Directions for Vedic Sciences Research

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‘Veda’ s are sacred documents of Hindu traditions, addressing holistic human welfare. In academic and Hindu religious studies, ‘Veda’, stands for a large collection of Vedic Sanskrit language documents. Historically these are dated prior to 3000 BCE. Vedas are considered to be the source of Hinduism. Vedas provide deliberations on human welfare in two perspectives. (a) The first one is a model, where Spirituality is explicitly guiding life styles for welfare issues. Example: Vedanta darshana, mimamsashastras. (b) In the second model, Spirituality is embedded in professional services guiding enterprise for welfare. Example: Upa-Vedas, Vedañga’s. Research in vedic sciences has to cover both these dimensions. In the present period, researchers go with two models of understanding Science. This is based on how the following issues are addressed: What makes a discipline to be called a ‘science’? What constitutes the criterion of a ‘scientific methodology /study’? This article explores the two models of understanding science and scientific methodology in the present period and how this resonates with the understanding of vedic sciences. The outcome of select current researches in vedic sciences, as an interdisciplinary and independent study are analyzed. Based on this, the directions for future research in the vedic sciences for potential global human welfare are suggested.

Directions for Vedic Sciences Research

(a deliberation for future researchers)

- Dr. B V Venkatakrishna Sastry, Dr. Suren Dwivedi

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1. Introduction to Veda, Vedic Sciences, Vedic Research models

1.1 What is Veda? Vedic Sciences? Extent Vedic documents

‘Veda’ s are sacred documents of Hindu traditions, addressing holistic human welfare. In academic and Hindu religious studies, ‘Veda’, stands for a large collection of documents 1 in Vedic Sanskrit language. Historically these are dated prior to 3000 BCE. Vedas are considered to be the source of Hinduism.

The Vedic sciences are mainly 2 the following disciplines, listed under the headings of upa-Veda, vedañga, shastra-vidya vijjñana:

Ayur-Veda, Dhanur-Veda, Vastu Veda, Gandharva Veda, Vyakara.a,

Astrology (Jyotish), Kalpa (Ritual performance techniques),Nirukta,

Chandas, Shik.ha, Yoga, Tantra.

There are several sub-disciplines under each one of these titles. The documents of these disciplines are as diverse and distributed as Vedas are in the current period.

The oral tradition of Vedic chanting has been declared 3 an intangible heritage of humanity by UNESCO. The vedic sciences are studied under the scope of alternate medicines, ethnic medicine, classical languages, endangered languages, religion-science dialogues, Para-psychology,

kinesiology, ancient sciences and the like.

The current extent of ‘vedic documents’ is less than two percent of the materials which were available in India to the research scholars around the period 500 to 200 BCE, the time of Buddha to Sanskrit grammarian Patanjali. A great part of the diversity in the oral traditions and ritual practices have been lost in the course of time. The rule books do provide positive indication for existence and application of the text in the earlier period. The rule books also provide guidance for restoration of the voice component, constructions and application of text.

The current sources of vedic documents are thinly distributed in several formats in India and abroad. The formats are like: oral teaching in the teacher–taught home school traditions (Guru-shi.hya para.para), hand written books in palm leaf/parchments/paper media in several regional language scripts, printed books, digital media tapes/CD’s/VCD’s, the practicing traditions and rituals in temples and holy places. The upa-Veda, vedañga, darshana shastra traditions have the regional language supplementations for main stream traditions along with the above formats. These have a practical dimension, coupled with a rider of secrecy and sanctity. The shastra tradition is shrouded in technical Sanskrit language.

The practical methodological tools of yoga and tantra are a part of living traditions. These are scattered in different family traditions, institutionalized religious traditions. These need to be compiled across documents of several centuries of Asian religious traditions across ritualistic practices. There are several unpublished manuscripts which are held in private libraries and governmental institutions, which are yet to see the light of the day.

1.2 Three models of Vedic research: Historic, Spiritual, Scientific

Three models of Vedic research streams are currently identified based on how the Vedas are looked at. These are – Historic model, Spiritual model and Scientific model. Each stream contributes to the understanding of Veda from different perspectives.

