

Human Ecology in *Praśnopaniṣad* and Modern Science

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Upaniṣad, Ecology, Draṣṭā, Physics, Omnijective, Omniscient, Omnipresent.

Abstract

The term 'science' derived from the Latin word 'scientia', this means 'knowledge'. It stands for the knowing of essential nature of all things. Presently, Science is divided into two parts: classical and modern.

The word 'Veda' also stands for 'knowledge'. Its last part Upaniṣad is speculative in nature and contains the concluding interpretation of the reality.

The new paradigms of modern science are very close to Upaniṣadic philosophy. Upaniṣadic thought is philosophical and beyond to empirical world. The philosophical statements made by Upaniṣadic seers and modern scientific experiments are parallel. Several terms as *Prāṇa*, *Rayi*, *Uttarāyaṇa*, *Dakṣiṇāyana*, *Kṛṣṇapakṣa* and *Śuklapakṣa* are uttered by the seers in *Praśnopaniṣad* and these are considered as the symbols of consciousness, material objects and their properties. Thus, a parallel study and explorations between these humane ecological terms of Upaniṣad and modern scientific terminologies is motto of this paper.

Vedic literature is the first text of human intellectual tradition. This is an evident of the creation of this empirical world and consist the knowledge about the existence of man, environment and other objects of this universe. Mainly, the entire Vedic literature is divided into two major parts as *Mantra* and *Brāhmaṇa*, as Veda indicates in its definition.⁵ *Mantra* part is also called as *Samhitā*; *Brāhmaṇa* part includes other three parts as *Brahman*, *Āraṇyaka* and *Upaniṣad*. All these parts convey the teachings which are directly related to physical as well as beyond this. In this way, whole Vedic literature is considered as an ocean of knowledge.⁶ The Vedic seers achieved this knowledge from *Brahman* due to their talent. Then they derived this knowledge towards the humanity. So they called as *Draṣṭā* of Vedic hymns (mantras).⁷

This universe is a creation of that ultimate power which is known as *Brahman* in Vedic texts and the universe is pronounced as *śriṣṭi*.⁸ It means there is a combination in human, animal, species, objects and nature. Human and nature are two main aspects of this group because they are inter-related to each other. They can't exist without each other's support. Both of them become attached to each other and then universe becomes able to exist. In *Sāmkhya Darśana*, both of these called as *Puruṣa* and *Prakṛti* respectively.⁹ *Prakṛti* is an unexpressed (Avyakta) form of *Puruṣa* and *Puruṣa* is expressed

Endnotes

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⁵ *Mantra Brāhmaṇayorveda - Namdheyam.*

Apastambadharmasutram

⁶ *Veda vā ete anantā vai vedāh||*

Brāhmaṇa-3/10/11/3-4

⁷ *ṛṣayo mantra draṣṭārah.*

Nirukta by Yaska

⁸ *Srj + ktin - Vaidik Nirvacan Kosha by Krishanlal*

⁹ *Mulaprakritiravikritihmahadadyah prakritivkritayah sapta.*

Shodasakastu vikaro na prakaritirna vkritih purusah - Sāmkhyakārika-3

(Vyakta) form of *Prakṛti*.¹⁰ *Prakṛti* consists three *guṇās*, so it is called as *triguṇātmika*.¹¹ A natural combination among these three *guṇās* is *Prakṛti* and a misbalance is a cause of creation of universe.¹² Both nature (*Prakṛti*) and human (*Puruṣa*) are substitute of each other. When *Prakṛti* demonstrates itself for *puruṣa* and *puruṣa* knows it, then it becomes free from its duty. So the purpose of the nature is to provide a true knowledge about the world to human.¹³

In physics also, this meaning of nature is too similar. Here this is essential to know the actual meaning of physics and what is the route-cause of its existence. In Greece, 6th century B.C. is considered as the starting era of Greek philosophy. At that time there was no separation between science, philosophy and religion. So their meanings were also closed to each other. In Lonia, the sages of Milesian school firstly used the term as “*Physis*” to discover the essential nature or real constitution of things. Later, the word “*Physics*” derived from this word and originally, meant Endeavour of seeing the essential nature of all things.¹⁴

In *praśnopaniṣad*, Kabandhi ṛṣi asks to *Maharshi Pippalāda* about the ultimate cause of this phenomenal world and the diversity of natural objects. Then *Pippalāda* replied him that after the universal creation, Brahman engaged to create human beings for its combination. Firstly, Brahman created two main aspects as *Prāṇa* and *Rayi* and wished that both of these will produce different kinds of human beings.¹⁵ Here, the unique power by which all beings get capacity for their survival is *Prāṇa*. It provides a consciousness to all the objects for their existence and a combination among them. Secondly, the group of phenomenal objects is called as “*Rayi*”, who inspires form *Prāṇa* and becomes able to act. *Prāṇa* is considered as Agni due to hotness and *Rayi* is Soma because of its coolness.¹⁶

