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# The Outlook: Journal of English Studies

ISSN: 2565-4748 (Print); ISSN: 2773-8124 (Online)  
Published by Department of English, Prithvi Narayan Campus  
Tribhuvan University, Pokhara, Nepal  
[A Peer-Reviewed, Open Access Journal; Indexed in NepJOL]  
<http://ejournals.pncampus.edu.np/ejournals/outlook/>

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THEORETICAL/CRITICAL ESSAY ARTICLE

## The Science of Religion in the Vedic Texts: A Physico-Theological Perspective

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**Article History:** Submitted 12 Mar. 2021; Reviewed 16 Apr. 2021; Revised 25 May 2021

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**DOI:** <https://doi.org/10.3126/ojes.v12i1.39096>

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### Abstract

*Vedas, in common perception, are understood as purely cultural texts even to the academic province with the logic that they provide purely religious and theological knowledge, however the quest of spiritual truth is the prime concern of Vedas. The real problem on such understanding is that the scientific part of the Vedas is always under the shadow. This is partly from the Vedic scholars, as they have not properly revealed the scientific part of the Vedic knowledge; and partly it is the weakness of scientists because they have heavy concentration just on the facts that they have little time to keep eyes on the Vedic science. The question is always unaddressed whether religion has science. This study tries to unearth the part of science veiled within the Vedic texts, especially seeing the Vedic science of ecology, biodiversity, physics and cosmology using physico-theology as the tool of observation.*

**Keywords:** Biodiversity, natural-theology, physico-theology, Vedic-cosmology, Vedic-ecology

### Introduction

With the connotation of eternal truth, we respect the knowledge of the Vedas with no question. Many studies have been made to reveal the spiritual truth of the Vedic knowledge and that have become the guiding principles for the social and cultural lifestyle of many people, especially the Hindus though Vedas have nowhere mentioned Hindu religion or culture as such. With thousands of year's history, Vedas are believed to be *apaurusuya*, not human authored, and they have become timeless in generating knowledge and philosophical understanding. They are not only the texts, they are really the embodiment of the knowledge of life and nature, however many contradictions always exist at the center as the distinction between modern physics and Vedic metaphysics. This study aims to address this contradiction looking the science into Vedic texts. The argument of this study is that Vedas contain knowledge in every field of worldly science as "Siksha or phonetics, Kalpa or code of rituals, Vyakarana or

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grammer, Nirukta or etymology, Chandas or literature and Jyotish or astrology” (Mishra 9), and present the logics, as Vedic philosophy, for natural science as the modern science has defined natural world at present. Providing the knowledge of both physical worlds of nature and spiritual world theology, Vedas can be studied as the reliable source of Physico-theology.

Two schools of thoughts have always been in concentration, Science and Religion. One, being the science, focuses on the fact, and the other, being beyond science, focuses on the theological arguments; one regards nature as the fact and another regards nature as the manifestation of the divine; and one teaches the value of justification through the fact and another just tries to generate faith to the divine through the logics of the physical and the spiritual. The real problem, as the guiding principle of this study, is, since the Vedic religion is not only the spiritual observation of nature, to observe the science within Vedas with the help of Physico-theology as the theoretical tool.

### **Physico-Theology as the Science of Religion**

“Physico-theology”, the term first used in the 17<sup>th</sup> century, “did not exist in the sixteenth century” (Blair and Greyerz 4), could be easily understood in terms of the opposites, ‘physico’ the physical and ‘theology’, ‘about the existence of god’. The term, ‘physico-theology’ supports the concept that physical object or natural reality has to do with the divine power. Two words, ‘physical’ and ‘theology’, physical as an adjective and ‘theology’ as a noun ‘physico-theology’ refers to the theology or divinity that is illustrated or enforced by physics or natural philosophy. Physical, the adjective qualifying as something material or something that has the physics, the science of objects or things; and theology, the study of the divine or the gods/goddesses, relate to the ideas of both philosophies. Integration of science (physics) and religion (theology), it is a theology based on the foundation of the natural world, especially on evidence of the reality that exist, however variety differs as per individual perception.