Historic model looks at Veda as an anthropological, linguistic document of a certain period associated with a land and community. This model of research is strongly advocated by western scholars and orientalist’s. The focus of research here is exploring the historicity of the land, culture, practices, faiths, traditions, languages associated with Vedas.

Spiritual model looks at Veda as divine revelation from a higher level of consciousness intended for holistic welfare (Dharma, Vishwa kalya.a), free from all association with a land, community and period. This model of research is strongly advocated by traditional scholars and religious teams. The focus of research here is exploring the spirituality present in Vedas and application for global human welfare.

Scientific models looks at Veda as source of inspiration and model providing a perspective of integrated mind-matter-energy- consciousness equations, which may become useful in dealing with the understanding of Life phenomenon. This model of research is strongly advocated by yoga, ‘Ayur-Veda, Tantra, mysticism’ traditions. The focus of research here is exploring the material, mind, energy and consciousness transformations that can take place with the implementations ofsuggestions made in Vedas for global human welfare.

2. Approach of Vedic traditions for the goal of human welfare

2.1 Vedic Welfare model - Purushartha

Vedas provide deliberations on human welfare in two perspectives.

(a) The first one is a model, where Spirituality is explicitly guiding life styles and acts for welfare issues. Example: Vedanta darshana, mimamsa shastras.

(b) In the second model, Spirituality is embedded in professional services guiding enterprise and acts for welfare. Example: Upa-Vedas, Vedañga’s. This approach is also called para-apara vidya model, bhuktimukti model of welfare.

There are four upa-Veda’s and six vedañga’s. Four upaVeda’s are: AyurVeda, DhanurVeda, Vastu Veda , Gandharva Veda. Six vedañga’s are shiksha, vyakara.a, kalpa, nirukta, chandas, jyoti.ha. Each of these disciplines have more areas for specialization.

Dharma shastra’s and smriti’s are vedic social sciences. These have provided directives for Hindu communities for centuries in these two models, where Spirituality and Worldly enterprise is integrally twined for guiding holistic welfare. This is a dynamic model. The historic observance of these formats has resulted in social and professional identities of professions / communities / guilds / life styles in India. The factored identity by religiosity, parentage, guild membership and profession for livelihood are integrated 4 for welfare.

2.2 Vedic sciences and integrated approach to human welfare Ayur-Veda is the vedic science dealing with health related issues.

Dhanur-Veda covers laws of Physical matter -energy transformations guided by mind power, with an application in weapons of defense and security.

Vastu- Veda is the discipline dealing with material sciences and applications related to housing, construction, road building, transportation, vehicles and the like.

Gandharva Veda deals with technology of aesthetic entertainment, fine arts, humanities and the like.

Six Vedañga’s cover the areas of use of languages, influence of time-cosmic space events on rituals and technicalities of administering rituals.

Yoga and Tantra are two special disciplines 5 which permeate the upa-Veda’s and vedañga’s by providing the right guidance and appropriate model accommodating mind-consciousness dimensions of phenomenon as important elements of these studies.

There are four shastras that are connected with these deliberations: Dharma shastra, Artha shastra, kama shastra, mok.ha shastra. These cater to the safe, smooth and secure conduct of individuals in the civilized society, ensuring worldly and spiritual welfare.

All these disciplines have interconnection and interdependence. All these disciplines follow the vedic guidance for integrated welfare. The four UpaVeda’s and shastra’s represent the shift of focus 6 in Vedic traditions from Individual towards family and society. These address the basic needs of all beings for health, Security, Housing and transport, entertainment at the level of Body and Mind.

3. Modern Sciences and Vedic sciences – Diverse formats for common goal of human welfare

3.1 Science (Matter-Phenomena model) and vedic sciences (Mind-Matter-Consciousness model)

The word science comes from the Latin word, scientia, which means 7 knowledge; thus the phrase ‘scientia potentia est:’ -knowledge is power. Until the "Age of Enlightenment," the word science (or its Latin cognate) meant any systematic or exact, recorded knowledge. Science therefore had the same sort of very broad meaning that philosophy had at that time. Veda in it’s primary sense 8 means ‘ True knowledge’ which is the path to power. ‘Seeking Truthful Knowledge’ (satya-dharma d.u.h.i, darshana, jijñasa) 9 is the common ground for all forms of sciences (modern or vedic) and philosophies.

