

VEDANTA, DHARMA AND SCIENCE

By

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Fellow of the American Psychological Association



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PUBLISHER'S NOTE

We are happy to publish this brochure on *Vedanta, Dharma and Science* by Professor Pandharinath Prabhu, a psychologist of international reputation. Though small in size, it deals with an issue of fundamental significance with potential for universal application. And therefore, we decided to publish it as an independent brochure.

Professor Prabhu has held distinguished positions in India and abroad, including those of Senior Research Officer in UNESCO, International Visiting Scientist Awardee of the American Psychological Association, Title III Distinguished Visiting Professor in USA and Leverhulme Visiting Professor in Australia. He is a Fellow of the American Psychological Association and also a member of other learned societies. He is the author of books, monographs and articles that have won high acclaim both in India and abroad.

With this publication, I propose to launch upon the venture of publishing, in cooperation with like-minded colleagues and in an humble way, writings that will contribute to reader's knowledge and expansion of horizon. Such writings are generally neglected by publishers because they are not money-making propositions as those of fiction and fancy. I have ventured to publish some monographs and books this way with my own efforts and some financial aid from donor organizations and individuals. This would be an extension of that venture. The success of this venture will depend upon the cooperation of like-minded philanthropic institutions and persons interested in promoting the cause of learning.

G.F. AJGAONKAR

Date : 1- 8-82

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PANDHARINATH PRABHU

Since over fifty years ago, some of the foremost physicists of the West, engaged in the study of the ultimate nature of matter and reality, have been awestruck by their discovery that the conclusions of modern science bear a close resemblance to the Vedic utterances on the subject made three or more millennia ago. As far back as in 1925, physics Nobel Laureate Erwin Schrodinger stated in a lecture how and why he derived his world view from Vedanta. (Schrödinger, 1964. Also, 1935, 1944). J.R. Oppenheimer (1954, pp. 8-9), the father of the atom-bomb, Niels Bohr (1958, p. 20), and W. Heisenberg (1963, p. 173) - the latter two were Nobel Laureates - have all expressed their amazement at the insightful world view of ancient Indian thinkers being so close to the modern advanced scientist's view. And one modern nuclear physicist has affirmed that if statements from the Vedic *Udīs* and other mystics of the East are juxtaposed together with those of modern science on the subject, it will be almost impossible to say which ones are Vedic and which ones are modern. (Capra, 1978, p. 17). He has written a whole book to substantiate his point. (Fritjof Capra : *The Tao of Physics*. Fontana/Collins, 1978).

The key to this enigma lies mainly in two reasons which are both of a fundamental nature: One is related to the foundations of the concepts of 'religion' and of *dharma*, the other to the direction that the quest for knowledge can take as a consequence of this.

The English term 'religion' is derived from Latin *religio*, meaning taboo, restraint; or from *religare*, bind together. Religion, therefore, as understood in the West, and also in most countries

other than India, binds its followers to specified dogmas or creed which they cannot question. The dogma is usually centred around the unquestioned assumption of the existence of an anthropomorphic concept of a personal God in Heaven who is independent of the creation and controls it and sends His Prophets on earth. And the gospel transmitted by such Divine Being through His Prophets contains articles of faith that cannot be questioned and that constitute the foundation of the religion concerned. Along with the concept of a personal God, there is also often a concept of a personal Evil Force in the form of a Satan who opposes God and has his seat in the Hell. Each religion also believes that God favours and saves the souls of only those who have embraced that religion while the rest will be doomed to Hell. Hence the systematic proselytising by each of these religions to convert others to it so that their souls may be saved from Hell. The followers of each religion are bound to such creed as dogmas that they cannot question. And all thinking in the religion about the ultimate nature of reality has to start from this standpoint onwards. This is found by the scientist to be antithetical to science which insists on pursuing its quest for true knowledge unfettered by any predetermined dogma about the cause of the creation and its conduct.

