

AGNEYA KANDAM OF SAMVEDA : THE CONCEPT OF AGNI

Dr. Rajendra Chaudhari¹,

Rizvi College of Arts, Science and Commerce,

Department of Chemistry,

Mumbai – 400052

(Maharashtra)

Dr Mrs. Sunetra Chaudhari²

K.C. College,

Department of Chemistry,

Mumbai – 400 020

ABSTRACT

Until date, several attempts have been made by Indian and Foreign thinkers to decipher Veda an Indian ancient scripture, entirely differing from each other in their methods and results. Most of them are through the guided readings by the force of repetition. These texts generally regarded within comprehension, bewilderment or derision. The language of the sutras in Veda is a symbolic one that constantly operates at different levels. In this paper, efforts are made to co-relate the depicted ideas in Agneya – Kandam of Sam – Veda with the scientific ideas of the modern times. The idiosyncratic use of scientific terminology of modern science when applies to the term 'Agni' and its properties such as its immortal nature and has two forms such as holy and bright like the forms of energy. Looking from today's perspective, Agneya – Kandam can be defined as a theory of life in the life sciences, that debates life in relation – not necessarily in opposition to physicalism which reduces all life activities to physical phenomena. It is conception of a agni that conceptualized as an organizing power as the realization of God in the human. Though it was compatible with life force, vitalism etc, it vanished after the Vedic era. The latter terms became the dominant paradigm and it constructed a myth of victory by refutation when chemist Wöhler produced the organic urea.

Key Words : kraft; energy; agni; sam-veda; agneya – kandam; priori; vital force; vis viva; living force; ascending force; fire

INTRODUCTION

At a very early stage of evolution, in addition to tools, language has been crucially important, first for the living dependency of humans and then for their increasing dominance over other species. The transition phase from Homo sapiens to present state is most crucial and

distinguished from other animals by his imaginative gifts. He makes plans, inventions, new discoveries, by putting different talents together, and his discoveries become more subtle and penetrating, as he learns to combine his talents in more complex and initiative ways. The invention of writing is probably the most important technological advance, which occurred in communication. Which was not existed for more than five or six thousand years, and before this society depended entirely on oral transmission from one generation to another to retain its historical and technical heritage (David A Kronick 1984). Until Samarians' developed cuneiform (Reader's Digest 2001), language enabled humans to communicate and share information more efficiently. The vocabulary common to the different Indo-European languages permits some conclusions about the natural and cultural environment of the PIE language (Asko Propola 2015). The first major change, which early ancestors brought about in the ecological condition, in which they were living, was the domestication of fire. The regime of fire continued to be the dominant up to the next socio-ecological regime i.e. agrarian (John Goudsblom 2011).

For human achievement and science, in particular it is a progress, in which the first experiments of the alchemists also have a formative place and it was important for their peoples. Also in Indian past, history was the domain of human memories, dissimilation of knowledge acquired by the wise man expressed in sutras, it was an oral tradition, in which one generation regaled the next with experience of the past, that generation then assumed responsibility for informing the successors. Each sutra finds its written origin in a particular cluster of aphoristic utterances strung together to form the various 'sutras'. These sutras were collected and placed in the form of Veda, the most ancient and extensive literature in Indian past, can be regarded as a record of a great advance made by human by special means at a certain period of its collective record in absence of charlatans and fraudsters– an anthro-history.

The Veda, are divided into four primary books namely Rig-Veda, Yajur-Veda, Sam-Veda and Atharva-Veda, it is an ascending trellis of gift to the world from ancestors. The language of these sutras is a symbolic one that constantly operates at different levels (Michel Danino 2006). Till date, the age of these Veda has not been established scientifically, however, Mayank Vahia 2006 brought to the notice that the last planetary movement that has been recorded in the Vedic literature was occurred only in 5200 BC prior to that the passage of Mars occurred in 5284, 9339, 9371, 9828 and 9860BC. To understand such very ancient scripture, one need to move beyond superficial interpretation, crucial selection is the role played by those features of organisms that causes fitness differences and so survival. An organism has a high engineering fitness in particular environment if its features represent a good design and that causes a high reproductive survival.

