sub-quantum domain, they could be designated as Confromon-equivalent of Consciousness (Conf-E-C), Phonon-equivalent of Consciousness (Phon-E-C), Photon -equivalent of consciousness (Phot-E-C) and Neutrino-equivalent of consciousness (Neut-E-C) (Fig. 2). Figure also shows the possible transition of sub-quantum nest to a nest deeper of Mother Nature at the boundary of the universe [9]. This figure should also be studied with the paragraph below on layers of nature.



**Fig.2:** Possible relation between some quantum particles with Mother Nature and Consciousness

## Layers of Nature

Scientist investigates nature. Consciousness is the domain of mystic. Since consciousness also has a nature (which might be called Mother Nature, Nascent nature, kinetic pole/mobile facet/ executive front of consciousness), it is possible to make an effort to understand the different depths of nature.

The ‘macroscopic’ nature, where physical interactions obey the laws of Newtonian physics is the classical nest (nest I) of nature. Nest I transits into deeper realm of ‘microscopic’ nature where the principles and rules of quantum physics are applicable for physical interactions. This may be called the quantum nest (nest II) of nature. Nature does not end at the level of Planck’s scale of  $10^{-32}$  cm and  $10^{-42}$  sec. of space and time. ‘Quantum discontinuity’ and ‘Quantum Void’ point towards the existence of a sub-quantum nest in nature. While quantum discontinuity may be looked as ‘sink’ for quantum existence, quantum void could be said the ‘source’ of the nature in quantum existence. In this domain,

*quantum fields are the messengers of the infinity.*

In this sub quantum nest (nest III) of nature, one could find information as *information-as-such*. The nest is also the home for the processor of information, the mind or mind-like structure and process in nature. Transition from nest III of nature to Mother Nature (nest IV) requires an outside-in maneuver while the transition from

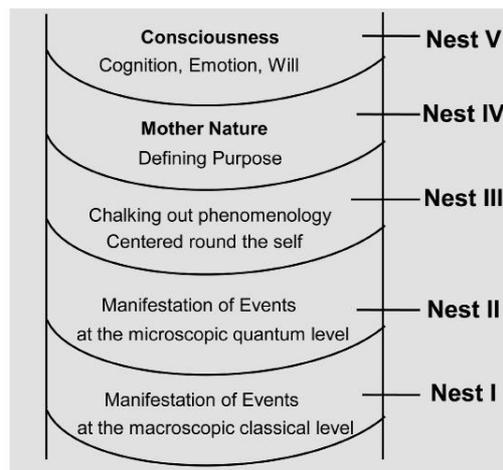
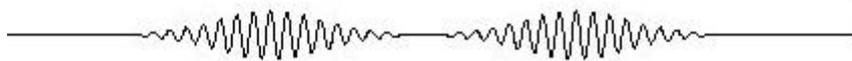


Fig. 3: Pentaune Model of Nature-Consciousness



nest IV to nest III an inside-out phenomenon. Goethe, the romantic poet of Renaissance age, had emphasized on this inside-out and outside-in mechanism existing in nature. One encounters 'life' as *life-as-such*, *life-principle* or *Prana* within this nest IV of nature. This pentaune model of nature consciousness is the main issue discussed in my work *The Millennium Bridge* [10].

In this journey from nest I to nest IV of nature (Fig.3), yet we have not mentioned who the really experiencer is? All experience is within consciousness and not in nature. Within the system-coupled consciousness (for example, brain), consciousness's representative is 'self', the chief executive for the systems. Unlike mind or life, self and consciousness are categorically identical and within a system-coupled consciousness, therefore, it is self, which experiences.

### Three Operations: From signal to Experience

The pathway from signal to experience to wisdom has several operators, each having its specific operation, and several phase transitions through nest of nature to get into the consciousness. Conversion of data/signal into information requires operation of Mind. Mind is the organ, which could also convert information into signal. There is no way we can exclude operation of mind from this conversion. When mind converts information into signal it divides. When it converts signal into information, it unites. Self is essential in inter-conversion of Shannonian information and Gödelian information. It is where one sees formative knowledge. The 'self' formats this informative knowledge into what is called formative knowledge. Excluding operation of self, this formatting is not possible. Formative knowledge, however, cannot be considered as 'experience'. Experience is what, in other words, is called transformative knowledge formed when the formative knowledge has had a passage through operation of 'life'. The knowledge in which the self has 'lived' is transformative knowledge. Operations of life are



mandatory for transforming formatted knowledge into transformative knowledge [11]. Transformative Knowledge is what we call experience. These three operations, operation of Mind, operation of Self and operation of Life (Fig.4) are necessary to convert, format and transform any signal/data into experience. These operations are not observable at this stage of what we call sciencing. These are non-observable influentials in the systems psyche. The operation of consciousness, the fourth in the series, helps crystallization of experience into wisdom.

