



COMPLEMENTARY CONCEPTIONS IN ADVAITA METAPHYSICS AND MODERN PHYSICS

Dr. S. Sheeba

The remarkable advancements in the field of science and technology transformed mankind from an Agricultural Society to an Industrial one. For tapping the benefits of scientific revolutions it is necessary to blend the scientific and humanistic cultures that can make development possible. Man's quest for exploring the secrets of natural phenomena is the basis of physical science. Though Biology, Chemistry, Physiology and other major branches of science are dealt with the topics constrained in their respective boundaries, Physics lays importance on the whole universal phenomena. Hence all other objects come under the purview of physics. Physics started with the enigma of external nature but at the distant it discovered itself face to face with the mystery of man and nature. No satisfying answer is possible for questions regarding the origin of universe without the support of philosophy. Philosophies are the impetus to reach the goal of all revolutionary achievements. An integrated approach between philosophy and physics will certainly serve as an important means of new orientation in the current crisis of human civilization.

The new trend in Modern Physics is the shift from the objective side of the experience to the subjective side of it. As Fritjof Capra points out "However the influence of Modern Physics goes beyond Technology it extends to the realm of thought and culture where it has led to a revision in our conception of universe and our relation to it".¹ Modern scientific studies while going deeper and deeper into the obscurity of the phenomenal world have to share a common platform

with the philosophers. The great philosophical traditions of India have an important role in this regard because of their impacts on the minds and hearts of billions of human beings.

More than 2500 years ago our ancient sages by conducting several experiments in their mental laboratory had directly brought forth solutions regarding the mystery of universe and arrived at proper conclusions. The Vedas, Upaniṣads and other ancient Indian literature no doubt is a storehouse of knowledge on everything in the universe.

Advaita Vedānta, the most celebrated one among the different systems of Indian philosophy disclosed the secrets of nature by its own relevant methods and put forth Brahman or Ātman as the underlying unity in the flux of world process. It can be said that the concept of consciousness is the most captivating aspect of Vedāntic perception and it correlates its world view with that of Modern Physics. Of course, there may be some variances in the aims and methods of philosophy and Modern Physics it is indisputable that the conceptual replica of Advaita amazingly agrees with that of Modern Physics. An attempt is made here to present the parallels between the teachings of Advaita with the postulations of Modern Physics.

The studies, Researches and observations of physics have begun as an exploration for finding out the mysteries behind universe. It is the science of discovering more refined concepts on which natural laws have been based. From the very beginning physicists are trying to find out the fundamental constituents of the universe. The classical physics worked out by Sir Issac Newton provides the mechanical model of the universe. It remained as the solid foundation of the grand edifice of science well into the 20th century. In 1803 John Dalton put forward the atomic theory of matter where atoms were considered as the primary building blocks of universe. Later on in

the last decades of 19th century a series of discoveries especially the discovery of Radioactivity in 1896 and that of Radium in 1898 had really shattered the indestructibility and indivisibility of atoms. The theory of Radioactivity in which heavy elements disintegrate into elementary particles at random gave definite proof of the composite nature of atom.

The discovery of x-rays by Rontgen lead to the discovery of subatomic particles which later paved way to the origin of Quantum physics. The invention of sub-atomic particles like proton, electron and neutron during the 1930's invoked the scientists to find out the smallest particle in the world and electron was detected to be the smallest particle. By 1955 more and more sub-atomic particles were discovered. The notion of massless particles remained a myth. The findings of Quantum physics declared that the sub-atomic particles are very abstract and they have a dual nature also. They appear sometimes as particles and sometimes as waves. The scientists are now trying to find out answers to questions such as: How many types of particles are there in the universe? Are these particles real? etc. All these implications are related to Quantum mechanics. Because of the abstract nature of Quantum physics several scientists have tried to correlate physics with metaphysics. More over Quantum mechanics is much more rigorous in its attempt to describe the Reality.

Fritj of Capra points out that "The basic oneness of universe is not only the central characteristic of the mystical experience but also the most important revelations of modern physics"² This view is also expressed by N.C Pande in his book *Māyā in physics* as-

"Some Quantum physicists are in favour of Vedānta. They do recognize a substratum which is one alone without a second, which is consciousness and which is the support of all phenomena that are transitory and Real."³ Max Plank the inventor of Quantum

physics had explained his views as follows:- I regard consciousness as fundamental and regard matter as derivative from consciousness. Everything we talk about, everything that he regards as existing postulates consciousness.⁴ Eugene Werner supports this as: “It was not possible to formulate the laws of Quantum theory in a fully consistent way without reference to consciousness”⁵

In short, physicists started their enquiry by studying the essential nature of the material objects. While penetrating deeper and deeper into the realms of matter such as atoms, subatomic particles etc they became conscious of the essential unity of all things and events. The Quantum physicists are forced to learn him and to inculcate his own consciousness as an integral part of this oneness. This leads scientists to arrive at the following conclusion as Capra puts it.

“Consciousness may be an essential aspect of universe and that we may be blocked from further understanding of material phenomenon if we insist on excluding it.”⁶

He further emphasizes that “Quantum theory has shown that subatomic particles are not isolated grains of matter but are probably patterns, interconnections in an inseparable web that includes the human observer and his consciousness.”⁷

Without an observer who experiences and knows to talk of the self existing universe is meaningless. Therefore whatever be the description of the universe scientific or philosophical the presentation is always related to a knower. Ācārya Śankara in his commentary on kathopaniṣad clarifies this point as-

Subtler than the subtle, subtler than the grain etc., Greater than the greater, greater than objects of great dimensions such as earth. Whatever exists in the world whether subtle or great can possibly be of such a reality only on account of the external self. When separated

from the self it becomes an unreality. Without the knower the universe becomes a non-entity.