One can find that, each culture tries to fix its visionary moment, when it was transform by a new conception either of nature or of man (Levin, 2004). However, in retrospect, what commands our attention, as much are the continuities – the thoughts that run or recur from one civilization to another. Until date, several attempts have been made by Indian and Foreign thinkers to decipher the said scripture, entirely differing from each other in their methods and results. Most of them are through the guided readings by the force of repetition. These texts generally regarded within comprehension, bewilderment or derision, Max Muller spoke of them as 'the twiddling of idiots' and L. V. Schroeder, who himself edited two of the major Yajurveda texts, compared them with the written compositions of insane persons. Whereas, Keith characterized it as 'a world of fancy', According to Witzel 1979, the Vedic text can have 'a moment of sanity' sometimes only (Michael Witzel 1979). Rev. J Stevenson 1884 asserted that Agni is the god of fire whereas, Sir Aurobindo wrote that, in Veda, Agni is always presented in the double aspect of force and light. It is the divine power which acts always with a perfect knowledge, or it possess all forms and activities of the divine wisdom. Thus, these sutras were often described as unacceptable nature of worship cult and

primitive expressions of the Stone Age man, myths and ritual, the syllogistic construal extant termed Vedas as ancient litanies – whatever that may mean, but the general climate of opinion concerning these texts has not changed. It is not essential here to recount all of that history.

To decipher such a very ancient scripture, one has to start from no prior knowledge, no beliefs, and then, as it were, admitting only those layers of knowledge, unfolding one by one very carefully, about which there could not be any doubt on scientific ground. It is very much necessary to consider the situation of the period very thoroughly. In following the turning – points and continuities of culture, a general order of evolution rather than chronological order is followed in this paper, and efforts are made to co-relate the depicted ideas in Agneya – Kandam of Sam – Veda with the scientific ideas of the modern times. For the purpose, the term ‘Agni’ is chosen from the origin in the gifts, and with which nature has endowed man, make it unique and tend to confirm and supply evolutionary underpinning. Most of the philosophers have an atomistic view of meaning and the meaning bearing linguistic unit. The word meaning has to be viewed as an abstract of a particular seer, for e.g. it is difficult to define in simple terms the notion ‘energy’ in the developed world (Haliday et al. 2003). In order to illustrate the method, propose, the sutra dedicated to the notion ‘Agni’ are selected from the Agneya-Kandam of Sam-Veda.

METHODS AND OBJECTIVE

In every age of evolution there is a turning point, a new way of seeing and asserting the coherence of the world. In the present paper, with no prior knowledge and belief, an attempt made to decipher the depicted term ‘Agni’ which is repeatedly used in Agneya – Kandam and its coherence correlated with historical works of known scholars, investigators and philosophers of modern times, and to suggest a new creative view to retrieve depicted ideas in ancient literature of Indian past. The man’s ideas expressed in sutras, what is essentially human in its nature is tried to present in this paper. This act may shed some light on important problems in the history of ancient thought. This work do not propose negative or destructive method directed against the received solution, but to present a complementary scientific integrate view based on boarder scientific foundations. Therefore, this work is a personal journey to the scientific delights of the Indian past and man’s achievement.

According to Henke, metaphorical activities require a re-conceptualization of known properties, events situations or relations in a different context, where they have expressed as “standing – for” known things. (Henke et al 2009). Scientific observation is a reliable source of knowledge religious experience is not (Steen 2000). To carry out the database search, online and offline, work published in indexing and non-indexing sources from the national and international sphere of education is considered. To elucidate the present study relative in concept, biological, philosophical and psychological factors related with the word ‘Agni’ and the interwoven terms associated with it such as ‘immortal’ ‘Heaven’ and / or ‘happiness’ or ‘subjective well – being’, ‘holy and bright’ and ‘Wealth’ and/or ‘Dhan’ are searched. In carrying out this, the steps used are – selection of thematic issue, establishment of the criteria, and interpretation of result and presentation of issue.