Science and religion have long been understood as the two distinct poles with a wide range of historical interactions as physics and metaphysics, and connecting these two ideas into a single domain of understanding is a great challenge which the 17<sup>th</sup> century science philosophers, Robert Boyle and John Ray have done to a great extent. Another challenge is that “the field of science and religion is vast and constantly growing” (Blair and Greyerz 3), and the changes frequently occur both in science, even in the fact that science supposes at one time gets changes at another, and religion and their perceptions.

John Ray’s *The Wisdom of God Manifested in the Works of Creation* “as the earliest, very widely disseminated treatise of physico-theology” (5) provides basic concept on the relationship between the external matter and the inner creative force of the divine, “Works of God, that they are all very wisely contrived and adapted to Ends both particular and general” (Ray 29). Similarly, Boyle acknowledges that the existence of God could not be rationally demonstrated, but as he believed, the natural world abounds with empirical evidence of God’s power and wisdom.

Complexity still persists to locate an exact definition of physico-theology, “neither an exact classification nor an analytically precise definition of physico-theology seems attainable” (Blair and Greyerz 7), but at least it is true that, as the physico-theological perspective assumes, “God is a rational being” (7) with the principle that nature does nothing in vain; and “God has a plan for everything” (7). The God, in such understanding, can never be unforgiving, but is felt and realized because of goodness and benevolence.

As the philosophy of science and religion, this theory supposes the God as the supreme creator of the natural or material world, and what we suppose as the truth and fact or matter as scientific interpretation, all has the essence of its creator, “God had no more to do than to create the Matter, divide it into Parts, and put it into Motion, according to some few Laws, and that would of itself produce the World, and all Creatures therein” (Ray 41). With no blind assumption, Ray has the logic of science that nature is the physics or the reality and its creator is metaphysics in which the physics is the creation of the divine for human beings. In this sense, arguments on physics and metaphysics as the opposite poles appear to be less meaningful, however the differences exist. And recent ecologists, with their belief on the ontological value of the nature or the natural phenomena, have enough space to raise a question on physico-theological priority on anthropocentric value of nature because it disseminates the idea that nature always follows divine order and at the same time, the purpose of nature is “to ensure the well-being of humankind and the subservience of nature to that end” (Blair and Greyerz7), since the efficient cause of nature is still enigmatic.

With this enigmatic quality of the inner power of nature and its endless potentiality has given rise to natural theology which justifies the logical reasoning on the relation of the natural world and the divine source, and this order shows logically that beauty of the natural world has attested the existence and nature of God. In this sense, physico-theology and natural theology appear to be synonymous, however the difference is that Physico-theology is “an attempt to legitimate mechanical science on religious grounds” (Brooke 26) as a code of recognition among insiders, highlighting, for example, the wisdom, omnipotence, and goodness of God, whereas natural theology elaborates and observes the patterns of nature in relation to theological judgments. In many ways of giving the arguments about the functioning of physical nature, the growth of physico-theology arises with “the development of natural philosophical arguments about the structure of the universe and about the lawfulness of God’s general providence” (Mandelbrote 71). Nature has a complexity of its structure and has always the order in the universe that is almost impossible in human creation and imagination which supports for evidence of the power behind all these incredible and unknowable universal happenings, especially the natural ones, hence nature exists because God exists. In this sense, understanding the real nature without understanding the power and essence of God is almost impossible.

The study of the natural or physical world on the basis of the understanding, logic and reasoning based on the devout interpretation linking nature with the God or divine, not with any cultural religion such as Christianity or Hinduism, therefore is physico-theology. In this sense, it is the study of natural science on the basis of theology and understanding the power of God through the order, system and enigmatic strength of nature; hence science in theology and theology in science.