Compare and contrast with this the origin and development of the concept of *dharma*. It is essentially humanistic. *Dharma* is meant for man, not man for *dharma*. There is a total absence of any dogmatic assumption in *dharma* that might lead to emotional vulnerability and provoke emotional fanaticism. Indeed, *dharma* is meant not only for man but for the entire creation including all creatures, ecological surroundings, plants and planets, air and water and all. *Dharma* is etymologically explained as that by which the universe is sustained (*dhriyate loka'nena, dharati lokam va*). That by which the best kind of prosperity is accomplished is *dharma*. (*yato' abhyudaya-nihśreyasa-siddhiḥ sa dharmah. - vaiśeṣikāsūtra*). "The exposition

(pravacanam) of dharma is made for the welfare of all created beings." (prabhavārtthāya bhūtānām). (Mahā. Śānti. 110. 10; Karna. 49. 49-50; Matsyapurāṇa, CXIV. 145, 147). "Dharma is without doubt that which is accompanied by non-injury." (ahimsā-samyuktah. Śānti. 110.10). "The root (dhātur) relating to sustenance (dhāraye) underlies dharma." (Matsyapurāṇa, CXIV. 145, 147 "Dharma is so called because it sustains (dhāraṇād). The world is sustained by dharma. Whatever is accompanied by sustenance is without doubt dharma." (Maha. Śānti. 110. 11). Indeed, dharma sustains and protects (dhārayate) all the three worlds, moveable and immovable. (trailokyam sacarācaram. Rāmā. Uttara. 59. 2/7).

What is important to note in this pravacana (exposition) of dharma is that not only dharma is defined as that which sustains, maintains, supports, protects (all meanings of dhārayate) the world but also that which sustains, supports and protects the world is defined as dharma, thus reinforcing the basic importance of dhārayate of loka (universe, world).

The progressive and dynamic nature of dharma is emphasized by affirming that "decisions about what to do and what not to do should not be taken by reliance only upon the dharma-sāstras. Thinking that is devoid of reasoning will only cause damage to dharma." (Bṛhaspati, quoted in Smṛiticandrikā, Vyavahāra., p. 24. Quoted by Kane, H.D.S., II, ii, p. 969, ft-note 2204a). Besides, the śrūtis and smṛitis cannot lay down rules for everything sarvaṃ vidhiyate), advises Sri Krishna to Arjuna, but the central theme of dharma, prosperity of all created beings (prabhavārtthāya bhūtānām) should provide the guidance. (Mahā. Karna. 49. 48-49).

Dharma is also meant to be resilient and responsive to conditions of the region and of the times (deśa-kāla). Both Bhīṣma and Vyāsa have emphasized that what is dharma in one region or at one time may become adharma in another region and at a different

time. (Mahā. Śānti 12. 20; 79. 31; also 36. 11 of Nirnayasaṅgāra ed.). The pioneers, therefore, have injected a strong, unmistakeable resilience, a dynamism, a forward look, a capability to change according to changing conditions as an integral part of dharma - indeed, as a dharma of dharma itself.

The pioneers have gone even further in injecting dynamism and capability to modify suitably in dharma. Even when guidance from the Vedas and the smṛtis is available, this may not help to give a clear direction because of the complexities of the situation or because the specific situation with which man is confronted is not covered by the śāstras. Under such difficult conditions, one can look up for guidance to those who have a reputation for uprightness [mahājano yena gataḥ sa panthak; or sādḥūnām ācārah, or sādācarah] and also to one's own conscience (ātmanas tuṣṭih, hṛdayenābhyanudhātah, svasya ca priyamātmānah or manahpātāṁ samācāret. Manu. 2.6, 2.1; Vaj 1.7; Manu. 6.46). In fact, no decisions about what is right and wrong to do should be taken merely by reliance upon the śāstras at all. (kevalam śāstramāśritya na kartavyo hi nirṇayah. Bṛhaspati quoted above). "Dharma is difficult to be determined by exercise of mere logic. Śrutiḥ express different views. There is no single authority (naiko ṛṣiḥ) whose opinion can be taken as the last word (pramāṇam) (in all matters). The essential principle (spirit) of dharma lies deep down (as if) in a cave. (Under such circumstances), follow the guidance of a person who is regarded as a model of good behaviour. (mahājanah). (tarko'pratiṣṭhah śrutyayo vibhinnā, naiko munir (or ṛṣiḥ) yasya vacah (or matam) pramāṇam/dharmasya tattvaṁ nihitam guhāyām, mahājano yena gataḥ sa panthak. Mahā. Vana. 313.17 Chitrasala ed.; Nirnayasaṅgāra ed. 314.119). Yājñavalkya affirms that (guidance from) śruti, smṛti. (principles of) good conduct, what is dear to one's conscience and a desire born out of right intentions (samyak samkalpajo kāmah) are the roots of dharma. (Vaj. 1.7).