On employing the adopted inclusion and exclusion criteria, publications in English were located. None of the publication literally found to be associated with the term ‘Agni’ and are associated with other terms which are depicted in Agneya-Kandam. At first, the properties and various terms associated with ‘Agni’ are identified and abstracted from the work (Graffiti 1895 and Satavlekar 1963).

RESULTS AND DISCUSSION

Agni : Energy

The most common notion that is observed in the Agneya - Kandam of Sam – Veda is 'Agni'. The term 'Agni', denotes 'fire' in Sanskrit, it is derived from an Indo-European root and related etymologically to the Latin 'ignis' [Oxford bibliographies], from PIE perjos and from root pæwr (Etymoline). The concept of fire was initially theological, as in the Greek myth of Prometheus receiving fire from the Gods. Theological views have limited explanatory power compared to science, but they have very strong emotional coherence because of their fit with people's personal goals, including comfort, immortality, morality and social cohesion (Thagard, 2005). The fundamental aspects of life cannot be explained without referring to energy. The Oxford English Dictionary defines energy as 'force or vigor of expression' (since 1599); 'exercise of power' (1626); 'ability to produce an effect' (1677). The energy had different names depending on where the theory was developed. It was 'qi' in China, 'Chakras' in India, 'humors' in Europe and 'natural sprits' among Native Americans (Dan Mayer 2010). Thomas Young 1845, used the term energy to express idea conveyed by the term living or ascending force in his lecture. (Roche J 2003).

The history of concept of energy is one of the scientific delights of the past. The detailed study of natural fact is commonly called natural science, or for short simply science; the reflection on principles, whether those of natural science or of any other department of thought or action, is commonly called philosophy. ...but the two things are so closely related that natural science cannot go on for long without philosophy beginning (Collingwood R.G. 1960). On the basis of laborious work, each philosopher and investigator was convinced on that, in science, of all the concepts or constructs, energy by its unifying capacity, has proved by all odds to be the significant and successful. Its domains of application covers all the branches of universe. Some of them are—

Aristotle (384 – 322 BC), in his *Metaphysics*, made a difference between dynamis and energeia (entelecheia). This dichotomy can be adapted to many natural and social phenomena. He wrote in 'On the Soul' that the soul is the first entelecheia of natural body, which is living body by its dynamis. Aristotle applied this dichotomy in his 'On the Origin of Animals' to explain how the parts of the embryo come into being (Mocek 1998).

Empedocles (490 – 430 BC) believed that the heart distributed life – giving heat to the body, initiated the idea that an ethereal substance called pneuma, which was both life and soul, flowed through the blood vessels (Malomo A.O. et al., 2006).

Heraclitus of Ephesus (about 535–475 BC), a pre-Socratic Philosopher was impressed by ever – changing flux of sensation characterizing our experience. He taught "pantarei" (all things flow or all is change). However, Lindsay 1971 pointed out that some commentators on Heraclitus hold the view that there is something invariant in the universe as a whole. This something is apparently a fire. Parmenides of Elea, was also impress by sequence of events in human experience to which he treated as illusionary. He felt that this is what men try to do when they invent names for things and so identify them continually throughout the flux of sensation. He introduces the very conception behind the variability of phenomena something immutable should exist!

Galileo envisioned heat to be in relation with the senses: "Those materials which produce heat in us and make us feel the warmth, which are known by the general name of 'fire', would then be a multitude of minute particles having certain shapes and moving with certain velocities..... their touch as felt by us when they pass through our substance is the sensation we call heat" (Galilei et al 1973). Thus, he showed that there is other quality in fire corresponding to heat. Anaxagoras's

concept shows that, the visible world and all the material structures and living creatures it contains, are created of endless material substance by a non-personalized god as an ordering force. He called the ordering force or god by the name *Nous* (mind), which was separate from matter (Tuomo Suntola 2014).

Science is a way of knowing and understanding that differs from other ways in that it is dependent on empirical evidence and testable explanations. Natural causes can be reproduced so that they can be tested by other scientists. Explanation based on purported forces outside nature, such as supernatural intervention, cannot be confirmed or disapproved by scientist, as these explanations cannot be tested. Stephen Jay Gould 1999 considered science and religion to be two compatible, complementary fields, whose authority does not overlap.