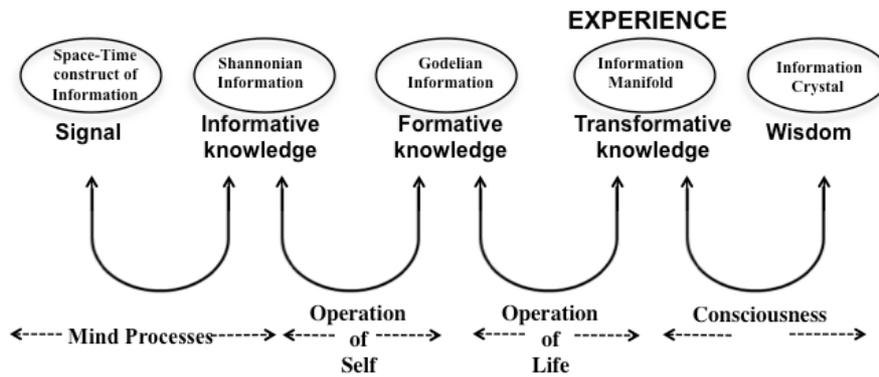
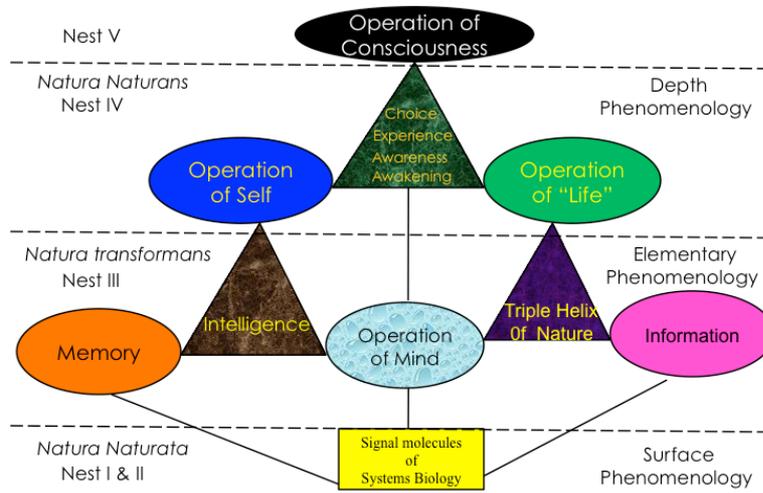


Fig.4: From Signal to Experience and Wisdom and from Wisdom to Signal

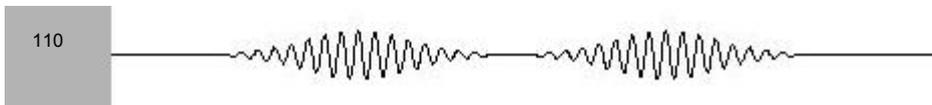
### Full Circle

If any proposition intends to solve the hard problem, it would be successful to solve the reverse hard problem as well, i.e., how experience, when decides as ‘will’ comes on Newtonian wheel! The proposition as said, is able to delineate the path bottom -up from signal to will and top-down from will to signal. It addresses the ‘how’ problem as well as ‘what’ problem as what is being accessed, the data/ signal, information, knowledge, memory or experience, and the ‘where’ problem as where the different operators of the systems psyche [12]

operate from. Fig. 5 shows this labyrinthine and hierarchically nested structure of the pathway where operations of mind, information and intelligence are placed in the nest III of nature, operation of 'life' and 'self' are shown in nest IV and consciousness operates from nest V (Fig. 5). All operations are structurally, functionally and dynamically interconnected. If nest II and I are said to be the created nature, *natura naturata*, and nests IV is *natura naturans*, the nest III remains as *natura transformans* occupying the sub-quantum nest of nature. From signaling to experience what the science requires is to investigate the sub-quantum and sub-sub-quantum nests of nature, their entry and exit points, various operations therein, their structural, functional and dynamic interconnection, and different currency with these mechanics are operated upon.



**Fig.5:** The Pathway from Signal to Experience and Experience to Signal

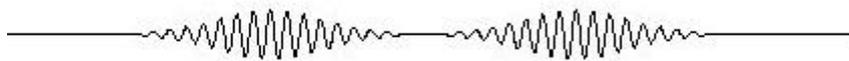


## The Real Hard Problem

The Real Hard Problem in personal transformation of the scientist is how to get into this consciousness with certainty! Mind is sensitive to information. Self is sensitive to phenomenon. 'Life' is sensitive to alteration of holistic symmetry. Consciousness is unresponsive to any such stimuli. If at all consciousness responds, it responds to only when anything, any operation, any subject surrenders its properties to consciousness. This surrender, it demands, be active, total and unconditional. In absence of this surrender, there is no resonance with consciousness. The real hard problem is how to learn the skill of surrender.

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