The expression *manahpūtaṁ samācāret* (Manu. 6.46), "act according to what your conscience deems to be pure, (or clean, unsullied)" has been deliberately distorted by evil-intentioned people to mean a licence to do whatever one pleases to do. Far from it ! But, as they say in English, even Satan can quote the Bib'e. The best demonstration of how and when to put into practice the injunction (*manahpūtaṁ*) was provided by Ādi Sankarācārya. He performed the funeral obsequies of his mother by his own hands despite the unrelenting opposition of all his kinsmen, the Nambudiri Brahmanas. They refused to help him because they interpreted the *Sūtras* rigidly, thoughtlessly, to the letter and not in the spirit. A *saṁnyāsi*, they insisted, has renounced all family ties, therefore he cannot perform his mother's obsequies. They even refused to provide him fire to cremate the corpse of his mother. Śankarācārya defied them. When he found that his mother's body was too heavy for him to lift, he cut it into smaller parts, carried them to the yard outside the house, lit the fire by rubbing two pieces of wood and cremated his mother with all the obsequies performed duly. On another occasion, the Ācārya bowed before one who, though in appearance a *capḍāla*, a man of the lowest caste, showed that he had the knowledge of the fundamental truth better than the Ācārya himself as at that time. The Ācārya behaved according to his conscience and showed extraordinary courage not caring for the wrath of the entire Brahmin group surrounding him.

Finally, *dharma* is so intimately related to truth (*satyam*) that the two are regarded as one and the same. The *Bṛhadāraṇyaka Upaniṣad* 1.4.14) says that "originally there was Brahman a'one. He created a most excellent (*īreya = atisāyena prasāsyam*) form *dharmaṁ*. There is nothing higher than *dharma*. Verily, that which is *dharma* is *satyam* (truth). Therefore, they say of one who speaks the truth, he speaks *dharma*, or one who speaks *dharma* that he speaks the truth. Verily both of these are the same. Therefore, there is nothing higher than *dharma*."

"There is nothing higher than truth. Everything is maintained by truth, everything is established in truth (*Mahā-Sānti*. 251.10). There is no *dharma* like truth. (*Mahā. Ādi*. 69.24). *Satya* protects *dharma*. (*Mahā. Udyoga*. 34.37). *Satya* is the only god (*Īśvarah*) in the world. *Dharma* is always dependent upon truth. (*Rāmā. Ayodhyā*. 109.13. See also *Rāmā Ayodhyā*. 14.7, 21.41, 109.10; *Mahā. Āsvamedhika*. 156.5, *Nirnayasagar* ed.)

To add to the richness, and also the complexity, of the term *dharma* it is also occasionally used in the sense of an inherent trait or nature of the typical species-specific characteristic of a creature, or the typical action or quality of a thing. This sense, in other words, refers to "the underlying true nature" of a thing or being, and thus an aspect of the *satya* or the 'inner truth' of a thing or being. Expressions like *prāṇi-dharma* or *jīva-dharma* (the nature or characteristic of living being), *śarīra-dharma* (the nature of the body or the flesh), *śr̥ṣṭi-dharma* (the nature of the creation), and so forth are used in this sense of *dharma*. Thus: To bark is said to be the *dharma* of a dog. To be hungry, or to die, is the *dharma* of a living being. To be soft, tender (*mṛdu*) of heart is the *dharma* of a woman. To provide bright light to the world is the *dharma* of the sun. To provide cool light is the *dharma* of the moon. To provide shade and shelter is the *dharma* of a tree. And so on.