Concept of Conservation

In the period of 1600AD to 1900AD, on ontological basis, various investigators fixed the several laws of conservation of matter or mass; momentum; angular momentum; heat; energy; electric charge etc. Their experimental imaging and feeling the presence of something is the ground of presentational knowing. Presentational knowing is an intuitive grasp of significance of patterns as expressed in their observation form which is the ground of propositional knowing and which is in the statements that something is the case to which each investigator gave a peculiar name to the notion involved. It has an enormous explanatory power covering most of the known phenomena of the time. The notion, such as –

Priori, kraft, living force, ascending force, dead force, effect naturel, effect general, potential, arbeitakraft, vis, matter, effort, motion, momentum, vis viva, vis mortuza, lebenskraft, bildungstrieb, vital force, élan vital, heat, energy, electrical Change, etc. including a role pervasive a ether.

As heat has been understood as motion by Joule 1884, 1887, Rankine 1850 and Clausius 1850, heat can be translated into mechanical activity. In order to explain this activity Thomas Young 1807 use the term energy instead of Vis Viva. The mechanical activity of a body, which depends on the total heat in it, is expressed by the total mechanical energy of a body. In Lavoisier's time the phenomenon of heat attributed to an elastic, imponderable fluid surrounding all particles of matter. (Welch 1991).

It is worth to quote here the outlined paragraph in the Thesis of Medicus: "These causes made me to follow up my own opinion, and to suppose a simple substance in addition to the organized matter and the soul; a substance that the creator gave to all organic bodies as a force bringing life into them. This force is in vegetable and in the animal kingdoms the only force giving life to the organized matter. It is present in the man too, where it causes all animal or as authors express it, all mechanic life. But man has a reasonable soul in addition to this organized matter and to this simple substance, the vital force; a soul that thinks and wants within him as pointed out by Gunnar S. Hence, all living being are engendered by living beings. However, Caoude Bernard (1813 – 78) did not believe in 'vitalism' but neither did he agree fully with the 'mechanists'. He believed that the hallmark of life was the presence of a 'definite idea' which directed its development. The pioneering clinical chemist, Hency Bence Jones (1813 – 73) believed that the vital force played a minor role in living processes and that most, if not all, living processes would eventually be understood in terms of chemical and physical laws (Rosenfield I 1987).

Poincaré questioned that, 'As we cannot give energy a general definition, the principle of conservation of energy simply means that there is something that remains constant' (Poincaré H.,

1968). While, Feynman R 1963, writes that 'There is no known exception to this law, it is as far as we know. The law is called the conservation of energy That is a most abstract idea, it is not a description of a mechanism, or anything concrete; it is just a strange fact that we can calculate some number and when we finish watching nature go through the tricks and calculate the number again, it is the same'. Recently, Papadouris and Constantinou 2011, emphasize that : Energy (is) a theoretical framework that has been invented in science so as to facilitate the analysis of changes occurring in physical systems regardless of the domain they are drawn from'. Watts suggested that energy can be perceived as an 'element' that lies dormant in certain objects and is released by trigger (Watts D. 1983). In fact, energy with all its characteristic features cannot be observed directly in nature. 2nd sutra of Agneya – Kandam also read as 'Agni' is placed in the race of men by God (Supreme Power). In this sutra, the relation between the notion Agni and Men is shown, therefore, it is applicable to race of men i.e. living organism. According to Dutta and Ray, science in itself is communication. Unless it is communicated, science does not subsist at all. Science communication is such a process where common message on common science to the common mass is conveyed (Dutta and Ray, 2012).