### **Physico-Theological Approach to Vedic Texts**

Veda, in Sanskrit, means ‘knowledge’, and as the etymology, Vedas, as the oldest creations in the East, disseminate wide-ranging knowledge as the foundation of the Eastern philosophy. Having the long history of being transmitted orally for many generations before they have come into written form, Vedas are known as *shruti* and *smriti* forms of literature and are believed to have come along many generations as *apaurusiya*, not of human creation, and they transmit the knowledge to human creativity with no discrimination of the East or the West, Hindus or non-Hindus. Four Vedas: Rig, Sama, Yajur, Atharva, in the chronology of their creation, disseminate distinct modes of knowledge; the *Rig Veda* includes the hymns with the veneration of nature and creation

myths; the *Sama Veda* includes the hymns about religious rituals; the *Yajur Veda* contains instructions for religious rituals; and the *Atharva Veda* consists of spells against enemies, magicians, enchanters and diseases. Distinct the themes are, but “Vedas offer a variety of models to understand the world around and our place in it” (Newar 9), and they share harmonious connectivity in the way the physical world is described and imagined to be. Vedas definitely talk about the theological principles, values of God, the divine power and the soul, but at the same time, they provide reliable and logical explanations on the philosophical and scientific questions about the material world and nature. Vedas provide the notion, “Nature is inert and simply a puppet in the hands of unchangeable laws. Even the mind and source of sense-organs are inert” (10), but at the same time, God is smart and works smartly to make nature smooth and functioning.

Blair and Greyerz have explained Ray’s principle of seeing the physical nature, “God intervened directly in nature or in the life of individual persons or groups” (10), in which nature is outward shell and God is kernel in the form of soul, “the Body is but the Husk or Shell, the Soul is the Kernel; the Body is but the Cask, the Soul the precious Liquor contained in it” (Ray 396), and Vedas convey the message, “the world around is being managed very smartly as per unchangeable laws. It defines the source of this smartness as Ishwar or ‘God’ (G)” (Newar 10). Nature has its physical existence, the one which appears to be rather slow, but the smartest is the one who is the inner force, that is the divine force, and the Vedas present the veneration of this smart element, not purely as the Gods/Goddesses in the way Puranic texts depict, but as the icons of divine identity in nature, and generate the faith to nature as the source of theo-centric power, “since the universe is infinite in scope and complexities, God is also infinitely intelligent”(11); God in sense of the power rather than an iconic god as such. Vedic Gods and Goddesses are the nature symbols with power, benevolence, and goodness in the whole process of life on earth in the grand chain of ecology.

### **Vedic Science of Ecology**

Vedas provide the knowledge for spiritual quest and the knowledge of divine truth. They talk about the greater notion of religion, the religion of the life and non-life, here and there, the east and the west and the religion of the value of life without properly spelling the cultural religion as such Hinduism or Buddhism or any others, however Vedas, being the creations of the Eastern ancient civilization, the Hindus suppose them as their sources of religious values. It is the greatness of the Vedas that the readers find distinct meanings as per their understanding, and in the modern understanding, Vedas are not only the texts of spiritual quest, but also the sources of modern science and nature study.

Because the earth is represented as goddess, the mother earth, Gaia to the Greeks and ‘*Bhoo*’ to Hindus, as Vedic seers have identified the energy on earth in *YajurVeda* “*maataaputr amyathopasthesaagnimbibhartugarbha aa*” (YV.11.57), “The earth holds the energy in her womb like the mother her child” (Trans. Arya 37), and that internal energy enables her to provide essentialities of food for every life form. She protects living beings as if they are the children of her. Rivers, trees and animals are different forms of energy on earth that help in every of her efforts to make the life smooth, smart and orderly, and so, they are revered as deities.

Likewise, Vedas have animated the elements and events of nature with full spirit and life forms as sun, moon, rain, wind and lightning are depicted as the children of sky. Also supposed to have their consciousness, they function to establish and maintain the relationship to each other, as science defines it as an ecosystem, as per the internal order of the divine. The science justifies the sun as the greatest source of power and energy for

the life forms on earth and also the sun is one of the three main deities of Vedas, Agni, Surya and Prithivi, at the center of all creative forces. The *Rig Veda* shows the immense power of the Sun, “*yenapaavakachakshasabhuranyantamjanahanu;twamvarunapasyasi*” (RV. 1.50.6) “With that light of which, you, the purifier and defender from evil, look upon this creature-bearing world” (Trans. Wilson Vol. 1. 126). Named differently as Surya, Savita or Varuna, the Vedas have presented the Sun as the central source of energy, as the purifier of the worldly pollutions and also the defender against all the worldly evils. He, as the male deity, has the central role to maintain the ecological balance as the energy giver to all the worldly things. Aboded in between the sky and earth, as the *Rig Veda* shows, sun, “radiant with benevolent light” (127) removes all the sickness of the life on earth, and hence, is the soul of world, and the province of sky and air with the cosmic life of breath along with power.

