

An Analysis of Scientific Facets Depicted in Prasthānatrayī

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ABSTRACT

There are various schools in Indian Philosophical System which are helpful for human beings to know the real condition of a human existence and the ultimate goal of their life. Mainly these are divided into two categories: Āstika Darśana which includes Vedānta, Yog, Mīmāṃsā, Sāṃkhya, Nyāya, Vaiśeṣika; and Nāstika Darśana, it consists with Jainism, Buddhism and Cārvāka.

Vedānta School of Philosophy comes first among them. This school talks about oneness behind of all the worldly things. According to this a power which works as the motivator for all the worldly process is one in the form of consciousness. Though that power is not visible through eyes; but can be realized at the level where a man reaches after a stage, which is not possible for general humans.

Prasthānatrayī is a category of those texts which are helpful to know basic elements of Vedāntic philosophy. As the term Trayī indicates itself; there are three texts in it as Upaniṣad (Śruti Prasthāna), Gītā (Smṛti Prasthāna) and Brahasūtra (Nyāya Prasthāna).

There are so many verses in Prasthānatrayī which are praised by many scientists of modern scientific era. In nineteenth century, scientists Albert Einstein, J. Roberts Oppenheimer, Erwin Schrodinger, Paul Dirac, Louis de Brogli, Niles Bohr etc. realized some startling results in their experiments and further, they contributed a lot to establish new paradigms in the scientific world. They accepted the importance of Vedāntic facets and applied them in their scientific experiments. At the time of "Trinity Test", the director J. Robertopenheimer recited a famous Shloka of Shrimadbhagavadgita and that is a nice example for this. As

Divi Sūrya Sahasrasya bhavet Yugpat utthitāḥ.
Yadi bhāh sadrśī syāt bhāstasasya mahātmanaḥ.

-Gita 11.12

So, in this work, an attachment towards rich knowledge tradition will be analyzed.

Keywords: Prasthānatrayī, Jñānakāṇḍa, Upaniṣad, Brahasūtra, Gītā, Science

1. An Analysis of Scientific Facets Depicted in Prasthānatrayī

Introduction:-

The word 'Science'

Vedas are acknowledged as the source text of India's rich knowledge tradition. Prasthanatrayi (Upanishads, Brahasutra and Gita) is the component of the Vedic knowledge which provides the knowledge of jnanakanda of Vedic literature. Generally the number of Upanishads is known as One hundred eight but eleven of them are main. Those are studied in all over the world to know the answers of many philosophical questions. Famous teacher of Vedanta Acharya Shankara has written commentary on ten Upanishads and those Upanishads have various verses which are highly admired by a large community of modern scientists. Brahasutra is also a main text based on

Vedantic philosophy written by Maharishi Badarayana. On this too, Acharya Shankara wrote his commentary. Shrimadbhagavadgita is also a text which comes under the category of Vedanta. Its verses are philosophical and have many answers of the questions which rise in the mind of a general human being.

The word 'Science'

Before going to the facets of Prasthātrayī, we know about the word 'Science'. The term 'science' is derived from the Latin word '*Scientia*', this stands for knowledge. The question arises as to what kind of knowledge? There can be knowledge of physical matter which is treated as dead in the Newtonian scientific view. On the other hand, there could be a task to know the dynamic behavior of subatomic particles; that is also known as science. Thus, there can be different aspects of knowledge which are accepted by the changing scientific arena. In fact, factual realization of our assumptions and intuitions about the physical world is considered science and the knower is considered as the 'scientist'. Thus, a suitable definition of science would be that "Science is a systematic enterprise that organizes knowledge in the form of testable explanations and predictions about the universe."¹

In early twentieth century, a revolutionary change occurred in the area of science. It demolished the classical thoughts of science and established the refined faiths involved in bridging the gulf between the mind and matter. A belief in oneness had emerged in this era in the place of living and non-living duality. New scientific discoveries such as 'Theory of relativity' of Albert Einstein, 'Quantum Theory' of Max Plank and 'Uncertainty Principle' of Werner Heisenberg helped in consolidating the faith in the world as a conscious being. Einstein's famous equation $e=mc^2$ showed that matter is also a form of energy.