Forms of Agni: Holy and Bright

Indeed, the conversion from one form to another is an interpretation of the phenomenon. When Agni is compare with the term energy coined in modern science. The 75th Sutra says that, 'Thou art like heaven: one form is bright, one holy, like Day and Night dissimilar in colour. All magic powers thou aidest, self-dependent! Auspicious bethy bounty here, O Pushan!'. This sutra indicates that 'agni' has two magic forms one is Holy and the other is Bright. The Holy form gives a wealth (3rd Sutra) whereas Bright form kills Vritras (4th Sutra) and also responsible for happiness and to take in heaven. Hence, agni does work of wealth and happiness as depicted in. In fact, energy with all its properties cannot be observed directly in nature like heaven and happiness. The construction of the concept was progressive, not the result of one action. All natural phenomena are to be deduced from only two fundamental kinematic assumptions. For e.g. Isaac Newton 1660, distinguished vis insita and vis impressa, for Leibnitz it is vis mortua and vis viva, for Leonhard Euler it is potential and vis, for Aristotle it is dynamis and energia, for Carnot - moment of activity & force vive latent; Mayer – cause & effect, Helmholtz – living force & force of tension, etc.. Wikipedia reports that, Gustave-Gaspard Coriolis described "Kinetic energy" in 1829 in its modern sense, and in 1853, William Rankine coined the term "Potential energy", whereas, Thomson and Taint in 1862 replaced 'Actual energy' by 'Kinetic energy' (Jennifer Coopersmith 2015). There are various forms of energy, they can be categorized into two forms: one is potential energy and the other is kinetic. Kinetic energy is the energy, which can be transformed to and from other forms of energy; it does work and so it is holy in nature, whereas, potential energy is the capacity for doing work that a body possesses and it is a bright form of energy.

Health Science:

Living organisms need energy to perform the basic functions of life, such as growth, reproduction, gas exchange, elimination of waste, getting water and nutrients and responding to the environment. Organisms made of metabolic energy and life can be viewed as a process of attaining and managing metabolic energy. Energy relevant to life can take two forms. One is biological (Holy), and the other forms to conserve metabolic energy (Bright). These processes take place in each, and every individual cell. Organisms do not produce energy on their own; they obtain it from the environment or from another organism that got it from the environment to use it. Organisms use energy in the form of chemical potential energy, stored in the food that organisms eat. Plants are able to capture the radiant energy from the Sun and transfer it to chemical potential (stored)

energy for other organisms to use. All organisms release the stored potential energy from the food that they eat to support their life processes.

According to Leduc, “Mankind increasingly replaces conjuration to Gods by efforts of reason. Almost alone, biologists and physicians still conjure up mysterious forces. Old anthropomorphism, finalism, supernatural, metaphysical, extra and ultra – scientific persists in the life sciences, under various forms and with various intensity. One admits there principle that are beyond matter, a vital force specific to life, and the finalism is met everywhere. Education in this regard is such that, even the works that claim the physic – chemical nature of life are sprinkled of vitalist interpretations and finalist’s explanations. The phenomena of life are considered with authentic superstition, it is a sacrilege to try and interpret them (Leduc 1912).

Law of Thermodynamic: Energy can neither be created nor destroyed (Immortal)

Thermodynamics deals with energy and its transformation i.e. relationship between heat and work. It is a subject of great generality and is applicable to all types of system however complex they may be. The concept of energy was developed very slowly over a period of several hundred years and has finally lead to the establishment of conservation of energy. Rao 2003 pointed out that the scientific community took more than 150 years to realize that heat is a form of energy transfer.

Laws of thermodynamics proved that the energy is remains constant in an isolated system, it is of two types - one is kinetic energy and other is potential energy, the formal does the work and later conserves. On the basis of study of various machines, Colding announced the establishment of the conservation law of ‘Kraft’, based on measurements of expansion due to frictional heating of various metal strips. His philosophical principal state that, ‘As the forces of nature are something spiritual and immaterial entities whereof we are cognizant only by their mastery over nature, these entities must, of course be very superior to everything material in the world; it is consequently quite impossible to conceive of these forces as anything naturally mortal or perishable. Surely, therefore, the forces ought to be reargarded as absolutely imperishable’ (Colding L., 1864). Joule proposed the First Law of Thermodynamics which state that energy can be transformed from one form to another but cannot be created or destroyed, hence, it is immortal like Agni (12th sutra). Numerous studies have made significant efforts to apply laws of thermodynamics to study living systems. However, W. Thomson (1852) indicated, ‘full restoration’ of heat in living force is in practice ‘impossible’ because of the phenomenon of the dissipation of energy (Thomson W 1852). It has been hypothesized that, the laws of thermodynamics, are intrinsically positioned to model the physiological behavior of living systems (Bridgman 1961). Earlier work done by Schroedinger 1992, establishes the fact that the human life processes are indeed thermodynamic in nature and hence thermodynamic laws can be used to model physiology. The most recently discovered thermodynamics – based Constructal Theory by Adrian Bejan and S. Lorente in 2006, has been used to model pulsating transport phenomena in biological systems (Magin et al 2007). Recently, Maxwell relations has been used to carry out thermodynamic assessment of physiological stress responses using Maxwell relations (Boregowda et al 2012).