In modern physics, the view is that the world doesn't exist upon an intuitive base hence it stays well managed in a systematic way. Although human is able to know this way or not, but it can't be rejected. A great physicist, Albert Einstein provided a revolutionary change in scientific era. After denying the Cartesian thought, he gave a clear statement about the nature. As-

“Try and penetrate with your limited means the secrets of nature you will find that, behind all the discernible laws and connections, there remains something subtle, intangible and inexplicable.”¹⁷

Further, ṛṣi says that this physical world is a mixture of *Prāṇa* and *Rayi*. Basically, these two are not detached from each other hence both are supplement of each other. In nature's perspective, both of these are related to Sun and moon. Sun includes *Prāṇa* because it conveys a power to all which is

¹⁰ *Sukhadukhamohatmakam pradhanam avyaktam.*

Sāmkhyatatvakaumudī-14

¹¹ *Pradhānam sattvarajastamasām sāmyāvasthā.*

Sāmkhyatatvakaumudī-3

¹² *Prakṛtermahānstato Ahamkāra Tasmādgaṇaśca ṣoḍaśakah.*

Tasmādapi ṣoḍaśakat pañcabhyah pañcabhūtāni.

Sāmkhyakārika-22

¹³ *Rangasya darśayitvā nivartate nartakī yathā nṛtyāt*

Puruṣasya tathātmānam prakāśya vinivartate prakṛtiḥ.

-Sāmkhyakārikā-59

¹⁴ *The Tao of Physics by Fritjof Capra, p. 24*

¹⁵ *Rayim c Prānam cetyetau me bahudhā prajāh kariṣyata iti.*

-Praśnopaniṣad-1/4

¹⁶ *Īśādi nau upaniṣad, p. 150*

¹⁷ *EINSTEIN, HIS LIFE AND UNIVERSE by WALTER ISAACSON, p.384*

useful to survive. The Sun appears as a solid aspect of that micro power. The moon is *rayi*. It is useful for the nourishment of all beings and nourishes their physical bodies. Both these powers exist in all parts and sub-parts of the body.¹⁸

Modern physicists were also aware with the fact that world is not dead rather it is conscious. The creation from damaged source is not possible. They knew that there is a consciousness which is the main cause of this empirical universe. That is considered a mystic power in *Upaniṣads*. All the things come to existence from there, survive through its grace and then merge into that.¹⁹ According to them, division of that energy or consciousness is necessary for phenomenal world. Albert Einstein pronounced that cause as “potential energy”, which is the origin of the physical world. Secondly, the energy by which this world survives is “kinetic energy”. He stated about this division of energy:

“Finally, I would like to point to the fact that the division of the energy into two essentially different parts, kinetic and potential energy must be felt as unnatural.”²⁰

A year (Samvatsara) is assumed as a symbol of the real cause and it also divided into two parts as *Uttara* and *Dakṣiṇa*. The six months of a year are *Uttarāyaṇa* and other six months are as *Dakṣiṇāyana*. Here *uttarāyaṇa* period is consciousness (*Prāṇa*), an indicator of Omnijective, omniscient and omnipresent aspect of Brahman. *Dakṣiṇāyana* period is *Rayi*, as outer or macro phase of former.²¹ A man who performs ritual ceremonies and other beneficial actions for mankind this is a worship of *Dakṣiṇa* aspect of *Samvatsara*. This is called as *Asambhūti* in *Īśāvāsyopaniṣad*.²² He achieves *chandraloka*. This kind of man returns again in phenomenal world after death. This situation is called as “*Pṛyāṇa Mārga*”.²³ Secondly, *Uttarāyaṇa* period is *Prāṇa*. The followers of *uttarāyaṇa* go to *Sūryaloka*, an ultimate goal of mankind. A man becomes able to get this stage through meditation, devotion and piety.²⁴ After this, man doesn't take birth again. This is called as *Sambhūti*.²⁵

In 1957, a nuclear physicist Werner Heisenberg was experienced in his scientific experiments that the nature is fully conscious. He saw a wonderful motion in atom and felt that man can't describe its actual nature and unable to measure its speed. If a man tries to evaluate an atom through measurement, it changes suddenly and he becomes fail to know that exactly. Heisenberg was so wondered about this reality of nature. He expressed a memory accompanied by Niels Bohr about Nature:

“I remember that discussions with Bohr which went through many hours till very late at night and almost in despair; and when at the end of the discussion I went alone for a walk in the neighboring-

¹⁸ *Ādityo h vai prāṇo rayireva candramā rayirva etatsarvam yanmūrtam camūrtam c tasmānmūrtireva rayi.*

-*Prasnopaniṣad 1/5*

¹⁹ *Yato vā imāni bhūtāni jāyante yen jātāni jīvanti yamprayantya bhisamviśanti tadbrahma tadvijijñāsa.*

