From the Desk of General Editor ...

Vedantic Vision of Consciousness and Science

'Consciousness' is a fundamental existential issue that has engaged the attention of mankind through the ages, but it has recently re-emerged as the hottest topic for discussion among a variety of experts—psychologists, physicists, philosophers, neuroscientists, artists, spiritualists and mystics.

Discussions on 'Consciousness', though stimulating, sometimes become confusing because it is used in different senses by different users—such as meaning subjective awareness, self-awareness, the totality of mind and various terms of Eastern psychology and spiritualism. Consciousness may be defined as self-awareness manifesting itself only in higher animals and unfolding fully in the human mind.

Broadly speaking, there are two apparently opposing views on 'Consciousness' which may ultimately be complementary. One is Western scientific view which takes matter as primary and consciousness as secondary—a property of complex material pattern emerging at certain stage of biological evolution. The other is the mystical, spiritual, idealist view. This view takes 'Consciousness' as the primary reality and ground for all beings. It is non-material, formless and void of all content in its present form. It is known as pure consciousness, ultimate reality, 'suchness', the 'divine' etc. It is the essence of the universe which manifests itself in all things, all forms of matter and all living beings are patterns of divine consciousness. Other views are variations of either of these two categories.

Vedantic vision of consciousness is an example of mystical-spiritual-idealist view of consciousness. To Vedanta, consciousness is the reality which is essence of all that is, the basic source of energies and forces that go to make the universe. The whole universe is a gross manifestation of an Immutable Principle which is eternal (sat), supremely intelligent (chita) and blissful (ananda) consciousness. It is invisible (adristam), unthinkable (agrahyam) and incomprehensible (acintyam). It is not possible to objectify it. The only way for one to experience that light (atmajyoti) is to become that light itself. It is called Brahman, eternal causeless cause of the universe. Science is moving round the concept of unity behind the universe. To neuroscientists, the hardest problem is to decipher the impression of a subject gazing from a private inner world to an objective world. This may be invisible, indescribable Cosmic consciousness.

Vedanta believes that there was neither existence nor nonexistence, neither material elements nor Nature before the process of creation commenced. The Universe like its causeless cause is beginningless and endless, but it manifests itself in an endless chain of cycles (*kalpas*) of involution and evolution. At each *kalpa*, the first cause ideated and projected the universe. At the end of each aeon creation goes back to Prakriti—the first cause and at the beginning of next aeon the first cause brings it forth again. Brahman is the one by which the universe is created, sustained and dissolved.

Weinberg, the Noble-Laureate physicist, the propounder of 'Standard Model' of Big Bang theory also imagines "of an endless cycle of expansions and contractions with no beginning whatever". This may point to some sort of accord between spiritual vision and scientific knowledge in this respect.

According to Vedanta, there are three ontological phases through which Brahman passes in the process of creation and evolution: (a) Nirguna (para Brahma) Transcendental Reality. It is like the invisible gene with DNA. (b) Saguna (satyaminananantam Brahma) Cosmic Consciousness — Infinite Power. (c) Sakara = manifest form of the universe.

Science has similar propositions about the origin of the universe such as concepts of voidlike substratum, which is not emptiness but is a creative potentiality. Schrodinger has postulated about an all pervading reality of the undivided consciousness. James Jeans also supports this view.

Vedanta believes that the unmanifested Brahman manifested ... awakening itself into the awareness 'I am'. This self-awareness became the basis of the universe as its Underlying Reality. Universal consciousness with its objective of universal fulfilment is the principal cause of the manifestation of the universe. The Vedanta refutes the materialistic view of the origin of the universe. It substantiates the view that the consciousness inheres all effects, and hence the observing universe is experienced by the observing mind which too is illumined by the same consciousness. This view appears to be close to the principle of the 'participating-observer' discovered at the subatomic level of modern physics.

Vedanta describes the beginning of creation. Parabrahma breathed not air but its own self-effulgent consciousness and burst forth as the supreme one generating heat in the process. Creation began with self-awareness as the basis of the universe. It appears as if the Vedanta is indicating towards the Big Bang theory and its idea of Cosmic Egg. It further says that at the beginning of time, there was the seed of the primordial atom having the full potential of akshara (Nada Brahma). With the first stir of the primordial atom, there was a mighty explosion which released the varnas of light, sound and heat. Out of these varnas came five principal elements. The cosmic sound has been identified as AUM and scientists have also approved the presence of static microwave sound of independent duration in space. In science also sound is postulated as the origin of the universe.