In *Upaniṣads*, this stage is called the 'Yogic' stag in which all the organs become inactive and a direct relation gets established between the knower and the knowable. At this stage, knower or Pramata gets the true knowledge which is not possible through any other means. *Kaṭhōpaniṣad* says this as:

*Yadā panchāvatiṣṭhante jñānāni manasā saha,
Buddhiṣca na vicesṭati tāmāhuḥ parāmam gatim.*²

Tattirīyōpaniṣad also says that when all sensory organs fail to grasp reality then an intuition is activated and it knows the ultimate truth:

*Yato vāco nivartante aprāpya manasā saha ānando brahmaṇo vidvān na bibheti kutaścana.*³

A Noble Prize winning physicist, John A. Wheeler was highly intrigued with the realization of truth in scientific phenomena. He worked for many years with Niels Bohr on the basic principles behind nuclear fission.⁴ In this process, he experienced various incidents which were similar to an *Upaniṣadic* realization. He recalls a wonderful incident during a conversation with his mentor Niels Bohr, who was deeply interested in the *Upaniṣads*. 'In an evening dialogue between Heisenberg and Bohr at the House of Honor about the uncertainty principal, Hoffding⁵ put his finger on the diagram between the double entrance slit and the terminating photographic plate and asked, "Where can be the electron be said to be?" Bohr reply is immortal: "To be? To be? To be? What does it mean, "to be"?"⁶

"In the early summer of 1922, two physicists were talking about atomic phenomena; Heisenberg suddenly put the question to Bohr, 'If the inner structure of an atom is as closed to descriptive accounts, as you say, if we really lack a language for dealing with it, how can we ever hope to understand atoms? Bohr hesitated for a moment and then said,

¹ Wilson, Edward O. (1998). *Consilience: The Unity of Knowledge* (1st ed.). New York, NY: Vintage Books. pp. 49–71

² *Kaṭho*. -2.3.10

³ *Taitti*. -2.9.1

⁴ http://en.wikipedia.org/wiki/John_Archibald_Wheeler

⁵ Herald Hoffding was the professor of Copenhagen and teacher of Niels Bohr.

⁶ Backside, *Modern Physics and Vedanta*.

'I think we may yet be able to do so. But in the process we may have to learn what the word "understanding" really means'.⁷

*Kaściddhīrah pratyagātmānaikṣat āvarttacakṣuramṛtattvamicchā.*⁸

Albert Einstein had tried to explore the fundamentals of matter in the 'Unified Field Theory'. He was convinced that no scientific record can explain the exact structure of an experiment. He clarified this fact in a letter to his philosopher friend, Maurice Solovine; 'For the creation of a theory, the mere collection of recorded phenomena never suffices-there must always be added a free invention of the human mind that attacks the heart of the matter.'⁹ Einstein had been introduced to the idea of realization which is thoroughly discussed in Indian philosophical tradition. He says that 'In a certain sense, therefore, I hold it true that pure thought can grasp reality as the ancients dreamed.'¹⁰ Eugene Wigner, Nobel Prize winning physicist in 1961 also asserted that consciousness is the main aspect to realize any quantum principle. He stated that 'it is impossible to give description of quantum mechanical principle without explicit reference to consciousness.'¹¹

Upaniṣad is uttered as '*Brahmavidyā*' and realization of this '*Vidyā*' is the desire of every seeker of true knowledge, whether he is a scientist or a spiritualist. As *Upaniṣad* says:

Kim kāraṇaṃ Brahman kutaḥ sma jātā jivema kena kva ca sampratiṣṭhā,

*Adhiṣṭhātā kena sukhetareṣu vartāmahe brahmavido vyavasthitam.*¹²

All these desires are signified as '*Jijñāsā*'. Thus *Tattirīyopaniṣad* says that

*Tadvijñāsasva tad Brahman.*¹³

It is the primary responsibility of a man to seek the answers of the above-mentioned questions. After getting these answers, he can know the reality of his existence as well as of the world and can lead a moral life. *Upaniṣadic Dharma* helps him get all these answers. Man cannot find '*Brahman*' anywhere, except within himself. In this phenomenal world, all creatures are busy in utilizing worldly resources to fulfill their needs. Among these needs, some may be necessary while others may be redundant. *Kaṭhōpaniṣad* divides these as *śreyas* and *Preyas*.¹⁴ The consumers of both of these are known as '*Bhoktā*' and the comforts which are consumable are known as '*Bhogyā*' while the inspiration through which this consumption is possible is '*Preritā*'. The three dimensions of *Brahman* reflected in *Bhoktā*, *Bhogyā* and *Preritā* are aptly presented by *Śvetāśvataropaniṣad*:

*Bhoktā bhogyam preritāram ca matvā sarvaṃ proktaṃ trividhaṃ brahmametat.*¹⁵

Brahman manifests itself in all the particles of this universe. It is pure consciousness; the particles are also conscious and contribute in the universal process. The creative power of *Brahman* is uttered as '*Īsanī Śakti*' or *māyā*, due to which the creation of the physical world was possible. As *Īśāvāsīyopaniṣad* says:

Īśāvāsīyamidaṃ sarvaṃ yatkiñca jagtyāñ jagat.

*tena tyaktena bhūñjīthā mā grdhaḥ kasya svidhanaṃ.*¹⁶

⁷ Heisenberg, Werner, *Physics and Beyond*, p. 41

⁸ Kaṭho- 2.1.1

⁹ *The Cosmic Code*, p. 41

¹⁰ *ibid*, p. 24

¹¹ *Mysticism and New Physics*, p. 34

¹² *Śvetāśvataropaniṣad-1/1*

¹³ *Tattirīyopaniṣad -3.1*

¹⁴ *Śreyāsa preyaśca manuṣyametatstau samparītya vivinakti dhīrah.*

Śreyo hi dhīro'bhi preyaso vṛñite preyo mando yogakṣemād vṛñite.

- *Kaṭhōpaniṣad-1/2/2*

¹⁵ *Śvetāśvataropaniṣad-1/12*

Man is a marvelous creation of the cosmic power. The human sense organs help a man see the diversity of the outer world. One needs to realize the mystic power which enables and inspires them to function. Thus, one understands that this power is the primal cause. He, who tries to know that, becomes capable of grasping reality and is grateful to that power. In this sense, this constitutes cosmic religiosity, which helps man remain faithful to the purpose of life. *Upaniṣad* says

Śrotrasya śrotram manasaḥ mano yat vāco h vāca sa u prāṇasya prāṇaḥ.

*Cakṣuṣascakṣuratimucya dhīrāḥ pretyasmālokāt amṛtāḥ bhavanti.*¹⁷

All the elements of Nature are enabled to act by the grace of this unique power. This power prevails in a combination which allows the sun, moon, stars, wind and fire to function systematically. In the absence of this power, they would fail to function. Hence, this cosmic power instructs all of nature in its various activities. As *Tattirīyopaniṣad* says

Bhīṣmāt vātaḥ pavate, bhīṣodeti sūryaḥ.

*Bhīṣmādagniścendraśca, mṛtyurdhāvati pañcamaḥ.*¹⁸

Upaniṣad teaches man that there is no need to search the entire world to know that cosmic reality. It in fact resides within his conscience. An interaction with the conscience is necessary. Thus, comic religiosity is based upon the super causality principle. If there is an effect or function, then its cause is sure and the effect is nothing but the expression of that cause. *Gītā* states this as 'Asat' and 'Sat':

*Nāsato vidyate bhāvo nābhāvo vidyate sataḥ.*¹⁹

In this context, *Upaniṣad* suggests through an example that:

Tileṣu tailaṃ dadhāniva sarpirāpaḥ srotaḥ svarāṇiṣu cāgniḥ.

*Evamātmā ātmani grhyate asau satyenaināṃ tapasā yo 'nupaśyati.*²⁰

At the end of life, a human being attains that stage, from where he is born again and comes into this world. So one, who thinks of that cause in an immortal sense before leaving his physical body, finally achieves it and never comes back again. This is the cosmic religious theory through which he realizes the limits of physical life. As *Kṛṣṇa* says in *Gītā*,

Antakāle ca māmeva smaranmuktṛvā kalevaram.