Agni, the Vedic Agni myth similar to Prometheus fire myth, the earthly form of the power of Sun in its physical form with similar quality of warmth and hotness, is another deity highly venerated in the Vedas, and like the Surya, has the power to protect human beings from potential catastrophes, dangers and natural and supernatural hazards and is the surest accompany to humans from birth to death. Not only the physical source of equilibrium maintained by Agni to burn down the evils is described, but also Agni is felt as the true guardian, and a friend “*aa hi shmasunawepitapiryajatyaaapaye; sakhasakhyevarenya*” (RV. 1. 26. 3) “you, Agni, are verily as a loving father to a son, as a kinsman to a kinsman, as a friend to a friend” (Trans. Wilson Vol. 1. 63). Agni’s essence, with this sense of supposition of physical and mental energy-giver to living beings, has been a strong point for the Vedic enrichment of ecological science in the Vedas.

Proper combination of all these nature elements in the way they are dependent one to each “seems a wonderful Work of God, to provide for the minutest Creatures of the Waters Food proper for them, that is, minute and tender, and fit for their Organs of swallowing” (Ray 374) and maintain the balance among them, and so are Vedic gods and goddesses are nature deities. As the same, the primary essence of life form on earth, as the need of life shows and the scientific logic justifies, is water, which is depicted as essential element in the Vedas. Water, another obligatory constituent for proper growth and development of plants and animals as mandatory elements for life, “for transportation of nutrients and other materials from one part of body to other” (Mishra 17), is not only an element of purification but also the element pervading all life and thus a symbol of primacy in Vedic understanding, “*aapo hi shthamayobhuvastanaurjedadhatana; maheranyachakshe*” (RV. 10. 9. 1) “waters, you are the sources of happiness, grant to us to enjoy abundance, and great and delightful perception” (Trans. Wilson Vol. 4. 208). Vedas have granted water as the source of greatest happiness and life form which has been scientifically and realistically approved and experienced as an essential factor of life, and Vedas deliver the understanding of water as, “*ushatirivamaatarah*” (RV. 10. 9. 2.) the affectionate mothers.

Further, Vedas have generated the role of water differently as the water moves to and from, and have already assumed the movement of water in different forms from earth to sky in vaporized mode and from sky to earth in condensed form and movement to the sea for the preparation of vaporization, “*Yaaapodivyautavasravantikhanitrimautava yah swanjjah; samundrathayashuchayapavakastaaapodevirihmamavantu*” (RV. 7. 49. 2) “may the waters that are in the sky or those that flow (on the earth), those whose channels have been dug or those that have sprung up spontaneously, and those that seek the ocean; all pure and purifying” (Trans. Wilson Vol. 3. 253-54). This Vedic concept of the

transformation of water in different positions and forms ensures the idea of modern scientific interpretation of the position and need of water in the ecosystem and also establishes the Vedic greatness in generating scientific knowledge of natural phenomena.

### **Vedic Science of Biodiversity**

Biodiversity, a buzz word in today's environmental and ecological understanding, refers to "the variety and variability among living organisms from all sources and ecological complexes of which they are a part; this includes diversity within species, between species and ecosystem" (Mishra 20), and it involves "three distinct levels and components—ecological diversity, species diversity and genetic diversity" (20). The concept of biodiversity incorporates the evolutionary, ecological, and cultural processes that sustain life on earth. It is the combined existence from the microorganisms to human beings, from plants and animals, from earth-living and water-living, from moving and nonmoving, active and inactive, all having some cultural attachment in the place they live/survive. Variety of living beings, biological diversity, only becomes meaningful when all the beings are combined in a single structure that is the cultural and relational part.