Sciences are sometimes termed pure science to differentiate it from applied sciences and the application of research to human needs. The movement founded in the US by Ernest Holmes (1887-1960) on the theme of Religious sciences10 is an interesting point to note here.

In the current period, the scientific investigation in the matter – phenomena model has advanced to a greater extent compared to the previous centuries. The present science researchers have powerful tools which help them to investigate the deepest level of matter and touch the borders where matter ceases to be identifiable as matter. Every event that can be observed in the cosmos at all levels seems to be explainable within the realm of matter-energy-phenomenon and the rules related to it. The challenges are in explaining the mind and consciousness phenomenon. This team feels that there is no need for inviting any postulation of an agent of action having a mind and consciousness(God).

On the other hand there is a large body of knowledge and deliberation which claims to explain every event that can be observed in the cosmos at all levels with a different model, postulating the factor of

Mind and consciousness along with matter.

Each of these schools have loyal supporters, historic traditions and powerful arguments. Vedic sciences have their unique theory about the relation between mind-matter-consciousness, which is distinctly different from the views of material sciences.

Despite popular impressions of science, it is not the goal of science to answer all questions. The goal of the sciences is to answer only those that pertain to perceived reality. Rather, science tests some aspect of the world and provides a reasonable theory to explain it. Science is not a source of subjective value judgments, though it can certainly speak to matters of ethics and public policy by pointing to the likely consequences of actions. What one projects from the currently

most reasonable scientific hypothesis onto other realms of interest is not a scientific issue; the scientific method offers no assistance for those who wish to do so.

3.2 Scientific methodology- Diverse formats of language, terminology,

model and methodology.

Learning science requires learning its language, which often differs from colloquial language. For example, the terminology of the physical sciences is rich in mathematical jargon, and that of biological studies is rich in Latin names. The language used to communicate science is rich in words pertaining to concepts, phenomena, and processes, which are not a part of popular use of communicative language.

Similarly in vedic sciences, there is a technical format of Sanskrit language with specific conventions. This technical vocabulary is discipline specific and precise in its connotation. The communication from the same \words in literary language differs from the word used in the technical religious context. Overlooking this linguistic standard leads to an error in research methodology. These language conventions and technicalities change from discipline to discipline.

The terms "hypothesis", "model", "theory" and, "law" have a different use in science to colloquial speech. Scientists use the term model to mean a description of something, specifically one which can be used to make predictions which can be tested by experiment or observation. A hypothesis is a contention that has not (yet) been well supported nor ruled out by experiment. A physical law or a law of nature is a scientific generalization based on empirical observations.

Most non-scientists are unaware that what scientists call "theories" are what most people call "facts". The general public uses the word theory to refer to ideas that have no firm proof or support; in contrast, scientists usually use this word to refer only to ideas that have repeatedly withstood test. Thus, when scientists refer to the theories of biological evolution, electromagnetism, and relativity, they are referring to ideas that have survived considerable experimental testing. But there are exceptions, such as string theory, which seems to be a promising model but as yet has no empirical evidence to give it precedence over competing models. Especially fruitful theories that have withstood the test of time are considered to be ‘proven’ in the scientific sense i.e. that it is true and factual but of course can still be falsified. This includes many theories, such as universally accepted once, such as heliocentric theory and controversial ones such as evolution, which are backed by many observations and experimental data. Theories are always open to revision if new evidence is provided or directly contradicts predictions or other evidence. As scientists do not claim absolute knowledge, even the most basic and fundamental theories may turn out to be incorrect if new data and observations contradict older ones.

Some thinkers see mathematicians as scientists, regarding physical experiments as inessential or that mathematical proofs are equivalent to experiments. Others do not see mathematics as a science, since it does not require experimental test of its theories and hypotheses. In either case, the fact that mathematics is such a useful tool in describing the universe is a central issue in the philosophy of mathematics.

Most scientists maintain that scientific investigation must adhere to the scientific method, a process for evaluating empirical knowledge under the working assumption of methodological materialism, which explains observable events in

nature as a result of natural causes, rejecting supernatural notions. Less formally, the word science often describes any systematic field of study or the knowledge gained from it. Particular specialized studies that make use of empirical methods are often referred

to as sciences as well.

3.3 What guides and validates research in vedic traditions and current

sciences?