Health is Wealth and Happiness:

Health and wealth are the two most essential conditions of happiness, but of these two health is the necessary condition while wealth is only a desirable condition. A healthy man can, if he tries, get wealth, but a wealthy man without health may not succeed in gaining his lost health. So health is by itself wealth. It is, in any case, preferable to wealth. Many wealthy men suffer from a number of ailments, though they have wealth to secure all the pleasures of life, but they have no

capacity to enjoy them. In contrast, a healthy body can enjoy all the pleasures of life. Though a healthy man may not be able to secure pleasures resulting from luxuries, he can enjoy simple pleasures of life that make for happiness, for happiness lies not in luxurious living but in small, simple enjoyments of life. Healthy blood depends on a well – functioning digestive system. Besides, our mental faculties are also closely connected with our body, so the adage, 'A sound mind in a sound body'. Our mind can be active and creative only if our body is healthy. In addition, to a person having healthy body and healthy mind, wealth not far away. However, wealth, at its best, is but a means to happiness a healthy body and a healthy mind are a permanent source of happiness and therefore be called the greatest items of wealth to be prized. Metabolic effects of food can be related to their effects on satiety (appetite control), cognitive performance and mood. Glucose is the only metabolic fuel available to the brain. It is required for the synthesis of neurotransmitters (J. Blundell et al., 2003). Cognitive demand increases glucose uptake (Scholey et al., 2001). Happiness as a state of freely available or surplus energy (M T Gailliot, 2012). Happiness is associated with good metabolism and glucose levels. Farhud et al.2014, showed that biological and health factors are critical in underlying happiness and its role in happiness is undeniable. Biological sub-factors are the significant predictors of happiness. Neuroscience studies showed that some part of brain and neurotransmitters play a role in control of happiness. A few studies pointed to the role of cortisol and adrenaline and oxytocin in controlling happiness. Physical health and typology have a significant role in happiness.

Reproduction, repetition and recurrence are the main features of biological evolution just like process of civilization. All historical innovations, no matter how radical, have originated from earlier innovations. Body growth, development and functioning are some of the vital and fundamental aspects of life. They cannot be explained without referring to energy, fuel of life is dependent on energy transformation and our food brings us the vital energy. Of course, our early ancestors (of Vedic era) did not think of fuel in the modern terms, they did learn to use it for all practical purposes. They incorporated Agni as a source of energy in somatesthesia which is undeniable, they made it part of anthrosphere.

The scrutinized study of Agneya-Kandam reveals that, sutras that describes prominent feature of the term 'Agni' are—

- a) God has placed Agni in the race of men to feast and sacrificial offerings for the purpose of establishment of life (1st and 2nd Sutra).
- b) There are two magic forms of Agni – one is holy, which gives wealth (in terms of health) and other is Bright that kills Vritas when present in surplus (3rd, 4th& 75th Sutra).
- c) It is of temporary in nature and its accumulation takes place at the speed of chariot (5th Sutra).
- d) It is immortal in nature (12th Sutra)

To make the very point at issue, these features are harmonious expressions of a single metaphysics i.e. 'Agni'. If the word 'Agni' is, replace by the word 'Energy' that suits our thinking habits, and then one can see that these features cover the main possibilities of relationship with the notion 'energy' established in modern science. Then, in modern language it can read as –

- A) God has placed 'Energy' in the race of men to feast and sacrificial offerings for the purpose of establishment of life.

B) There are two magic forms of Energy – one is holy, which gives wealth in terms of health and other is a Bright that kills Vritas when present in surplus function.