Existence of the variety of life is one matter and their connectivity is an essential factor to make a link between the science of biodiversity and the theological value in them. The matter is important on how these beings are understood, perceived and set in the chain of relationship in the religio-cultural structure. The Vedas, though they were composed during the very ancient period, even before the science was germinated, have transmitted the knowledge of the need of biodiversity, not in the same terminology but in Vedic metaphors. The confusion between the Vedic understanding of nature and the scientific understanding of nature exists because "the Vedic scholars have little knowledge of modern science, and scientists have little knowledge of the Vedas" (Roy 37), but it can only be resolved through the connection of Vedic assumption of natural science and modern scientific explanation of natural science through the realization that "the Vedas are primarily concerned with cosmology" (37) and it is the truth that "the Vedic cosmology has the solutions to the most difficult problems of modern cosmology" (37). Guided by the theological arguments, Vedas and other Vedic philosophical texts like Upanishads, besides generating faith to Gods and Goddesses, have focused their logics, that the gods and goddesses favour different biological resources, in modern term, they disseminate the knowledge of biodiversity, interrelation between living species and the environment, the need to maintain natural dynamism and the needs to follow ecological principles, not exactly in the way modern science presents it, but in the way of theological interpretation. In this situation, what is needed is to explore Vedic understanding of biodiversity that can finally develop both scientific and cultural practices in real life.

As the diversified existence of the natural elements, Vedas suppose each element contributes for the betterment and benevolence of others. Water purifies the badness, "*idamapahpravahatayatkim cha duritam*" (RV. 10. 9. 8), "waters, carry far away all of this that has gone bad" (Trans. O'Flaherty 231); plants provide the medicine to every illness, "*oshadhipratimodadadhyampuspavatiprasuvari; ashwaivasajitwarivirudhapaaraishnwah*" (RV. 10. 97.3.), "rejoice, plants bearing abundant flowers and fruit triumphing together over disease like victorious horses sprouting forth bearing men safe beyond disease" (Trans. Wilson Vol. 4. 447). These references of the essence of water, healing function of plants, energy providing of the sun, driving away the evils by the rivers, protection by the animals like horses, are all

concerned to the diversified existence and interdependence as a note of Vedic biodiversity.

Vedas have frequently referred to the preservation of the diverse species of plants, Soma as the king of plants, and Puranic cultural activities of worshipping the plants like Pipal, Tulsi, Kusa and many others, animals, horses, cows and goats as the sources of solar and geothermal energy, unpolluted air, rivers as goddess Saraswati and Sindhu. They have found healing properties in plants and are to be preserved and venerated. The combination of water, wind, sun, plants and animals is the sacred and purified world is the Vedic assumption of a good world, the same as the foundation of modern science of biodiversity. It views human perfection and happiness from integrated perspectives, which embraces both material and spiritual values in individual and harmonious unity. Slowly this Vedic notion of diversified but balanced nature has been developed as the cultural part of Hindus in the post-Vedic period.

Ethics, as an essential part of Vedic practice, dominates over all the natural evils guided and controlled by Varuna, the ethical God. Remedy of natural evils is possible with the help of solar energy, Surya as the supreme power to purify the things on earth and therefore Surya is worshipped as the carrier of happiness on earth, which modern science has justified as the extreme energy giver.

### **Vedic Science of Physics**

Physics, understood interchangeably with natural philosophy until modern science got introduced, aspires specifically in formulating, managing, exemplifying and justifying the fundamental laws of nature, however specification has been developed as the varying areas of physics, but in general, it is the science of matter, motion and energy. Derived from Greek word, 'physis' meaning nature, that is to say, physics "is knowledge of the real nature of the Physical universe" (Jitatmananda 23) and this concept of the universe was understood thousands of years ago by Vedanta as "the entire universe is one, interconnected and interpenetrated by the ultimate reality, which they termed Brahman" (33). It means physics calls it the universe for the same Vedic philosophy calls it as Brahman. Physics, therefore, is a discipline of matter, motion and energy, unlike the traditional western thought of the Vedas delivering spiritual and psychological message, can be clearly observed in Vedic texts, though the Vedas, being composed centuries before the modern scientific terminologies have been developed, they don't address in the same name and terms.