*Yaḥ prayāti sa madbhāvaṃ yāti nātra samśayaḥ.*²¹

Brahman is fully conscious of the various kinds of functionalities of the physical world at both the macro and the micro levels. Even a tiny leaflet cannot move in the absence of His intentions. Whenever any changes are requisite, Brahman changes its form and corrects the problem so that there is no hindrance in the smooth functioning of the universe. It is due to its extended power, all the planets, the sun and the stars survive in a systematic order. So Brahman is aware of each of the activities of a planet at an empirical level as 'Sarvajña' as well as of a particle at the cosmic level as 'Sarvavit'. As *Upaniṣad* says

¹⁶ *Īśāvāsyopaniṣad-1*

¹⁷ *Kenopaniṣad-1/2*

¹⁸ *Tattirīyopaniṣad-2/8/1*

¹⁹ *Śrīmadbhagavadgītā – 2.16*

²⁰ *Śvetāśvataropaniṣad-1/15*

²¹ *Śrīmadbhagavadgītā -8/5*

Yah sarvajña sarvavit yasyaiśā mahimā bhūvi.

*Divye brahmāpure hyesa vyomanyātmā pratiṣṭhita.*²²

All the activities in the world are pre-decided by the super-deterministic principle. The acts of every creature are also included in this system. Man is also a component of this chain of creation and his activities are also predetermined by a cosmic law. Philosophically, man is not responsible for his acts even though he believes that he himself that he is the perpetrator of these acts due to his ignorance. In fact, his role is merely like that of an object's movement. *Gītā* defines the five main necessities for an activity as:

Adhiṣṭhānaṃ tathā kartā karaṇaṃ ca pṛthakvidhaṃ.

*Vividhāśca pṛthakceṣṭā daivaṃ chaivātra pañcamaṃ.*²³

They who think of themselves as the doer of particular activities are ignorant. Thus, *Upaniṣad* talks of the term '*Niṣkāma karma*'. According to this, one should act without any desire. If he does not have any desires, then he will be rewarded with happiness or sorrow after the act. So, one should act with the thought of '*tyāga*'. As

Kuvenneveha karmāṇi Jijīveṣecchataṃ samāh.

*Evaṃ tvayi nānyathetoasti na karma lipyate nare.*²⁴

In *Srīmadbhagavadgītā*, *Kṛṣṇa* also says that

*Naiva tasya kṛtenārtho nakṛteneha kaścana.*²⁵

He who realizes this ultimate truth and looks at the world as one cosmic family instead of multiplicity is known as religious. He becomes free of the various conflicts resulting from the natural differences in society. Thus, *Upaniṣad* says that he gains the ultimate happiness which is bigger than any other comfort and is pronounced as '*Paramasukha*' in *Tattīriyopaniṣad: Brahmavidāpnoti paraṃ*.²⁶

Even though the *Upaniṣadic Brahman* is beyond any limits and coverage; it is knowable in its causal form instead of objectified multiplicity. It is the religion of a social creature to imbibe it with its major qualities of truth and knowledge. Through the religious process, man understands this and achieves never ending happiness and becomes free from worldly sorrows and sufferings. As:

Satyam jñānaṃ anantaṃ brahama. Yo veda nihitaṃ guhāyaṃ parame vyoman.

*So 'śnute sarvān kāmān saha brahmaṇā vipāściteti.*²⁷

The *Upaniṣad* further says that if a man tries to achieve this stage with the help of sensual organs, he fails because Brahman is not a subject to be acquired through this process. Sense-organs are helpful only in observing the external realities of the world while in the religious context Brahman is a subject of inner concentration. Thus, *Upaniṣad* says that when man gets involved with this feeling, he gains victory over various kinds of fears as:

²² *Mundakopaniṣad-2/2/7*

²³ *Srīmadbhagavadgītā- 18.14*

²⁴ *Īśāvāsyopaniṣad -2*

²⁵ *Srīmadbhagavadgītā -3/17*

²⁶ *Tattīriyopaniṣad- 2/1/1.*

²⁷ *Tattīriyopaniṣad- 2/1/2.*

Yato vāco navartatnte aprāpya manasā saha.

*Ānadaṃ brahmaṛo vidvān, na bibheti kadācaneti.*²⁸

Upaniṣad itself discusses the faith of religious and non-religious people in society. A non-religious and a pessimistic man generally think of the limited approach of *Brahman*. He thus, understands it as 'Asat'. On the other hand, a religious and an optimistic man try to look at Brahman in its pure form as 'Sat' in every object. So, *Upaniṣad* says that it is the intentions of the person which determines the way he looks at the world and in turn it influences his attitude. In this way, ultimate reality represents itself in both 'Asat' and 'Sat' forms.