Thus, *dharma* in its intent, content, extent, universal humanism - because it is not restricted to a particular favoured group of God -, resilience to change, vitality, adaptability, lack of dogma, dynamism and scope is so very unlike what is known as "religion" in the West that its common translation as "religion" is utterly wrong and even misleading. The word has no counterpart in any other language. Words in a language are labels given to ideas and concepts or to things of experience. In no other language did a conceptualization parallel to that of *dharma* occur. Therefore there is no word to designate that conce-

ptualization in any other language. Translations of the term *dharma* as "religion", "duty", "righteousness", "code of law", "custom", "usage", "good deed", "duty", "prescribed conduct", "piety", "morality", etc., - all fall short to convey the central and the profound meaning of the term. *Dharma* is all these, properly qualified, and much more. The term *dharma* should always be used in the original, it should not be translated, because it cannot be.

It is most unfortunate that during the past few centuries the Hindu has completely lost sight of the essential universality, dynamism, vitality, resilience, adaptability to changing conditions of region and time and the humanistic and progressive elements that are meant to be the essential spirit and forces of *dharma* and has degenerated it into a set of static, rigid codification to which man must blindly conform to the letter. Even a great Indologist like Mm.Kane has fallen a prey to the tendency to look upon *dharma* as the Hindu codification of laws, thus missing the essential dynamic quality predicated in it that makes it amenable to change. All this has done great harm to the true understanding and application of the theory of *dharma*, as we have noticed in the instance of Ādi Śankarācārya being ex-communicated by his learned kinsmen - in which, of course, the kinsmen lost and the Ācārya ultimately triumphed. But for the Ācārya's unexcelled and thorough knowledge of the *śāstras*, coupled with his character, personality, humanness, breadth of outlook and strength of conviction, the thoughtless Nambudiri pandits would have succeeded in misusing the *dharma* principles. As a result of lack of understanding of the genuine spirit, the thrust and functioning of *dharma*, there have grown, in the history of Hinduism, several rigid and inhuman practices around it in the name of *dharma* that have resulted in the arrest of true Hindu *dharma* and even in its degeneration and ugly manifestations.

When the question is raised: If Hinduism has such lofty bases and ideals and humanistic elements

as its part, why is it that the Hindus are in such a pitiful state today ?

The answer, briefly, is: *Hinduism has not failed the Hindus. The Hindus have failed Hinduism in history.* And unless and until they take the issue seriously and exert toward reviving and resuscitating their *dharma* in its essential spirit, function and direction as it was meant to be by the pioneers, there is little hope for Hinduism to survive well and to prosper.

So far about Hindu *dharma* which is being wrongly equated with Hindu 'religion'. Now about the Vedantic approach in the quest for knowledge of the ultimate nature of the universe.

The Vedantist's quest for the ultimate truth was centred around *brahman*. As we have seen above, *brahman* is *aruth (satyam)* and truth is *brahman*. There was no dogma or any predetermined assumptions, anthropomorphic or otherwise, about the nature of *brahman*. It is not conceived as apart from the universe. It is said to pervade the universe and be the centre of everything. In fact *brahman* is stated to be indescribable, beyond the ken of man's understanding, and therefore without name or form (*nāma-rūpa*). Such a concept of the ultimate reality leaves thought unfettered and let it progress free from any taboos or dogmas or constraints to explore its nature without any predetermined conclusions. Therefore the starting point for thought and the mental set for its onward progress is the same both in the sciences and in Vedanta. And in both the cases, freedom for thought, reasoning and theorization is ensured without inhibition and constraints of any sort as long as the goal was to reach the truth, achieve true knowledge.

In the Western thinking, on the other hand, the starting point for religious thinking and scientific thinking were widely different and even incompatible with each other. There was less freedom to thought

and reason in religion because of the primary assumptions about an anthropomorphically conceived Supreme Being as the cause and the controller of the universe, and as One who stands apart and directs the course and destinies of man and nature. This was put into its own framework of a creed by each religion differently in its own way.