The basic principle of science is the discovery of universal laws or in a specific term, the natural laws and how they function and why they function as such they do. In this regards, Vedic reasoning, since Vedic knowledge is the knowledge of philosophy, may not have factual justification as much as experimental modern science has become, but it is truth that Vedic knowledge has long been assuming the scientific interpretation of the nature in the concentration of matter and energy and there is the idea of natural movement. Understanding this Vedic fact of physics supports the understanding of modern scientific reasoning for connecting truth with culture and the origin of knowledge because "the Vedic focus on mind and consciousness is paralleled by the central place of the observer in modern physics" (Kak 19). If taken literally, Vedic hymns make no sense other than the blind worshipping and generating spiritual faith to the creator, but arguing with 'whyness' for example, "why horses may have wings or the cosmic man has thousand heads, thousand eyes, and thousand feet" (21), certainly leads to the scientific conclusion in every arguments of venerating nature and the matter on earth and space.

Vivekananda, the Vedantist, regards, “Science is nothing but finding of unity” (Vivekananda qtd. in Jitatmananda 8). Science has some points to stop, but theology has not; and therefore, “the science of religion would become perfect when it would discover him, who is the one life in a universe of death, him who is the constant basis of an ever-changing world, one who is the only soul of which all souls are but delusive manifestation” (8). The science of science identifies the truth and stops in a particular destination and the science of religion has infinite matters to be identified, as has been going on for many centuries as a social and cultural way of living, hence, science in religion as the theory in practice.

With reference to the origin of Vedas as *Apauruseya*, not authored by human beings, many contradictions may arise regarding their authenticity of the connection of Vedic themes and human understanding of nature, but Vedic knowledge has properly addressed scientific knowledge of nature and matter. The Rig Vedic Purusha Shukta (10.90.10), provides the physics of energy with the notion that “the Purusha (entire mass energy of universe) gives birth to four *pashus* : *avi* , *ashva* , *ajaa* and *gau* in observer space” (Arya 15) and " horses were born, who have teeth on both sides; cows were born; goats were born and sheep were born” (Arya 15) from Purusha, and these animals, representatives of solar and geothermal energy and other forms of animal lives, are essential elements in natural life and ecosystem. Nature is a book, and this book of the universe, in physico-theological perspective, is a manifestation of God’s greatness, “since God works for our benefits, he is kind” (Newar 11) with the power to create different laws of nature (if necessary). Present science has no power to change the laws of nature, but the divine power has, which in Vedic terms, is in the core of nature.

Vedic philosophy, with no confusion, regards the world from spiritual standpoint and observes spiritual quest in the depth of every natural/physical thing, which the physics supposes as matter, but it does not negate the fact that nature is an object, a matter in combined form and has the power, which physics supposes as energy. Vedas talk about the sun, the moon, stars as the sources of power, plants like Soma plants as the sources of power, animals like the horses and cows as the sources of power, for which physics makes the study of the material bodies, “these all material bodies are sources of energy. For example, stars are a source of solar energy; planets are a source of geothermal energy and intermediate space is a source of field energy” (Arya 16). Vedas and physics both explain about the sources of power/energy, though in different terms.

### **Vedic Cosmology and Big Bang on Creations**

Vedic philosophy, the chain of logics, of creation has connection with the logics of science, to its regards to the creation of the world; even science has no facts, but logics. The Rig Veda, the first and foundation of all the Vedas, has clear ideas about the creation process of this physical world. The first concept is that the world came out of nothing, “*nasadasinnosadasitta denim naasidrajo no byomaaparoyat*” (RV. 10. 129. 1) “there was neither non-existence nor existence then; there was neither the realm of space nor the sky which is beyond” (Trans. O’Flaherty 25). Obviously, what could have been before the creation? Nothing, the state beyond any sense perception, the state of emptiness, neither space nor time, neither matter nor energy. The world as a thing, as a matter, as physical body or as nature, then in Vedic cosmology, came out of nothing but “*tama aasittamasaa*” (RV. 10. 129.3), darkness covered by darkness, like an unidentified fluid, *Salilam*, and still that emptiness was united and produced through the power of austerity, the heat in modern science, “modern physics tells us that all the matter and energy was concentrated in a point” (Roy 60). This concentration is mentioned in the Vedas as “*manasoreta*” (RV 10.129.4), the desire in the mind of the creator headed to

the condition of contemplation, not just a penance, but concentration of power, heat for creation. This very idea resembles the idea of physics that supposes the first creation through the hot mass. The heat of the creator's concentration and the concentration of the hot mass giving the outlet of creation have undergone almost similar processes, Vedic creation comes first as nothingness- then idea,- then heat – and creation; and scientific process as—physical- heat and creation. To some extent, the scientific idea of creation through the hot mass and Vedic idea of creation through the heat of creator's contemplation match somewhere that both admit the same fact of heat as the origin of worldly creation.

