

Inventive Comparison between Engineering Science and Hinduism

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Abstract

The verbalization would have the association between Hinduism and the Engineering Science in eternity. Realization is the central eminence of both God and the living unit. God's consciousness permeates everywhere, whereas the consciousness of the living entity is confined. The paramatma feature of God guides all the living beings and non-living things. Paramatma is the source of inspiration in all human actions and the source of scientific discoveries, artistic ability, poetic works, etc. In Furtherance time is the detached and eternal aspect of God and has no beginning or end. In modern science time begins with the Big-Bang. In Hindu cosmology and cosmogony, creation and dissolution go on in periodic cycles like the changes of seasons. Vedanta, the scientific and theological doctrine of Hinduism, enlightens that in fundamental terms there is no struggle between science and religion. This is because of the understanding that the domain of each realm is well-defined. In Hinduism there are two categories of knowledge – (i) para vidya - the spiritual knowledge and (ii) apara vidya - material knowledge. Scientific knowledge is the realm of apara vidya. Spiritual knowledge - knowledge of God and life - belongs to para vidya. Hinduism points out that scientific knowledge can lead to spiritual knowledge. The verisimilitudes would be in action for the clonal field of designs.

Keywords: Hinduism, Association, Engineering Science

Introduction

“The most beautiful and deepest experience a man can have is the sense of the mysterious. It is the underlying principle of religion as well as all serious endeavor in art and science.”

– Albert

Einstein

The crux of Hinduism is contained in the Vedanta, the scientific and theological doctrine of Hinduism, and in the timeless wisdom of the Vedas. Its “Bible” is the *Bhagavadgita*, the heavenly song of God. Its systematic and knowledgeable contents have attracted the attention of some of the world's finest scientific and metaphysical observances, such as Erwin Schrödinger, Robert Oppenheimer, Albert Einstein, and Aldous Huxley. It communicates of billions of an inordinate length of time of times past, design of the universe, pharmaceutical science, astronomical travel, embryology, graphic arts, melody and the like. It is no exaggeration to say that there is almost no branch of knowledge that is left untouched in the Vedas. According to Hinduism, the present universe began 15.5522×10^{13} years ago and will end in 15.5518×10^{13} years. In consequence the Hindu prototypical of the universe is 10^4 times older than that prophesied by the Big Bang notion. The visible universe is one of the innumerable universes and there are 8.4×10^6 species of life in this universe.

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Biodiversity is due to different levels of consciousness and consciousness evolves which is known as the transmigration of the soul.

1. Nature of Life and Matter

Allowing to Vedanta, there is extra genuineness in environment diverse from matter. It is the essential spiritual particle (called *atman* in Vedantic terminology), which the novelist has coined as “spiriton.” It is a uplifting subdivision and is ontologically different from matter. It has a sensible property and has able will opposing to material elements like electrons. It is lone by the company of the spiriton that trouble appears animated. In Vedanta this superficially animated matter is stated to as alive life.

2. Psychic Particle ‘Spiriton’ and Cognizance

“... all familiarity communicates to the spirit, or more right, exists in it, and that is the sole purpose for our attention in any field of information whatsoever.”¹

– Erwin

Schrödinger

Allowing to Vedanta, every life form has *atma* or spiriton, within it. In other arguments not only do social beings possess a spiriton, but so do all microbes, insects, aquatics, plants, reptiles, birds, and so on. In this regard, Vedanta is single and changed from the Scientific and religious views of many other world societies. The *Bhagavadgita* (verse 15.7), states: *mamaivamso jivaloke jivabhutah sanatanah*, which resources that all spiritons are eternal mindful elements of the Supreme Noble. The important talents of the spiritual subdivision, or spiriton are of the equal nature as the Supreme Lord’s and are as shadows: *sat* (eternal existence), *cit* (full cognition), *ananda* (blissfulness), *sveccha* (free will) and *cetana* (consciousness).

3. Biodiversity and Development of Mindfulness

Conferring to new biology, biodiversity is payable to a genetic difference caused by the process of casual chance mutation. However, giving to Vedanta, the law of *karma* and the three styles of material nature — *sattva*, *rajas* and *tamas* — are accountable for biodiversity as well as for range in relations of levels of brain, degree of advance of mind and realization of the alive being within the same species. Also, the Vedas state that biodiversity is a course to accommodate the many states of realization in different life forms. There is a regular evolution of Consciousness through many types of life giving to the subtle laws of *karma*. These life forms are said to number 8.4×10^6 and include – viruses, insects, plants, aquatics, birds, reptiles, animals, humanoids and human beings. According to the mindful evolutionary planetary time scale, one gets the human form of life after passing through millions of changes of life forms.