In fact, in the Vedantic view, science and religion (or philosophy or theology) are not streams of thought divorced from each other, as they have been in the West. Both scientific thinking and 'religious' thinking (i.e. *dharma* in this case) were designated as *śāstras* (sciences). And so the Hindu speaks of *bhau-tika śāstras* (natural sciences), or *khagola-śāstra* (astronomy), or *gaṇita-śāstra*, (mathematics) as he also speaks of *dharma-śāstra*, *kāma-śāstra* (science of love), *artha-śāstra* (science of wealth or of political economy), *nāṭya-śāstra* (science and art of the drama and dancing), *kāvya-śāstra* (science of poetics), *nyāya-śāstra* (the philosophical system of the *nyāya* school. See Apte's Dict.), *vastu-śāstra* (science of architecture), and so forth.

In this connection, it is also relevant and important to remember the original meaning of the term *veda* and the ways of its application. Derived from the root *vid*, to know, *veda* means knowledge. Since in the ancient times the *Ṛgveda*, the *yajurveda* and the *Sāmaveda* contained deep insights and thus the knowledge as available at the time, they came to be known as *The Vedas*. Says the *Śatapatha Brāhmaṇa*: There is a triad of knowledge, *ṛg*, *yajus* and *sāman* (*trayī vai vidyā*, *ṛco yajunsi sāman*. Also: *traidhā vihitā vāg ṛco yajunsi sāman*). And *Manu* 1.23; 4. 124-125. The *Gītā* speaks of *traividyā*, triad of knowledge (9.20) and *trayī dharma* (dharma enjoined by the three Vedas). One who is well versed in the three Vedas was called *tri-vidyāh* or *trayī-vidyāh* (*Sābarabhāṣya* on *Mīmāṃsāsūtras*).

The Vedic pioneers, however, had not closed

their minds regarding the potential growth of knowledge and were ready to extend the designation of *Veda* to any sufficiently weighty body of knowledge emerging later. Thus was the fourth treatise, the hymns of *yajus*, admitted to the title of a *veda*, as *Yajurveda*. The original meaning of the term *veda* as knowledge was thus not lost sight of.

Gradually, additional branches of knowledge were developed and systematic, basic and authoritative treatises on them were produced. The designation *Veda* was extended to them also. Thus came into being branches of knowledge called *Āyur-Veda* (the Science of Life including medicine and surgery), *Dhanur-Veda* (the Science of Archery and allied Military Sciences), *Gāndharva-Veda* (the Science and Art of Music, Dance and allied fine arts), *nāṭya-Veda* (the science and the art of the drama and dancing. See Apte's *Sanskṛ-Eng. Dict.* under *nāṭya*) and *Sthāpātya-Veda* (Engineering, Architecture and allied disciplines, including mathematics, astronomy, physics, chemistry, etc). The latter were classified as *Upa-Vedas* (Sub-Vedas). Nevertheless, their titles as noted above include the suffix *Veda*, not *Upa-Veda*. The celebrated epic *Mahābhārata*, a voluminous and highly perceptive exposition of the infinite complexities of human life, interpersonal relations, characters and personalities, events and destinies, good and evil, *dharma* and *a-dharma* is called a fifth *Veda*.

The rationale for according the exalted status of a *Veda* to the *Mahābhārata* has been repeatedly stressed in the epic in various contexts so as to give a clear indication that this is done essentially on the ground of the profundity and comprehensiveness of the knowledge it reveals. The rationale therefore deserves to be noted here.