Economics enterprise dominating the revelation and spirituality?
The philosophy of science seeks to understand the nature and justification of scientific knowledge, and its ethical implications. It has proven difficult to provide a definitive account of the scientific method that can decisively serve to distinguish science from non-science. Thus there are legitimate arguments about exactly where the borders are. There is nonetheless a set of core precepts that have broad consensus among published philosophers of science and within the scientific community at large.

Science is reason-based analysis of sensation upon our awareness.
As such, the scientific method cannot deduce anything about the realm of reality that is beyond what is observable by existing or theoretical means and finite nature of changes which are measurable. When a manifestation of our reality previously considered supernatural is understood in the terms of causes and consequences, it acquires a scientific explanation. For example, God may choose to be hidden from this reality, hence making discussion over God's existence non-scientific.

Vedic sciences have adopted the model where the mind-matterconsciousness continuum is accepted 11 as a ‘hypothesis’. This stand brings in a different methodology in postulating the explanations for the phenomenon and experimentation for investigation. The shift from ‘material-machine model explanation’ to ‘human-divine model12

explanation’ is seen here. This shift has a major impact on the research goals, language, methodology and visions.

Resting on reason and logic, such as the principle of Occam's Razor,13 which states a principle of parsimony, scientific theories are formulated and the most promising theory is selected after analyzing the collected evidence.

What is the importance of this shift? It is important to have the clarity on the meaning of what is ‘research’ and how it is validated. The common understanding of terms of communication, documents,

deliberations and dialogue should be accurate and free from ambiguity. This helps in reducing the subjectivity and evaluates the results in a better organized manner and logical precision. This supports in knowledge advancement and reduces differences in understanding. This facilitates to build coherent and logical arguments, theory development /refutation/ reviews.

4. Research Work done so far and directions for future research

4.1 Potential areas for further research

With the theme of ‘integrated human welfare’, the potential areas of research in the current period would be identified as needs of humanity in the areas of health, communications, Protection, Productivity and Peace

(-Sanskrit words respectively are: svasthya, samvada, rak.ha, v.utti, shanti).

The researches conducted in the ‘materials-machines’ based model currently in use has provided wonderful benefits in all these areas in specific countries and communities. This welfare has come at the cost of greater imbalances in the areas of technology access, reach, administration and delivery. The best medical care is not necessarily the most cost effective. The research methodologies followed in these investigations have brought in many ethical and economic issues. The net result has been deliverance of partial welfare through pursuit of research models and methodologies operating with a finite focus, at an enormous cost.

On the other side, there has been a time tested tradition of vedic sciences which suggests research using a different model and methodology, which points to the deliverance of integrated welfare at a low-cost. But this tradition is seen with great suspicion by the first team. Thus it is imperative that there be a dialogue of these two traditions in an environment of open mind set and mutual respect to yield a common set of goals and common language, terms and methodology of research, addressing welfare.

In the current position, the historical model and spiritual model understandings of vedic sciences are not on common page; Nay, they are speaking contradictions on each other. The true spirit of scientific research has suffered a set back in this process.

4. 2 Selection from researches done / on going in vedic sciences

There have been several streams of research going on in relation to Vedas and vedic sciences.

In the historical model, the pointed focus is on (a) the proto IE language studies (b) comparative religion and philosophy of proto vedic period. (c) tracing the global imprints of vedic society.

In the spiritual model, the pointed focus is (a) to restore the excellence of traditional learning and effective methods to translate and present the Master’s wisdom to the current period (b) use of technology for the preservation of traditions in text and voice modes (OCR / Voice records / Data bases/ scanned images data bases) (c) Microfilming and other models of document preservation.

In the scientific model, the pointed focus has been to (a) identify the inspirational thoughts, solutions, materials and models for certain welfare benefits indicated in the source document and (b) verify with the current scientific thoughts, terminology, and experiments with the objective of reaping the benefit. For example: Ayur-Veda texts speak of a plant Shardunika Madhunashini as a natural herb which can cure diabetes. The modern scientists identify this by the botanical name gymnema sylvestre . Taking a clue that this herb has some active ingredient which can bring in the healing/ curative benefit for diabetes disease, the medical teams investigate the properties of the herb and extract the active ingredient that causes the healing chemical changes. Many publications in the filed of health related to Ayur-Veda, music healing, prayer healing and the like have been documented in several instances. And these have been observed with a skeptic view by the modern scientists!

