

## **Abstracts**

**Dr. V. V. Raman**

**Emeritus Prof. of Physics, Rochester Institute of Technology**

### **On the Primacy of Consciousness in a Cold Cosmos: A Physicist-humanist Perspective**

It is fair to say that anybody who doesn't think human consciousness is a profound mystery hasn't given serious thought to the subject. The age-old controversy between science and religion has been on whether consciousness is primary or if it is merely a glitch in the physical universe. All scientific evidence seems to suggest that consciousness is but an emergent property of an enormously complex brain. This challenges the claim from the religious perspective that consciousness is central in the universe. This lecture will explore the relevance, significance, and role of consciousness in an apparently indifferent universe, and argue that all this becomes meaningful if we look at the issue from the framework of certain Hindu thinkers.

**Dr. Ramakrishna Puligandla**

**Professor Emeritus, Department of Philosophy, University of Toledo, Toledo, OH**

### **Consciousness, cosmology, and science: An Advaitic analysis**

The purpose of this paper is twofold: 1. to clarify what it is to study anything scientifically and show that consciousness cannot, in principle, be studied scientifically, and 2. to examine the aim and methods of cosmology and show that cosmology cannot, in principle, be a science. The essay can be read by ignoring any and all references to Advaita Vedanta. My reason for referring to Advaita Vedanta is simply the fact that these two truths were long ago discovered and taught by Advaita Vedanta, which is at once Jnana-yoga (The Way of Knowledge) and mysticism, unsurpassed and unsurpassable.

**Dr. Lothar Schäfer**

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### **Aspects of Cosmic Consciousness in the Non-material and Non-empirical Forms of Physical Reality**

According to Sri Aurobindo, the ancient sages of India taught that “behind the appearances of the universe there is the reality of a being and consciousness, a self of all things, one and eternal. All beings are united in that one self and spirit.” In my presentation I will describe how the same conclusions are suggested by the phenomena of quantum physics. The quantum phenomena have shown that reality appears to us in two domains. One is open and empirical and consists of the material things of our conscious experience. The other is hidden and non-empirical and consists of non-material, non-empirical forms which are also real, because they can manifest themselves in the empirical world. The discovery of a realm of forms places physics into the center of

powerful traditions of Western spirituality, in which non-material forms were considered as primary reality and connected with a Cosmic Consciousness out of which everything is emanating. Thus, the emergence of the visible world, the emergence of Life, the Birth of the Conscious Self - all are out of a realm of forms, a medium of Spirit, in which science, philosophy and religion dissolve into the single order of the One: Creating Field of our World.

**Dr. Dorothy Abram**

**Social Sciences Department, Johnson & Wales University, Providence, Rhode Island**

### **Cognition and Consciousness**

In the contemporary perspective of Western science, psychology regards cognition and consciousness as undifferentiated categories. Without a clear delineation of these two terms, misunderstandings arise concerning the diagnoses and treatment of certain mental states that have been labeled as abnormal. In this presentation, a psychologist examines this lack of differentiation and the consequences for our understanding of both cognition and consciousness. Using selected examples as guide through this psychological territory, Abram proposes that we have the scientific, descriptive, and experiential evidence to expand contemporary understandings into a fuller analytical approach. By understanding the existence and complexity of cognition and consciousness as distinct psychological states, we gain access to knowledge, insight, and experience that are otherwise unavailable.

**Dr. Subhash Kak**

**Prof. & Dept. Head, Computer Science Department, Oklahoma State University**

### **Art, Science, & Consciousness**

We discuss how creativity in art and science can help us situate the problem of consciousness, and we relate this to some relevant Indian ideas. Deterministic science cannot explain free will. If consciousness is seen as an emerging from the ground of the classical world, then again scientific laws remain incomplete. On the other hand, we do not know why the brain-machine has awareness whereas computers never will. Nor do we understand the mechanisms behind psychoneuroimmunology or the astonishing abilities of savants. The Indian approaches to consciousness seem to have anticipated many difficulties of contemporary science by giving a central role to creativity. The classificatory systems developed in the Indian tradition define categories, such as that of universal experience, that can be seen to explain the “complementary” nature of human experience. These categories clearly assign central role to selectivity, or context, and change. The Vedic system takes the mind to be emergent on the ground of the brain, but this emergence is contingent on the principle of consciousness.

**Dr. Raghendra P. Singh**  
**Department of Philosophy, Jawaharlal Nehru University, New Delhi, India**

### **Consciousness & Intentionality**

The realm of Consciousness is extremely complex and multifaceted. In the extensive field of philosophy, we come across consciousness as an ontological being, an epistemological subject, a moral agent, an aesthetic being, a psychological being, a subject of *Yoga*, meditation and so on. It has moved the philosophical insight so persistently that the combined study of East and West has not solved the problem of consciousness, once and for all. Socrates, who shifted philosophic problems from physics to ethics, expressed it in the form of a command 'Know Thyself' and the ancient Hindu saints, sages and seers expressed the problem in the form of a forceful interrogation '*Koaham?*' Obviously, there is a philosophical unrest, anxiety and apprehension concerning consciousness.