C) It is of temporary in nature and its accumulation takes place at the speed of chariot.

D) It is immortal in nature.

The purpose of the other words associated with 'Agni' such as sacrificial offering; Holy & Bright; Vritas; and Chariot in this prehistorically ancient script may be the purpose of possible effects achieving in their own right manner of idea popular at time.

Conclusion:

Establishment of law of conservation of energy is the result of work of different groups of people in different places on different problems, they give peculiar name to express their findings. They came up with different answers but proved to be more logically derivable one from other. Though there is no clear shape of Agni, the term itself has not been used after BC. The idiosyncratic use of scientific terminology of modern science when applies to the term 'Agni' and its properties such as its immortal nature and has two forms such as holy and bright like the forms of energy : kinetic energy & potential energy. Holy form is similar to Kinetic energy whereas the Bright form is similar to potential energy. On this basis, it seems that the term 'Agni' is the very ancestor of the term energy. Looking from to days perspective, Agneya – Kandam can be defined as a theory of life in the life sciences, that debates life in relation – not necessarily in opposition to physicalism which reduces all life activities to physical phenomena. It is conception of a agni that conceptualized as an organizing power as the realization of God in the human. Though it was compatible with life force, vitalism etc, it vanished after the Vedic era. The latter terms became the dominant paradigm and it constructed a myth of victory by refutation when chemist Wöhler produced the organic urea.

This topic can provide the natural starting point of an examination and for a sounder in depth study of the similarity and the differences between very ancient scripture (Veda) and science. There is, above all, the idea of Agneya – Kandam as the ground of all Veda that appears to offer an interesting point for comparison and contrast, for this is the basic concept of well-being and in Vedic thought it is even more emphatically crucial. It is rightly said that, there is nothing in the modern science more unexpected than defining the terms with new properties. Hence, the ancient myth of life compared to Agni that blazes and is then extinguished was no longer a simple metaphor but a scientific reality. The same chemical conditions feed the fire in inorganic nature and life in organic nature. From historical point of view, the Vedas may be regarded as a record of a great advance made by humanity by special means at a certain period of its collective progress. It is no longer myth but it is the revelation of our ancestors who were dexterous, observant, thoughtful, passionate, and able to manipulate in the mind the symbol of language and mathematics both, poetry and science.

REFERENCES:

- A. Bejan and S. Lorente, Constructal. 2006 Theory of generation of configuration in nature and engineering, Journal of Applied Physics, Article ID 041301.
- Ankuran Dutta and Anamika Ray. 2012. 'Science Communication : An Emerging Professional Discipline, University News; 50(05): 8-13.
- Asko Propla. 2015 The Roots of Hinduism: The Early Aryans and the Indus Civilization, Oxford University Press; pp 35.
- Sir Aurobindo, 'The Secret of the Veda', Part I Chapter VI pp. 58 – 69
- John Blundell, Deepa e, Rowena Handley and Louise Dye. 2003. Diet behavior and Cognitive Functions a Psychological view. Scandinavian Journal of Nutrition; 47(2):85-91.
- Boregowda S.C., Robert E. Choate, Rodney Handy and O. S. Palsson. 2012. International Journal of Modern Engineering Research; 2(2): 297-302
- Bridgman, P.W. 1961. The Nature of Thermodynamics, Harpers and Row Publishers, New York
- Colding L. 1864. On the History of the Principle of the Conservation of Energy, The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science; 17(17): pp 56-64
- Collingwood R.G., 1960, The Idea of Nature, Oxford University Press. pp2.
- David A Kronick. 1984. Bulletin of The New York academy of medicine; 60 (9): 857-875.
- Dan Mayer 2010, Essential Evidence based Medicine, 2nd edn., Cambridge University Press; pp 2.
- Etymoline, Web: <http://www.etymonline.com/index.php?term=fire>
- Dariusz D Farhud et al. 2014. Iranin J. Publ. Health; 43(11): 1468-1477.
- Galilei, Galileo and Stillman Drake. 1973. *Discoveries and Opinions of Galileo*. Garden City, N. Y. Doubleday; pp 277.
- Matthew T Gailliot. 2012. Psychology; 3(9): 702-712.
- Gunnar S. 'The Demise and Life of a Scientific Conception', web: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.455.7642&rep=rep1&type=pdf>
- Graffiti Ralph T.H. 1895. Part I, 'Hymns of the Sam Veda'; downloaded from <http://www.sacred-texts.com/hin/sv.htm>
- Halliday D. et al., 2003. Fundamentals of Physics, 6th ed., J. Willey& Sons.
- A. Henke et al., 2009. 'Paper presented at the 10th International History, Philosophy and Science Teaching Conference at Univ. of Notre Dame, USA, June 24-28.
- Jennifer Coopersmith. 2015, 'Energy, The Subtle Concept', Oxford University Press.