4.3 Projected benefits of these researches

The benefit of all this research is multifold. A proper appreciation of the historic past helps to assess the current understanding of the religious teachings and goals. In the era of globalization, where human identities are intricately linked to national and religious identities, a proper understanding of religion, religious history, tenets of religions are critical for the state administrators and international leaders to handle religious fanaticism and fundamentalism.

A proper understanding of how religion, religious philosophies and languages have survived through generations provides a time tested human societal model and expected standards for knowledge documentation, training and transmission. This can be of great help in shaping the community educational strategies.

An interfaith – inter /intra religious appreciation of the human welfare and spirituality in the practice of prayers, community worship, rituals and rites of passage helps in spreading an atmosphere of religious tolerance and appreciation. This is of great value in promoting and maintaining the peace at all levels – family, community, state and Nations.

The dialogue of religions and sciences can help to understand the clarity of borders between faith and facts. This will help in avoidance of hyped explanations of religious tenets and agnostic model of sciences. In vedic sciences, this would amount to promoting ‘Dharma’ and not necessarily heralding any particular theology of ‘God/s’.

The statements in religious documents and philosophical deliberations can pose challenges that science may pick for a serious

investigation. This will help in planning a harmonious journey of religion and sciences in understanding the ‘Truth’ for human welfare.

The advancement in the digital technologies have outpaced the knowledge documentation, training and validation models that were / are followed in the human-chain model of Teacher – taught (Guru- shi.hya parampara) with an eye contact in a proximately supervised mode. The progressive simulation of human teaching model in the machine – interactive / virtual reality models/ AI is a challenge that can bring immense benefits in communication sciences.

Vedic sciences project several healing models, out of which, use of non-chemical natural processes are an interesting area. Religious teams have always held that there are efficacious sounds / sacred chants / visuals/ rituals which can bring about quick healing. An investigation of this theoretical statement brings out newer relations between human speech making process, human states of consciousness and bio-chemical healing processes.

4.4 Directions for further research

The decadence of Vedic science tradition started at the time line of Hindu society, where (a) upa-Veda /Vedanga traditions ignored and distanced themselves from spiritual dimension of Veda and (b) lost sight of the continuing need of research in contemporary times for welfare of society. This status needs to be changed by initializing the dialogue between Vedas, Vedic sciences and modern sciences with the objective of integrated welfare indicated above. The future directions of research can follow the three models indicated earlier. Some suggestions in this regard are placed below:

The potential areas for further research in Vedas can be marked in three models of pursuit: Historical, Spiritual and Scientific. These represent the intellectual/intentional, intuitional and inspirational propensities in research. Each model contributes to a different flavor of understanding Vedic sciences contributions for human welfare.

In the historical model pursuit, the researchers may seek advancement in these areas:

a) Archaeological direction: The archaeological exploration of the land of Vedas seeking evidence for the society which lived vedic life. This helps to understand the history and ancient civilizations. The evidences that emerge in this line of search brings in the element of hard evidence, which is highly appreciated in bridging the gap that separates religious faith and history of religions.

The fact stands that work in this area is insignificant compared to the importance it demands. The archaeological explorations about the historicity of Ramayana and Mahabharata have yielded substantial and irrefutable evidences which corroborate parts of the traditional texts and understanding. It is also a fact that the available evidences have been preferentially interpreted to fit a-priori theories and hypothesis, which conflict the continuity of traditional understanding and documented history else where. There is a need to bring in more evidence and work for reconciliation in the understanding of the evidences.

The teams which intend to pursue this historical models of research need to mop up support with the following end goals: (a) Institutional

teaming support for archaeological exploration of vedic land and culture. This may demand international cooperation and bigger team players, involving bigger finances. (b) A study of the existing hard evidence from the traditional vedic-insider perspective (c) Objective assessment of the evidence.

b) Classical languages of the past: Many of the writings about the past history, life style of Vedic traditions relies on linguistic evidence. There are very serious differences in the theories and methodologies of the traditionalists and the modern scholars in understanding the classical languages connected with vedic history, be it Sanskrit, Prakrit’s or Tamils. The investigation in to the classical languages of vedic land in the period intervening Panini (500 BCE circa) to Ramayana (at least three thousand years prior to Panini) needs to be investigated more seriously.