The same argument is further established in a hymn, “*suryachandramasaudhataayathaapurvamakalpayat; divam cha prithivimchantarikshamathoswa*” (RV. 10. 190. 3.) “Dhata (the creator) in the beginning created the sun and move the heaven, the earth, the firmament, and the happy sky” (Trans. Wilson Vol. 4. 578). It means, the Vedas have presented the point that the first creation of the creator was the sun, and then after the earth and sky were created. Similarly, “*ritam cha satyamchaabhiddattapasodhyajayata*” (RV. 10. 129.1) “order and truth were born from the heat as it blazed up” (Trans. O’Flaherty 34). The heat that has been the origin of the creation in Vedic philosophy is not the heat as the physically observable heat like the mass of heat as the science assumes, rather it is the heat through *Tapa*, the primeval erotic or ascetic heat through meditation of the creator-power that we generally believe as the supreme power or the God, who has the all the creative energy, positive understanding, kindness, benevolence for the total existence of the world, “for the form and beauty of the body, which mankind generally is fond enough of, and which must be acknowledged to be a natural endowment and blessing of God” (Ray 379). Both Vedic notion of creation of the world and the logics of modern physics have common understanding that heat was the first thing from where the creation began, however the assumption of the source of the heat differs as physics does not regard any particular supreme power, the divine creator.

One of the major concepts of the cosmology of science is the Big Bang, which refers to the dark matter. Roy explains the logic of the science of physics:

The universe is supposed to have a theoretical mass-energy density in order to have existed for so long, and on the other hand observed mass-energy density is far lower than that. Most observations put the observed density at 10 % of theoretical density. So what happened to 90 % of the mass-energy that should be there, but is not really there? Scientists have given this missing mass-energy the name dark matter. (163)

Vedas have also talked similar pattern of the worldly existence associated with Brahman or Purusha, “*padosyavishwabhutanitripadasyamritamdivi*” (RV. 10.90. 3.), “all beings are one-fourth of him; his other three-fourths, being immortal, abide in heaven” (Trans. Wilson Vol. 4. 423). Vedic argument supposes three-fourths part as the immortal part, for which science supposes it as unknown and missing energy as the dark matter. Vedic logic of the creation from the non-existed complete darkness (immortality and the power of Brahman) shows a clear link with the scientific argument of the Big Bang, 90% of the existing energy as the dark matter.

Modern physics believes the fact that this world is a matter, matter means nature but the Vedic science does not imagine the world as merely the composition of matter; rather it provides the logic that “the world is not the composition of Prakriti (matter) alone, rather it is composed of both Prakriti (matter) and Purusha (consciousness)” (Arya 11). Vedic Prakriti is the matter in physics, and further Vedas suppose Purusha, the consciousness as the power with three-fourth part of the creation as the immortal. Vedic

cosmology talks about the creation through a power, Purusha, with a thousand heads, eyes, hands and feet and he has the world extended in ten dimensions “*vritwaatyatiathaddshaangulam*” (RV. 10.90.1.) “He pervaded the earth on all sides and extended beyond it as far as ten fingers” (Trans. O’Flaherty 25). Similarly, modern physics concentrates on the power of mass energy, and in the Vedas, “the Universal mass energy is called Purusha which is the life principle of the Universe” (Arya 14). A body, matter in scientific terms, has the essence of Purusha within, that is the individual soul, the individual energy of life within. The combined form of the individual soul is Purusha, the mass energy in science.

These analogies of the creation of the world from non-existence and the big Bang, creation through the hot mass (in science) and the heat of meditation (in Vedas), the concept of mass energy and Purusha and multiple dimensions and ten fingers make a connection between modern science of physics and Vedic science. The difference is that Vedic science connects every cosmological fact with the divine power but the science supposes these facts just as the facts with no any such supreme creator.

