

**Consciousness System Modelling Theory
(for closed system of the Grand Macrocosm to open system of the Human Microcosm)**

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Consciousness System Modelling Theory utilizes framework similar to Physical System Theory with fundamental axiom, postulates and system model equations, and as long as this model makes predictions which are verified by the observed results, not just in the outer world, but also in the inner world of experience, the theory holds. Considering the Grand-cosmos as a whole as a closed system (unlike human microcosm (with body-mind duality) as an open sub-system), it is conjectured that there is an immutable abstract unified force-field of consciousness which is present in each element of space-time of the grand macrocosm, whether at the primary abstract-level of the universe of pure consciousness, or the secondary-level of the semi-abstract universe of mind, or the tertiary real physical level of the universe of matter. This system modelling view is from scientific perspective rather than any religious or spiritual perspective and should apply to both individual consciousness at microscopic levels as well as the Universal Consciousness at the macrocosmic level.

However, one needs to go beyond the outer experience of the physical universe (to two universes on top of it) and integrate efforts of physical scientists with inner experience based on ultra-transcendental meditation to consider the Grand Cosmos as a closed system. Integration of inner experiences with those of the outer world will yield full closure of the system through abstractions and bring physicists within reach of their elusive and cherished dream of a universal theory of everything.

Did consciousness cause the origin of life and drive evolution?

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Conscious behavior serves to optimize feelings, e.g. Epicurean delight, 'dopaminergic reward', Freud's 'pleasure principle', spiritual bliss, and altruism (it *feels* better to give than to receive). However Darwinian evolution is viewed as genetic survival, perhaps because scientific approaches to brain function can't account for feelings or consciousness ('qualia', the 'hard problem'). Sir Roger Penrose proposed mental properties including qualia accompany self-collapse of the quantum wavefunction by 'objective reduction' ('OR'), a threshold in the structure of spacetime geometry. Such OR qualia would be occurring ubiquitously in random environments throughout the universe, but be non-cognitive and merely 'proto-conscious'. The Penrose-Hameroff 'Orch OR' theory suggests OR events in pi resonance 'quantum channels' in cytoskeletal microtubules within brain neurons are organized, or 'orchestrated' by inputs, memory and vibrational resonances, and terminate by 'orchestrated OR' to give meaningful conscious moments, and that such moments are influenced by 'Platonic values' embedded in the structure of reality. On a grand scale, Orch OR implies life originated, and the brain evolved to orchestrate and optimize pleasurable OR qualia already present in the universe. Billions of years ago in the 'Primordial soup', pi resonance clouds of 'dopamine-like' molecules apparently coalesced within micelle-like precursors of biomolecules and cells. In these regions, quantum events were shielded from random, polar interactions, enabling more intense and pleasurable OR qualia. 'Pi stack' geometry in micelles and biomolecules optimized OR qualia and precipitated life. Microtubules, and eventually the brain evolved to orchestrate OR-mediated resonance, optimizing pleasure, life and its behavioral pursuits.

Objective Observation – A Fundamental Tool for a Science of Consciousness

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Objective observation is of great value in science. In the West we put an emphasis on statistics to tell us what level of confidence we can have in our subjective observations. We can become preoccupied with how to rule out the variance hidden in our biases etc. That is, if we are unable to be truly objective, how can we at least create conditions that can in part circumvent this lack of objectivity? Instead of “throwing up our arms” and surrendering to this belief that objective observation of the subjective (e.g. consciousness) is impossible, I am here to tell you that not only is it possible but there is an approach and method to learn how to do it. (Inner Experience and Neuroscience; MIT Press – Price and Barrell).

What does it mean to be objective about our subject matter? Mostly, it means being non-judgmental and impartial. In science, we often allow our theories, beliefs and reflections to bias our observations. This is particularly problematic when the subject matter refers to our own subjective conscious experiences. The challenge is to learn how to be objective about the subjective rather than subjective about the objective. Often, the term objective is used to refer to a reality that lies outside our subjectivity without realizing that our subjectivity is also entangled in and a part of that reality and must be observed objectively. Objectivity is now a form of observation rather than a place for observation.