Asanneva sa bhavati. Asadbrahmeti veda chet.

*Asti brahmeti chedveda. Santamenam viduriti.*²⁹

A truly religious person realizes the oneness of this world. He sees one cosmic reality which is manifested in each object of the universe in spite of the materialistic existence of multiple objects. All the elements of the universe like the sun, moon, stars, planets and flora and fauna and even humans are all composed of one cosmic element. Thus *Upaniṣad* says that the one who sees this fact is regarded as religious:

*Sa yaścāyaṃ puruṣe yaścāsavādītye sa ekaḥ.*³⁰

Further, *Śvetāśvataropaniṣad* says that animate and inanimate objects are related in one causal aspect. There are two different dimensions of the one ultimate reality stated as 'Vyakta' or the expressed form and 'Avyakta' or the unexpressed form. Man looks at the first dimension through his organs because he can experience that aspect more clearly in the empirical world while the latter form is more important at the cosmic level. Through it one can realize the oneness behind all the multiplicities in this form. Due to ignorance of this fact and attachment to the objectification of the universe, this reality is hidden and when man becomes aware of the facts which lead him to great happiness and salvation, he gains freedom from worldly attachment and conflicts. As

Samyuktametāt kṣaramkṣaram ca vyaktāvyaktaṃ bhārate viśvamīśaḥ.

*Anīśaścātmā badhyate bhokṛḥbhāvājñātvā devaṃ mucyate sarvapāśaiḥ.*³¹

After the realization of 'Paramatva', which is pronounced as 'Sākṣātkāra' in Vedic terminology, man becomes free of the various conflicts of life, sorrows and the cycle of birth and death. With the establishment of this oneness, he attains an immortal happiness and contentment. He renounces all worldly comforts and achieves the stage of a completely satisfied being known as 'Āptakāma'.

Jñātvā devaṃ sarvapāśāpahāniḥ kṣīṇaiḥ kleśairjanmamṛtyuprahāniḥ.

*Tasyābhidyānāt tṛtīyaṃ dehabhede viśvaiśvaryaṃ kevalaṃ āptakāmaḥ.*³²

In the process of moving towards the experience of the ultimate stage which is identified as duty or *Dharma* in the *Upaniṣadic* thought, *Upaniṣad* talks of the emergence of the five elements of universal processes namely earth, water, fire, air and sky. It states that when all these elements merge into one and the qualities of these³³ also become

²⁸ *Tattiriyopaniṣad- 2/4/4*

²⁹ *Tattiriyopaniṣad- 2/6/1*

³⁰ *Ibid - 2/8/13*

³¹ *Śvetāśvataropaniṣad- 1/8*

³² *Ibid - 1/11*

³³ *Pṛthivyā gandhavatyā gandho yogino bhavati. Tathādbyo rasaḥ.*

– *Śvetā. Śāṅkarbhāṣya- 2/12*

active for the liberation of man, then he is relieved from worldly sorrows, deceases, old age and death. At this stage, he attains a spirit which is uplifted from all these attachments. A general human body experiences all these sentiments but a 'Yogic Śarīra' enjoys the real happiness.

Prthviyapetejo 'nilakhe samutthite pañchātmake yogagūṇe pravṛtte.

Na tasya rogo na jarā na mṛtyu prāptsya yogāgnimayaṃ śarīraṃ.³⁴

Thus, the above-mentioned elaboration reflects upon the knowledge of ultimate reality and its experience in diversity of the physical world. This is referred to as 'Dharma' in the mythology of the *Upaniṣads*. He who attains this truth is known as 'Dhārmika' according to *Upaniṣadic* thought.


On the basis of this description we see that there many modern scientists who admired the teachings of Upanishads, Brahmasutra and Gita. They even followed the main principles mentioned in these texts. Through these, they got a new way of thought to see the physical world in a different way. These days, there are many scientists in the all branches of science who accept that Vedas have the seed of scientific knowledge which can give him new ideas for the future research. The director of ISRO has also accepted this fact that there are many theory which are described in Vedas. To know them scientific community should try to know Sanskrit language. With this, they can solve many complicated issues in the area of science.

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³⁴ Śvetāśvataropaniṣad- 2/12

BIOGRAPHIES (Not Essential)

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