अणु महद्वा यदस्ति लोके वस्तु तत्तेनैवात्मना नित्येन आत्मवत्संभवति।
तदात्मना विनिर्मुक्तमसत्संपद्यते ॥

(K. UP. I. 11.20.)

We can find this absolute concept in our Vedas with subsequent elaborations in the Upaniṣads. The Upaniṣad declares – underlying all physical reality there is one abstract entity Brahman which is consciousness alone. The Aithereyopaniṣad asserts this as-

- Prajñānam Brahma : Consciousness is Brahman
Prajñā netro lokah : The universe has conscious as its indweller
Prajñā pratiṣṭha : Consciousness is the support of the whole universe.

The Śruti passages.

सदेव सोम्येदमग्र आसीदेकमेवाद्वितीयम्
तदैक्षत बहुस्यां प्रजायेयेति तत्तेजो ऽ सृजत (Ch. UP. 6.2.1)

आत्मा वा इदमेक एवाग्र आसीन्नान्यत्किञ्चन
मिषत् स ईक्षत लोकान्नुसृजा इति (Ai. UP. I. 1.2)

ब्रह्म वा इदमग्र आसीत् तदात्मानमेवावेत् अहं ब्रह्मास्मीति। तस्मात्तत्सर्वमभवत्।
etc unanimously declare that in the beginning the world was Sat or Brahman only. The will of Brahman is depicted as the cause of origination of the universe of stars, planets, galaxies, oceans, rivers, mountains, air, water heat, earth light planets etc.

Śankara, the most celebrated philosopher that India had ever produced reveals Brahman to its nearness; The Ultimate Reality is the only truth that is devoid of any kind of distinctions. This Brahman is the self manifesting power behind the created things. The maxim

“Sarvam Khalvidam Brahma” indubitably observes the underlying multiplicity of the world into Brahman. This Brahman is the basic principle which illumines the whole universe. It is not illumined by anything else. The sun glitters by the illumination of the self luminous Brahman. The moon and the stars illumine by the same illumination of Brahman. The fire and the lightening illumine by the reflection of the self luminous Brahman. Whatever is sparkling and lustrous in this universe is accomplished by the reflection of the light of the self-luminous Brahman. This Brahman is approximated from the absolute stand point by svarūpalakṣaṇa. Satyam, Jñānam, Anantam Brahma is the essential characteristic of Brahman. From the relative stand point Brahman is defined by tatastha lakṣaṇa. Brahman is defined as the cause of the origin, sustenance and dissolution of the universe. Jammādyasya yatah denotes the tatastha lakṣaṇa of Brahman. Thus Advaita postulates Brahman as the unity behind the phenomenal world.

यदादित्यगतं तेजो जगत्भासयते ऽ खिलम्
यच्चन्द्रमसि यच्चाग्नौ तत्तेजो विद्धि मामकम् ।

(Ch. UP.III. 2.6)

The Vedāntic aspect of illusive nature of the world is also admitted by the discoveries of post Quantum physics. Heisenberg’s “Uncertainty principle” direct the Quantum physicists to ask the question “Do particles really exist”? If we call something a particle, we can safely infer that it has a determinate position. There is no particle at rest. A particle has to remain in constant motion for its own existence. The moving particle definitely has a momentum. We cannot observe both the position and momentum of a particle with absolute precision. Everything happens by chance in Quantum physics. The micro world of Quantum physics is chaotic. Micro particles move randomly collide with one another randomly and appear and disappear randomly. It is somewhat unreal and resembles

the Vedāntin's world view.

Scientists are now forced to accept the fact that several particles appear and disappear. Matter, energy, field etc which were treated as primary and ultimate has got only a relative, phenomenal and empirical existence. According to them this world of Quantum has also got relative existence. It exists, does not exist or does not exist and exists. Hence every micro entity of the phenomenal world appears, stays for a moment and disappears. Underneath all these phenomena there is the interplay of an abstract substance called energy which in term is controlled by something more abstract and unobstructable and stable substratum. It is beginningless, timeless, endless, actionless and eternal. Not only physicists but also cosmologists are close to proving that there is one source behind the physical universe as Advaita postulates.

I am concluding with the following remarks. We can accept physics and metaphysics as two complementary manifestations of human mind. Physics starting from the outer world arrive at the conclusion that the observer himself and his consciousness are an integral part of the essential unity of all things and events. While Advaita starts from the inner realm it arrives at the same conclusion directly. The harmony among the two views confirms the Ultimate Reality Brahman which is identical to Ātman as the reality within. Both these observations take place in realms which is in accessible to senses. Even though the aim, objective and methodology of physics varies from that of Vedānta the fascinating prophecy of Advaita Vedānta may be re-interpreted in the format of modern Physics. Similarly scientists have to provide adequate space to metaphysics in their stream of thought while exploring the truth behind the sub atomic particles.

Since Advaita is the only philosophy that has the capacity to

imbibe the modern concepts of science, without any contradiction it could always be taken as a vibrant catalyst to the process of human thought. The postulations of Advaita regarding man's enquiry into the natural phenomena and his efforts to describe the ultimate Reality will play a major role on the stage which scientific as well as philosophical researches are taken place. The major scientific theories developed during the last two centuries are equipped enough to endorse the advaitic narrations of the unity of existence.

End Notes

1. Fritj of Capra, Tao of physics P.21
2. Fritj of Capra, Tao of physics P.31
3. N.C. Panda, Maya in physics, P. 122
4. Quoted by Jitatmananda in Modern physics and Vedānta P. 36
5. Eugene Werner, Symmetries and Reflections – Scientific Essay
M.I.T Presss, Cambridge 1979, P.172
6. Fritj of Capra, Tao of physics P.87
7. Ibid P. 155