A right understanding of the classical languages and grammars of this period will help to resolve many conflicting issues in the interpretation of Vedas, the Proto-language concepts, directions of movement of the vedic civilizations and the like. This will also help to clarify the issues related to the religious calendar (pañchanga) used for the determination of religious events.

In its current state, the difference between the modern linguistic model of interpretation and traditional models of literary and technical interpretation of source documents is at so much of divergence, that no scientific model of analysis can be reasonably placed forward. The suggested line of research can help in clearing this situation of confusion and pave way for a favorable dialogue.

(c) Building up of resource centers for study of Vedic sciences and cultures: There is a need to make available the treasure of vedic sciences to the global community with a better outreach. The power of digital technologies need to be used here to build digital libraries of vedic sciences.

These have a technology challenge in the areas of non-roman script technologies, multilingualism, multi-modality, large scale database handling of mixed data formats. The technology teams need to give attention in this areas.

In the Spiritual model pursuit, the researchers may seek advancement in the following areas:

a) Preservation of the traditions in text, voice and ritual formats along with the pedagogy.

b) Translation of technical classical language terminologies in to concept units in current period languages and preferably in to visual medium communications, to the extent possible.

c) A review of the approach of other traditions in the pursuit of Truth and human welfare in different parts of the World in different periods. This helps to get a ground reality picture beyond the theological frame of understanding.

d) Make efforts to restore the relevance of ‘Dharma’ Spirituality model as the control / reference over the economics; Place the ethics and enlightenment values before the economic values.

e) Understand the writings about mutual traditions in other disciplines and see why or what of the inaccuracies of representations; and work for setting right the same. As for Vedic traditions is concerned, the post colonial period writings – of primary and secondary nature in the duration of 1700 onwards need a thorough review.

In the Scientific model, the researchers may seek advancement in the areas exploring the relation of mind-matter-energy-consciousness paradigm in explaining phenomenon. One of the suggested interdisciplinary scientific investigation of vedic traditions for research is as follows:

There are Five specific beliefs from Hinduism Vedic tradition 14, which emerges from the Rig-Veda Purusha Sukta explaining the mind-matterenergy-consciousness relation paradigm. These are suggested to be taken for investigation in view of their significance for human welfare: (1) Matter is a transformed state of mind. (2) Matter and mind originate from a common source which is non-matter and non-mind. (3) Mind has the potency to get transformed to physical matter and various forms of energy. (4) Mind may be used intentionally to influence matter and energy transformations, in proximity or at a distance. (5) This potency of mind to influence matter and energy can be enhanced by specially processed matter.

These religious beliefs have guided two thousand years or more of ‘spiritual capital’ in Asian traditions of Hinduism health care / welfare systems (AyurVeda, Yoga, Vedanta - physical, mental and spiritual health respectively), understanding of material and energy sciences (Tantra, Yantra, Vastu -physical matter and energy interactions and transformations) and socio-economic cultures (artha shastra, kama

shastra, dhanurVeda -economics, social sciences and war sciences

respectively). The expected contributions through this study are the

following: (a) Design experiments that help to investigate whether mind,

matter and energy related transformations are (i) uni-directional or reversible and (ii) scientifically controllable or other wise. (b) Short listing

of issues and concepts of significance for further interdisciplinary

investigation for useful tapping of mind energy (c) Compilation of a

dictionary explaining religious technical terms in modern scientific

terminology. This understanding will usher in a new ways of scientific

understanding which would look at (1) physical matter as a continuum of

mind and (2) diverse forms of energy as a continuum of mind energy. (3)

Ways and means of tapping Mind-power for welfare.

Variant forms of this premise are investigated (and are under active

current period investigation) in the past several years in several of the

leading research institutions (including US), working in the areas of health

and energy. The research is covered under the titles of kinesiology, bioelectricity,

healing power of prayers, alternate medicine, non-chemical

healing, bio-feedback, telepathy, meditation, para-psychology, ancient

flying machines, anti-gravity materials, UFO, gods from space and the like.