-*Tattirīyopaniṣad- 3/1/1*

²⁰ ALBERT ENSTEIN: *PHILOSOPHER-SCIENTIST*, ed. P.A. Schilpp, p. 31

²¹ *Samvatsaro vai prajāpatistasyāyane dakṣiṇam chottaram c..*

-*Praśnopaniṣad 1/9*

²² *Andham tamah praviśanti ye asambhūtim upāsate.*

-*Īśāvāsyopaniṣad-12*

²³ *Īśādi nau upaniṣad, p.154*

²⁴ *ŚraddhĪśāvĪśān labhate jñanam.*

Srīmadbhagavadgīta-4/39

²⁵ *Vināśena ca mṛtyum tīrtvā sambhūtyāmṛtamaśnute.*

Īśāvāsyopaniṣad -14

park, I repeated to myself again and again the question; can Nature be so absurd as it seems to be us in this atomic world.”²⁶

In the context of a month, a particular month is the symbol of *prajāpati*. It has two parts *Kṛṣṇapakṣa* and *Śuklapakṣa*. *Kṛṣṇapakṣa* is *Rayi* and *Śuklapakṣa* is *Prāṇa*. According to this division, *ṛṣīs* perform meditation and act without any intention (*Niṣkāma Karma*) in *Śuklapakṣa*. While in *Kṛṣṇapakṣa*, they perform rituals ceremonies and *yajñas* with intention (*Sakāma Karma*).²⁷

In classical science, universal existence was divided into mind and matter. According to this division mind was considered as conscious and matter as non conscious. Later, in modern science this concept changed and physicists brought the fact that matter and energy are two aspects and both are important in universal creation. In fact, they are not different to each other and matter is also a form of energy. Einstein’s “Theory of Relativity” is an evident in this reality. As Fritjof Capra says:

“Relativity theory showed that mass has nothing to do with any substance, but is a form of energy. Energy, however, is a dynamic quantity associated with activity, or with process. The fact that the mass of a particle is equivalent to a certain amount of energy means that the particle can no longer be seen as a static object, but has to be conceived as a dynamic pattern, a process involving the energy which manifests itself in the particle’s mass.”²⁸

Further, a day is also a symbol of *prajāpati*. A day is divided in to two parts as Day and night. Here former is *Prāṇa* and later is *rayi*. A man should perform meditation and other developmental actions in day-time means in the presence of Sun. The Sun is an ocean of *Prāṇa* and consciousness and works done in its presence becomes beneficial for mankind and helps to know the reality the world. The sun provides a unique capacity to human to act so he should get ready for act in day-time. Besides this, night is *rayi*, a man should take rest at this time to remove the tiredness. At this time *manas* and other sense organs take relax and get active to act again.²⁹

In 1886 A.D. a famous biologist ‘*Earnest Hackle*’ had developed a term named ‘*Ecology*’ on basis of the relativity. According to this theory all the plants, animals, vegetations which grow upon earth are conscious and there is an internal relation between them with fact that man is also a component in this chain³⁰ which completes the chain. Even land is not devoid of the consciousness/living power as the flora and fauna transpires from the land. The growth of various living organism would have been impossible from a dead surface. So land also consists of that unique power. Later on, this term divided into two parts as ‘shallow ecology’, in which normally we can see all the parts of the nature and other is ‘deep ecology’ in this we can’t see directly the relation between the objects of nature but we can feel that by a natural flow between them. So this is said, “Cyclic process is well interconnected.”³¹

Thus, through a parallel study of upanisadic thought and modern science, it can be say that scientific equations are so closed with the facts which are clearly described in Upaniṣads. Scientific experiments also appear in their practical way which can be found theoretically in Upaniṣadic

²⁶ “*Hidden Connections*” by Fritjof Capra

²⁷ *Māso vai prajāpatistasya kṛṣṇapakṣa eva rayi śuklah Prāṇastasmādetā ṛṣayah śukla iṣṭam kurvantītara itarasmin.*

-*Praśnopaniṣad 1/12*

²⁸ The Tao of Physics by Fritjof Capra, p. 88

²⁹ *Ahorātro vai prajāpatistasyāhareva prāṇo rātrireva rayih Prāṇam..*

-*Praśnopaniṣad-1/13*

³⁰ “*Web of life*” by Fritjof Capra.

³¹ “*Alternative sciences*” by Ashish Nandi.

statements. In modern scientific era, scientists were convinced that both Science and religion are subsidiary to each other. As “Science without religion is lame, religion without science is blind.”³² Upanisad also says that “Vedanta” and “Vijnana” are two basic features to know the reality of the universe. As:

*Vedāntavijñāna suniścītārthah samyāsyogāt yatayah śuddhasatva,
Te brahmalokeṣu parāntakāle paramṛtā parimucyanti sarve.*³³

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³² EINSTEIN: HIS LIFE AND UNIVERSE by WALTER ISAACSON, P.390

³³ *Mundakopaniṣad* 3/2/6