### **Conclusion**

Vedic literature intensely disseminates the knowledge of the spiritual quest, and provides the fundamental understanding on the cultural way of living along with the faith to the divine force. Vedas, though never directly speak out about any particular religion, are the foundation of the cultural patterning of life for the Hindus however Vedic knowledge is the knowledge beyond any particular territory, group and strata. Understood as two opposing poles, religion and science, Vedic scholars have taken less interest in science and scientists have kept less interest on the Vedic horizon of knowledge. As a result, religion and science have always been understood as contradictory poles. Vedas, composed centuries before the concept of modern science, do not directly address the scientific terminologies and even the ideas in the way science has generated, but it is certain that Vedas have developed different notions of science that are needed to be explored.

Science, being one of the major issues like religion or philosophy, can never be separated from Vedic knowledge. Vedas have a clear concept of the ecological value, environmental importance, cosmological explanation and the ideas of matter and energy presented in Vedic language, rather more complex than present Sanskrit morphology, closer to Sindhu cultural civilization. Vedic language creates difficulty in understanding Vedic knowledge to modern learners and scientists, and consequently, Vedic knowledge is regarded as anti-science. But the fact is that Vedic text can be examined from ecological perspective and the Vedic ecology has not purely as modern environmentalism defines and redefines nature, but in the physico-theological mode. They depict nature as the part of divine power, resourced with the divine identity.

Similarly, Vedic hymns have addressed with logics based on science and theology that importance of plant diversity and need of their conservation is essential for the happiness and prosperity of all the life forms in the universe that strengthens the Vedic notion of ecosystem. In fact, many aspects of modern science, botany, ecology, biodiversity, cosmology and physics can be identified in Vedic literature and they have long been the guiding principles for scientific understanding of nature in human cultural life. People venerate different natural elements like plants, sun, moon water, rivers, and many others not properly as per scientific explanation has made them understand their value, but because the Vedic literature has generated Vedic culture of nature preservation and nature praise as their everyday cultural practice. Hence, Vedas, having the explanation of the physical world and nature through theological perspective, pose the

scientific arguments through their hymns, and they inherit science in the mode of religion.

**Works Cited**

- Arya, Ravi Prakash. *Energy in the Vedas*. Amazon. iBooks.
- Blair, Ann and Greyerz, Kaspar von. *Physico-Theology: Religion and Science in Europe, 1650- 1750*. Johns Hopkins UP, 2020.
- Brooke, John Hedley. "Was Physico-theology Bad Theology and Bad Science?" *Physico-Theology: Religion and Science in Europe, 1650-1750*, edited by Ann Blair and Kaspar von Greyerz. Johns Hopkins UP, 2020.
- Eaton, William. "Robert Boyle." *Internet Encyclopedia of Philosophy*, <https://iep.utm.edu/boyle/#H2>
- Jitatmananda, Swami. *Modern Physics and Vedanta*. 6<sup>th</sup> ed. Bhavan, 2006.
- Kak, Subhash. "Forewords". *Vedic Physics: Scientific Origin of Hinduism*, Mount Meru Publishing, 2015.
- Mandelbrote, Scott. "What was Physico-theology for?" *Physico-Theology: Religion and Science in Europe, 1650-1750*, edited by Ann Blair and Kaspar von Greyerz. Johns Hopkins UP, 2020.
- Mishra, Prasant Kumar. *Botany in Vedas*. Write & Print, 2016.
- Newar, Sanjeev. *Vedas: Source of every Philosophy that Makes Sense*. Agniveer, 2018.
- O'flaherty, Wendy Donigar. *The Rig Veda: An Anthology*. Penguin, 2000.
- Ray, John. *The Wisdom of God manifested in the Works of the Creation*. 11<sup>th</sup> ed. W. & J. Innys, 1743.
- RgvedaSamhita*. translated by H. H. Wilson and edited by Ravi Prakash Arya and K. L. Joshi. 2nd ed. 4 vols. Parimal, 2001.
- Roy, Raja Ram Mohan. *Vedic Physics: Scientific Origin of Hinduism*. Mount Meru Publishing, 2015.
- Wilson, H. H. trans. *RigvedaSamhita*. Parimal, 2001.