An extended dimension of this are the postulates relating to the

power of mind and the life force called pra.a. The premise in vedic

sciences is that power of mind can be used to amplify and control the life

energy pra.a for healing benefits. This is a powerful technique 15 of

internal healing and a non-chemical, natural healing model. This part of

vedic sciences needs to be systematically explored. In the present period,

yoga related research is partly covering this study.

Conclusion: The pride of a great heritage does not have to stop at

that or a two compartment model of compromised faith and scientific

temperament. Modern technologies have to address human welfare beyond consumerism to the integrated spiritual model of ‘Dharmic welfare’; and this is the intention of Vedic sciences. This is amply reflected in the shanti mantra’s of Vedas. The directions for vedic science researchers for all times is summarized in the following statement: ‘Vedanta vijnana sunishchitaarthah, sanyasa yogat yatayah shuddha satvah, te brahma loke to paraanta kale, paraamrutaatparimuchyanti sarve’ (Maha naraya.opanishat)

The true seekers validate their understanding in multiple streams: In spiritual dimension through Vedanta; In material fields through vijñana; In experiential field through sannyasa-yoga which refines their intellect to the purest of essence. Only such seekers realize the Supreme reality spoken of in the Vedas, over a period of time.

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1 The four main Vedas are Rig-veda, yajurveda, sama veda and atharva veda. The category wise classification within each of these is sa.hita, brahma.a, ara.yaka, upani.hat. A number of sacred documents also go by the name of upani.hat or veda. Eg. Ayur-veda, yogopani.had. The documents of ramaya.a, mahabharata, pura.a’s, Tantra, yoga are also referred some times as veda /upani.hat in view of their sacredness.

2. Three technical Sanskrit words are to be understood here to appreciate what is meant by the ‘Vedic sciences’. (i) Vijñana (generally translated as science / technology in the popular usage). This is to be understood as ‘special focused knowledge in any specific discipline’. (ii) Upa-Veda: This means Applied Vedic Knowledge. This may also be called as technology / application of Veda’s. (iii) Veda.ga’s are the auxiliary disciplines for understanding the technical language of veda and upa-veda.

Shastra means the methodology of enquiry, investigation. Each upa-veda / vedañga has its appropriate shastra methodology. Vidya is another term used to indicate specific discipline of science.

3 Source: http://www.unesco.org/bpi/eng/unescopress/2000/00-60e.shtml FIRST MEETING OF THE JURY NAMED TO SELECT MASTERPIECES OF THE ORAL AND INTANGIBLE HERITAGE : - Paris, June 15 {No.2000-60} In a meeting of jury members on November 7, 2003 at Paris, UNESCO Director General Koichiro Matsuura declared the chanting of Vedas in India an outstanding form of cultural expressions.

4 The technical words in this connection are: var.a-ashrama- v.utti –jati-kula.

5 The traditional standard for reckoning the excellence in the pursuit of Vedas is given in the statement: ‘Vedanta-vijnana –sunishchitaarthaah, sanyasayogaat yatayah shuddha satvah’. [Maha-narayanopanisad

4.12]

The true and vigilant investigators of Vedas assess their understanding of Veda on a combined three fold platform of logic of revelation (Vedanta darshana), objective investigation (Vijnana) and following it up with the experiential yoga.

6 The four shastra’s provid the interpretation models appropriate for the life styles:

Artha shastra- for societal administration and resource management, social, civil and criminal justice, executive model.

Kama shastra- for individual family desire management, public health in terms of values, ethics and code of conduct.

Dharma shastra- for guiding the religion /spiritual issues in society

Moksha shastra- for individualized spiritual guidance and salvation.

7 Definition of science: NOUN: (a)The observation, identification, description, experimental investigation, and theoretical explanation of phenomena.
(b)Such activities restricted to a class of natural phenomena.

(c) Such activities applied to an object of inquiry or study.
(d)Methodological activity, discipline, or study: I've got packing a suitcase down to a science. (e) An activity that appears to require study and method: the science of purchasing. (f)Knowledge, especially that gained through experience. (g)Science Christian Science.
(http://education.yahoo.com/reference/dictionary/entry/sciencesci?ence ?)
(b) Etymology: Middle English, knowledge, learning, from Old French, from Latin scientia, from sci ns , scient- present participle of sc re, to know; see skei- in Indo-European roots
Science (from scientia, Latin for "knowledge") refers to the systematic acquisition of new knowledge about nature and the body of already existing knowledge so gained. The scientific method is based on careful observation and the testing of theories by experiment.