Objective observation is not possible in waking sleep, absorption or even attention. For example, attention can easily be guided by judgements. Unlike attention, there is form of awareness that can occur free of reflection and without judgments. In the West this form of awareness can be reflected in the popular movement toward meditation and mindfulness. Some supporters of this form of observation have been Jon Kabat-Zinn, Eckhart Tolle, The Fourth Way of Gurdjieff and Ouspensky as well as Fritz Perls and his Gestalt Therapy. Much of this information, particularly related to meditation, has its origins in the East.

One of the best ways to describe this form of awareness is “noticing”. Noticing is not the same thing as paying attention. Paying attention is effortful and noticing is not. Often, the instructions are “just open up and notice what is happening in this moment”. To do this, it is imperative to have the ability to enter the moment, the present. Most of our waking lives we are either in the future, the past or in some form of absorption. (Wake Up - Barrell) From this perspective of present-oriented noticing, it is possible to notice our own thoughts which cannot be noticed when using attention (e.g. classic introspectionism). Overall, this form of awareness, learning to notice, is essential for a fuller understanding of our conscious subjective lives and makes a science of consciousness possible.

Conscious Mental States, The Infinite Regress Problem, and Episodic Memory

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Some contemporary theories of consciousness, such as the higher-order thought (HOT) theory (Rosenthal, Gennaro), hold that there is an essential “self-awareness” that accompanies each conscious mental state. For example, according to HOT theory, a mental state M becomes conscious when there is a HOT directed at M. Other major western figures, such as Brentano and Sartre, have also embraced a somewhat related position. This view, or something very close to it, is interestingly also found in Indian and Buddhist philosophy where consciousness is taken to be “inherently reflexive” (such as in Dignāga, ca. 480-540 CE). One problem is how to avoid the infinite regress problem such that the self-awareness in question requires yet another instance of self-awareness *ad infinitum*. In this talk I will explore various ways that these theories attempt to handle the infinite regress problem and explain why I opt for HOT theory. In addition, I critically examine Dignāga’s so-called “memory argument” for such self-awareness in the first place which then leads to a further problem, namely, does this self-awareness imply the existence of an enduring *self*?

Tesla and Vivekananda and the Akashic Field

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Tesla, the great inventor, believed that an akashic field was at the basis of reality and from it one could harness energy. In this he was guided by Vivekananda, who brought the movement for self-knowledge to America and influenced some of the greatest minds of the twentieth century. The idea of an akashic field that is the medium of consciousness was proposed by Ervin László in his book the *Akashic Field: An Integral Theory of Everything*. This paper untangles the concept of akasha by going back to its roots in Vedic theory and sees what connections it might have with corresponding quantum approaches to consciousness.

Triplet of triplet resonance band is fundamental to the universe

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We started from the theory of number system and generated a space time metric, the metric looked like triplet triplet resonance band. We found this triplet of triplet in the microtubule, protein, DNA neurons, in the EEG data, we have started collecting frequencies from astrological phenomena, we are able to see such a frequency pattern everywhere. We argue with systemic analysis that triplet of triplet observed in the nested cycle and ordered factor metric is fundamental to this universe.

We have thoroughly investigated why everything in the appears triplet of triplet in the frequency spectrum, then, we realized that 2 and 3 makes 66% of all integer space, hence, mostly we see triplet of triplet (3 is made of pairs, i.e. 2). We have found that 2-5, 2-7.....2-37, only 12 primes make 99% of the entire integer space or all possible symmetries.

We found that triplet of triplet or triplet of pentet groups are units of a machine that could generate nested time cycles or rhythms. Hence we have developed a protocol to design machine engineering, that could mirror its own information replica outside the machine. Such a duality is our objective.

