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Philosophy of Science and Religion

In this paper, I shall attempt to present a brief picture of what science is, and how scientists view the great problems imposed by religious concepts on the minds of everybody—problems such as “What is the nature of things?” “What force drives the Universe” and “What causes order to exist in Nature?”, and perhaps touch upon questions like— “Is what we see, and hear, and feel, the real nature of things, or is it only a view of these as seen by man?” In trying to understand such aspects of knowledge, science and philosophy mingle with one another. In fact, the answers to many of these questions were given more than 2,000 years ago by philosophical thinkers of India, Greece and other Countries, although science has advanced to its full maturity only within the last century or so.

Prof. Schroedinger in his book, *What is Life?* says :

It has become next to impossible for a single mind to command more than a small specialized portion of it (knowledge). I can see no other escape from this dilemma than that some of us should venture to embark on a synthesis of facts and theory, albeit with secondhand and incomplete knowledge of some of them and at the risk of making fools of ourselves.

If professor Schroedinger need not be considered a fool when he talks about biology from the point of view of a physicist, we also need not be afraid to talk about the synthesis of science with religion and philosophy, while I am a specialist only in science.

Definitions of Science, Philosophy and Religion

We shall start by defining briefly what we mean by the three fields of knowledge we have chosen to discuss. Taking science first, it is perhaps the most general of all methods of gaining knowledge. When

man observes his external surroundings, the land which he perceives, the heavens above with the sun and stars which he sees in all their glory, and also the panorama of living beings, and contemplates them, he becomes a true scientist. Science consists in observing facts, in codifying them, in organizing them, in explaining them, and in doing so, becoming able to produce new types of knowledge. Thus science consists of the acquisition of knowledge—in fact, science may be identified with knowledge itself.

But, the philosophers would say that it is their duty to study the nature of knowledge, and the Indian religious leaders would say that the highest form of religious experience is the merging of oneself with true knowledge. Therefore, in the name of “knowledge”, we can combine science, religion and philosophy. There is really nothing that any one of them cannot explore, in the final analysis, that the other can.

However, when it comes to practicality, there is a distinction between the three. Science, we say, consists of the study of the external world by the mind of man. On the other hand, as Will Durant says, Philosophy considers the hazardous task of dealing with problems not yet open to the methods of science—problems like good and evil, beauty and ugliness, order and freedom, life and death; so as soon as the field of inquiry yields knowledge, susceptible of exact formulation, it is called science.

On the other hand, if we take up aspects of our existence dealing with such subjects as the mode of life and conduct of man, it becomes part of religion. This field of study, namely, ethics, is the study of ideal conduct. The highest knowledge, said Socrates, is the knowledge of the wisdom of life. In exactly the same manner, according to ancient Indian scholars, philosophy is at no time unconnected with religion. The supreme objective of the true seeker after truth is, according to them, the ability to merge the Inner Being of man (*Atman*) with the Supreme Being (*Brahman*) that exists, transcending every object in the Universe.

True Religious Spirit

When we talk about religion, there are two aspects: one inner and the other outer—the words inner and outer being used with respect to the

human being. It is an interesting fact that almost all religion agree on prescribing the principles of good conduct and in specifying what "outer" processes and actions can lead to satisfaction, happiness and inner liberation. However, they all also agree that it is not the actions alone that count, but that it is the thoughts behind these that are important, if not more important than the actions performed. Do we not find persons who would publicly announce large gifts to charitable agencies, but who in their own institutions would refuse a small rise in the salary of their low-paid employees. They surely do not have a charitable heart. True religion demands that one shall be wholly of one heart, whether in action, in thought, or in meditation. In this connection, I am reminded of the words of Plato, as to the meaning of the word "justice", namely, simply that each man shall perform the function for which he is best fit. A just man is a man in just the right place and doing his best and giving the full equivalent of what he receives.

Justice and truth, when welded together, form the basis of a religious life. There is no other language in the world that has the exact word for it than our Sanskrit—the word is *dharma*. If *dharma* is achieved, and if *dharma* is maintained nothing more is needed for the world to be happy and free from injustice.

As already mentioned, it is not enough that one gives away one's possessions to the poor in order to go to heaven. Charity must come from the heart; and if the heart is there in full, what is offered, or how little is offered, is of little matter. In fact, Sankarāchārya expresses this idea in the pithy sentence, *Deyam dānanāya ca vittam* meaning, 'you shall give away your wealth to the poor'. But if you look at the previous line of this sloka we find the words *Neyam sajjana sange cittam*, which mean one must also guide one's thoughts towards truth, and righteousness, by leading his life in the company of good people. The Acharya does not separate the two; if the latter (namely, goodness) is not there and only the former (that is, charity) is present, then it is not true religion.