Vedanta more explains that many life forms apparent simultaneously. In extra words, hereditary difference is now within a cosmic plan. Nobel Laureate Werner Arber’s comment that genetic

mutation is not due to error or fault is in line with the Vedantic start. He says, “Development does not occur on the basis of errors, chances or the action of self-seeking genetic elements. Rather, the growth genes must have been fine-tuned for their functions to offer and to reload a wide range of life forms. . . .”

Both of these lookouts support that natural forms are already within the intergalactic plan and are contradictory of Darwin’s thought of biological evolution. In fact Darwin’s philosophy of development has many loopholes. Stephen Jay Gould, a bulging evolutionist from Harvard University writes, “The extreme rarity of provisional forms in the relic record continues as the trade secret of paleontology . . . In any local area, a type does not arise slowly by the steady revolution of its lines, it appears all at once and fully formed.” It is not that natural collection and random transformation are the cause of biodiversity. Bestowing to Hinduism, the spiriton constantly transmigrates from one life form to the next until it scopes the human form where perception is fully advanced and has a accidental to reestablish its pure religion of existence (see section 10 on ‘Spiritual Evolution’). This beginning is beyond the choice of modern biological science. Thus, the Vedic policy of evolution of notice concept is different to the Darwinian evolutionary theory. It is the realization that evolves, not the bodies, in the Vedantic tradition.

Darwin’s slipup was that he could not perceive of an eternal existence of consciousness. Thus, Vedanta does not accept Darwin’s theory of growth. Under usual circumstances, the mindfulness of the spiriton evolves linearly as well as step- wise. As before referenced, the *Brahma Vaivarta Purana* affirms, *asitim caturas caiva laksams tan jiva-jatisu bhramadbhiih purusaih prapyam manusyam janma- paryayat*, meaning one gets the human form of life after having improved 8.0×10^6 other forms of life. The *Padma Purana* gives a complete statement about the changed forms of life as follows:

jalaja nava-laksani sthavara laksa-vimsati
krimayo rudra-sankhyakah paksinam dasa-laksanam
trimsal-laksani pasavah catur-laksani manusah

Trees and plants, for sample, are nearly inert. They fall into the group of ‘covered recognition.’ When we witness them sensibly, we see that they have a partial or covered consciousness. The famous scientist Jagadish Chandra Bose described that plants do have consciousness. Other living things, such as worms, insects, and other animals are in ‘shrunken perception.’ They are not as enclosed as plants, but their awareness is not fully advanced either.

4. A Glimpse of Embryology

It is very exciting to note that there is a important report about the science of embryology in Vedantic literatures. *Srimad Bhagavatam*, Third Canto references a brief report of human embryology. *Garbhopanishad*, one of the early Upanishads, also serves as a brief treatise on embryology. These are very applicable to modern science and technology.

Giving to Vedanta the appearance of life begins from the instant of conception. Life first enters the semen of the male and is inserted into a womb of a woman. Dr. Jerome Lejeune, known as "The Father of Modern Genetics," also said, "Life is present from the moment of beginning" before the Louisiana Legislature's House Team on the Management of Criminal Justice on June 7, 1990. He elucidated that within three to seven days after conception we can control if the new human being is a boy or a girl.

"At no time," Dr. Lejeune said, "is the human being a blob of protoplasm. As far as your nature is troubled, I see no modification between the early person that you were at beginning and the late person which you are now. You were, and are, a human being." He pointed out that each human being is unique – different from the mother – from the moment of commencement.

"On the first night, the spermatozoa and ovum fusion (to form zygote), and on the fifth night the assortment excitements into a bubble (blastocyst). On the tenth night it matures into a form like a plum, and after that, it regularly shots into a protuberance of flesh."

"In the track of a month, a head is formed, and at the end of two months the hands, feet and other branches take shape. By the end of three months, the nails, fingers, toes, body hair, bones and skin seem, as do the organ of generation and the other openings in the eyes, nostrils, ears, mouth and anus.

5. Time and Space

The thought of time and space is really important in both science and Vedanta. In Vedanta, *Kala*, time is eternal. It is the measured aspect of the Highest Lord. In the *Bhagavadgita* Lord Krishna says, *kalo 'smi loka-ksaya-krit pravridhho* — "Time I am, the great demolisher of the world." This was the verse uttered by Robert Oppenheimer at the first test of the atom bomb in Los Alamos, New Mexico, USA on July 16, 1945. In the *Srimadbhagavatam* sage Maitreya describes that eternal time is the basic source of the connections of the three modes of substantial nature. It is fixed and has no limit, and it functions as the device of the Supreme Lord for His deceptive activities in the material creation.

When the living entity comes in contact with material nature and under the control and purview of eternal time, many dissimilar activities called *Karma* are created. Real time is leisurely in terms of its layer a certain space of atoms, and space is planned in terms of atoms. Thus time and planetary are closely linked in Vedantic cosmology and *Kala* – time is the root cause of all events and drives all events in the material universe.