Vedanta explains the Cosmic Plan of Brahman for evolution through intuitive self-

awareness (sphurana), positive and purposeful desire (sankalpa), manifestation (unmilan) according to purpose and goal through lsvara, Hiranyagarbha, Mahattattva, Prakriti, etc. There was a twofold development proceeding simultaneously on the physical as well as subtler plane of consciousness.

On physical plane, it has two causal principles *Prana* (vital energy), and *Akasa* (a potential conscious principle). At subtler plane of consciousness, it has two parts, *Panchatanmatras*—five sense perceptions—in seed form and *Pancasthoolabhutas*—five basic elements. It refers to *Pancikarana*—fivefold integration principle. Two other cosmological points in the Vedanta are Sun as the sumtotal of all energies in Nature—and gravitation wind termed as *bhootvayuakasavajit*.

These propositions of Vedanta are indicated by science such as one-becoming many theory is paralleled by the theory of single-celled fertilized egg in the womb multiplying into countless billion cells of innumerable varieties. The Vedanta view of Siva Sakti—Nataraja is appreciated by science today. Science believes in some intelligent harmonising power behind this apparent disorder and chaos. Eddington remarks that "recognising that the physical world is entirely abstract and without actuality apart from its linkage to consciousness, we restore consciousness to the fundamental position". This explains the bond between the Supreme Being and its becoming. Vedanta explains that it is the contact of consciousness in the object as well as in the subject (isness in the former and be-ness in the latter that makes the resultant in illumined 'experience'.

A comparative study of Vedantic theory of creation and scientific theories in this respect reveals following corresponding points: (a) Both postulate that this evolution, after the Big-Bang, started with radiation of unimaginably intense light and heat. (b) Both agree that the evolution has been a gradual progress of manifestation of the subtlest principles into the grossest material phenomenon. (c) Vedic concepts of Prana and Akasa emanating from one common intelligent principle of the Mahat have corresponding principles in modern science. Corresponding to Akasa (unitary principle of Matter), Science says that all fundamental particles protons, neutrons and electrons are essentially one and the same and finally converted into one radiant energy. Similarly Prana (the unitary Principle of Energy) has corresponding principle in the theory that all four forces of Nature-electromagnetic, Strong Nuclear, Weak Nuclear and gravitational along with W-boson particle may be merged into one single super force. (d) The Vedantic theory that this creation and evolution are only processes of the cosmic consciousness manifesting itself as the universe has its echo in modern physics. Sir James Jeans asserts— "The universe looks more like a great thought than a great machine" Many other scientists have followed this line.

Similarly, the Vedantic view of the *pralaya* (dissolution) is also in conformity with scientific view as pointed out by Ferris, Weinberg and others. Thus Neuroscience, Quantum and Relativity theories appear to vindicate sacred cosmology.

There may be gaps in Vedantic theory of creation and evolution. But so is the case with scientific theories of creation and evolution.

Without entering into details of Vedantic and Scientific theories of biological evolution, it is suffice to point out that modern trend of scientific thought in relation to evolution is towards the Vedantic vision which believes that Cosmic Consciousness has been designing and guiding the course of evolution from the very beginning. It is another matter that various so-called non-religious or secular terms have been used by them such as underlying reality, ground stuff, super intelligence, super ordained principle of integration, etc. Some, however, refer it as Cosmic Consciousness. Darwin himself looked to this "First Cause".

There are two approaches to consciousness in Physics (a) Notion of order in Chew's S-malrix theory and (b) Theory of implicate order of Bohm's Holo-movement unbroken wholeness. Both recognize that consciousness may have to be recognized in a future theory of physical phenomenon. The worldview of modern physics is a systems view and is consistent with the systems that are now emerging in other fields. We have to go beyond the Cartesian mechanistic view of world and indulge into holistic view in place of reductionist approach. Transpersonal experiences are essential for understanding and experiencing consciousness. The study of consciousness will be enriched only when science and spirituality come together and take action on following lines:

1. A clear-cut definition of spirituality with outline of its scope, content and objectives, primarily as the Science of Being or Science of Consciousness. 2. Logical and objective spelling out of the principles, truths and laws of spirituality. 3. Outline of spirituality and its methods. 4. To locating the contours of both where they meet. 5. Evolve ways and means to bring about cooperation between science and spirituality.

'Science has also to change its method and probably it has to go beyond its domain of measurement, quantification, experiments, etc. and include methodological changes also such intuition vis-a-vis reason, experience along with experiment. Probably a new physics has to be developed in order to solve the mystery of consciousness so that an unified field of knowledge and universal Man with values may emerge for the welfare of the mankind.