In Western tradition, for example, 'feeling pain' and 'sensing colors' are common illustrations of phenomenally conscious states. Consciousness has also been taken to consist in the monitoring of one's own states of mind (e.g., by forming thoughts about them, or by somehow 'sensing' them), or else in the accessibility of information to one's capacities for rational control or self-report.

Similarly intentionality has to do with the 'directedness' or 'aboutness' of mental states — the fact that, for example, one's thinking is *of* or *about* something. Intentionality includes, and is sometimes taken to be equivalent to, what is called 'mental representation.'

The basic question is - what exactly is the relationship between consciousness and intentionality? Philosophers debate whether consciousness and intentionality are somehow 'connected'; whether we have reason to be more optimistic about an 'objective,' 'scientific' or 'third person account' of intentionality than about an analogous account of consciousness. Those who regard consciousness as different from intentionality are known as dualists; say, for example, Rene Descartes (1596-1650) and Immanuel Kant (1724-1804). But those who regard consciousness and intentionality as one substance reject dualism and vindicate monism; say, for example, Sankara (8<sup>th</sup> century A.D.) Spinoza (1632-1677) and G.W.F. Hegel (1770-1831). This paper is an attempt to the issues of contestation and tries to overcome the discrepancies concerning consciousness and intentionality. The method that I'll be adopting is critical and comparative, has hermeneutics and proposes dialectical dialogue. I'll be not simply detecting similarities and distinctions between Sankara and Hegel and cataloguing their resemblances, but also to create an intellectual atmosphere in which the arguments of the one passes into that of another and thus helping the growth of philosophical heritage.

**Dr. Diane Powell, M.D., Psychiatrist**

## **Anomalous Neuropsychiatric Phenomena and Their Implications For A New Understanding Of Consciousness**

The question of how something as seemingly immaterial as consciousness could be derived from something as material as the brain has been called the “hard problem” of consciousness. Within consciousness studies, people usually address this question by aligning themselves with one of the three major camps: materialism, mentalism, or dualism. Most neuroscientists are materialists, whereas Eastern philosophers are mentalists and Western religions generally have a dualistic perspective. This division into different camps reflects the human bias towards either/or thinking. I will present an alternative perspective.

My approach to answering this hard question of consciousness has been to study the anomalous phenomena ignored by science because they do not fit neuroscience’s model. I will briefly discuss well-documented cases of anomalous phenomena such as autistic savants, telepathy, precognition, remote viewing, and out of body experiences (including near death experiences). These anomalous experiences can be understood by incorporating modern physics into the model. In fact, these experiences may be psychological manifestations in the “macro” world of what is observed in the “micro” world of subatomic physics. In other words, they provide tantalizing clues towards a new understanding of consciousness.

**Bal Ram Singh<sup>1,2</sup>, Rishi Bal Singh<sup>3</sup>, and Sukalyan Sengupta<sup>1,4</sup>**

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## **A Proposed Model to Quantify Measurement of Consciousness as a Function of Time**

Scientific analysis of consciousness and mind remains elusive due to lack of a measurable quantity that can reflect these domains adequately. It is therefore important to develop some ab initio efforts to define parameters which will allow measurements of tangible parameters to explain mind and consciousness. We hypothesize that the consciousness is a general concept of existence of any and all the things known and unknown, and is universal. Awareness of the consciousness occurs with limiting the consciousness to one or more of the infinite dimensions of the consciousness, including space and time, which leads to perceptions of mind.

We have devised a model to create theoretical basis of using time and temperature to examine consciousness through the perception of mind. The model projects vibrations to be the characteristic features of consciousness. Assuming the consciousness to be represented by space vs. time, a signal in space will increase in frequency with decrease in time, and as the time reaches zero or infinity, the signal will become all pervasive, and will represent reaching of the consciousness. Contraction and expansion of time is thus a defining factor to attain consciousness. We have used kinetic theory of ideal gases to define the time in terms of temperature, and propose to define a mind or consciousness coefficient which may be resolved at an individual level to define one's consciousness.

**Swami Tyagananda**

**Ramakrishna Vedanta Society of Boston**

### **Space, Time and Levels of Consciousness**

The divergent views of consciousness result from differing worldviews and, when these are studied simultaneously, consciousness becomes a “problem” or a “mystery.” Seen through Vedanta’s lens, consciousness itself is distinguished from consciousness of objects. Vedanta conceives of a framework in which it is possible to speak about “levels” of consciousness, making the categories of space and time fluid and flexible. Vedanta affirms the unitary, undivided, and unchangeable nature of consciousness and asserts that this understanding has been verified and confirmed through direct experience—an experience that can be had by anyone, anywhere, and at any time.