Here it is not a question, specifically, of this religion or that religion, but of religion *per se*. This is because these truths form the basis of all religions. In this connection, I am reminded of the line *sarvadēvanamaṣkārāḥ kēśavam pratigacchati*—that is to say, to whichever deity you offer your worship, it always goes to *Kēśava* the

Supreme Lord. In this saying, Kēśava does not mean just the Hindu Lord Vishnu—it stands, in fact, for the Universal Lord, that is in every thing and whose guiding force turns the wheel of Nature—*yēna bhramyatē brahmachakram*.

The Supreme Being

This aspect of the Supreme, or the Absolute I wish to emphasize—for it is on this that Science, Religion and Philosophy all agree to talk the same language. In fact, I shall quote from each of these areas to show how great thinkers, the world over, have thought alike when it came to the discussion of the Essence behind the nature of all things and beings—namely, the Ultimate Reality.

- i Commenting on the ideas of Aristotle, in his book *Metaphysics*, Will Durant says :

God does not create, but he moves the world; and he moves it not as a mechanical force but as the total motive of all operations in the world; “God moves the world as the beloved object moves the lover.” He is the final cause of nature, the drive and purpose of things, the form of the world; the principle of its life, the sum of its growth, the energizing entel-echy of the whole. He is pure energy; the Scholastic *Actus Purus*—activity *per se*; perhaps the mystic “Force” of modern physics.

- ii *Īśa Upanishad* puts it as follows (Translation by Louis Renou):

By the Lord enveloped must this all be-whatever moving there is in the moving world. Unmoving that ONE is swifter than the mind. The sense—powers reach it not, speeding on before fast others running. This goes standing. In it *Mātarīśvan* places action :

It moves; It moves not
It is far and It is near
It is within all this;
And it is outside of all this.

- iii The Spanish Philosopher Spinoza of the 17th century has written:

I hold that God is the immanent, and not the extraneous, cause of all things. I say, All is in God; all live and move

in God. And this I maintain with the Apostle Paul, and perhaps with every one of the philosophers of antiquity, although in a way other than theirs. I might even venture to say that my view is the same as that entertained by Hebrews of old.

In another place he has said :

Neither intellect nor will pertains to the nature of God. The mind of God is all the mentality that is scattered over space and time, the diffused consciousness that animates the world.

iv Compare these with the sloka in *Kena Upanishad* :

*Yo manasā na manute, yena hurmanute manah
Tadeva Brahma tvam viddhi na etad iha upāsate.*

This means :

That which mind cannot conceive,
But by which mind is made to think;
Know you, *that* is the true *Brahman*,
Not this that you worship here.

v St. Augustine in his Sermons says exactly the same :

This then is not God, if thou hast comprehended it; but if this be God, thou hast not comprehended it.

This concept of the Supreme One, as being both that which constitutes everything and also that which stands outside all these, and makes them run, is the greatest contribution of Hindu Philosophy. The impact that this concept has made on the minds of scholars elsewhere is particularly evident from what the great German Philosopher, Schopenhauer, has said about this mystic picture of the Supreme Being :

The Hindus were deeper than the thinkers of Europe, because their interpretation of the world was internal and intuitive, not external and intellectual; the intellect divides everything, intuition unites everything; the Hindus saw that the "I" is a delusion; that the individual is merely phenomena, and that the only reality is the Infinite One—'That art thou'—(*Tat tvam asi*).

However, this concept has not been there only in India. It has been discovered by every great thinker, wherever he may have lived; in fact, many theses of Aristotle are seen to coincide with the philosophical thoughts of ancient India. One example is the quotation from Aristotle's *Metaphysics* mentioned above. In fact, this concept of the Supreme Being, with its emphasis on "Being" is seen in the inscriptions of Mohenjodaro (3000 BC), where the name of God is given as "Iruvan" which means in Tamil "The One who exists" (cf. S. Radhakrishnan, *The Recovery of Faith*).

Scientist's view of the Ultimate Limits of Knowledge

The above concept is not at all inconsistent with that of science. As I said earlier, science permeates every aspect of human life. I do not mean this only in the mundane sense that we utilize the fruits of scientific enquiry whenever we do anything, such as travelling in a bus, or talking on the phone, or switching on the electric light in our houses. It is to be taken in a more philosophical sense, namely, that science, whose essence is the pursuit of knowledge and the seeking out of truth, is there in whatever we do in an intelligent way.

Why is everything as it is? Who am I? Where did I come from? Where will I go after my death? Is this world running by itself, or by some unseen force? In fact, the quest for such laws governing the Universe around us, is as much part of science, as all the other things which are more commonly taken to be its domain. Science is ever-interesting, ever-exhilarating, and ever-enjoyable. In fact, the true spirit of Science is shown in the teaching of Science, namely, that of presenting the facts that are available, analysing them, examining them, and taking them to bits and finding the relationship between these and then synthesizing all the information thus obtained in the form of a small number of simple laws.