6. Two States of Matter and Generation of Matter from Spirit

It is to be famous that in Hinduism the important cosmic elements are in two states – inactive and active. The unmanifest, inactive and primal total ingredient is called *pradhana*. At the time of

conception, *pradhana* is stimulated by the Supreme Lord, and matter becomes patent, which is called *prakriti*. Both matter and spirit are eternal. However, at the time of conception, which goes on in cosmic cycles like the change of seasons, the unmanifest sum-total of matter is activated by the Superlative Spirit and the cosmic liveliness begins to manifest. This is called the brief display of material energy. This material energy is then changed by the occurrence of a cognizant spiritual entity. In other words, matter as such is lazy but gets active by the presence of the spirit, just like a live bird. The bird can fly since *jiva* or *atman*, the spiritual spark, “spiriton”, is within. However, because of the preparation of nature, the body has a incomplete time historical. When the spirit greeneries the body, the body becomes dead and inert again. When the complete creation is wound up the physical apparatuses return again to the unmanifest form, which is unending. That is the difference between spirit and matter. The Highest Spiritual Actuality is the primal source of both matter and spirit. The spirit however is inspiring and beyond sense awareness, and giving to Vedanta the Supreme Lord or the Supreme Spirit is behind the cosmic creation.

7. Universe – A Brief Overview of its Origin, Maintenance, and Dissolution

In this section, we will very fleetingly scrutinize the Vedantic cosmology (please refer to author’s article in *Savijnanam-Scientific Exploration for a Spiritual Paradigm*, Periodical of the Bhaktivedanta Institute, Vol. 2 for a more detailed explanation of Vedantic cosmology). Vedantic cosmology describes that the creation is maintained for a specific period before it is wound up. At the start of each cycle of creation of the universe, Lord Brahma, the first created cosmic living existence is born. A day of Brahma is called a *kalpa* and one *kalpa* consists of a thousand cycles of four *yugas*, or ages, called *Satya*, *Treta*, *Dvapara* and *Kali*. The same number contains one night of Brahma and he lives one hundred such years and then dies. *Satyayuga* lasts 1,728,000 years; *Tretayuga* lasts 1,296,000 years; *Dvaparayuga* lasts 864,000 years; and *Kaliyuga* lasts 432,000 years. Thus one hundred years of Lord Brahma equal 311 trillion and 40 billion earth years. Allowing to Vedantic cosmology, our creation starts with the birth of Lord Brahma and he is at present a little more than 50 Brahma-years old.

Thus our present life started about 155.522 trillion (155.522×10^{12}) years ago and will end in 155.518 trillion (155.518×10^{12}) years and just after that a new cycle of conception will begin again. Allowing to modern cosmologists, our creation began around thirteen to fifteen billion ($13-15 \times 10^9$) years ago. Thus in the Vedic time scale, the universe is an order of 10^4 times older than that informed by modern cosmologists.

8. Synthesis of Science and Religion in Hinduism for Solving Difficult Issues

In Vedanta there has always been agreement between science and religion because their fields and associations are clearly defined and understood. Science transactions with external or material acquaintance (*apara vidya*) — knowledge of matter and its subdivisions, like atoms and quarks whereas true religion deals with internal or divine knowledge (*para vidya*)

— knowledge of the spirit, or seer. The first one transactions with the shifting, temporary, and external reality whereas the later deals with the immovable, eternal, and inspirational reality. Both these categories of knowledge are important, opposite, and extremely useful.

In Hinduism the courtesy relationship between science and religion is quite close. As we can infer knowledge of an object from its shadow, so by *apara vidya*, or material knowledge or science, we can appreciate something about the presence of *para vidya*, or spiritual knowledge. One does not negate the other. From his experiences while studying the atom, Max Born, one of the establishment fathers of significant mechanics, proclaimed, “I saw in it [the atom] the key to the deepest secrets of nature, and it open to me the vastness of creation and the Creator.” The author refers to this as a view of separation of science and religion. Thus it is possible that many mysterious issues in biology, physics, cosmology, etc., can be resolved by the mixture of science and religion in Hinduism.

Finalization

The verbalization has an interconnectedness between Hinduism and Engineering Science. The Vedantic literature is the heart of Hinduism is exceedingly squared and does have gigantic would-behness in putting forth subterranean intuitions in order to rectify as many issues as in the practicum in numerous grounds of Engineering science. It was thought-provoking so as to anole that almost 60 years ago Erwin Schrödinger, one of the forerunners of quantum mechanics had a severe concentration in Vedanta. He used to read Vedantic textualisations called the Upanisads and steamed the need to bring in the Vedic concepts into modern science. Thus and thus it may be quite worthy for the erudite scientists and scholars in the better to explore many of the conceptions in the Vedantic Verbose.

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