The critical importance of understanding basic awareness

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Much of the discussion at TSC and in the "consciousness community" in general focusses on unusual, enhanced, "higher" or otherwise extraordinary states of consciousness. I suggest that it is a lack of interest in, understanding of, and consensus about more basic, "lower" forms of awareness that most impedes our understanding of consciousness. Typical, intact human beings exhibit an awareness of many aspects of their environments and their own actions that they do not remember and cannot report but is nonetheless evident from their behavior. This everyday "unconscious" or "subconscious" awareness provides an entryway for characterizing the bodily awareness exhibited by the autonomic nervous system and, more generally, the environmental and physiological awareness exhibited by other organisms, including those lacking differentiated nervous systems. Achieving a scientific consensus that such "lower" organisms, including even prokaryotes, are aware of their environments and their bodily states and act on the basis of their awareness is, I suggest, a prerequisite for significant progress in the science of consciousness. A thorough understanding of both what such systems are aware of and how they achieve and act on their awareness will provide, moreover, a basis from which to characterize fundamental aspects of human awareness, such as the sense of space and time, that are often simply taken for granted.

Behind the Myths, Tibet's Buddhist Culture

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The world, particularly the West, has long viewed Tibet as remote and isolated. This view has led to the growth of many myths of Tibet. These myths include the Shangri-La, the place of eternal youth, the Third Eye and lamas flying from one mountain peak to another.

Behind these myths is the reality of one of the greatest transfer of knowledge from one culture to another. From the 7th to 12th century, for a period of 500 years, the Tibetans made a conscious and sustained effort to imbibe the wisdom of ancient India. This mighty cultural and spiritual enterprise included a continuous stream of Tibetan scholars visiting India to study at the feet of great Indian Buddhist masters. This effort involved mastering Pali and Sanskrit and understanding the whole body of Buddhist wisdom which was comprehensively translated into the Tibetan language.

In this way the Tibetans were able to retain the teachings of Buddha and his art of inner transformation for the benefit of humanity.

Is Mindfulness based Stress Reduction really Mindfulness; an exploration into the richness and potential for advancing the understanding and application of mindfulness

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We are witnessing an unprecedented interest in and acceptance of mindfulness into every aspect of modern culture, science and academics. However, in recent years questions are being raised by researchers and scholars about how mindfulness is being appropriated to the point that the deeper and richer meaning of mindfulness is potentially being lost.

This presentation will begin with a brief review of the major positive findings of MBSR followed by some of the new research that is raising some serious concerns. A major factor that may be responsible for this state of affairs is the exclusion of the rich conceptual framework underlying classical mindfulness in conceptualizing and formulating MBSR. Classical mindfulness which accords more with findings from cognitive science may enhance the effectiveness of MBSR and let us hear the echo of mindfulness as taught by the Buddha.

Mind and Matter in David Bohm's Monism

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The physicist-philosopher David Bohm gave considerable effort to develop a general world-view on the basis of quantum and relativity physics. He proposed that these theories urge us to give up the idea that the world is fundamentally made of some basic elements in mechanical interaction. Instead, what is fundamental is “undivided wholeness in flowing movement”. Parts then form and dissolve in this flow. How can mind and conscious experience be understood in the context of this new world-view? Bohm proposed that mind and matter are not separate substances but rather different aspects of the one unbroken movement. These aspects are analogous to each other in various interesting ways. For example, it can be argued that an Aristotelian-like “formative cause” is a key factor in physical, biological and mental phenomena. In this talk I will present Bohm’s view and compare and contrast with Schaffer’s (2010) recent defense of monism, as well as Ladyman & Ross’s ontic structural realism.

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**Constructing Neuroaesthetic- Literary -Triple Hierarchical Paradigm of Consciousness:
A Novel Approach**

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“Literary systems are perceived intuitive systems which largely belong to the typology of human activity systems rather than other types such as natural systems, designed physical systems or designed abstract systems.” - Rev. Prof. P.S. Satsangi

Sublime literature embodies ‘intuitive consciousness’ and elicits an experience which transcends the consciousness of everyday life. Imbued with luminosity, signified by mystery, a work of art is vital to realize the Central Being. Longinus theorized ‘sublimity’ in literature as the echo of the great soul, a lofty mind, grandeur of thought, nobility in diction which corresponds well to the Indian notion of ‘*Satyam, Shivam, Sundaram*’.