Here we have to consider the vast frontiers of knowledge and ask ourselves whether all possible knowledge will be exhaustively acquired by us, provided we have sufficient time to do so. I am afraid, the answer is: the search and this exploration of the boundaries of knowledge is not like the exploration of an island or a forest. We know that the island or a forest, exists over a certain area, and when that area is exhausted, it becomes known to us in all its details. This can never be so in Science, for the frontiers of knowledge are ever-receding;

the closer we go to the outer limits, the farther they recede. The more we find out, the more we know about Nature, the greater does the range of the undiscovered become.

The best way of demonstrating this aspect of the frontiers of knowledge, is to consider the information explosion during the last few decades. In every age, the scientists of that age thought that they had arrived at the ultimate truth; that they had really obtained the fundamental laws governing Science; and that it was only a matter of finding out the details to fill up all the gaps. Such a smug attitude towards Science was particularly present at the end of the last century, in the field of physics. Enormous progress were made in that century, and it was thought that all the Laws of Physics were known. However, as we know now, in the beginning of this century, scientists, like Planck and Einstein, showed that even the foundations of the earlier theories were unsound, and that they had to be relaid in order to understand Nature in its naked truth. We saw the emergence of the study of molecules and atoms; of electrons, protons and photons. And once again, by the end of the 1920s, when relativity and quantum mechanics were fully known, it was thought that we had again reached some sort of an end. But it was not to be. During the 50s and thereafter, not only in physics, but also in chemistry and biology, there have been tremendous advances, not only of factual information, but even in the comprehension of these and the nature of the laws that govern them.

The explosion in Molecular Biology during the last 10 years is even more startling. We even produced new forms of life. The irreligious may ask: Are we replacing God thereby? But the scientist will answer that it is not at all the case, but that it is the same Laws of Nature that were known earlier that have been utilised for realizing these new mysterious possibilities. We do not know where these will lead to, and what lies ahead.

Unending Ocean of Knowledge

I am saying all these to emphasize the fact that there will be no end to this quest for knowledge. The Scientist depicts "Nature", which he studies as consisting of the sum total of all existence, and of all the laws that govern the things that exist. One is thus irrevocably led to the ancient Hindu concept of *Brahman* the Supreme Entity that encompasses everything, as the equivalent of this in a religion. The short, but sweeping, statements of the *Katha Upanishad*, namely,

'*anoranīyan mahato mahīyan*' and '*anādyanta*', meaning :

'atomer than the atom, mightier than the largest',
and 'having neither beginning nor end',

really convey this concept most concretely. We must think of Nature as being infinite in space, infinitesimally divisible without end, and existing for all time. The stanza two steps earlier contains an even more comprehensive description. (This is included also in the *Bhagavad Gita*):

*Na jāyate mrīyate vā vipascin
Nāyam kutascinna babhūva kascit
Ajo nityah śāśvatoyam purāṇo
Na hanyate hanyamāne śarire.*

Meaning :

This intelligence was not born and shall never die; he did not originate from anything, nor did anything other than it ever be formed. It is unborn, eternal, unchanged and ever ancient. It is not gone when the body dies and decays.

Science versus Religion

This is the time to raise the question as to whether any part of Science is opposed to the tenets of religion. In his book *Recovery of Faith* Dr. S. Radhakrishnan says :

Religion, as it is generally understood, is opposed to the spirit of Science. The method of Science is empirical, while that of religion is dogmatic. Science does not rely on authority but appeal to communicable evidence that any trained mind can evaluate. Science does not admit any barriers to freedom of thought and inquiry. It welcomes new knowledge and new experience. A true scientist does not take refuge in dogmatism. His outlook is marked by modesty, self-criticism and readiness to learn from others. If we esteem freedom of inquiry, we find that it is incompatible with authoritarianism, which is the dominant feature of religion.

I venture to suggest that the above comments are not quite correct and that Radhakrishnan has taken a rather dogmatic view of religion itself, in saying that it is authoritarian, that it has dogmas, and that it

is opposed to freedom of thought. However, as we have seen earlier, a *truly* religious person will not be opposed to freedom of thought, since for him the source of thought itself is God. If belief in God, as being the guiding spirit behind the working of Nature, is accepted, then the fundamental basis of Science and that of Religion become one and the same. Both believe in Law, Truth and Order. They differ only in that one says that it is derived from the Supreme Being, while the other says that it is the property of Nature, without asking further the question as to *why* this property exists.

So, we see that, instead of looking for the scientific basis of Religion, which we started to examine, we have come to the conclusion that true religious inquiry encompasses within itself the whole of Science. *Advaita* or ONENESS of the powers behind Existence, is the essence of both; but his ONE exhibits itself in a million things and in a million ways. We have to study all these in the true scientific spirit, and ascend upwards, seeking more and more Universal Laws that encompass the whole range of knowledge. Ultimately one transcends even the bounds of knowledge and thought, and realizes that spirit which is within all of Existence, and which at the same time encompasses it all—an entity that is beyond our comprehension.