John Goudsblom. 2011. paper read at International Conference. 'Social Aspect of Energetic issue', Cheiti, Italy.

Leduc S. 1912. La Biologie Synthétique A. Poinat (Paris): Chapter I.

Levin 2004, URL: www2.vet.upenn.edu/labs/equinebehavior/hvnmkshp/hv02/Levine.htm.

Lindsay R.B., 'The Concept of Energy and its Early Historical development'. Foundations of Physics; 1(4) : 383 – 393.

Magin R.L. et al. 2007. Modeling of pulsating peripheral bio-heat transfer using fractional calculus and constructal theory. International Journal of Design, Nature and Ecodynamics; 1(1): 18-33.

Malomo A.O. et al. 2006. Lessons from History: Human Anatomy, from the Origin to Renaissance. Int. J. Morphol.; 24(1): 99 – 104.

MayankVahia 2006. The Harappan Question. Annals of the Bhandarkar Oriental Research Institute, Pune.

Michel Danino 2006. The Horse and the Aryan Debate. Journal of Indian history and Culture; 13: 33-59.

Oxford bibliographies. URL <http://www.oxfordbibliographies.com/view/document/obo-9780195399318/obo-9780195399318-0145.xml>, DOI: 10.1093/OBO/9780195399318-0145]

Papadouris N. and Constantinou C. 2011. A philosophically informed teaching proposal on the topic of energy for students aged 11 -14. Science and Education; 20: 961 – 979.

Poincaré H., 1968, La science et l'hypothèse. Paris Flammarion.

Rao Y.V.C., 'An Introduction to Thermodynamics', Revised Edn., University Press, 2003

Reader's Digest. 2001. How did it Really Happen? The Reader's Digest Association, Inc. New York.

Roche J. 2003. What is potential energy? European Journal of Physics; 24: 185-196.

Satavleker V. S. 1963. 'Sam-Veda', translation in Marathi, Bharat Publisher, Pardi, Gujrat (India).

Scholey AB et al. 2001. Cognitive demand and blood glucose. PhysiolBehav.; 73: 585 – 92.

Schroedinger E. 1992. What is life? Cambridge, UK; Cambridge University Press :

Stephen Jay Gould 1999. Rocks of Ages : Science and Religion in the Fullness of Life, Balantine Books.

Rev. J. Stevenson. 1884. Translation of the Samhita of The Sama Veda: page xi, <http://www.googlebooks>.

Thagard P. 2005. The Emotional Coherence of Religion. Journal of Cognition and Culture; 5: 58-74.

Thomson W. 1852. On a universal tendency in nature to the dissipation of mechanical energy. Proceedings of the Royal Society of Edinburgh for April 19.

Tuomo Suntola. 2014. The Short History of Science, ISBN 978-952-68101-1-9 (e-book, PDF), DOI: 10.13140/RG.2.1.3946.9600. pp 27.

Watts D. 1983. Some alternative views of energy. Physics Education; 18:213-217.

Welch G.R. 1991. J. Nutri. 121: 1902-1906

Wikipedia URL; <https://en.wikipedia.org/wiki/energy>

Wim J. van der Steen. 2000. Science, Religion and Experience, International Philosophical Quarterly. XL (3): 339 – 349.

Witzel 1979. On Magical Thought in the Veda. web :
<http://www.people.fas.harvard.edu/~witzel/Magical Thought.pdf>