(c) Science (from Latin scientia - knowledge) refers to the system of acquiring knowledge – based on empiricism, experimentation, and methodological naturalism. The term science also refers to the organized body of knowledge humans have gained by such research.
8 The Sanskrit verb root is ‘ vid’ jñane’ - vid = knowledge, process of knowing.
9 The Sanskrit technical words indicated in the parenthesis come from the following reference: Satyadharma d.u.h.i is a word Isa upani.had; jijñasa is a technical word used in Brahma-sutra’s 1-1. Darshana is a technical word as in yoga- Darshana, Atma- Darshana, Vedanta- Darshana, deva- Darshana.

10 After publishing his major work, The Science of the Mind (1926), Holmes established the Institute of Religious Science and Philosophy (1927). In 1949 Religious Science was established as a denomination; it soon split into two groups. It teaches that the individual mind and the Universal Mind are one and that the universe is the material manifestation of the Universal Mind. Like New Thought, it teaches that evil stems from ignorance of humanity's true higher identity and that prayer can bring about healing not only of spiritual but of physical ailments.

11 These are the principles of : indriya-atindriya model = senses, mind and transcendental factors brought in the matter of explaining events and designing experiments to bring desired changes; the new model of relation between mind-matter-consciousness-energy factors.

12 This is the essence of the vedic shanti mantra – ‘pur.amada. pur.amida., pur.at pur.amudachyate; pur.asya pur.amadaya, pur.amevavashi;shyate’.

13 "Pluralitas non est ponenda sine neccesitate" or "plurality should not be posited without necessity." The words are those of the medieval English philosopher and Franciscan monk William of Ockham (ca. 1285-1349). Like many Franciscans, William was a minimalist in this life, idealizing a life of poverty, and like St. Francis himself, battling with the Pope over the issue. William was excommunicated by Pope John

XXII. He responded by writing a treatise demonstrating that Pope John was a heretic. What is known as Occam's razor was a common principle in medieval philosophy and was not originated by William, but because of his frequent usage of the principle, his name has become indelibly attached to it. It is unlikely that William would appreciate what some of us have done in his name. For example, atheists often apply Occam's razor in arguing against the existence of God on the grounds that God is an unnecessary hypothesis. We can explain everything without assuming the extra metaphysical baggage of a Divine Being. William's use of the principle of unnecessary plurality occurs in debates over the medieval

equivalent of psi. For example, in Book II of his Commentary on the Sentences of Peter Abelard, he is deep in thought about the question of "Whether a Higher Angel Knows Through Fewer Species than a Lower." Using the principle that "plurality should not be posited without necessity" he argues that the answer to the question is in the affirmative. He also cites Aristotle's notion that "the more perfect a nature is the fewer means it requires for its operation." This principle has been used by atheists to reject the God-the-Creator hypothesis in favor of natural evolution: if a Perfect God had created the Universe, both the Universe and its components would be much simpler. William would not have approved. Occam's razor is also called the principle of parsimony. These days it is usually interpreted to mean something like "the simpler the explanation, the better" or "don't multiply hypotheses unnecessarily." In any case, Occam's razor is a principle which is frequently used outside of ontology, e.g., by philosophers of science in an effort to establish criteria for choosing from among theories with equal explanatory power. When giving explanatory reasons for something, don't posit more than is necessary. Von D. ken

could be right: maybe extraterrestrials did teach ancient people art and engineering, but we don't need to posit alien visitations in order to explain the feats of ancient people. Why posit pluralities unnecessarily? Or, as most would put it today, don't make any more assumptions than you have to. We can posit the ether to explain action at a distance, but we don't need ether to explain it, so why assume an ethereal ether? - Occam's razor - http://skepdic.com/occam.html

14 Rigveda X-129 Purusha Sukta., Arthur A Macdonell, A Vedic Reader for Students (ISBN:81-86142-681 ~ Pub Year: 1995

15 There are several other powers that are associated with this technique as described in the yoga and Tantra treatises. They can be explored once the basic premise is scientifically established.