When Shakespeare wrote, ‘I have a device to make everybody well, write me a prologue...’ everyone was intrigued as it had far greater implications than socio-cultural contexts. Since the time of Aristotle scholars have encountered a myriad of psychological puzzles related to the notion of beauty in literature, how literature transports us to a trance –like state, a state of self-absorption, how our brain enables us to create and recreate literature etc. Although researchers have long inferred that the “classical” language regions, like Broca’s area and Wernicke’s area, are involved when the brain interprets written words, recent researches have revealed that artistic narratives activate many other parts of the brain as well. ‘The language of literature, particularly poetic language, draws more on our right brain systems for processing language than normal, everyday languages does’ (Holland 2009). Neural studies are demystifying the fundamental brain processes at play in the literary experience as Holland states, ‘our brain plays tricks as we read literature’.

Defining neuroaesthetics, Semir Zeki states, ‘it does not ask the question of what is beauty, but only the brain mechanism that engages with the experience of beauty.’ In recent years research has been carried out on the neuroscience of aesthetic experience (Starr, 2013), aesthetic responses and evolved human behaviour (Davies, 2012), what love and art reveal about the brain (Zeki, 2009), where art comes from and why (Dutton, 2009), the neuroaesthetics of art history (Onians, 2007), etc. However the thrust of all these research explorations has been on neuroaesthetics of visual and auditory arts- painting, dance and music. Even in the most recent publication on neuroaesthetics (Huston et al., 2015), literature plays no significant role. There has been some associative neuroaesthetic work done on prose fiction (Miall, 2009), but there is paucity of neuroaesthetic studies in literary sphere. Literature employs a different kind of visualization from that of music, dance and painting. A literary text contains culturally determined semiotic signs, hence the words and their meanings within the immediate and subsequent contexts acquire greater significance than the external form.

The present study draws the basic conceptual framework from the research being carried out at DEI on 'Frequency and Energy as Neuro-correlates of Beauty in Maths, Science and Art' (Dayal Pyari Srivastava, Vishal Sahni, Prem Saran Satsangi) and places literary experience at the focal point. The objective here is not to present a mere neurological profile of literature, but to build a broader paradigm by linking neuroaesthetics of literature to science of consciousness as literary experience is an 'exemplary experience which enables an exceptional type of identity called the Spiritual- Self' (Bjarne Sode Funch 2013).

Through experimental findings the study would answer basic questions— what is aesthetic experience? What is beauty in literature? Why is literary experience fuzzy and mystical? What happens when we read a literary work? What is the neurological basis of literary experience? The endeavour is to foreground the underlying hierarchy in literary experience, through the formulation of a triple hierarchical literary model, positioning 'literature of senses' at the lowest level, 'literature of knowledge' at the middle and 'literature of spirit' or spiritual literature at the highest level.

To test the hypothesis, the experiment participants would be made to read a variety of literary texts and as they read the magnetic fields generated by neuronal activity of their brains will be measured through Magnetoencephalography (MEG). The results will be examined with reference to the model of triple hierarchies of consciousness propounded by Rev. Prof. P.S. Satsangi to establish how literature of senses corresponds to the lowest level of consciousness i.e. material consciousness, literature of knowledge to the middle order of cognitive consciousness and literature of the spirit to the highest level of consciousness i.e. spiritual consciousness which is the domain of Ultimate Reality and Absolute Truth. Texts from both east and west have been selected for the purpose. Poetic extracts from oriental spiritual literature have also been selected for the experiments to test and prove why centuries ago Plato in his seminal work *Republic* had pronounced that he would permit only spiritual poetry to be read in his ideal state and had banished rest of the poets from his Republic.

Key words- Neuroaesthetics, literature, hierarchies in literary experience, brain and literature, triple hierarchies of consciousness.