The *Mahābhārata* is a great storehouse of knowledge established in the three worlds, i.e. the universe (*idam hi triṣu lokeṣu mahajdnānam pratisṭhitam Mahā. Adi. 1. 25. Also Adi. 1.49*). Various mysteries of

living beings, various aspects of *dharma*, *kāma* and *artha śāstras* and of the *Veda* and *Yoga* and the sciences (*śavidhānam*), principles emerging from (or for) the conduct of worldly affairs, ancient histories, various *śrutis*, - everything has been included here. This is the characteristic (*lakṣaṇam*) of this treatise. (*Mahā. Adi. 1. 46-49*). (See also *Ādi. 1.202-204*). It is called *Kārṣṇam Veda*, the *Veda* of *Kṛṣṇa Dvaipāyana Vyāsa*. (*Ādi. 1. 205; 56.17*). Once the divine seers (*surarṣibhiḥ*) assembled together and on one side of the scale of the balance they deposited the four *Vedas* and on the other the *Bhārata*. And both in importance and in greatness (*mahattve ca gurutve ca*) the *Bhārata* was found superior (*adhikam*). Therefore, because of its importance and its greatness it is called *Mahā-Bharata*. (*Mahā. Adi. 208-209*). This *Mahābhārata* is the best purifier (*pavitramapi cottamam*) equal to (or connected with) the *Vedas* (*Vedaiḥ samitam*) (*Ādi. 56.15*). *Vyasa* of boundless comprehension (*amītabuddhinā*) produced this science of *artha*, conferring moral merit (*puṇyam*), a supreme (*param*) science of *dharma*, and a science of *mokṣa*. It is a book that will bestow bliss (*dhanyam*), glory (*yaśāsyam*) long life (*āyusyam*), divine feeling or state (*svargyam*) as well as moral merit or virtuousness (*puṇyam*). (*Ādi. 56. 21, 25. Also Chitrasala edition, Svarga. 5. 41, 46, 50; 57, 58, 66*). It is further repeatedly affirmed that whatever is said on *dharma*, *artha*, *kāma* and *mokṣa* in this book is found elsewhere, but whatever is not found in it is not to be found anywhere else. (*dharme cārthe ca kāme ca mokṣe ca bhāratarṣabha/yadihāsti tadanyatra yan nehāsti na tat kvacit//. Ādi. 56, 33; Svarga. 5.38*).

Incidentally, tradition believes that *Vyāsa* himself had organized the *Vedas* in the form in which they have come down to us today. Hence his name. (*Vyāsa* = to arrange). He is therefore also known as *Veda-Vyāsa*. Further, he is traditionally believed to be the author not only of the *Mahābhārata* but also of the eighteen *Puranas* and the *Brahma-sūtras*. *Badarāyaṇa*, the author of the last named treatise, is identified with *Vyāsa* by some scholars.

It is of special interest for us here to note in the above description that the *Mahābhārata* is rated not only as equal to the four *Vedas* and a *Veda* on its own merits but as even superior to the *Vedas* on account of the treasure of knowledge it possesses. Even a small treatise of compact size but profound meaning, the *Bhagavadgītā* which is a small part of the *Mahābhārata*, is also sometimes referred to as a *Veda*. One also occasionally comes across names of other important branches of knowledge, or treatises being accorded the honour of a *Veda*, such as *Itihāsa-Veda* (the *Veda* of History), or *Purāṇa-Veda* (the *Veda* of the *Puranas*).

Lingat* has drawn our attention to the fact that *veda* has the same root as *video* which implies vision as a means of cognition. The grammatical perfect (*veda*), which expresses a result gained through vision has the sense of knowledge. "..... in reality, it seems that when a Hindu affirms that *dharma* rests entirely upon the *Veda*, the word *Veda* does not mean in that connection the Vedic texts, but rather the totality of knowledge, the sum of all understanding, of all religious and moral truths, whether revealed (*śruti*) or not." (Lingat, 1973, pp. 7-8).

The important point to be noted here is that in the Hindu view the term *veda* was not used in that exclusive sense in connection with the four *Vedas* as the sole body of divine or sacred text, the sense which is applicable to the Bible for the Christians or to the Koran for the Muslims. The term does not refer to any sectarian or religious creed or doctrine but to true knowledge - of the universe, of man, of nature, in whatever treatise it was expressed

* Robert Lingat, an eminent scholar of the legal systems of South and Southeast Asia, was Professor and Director at the École Pratique des Hautes Études, Sorbonne, Paris till his death in 1972. He has published books and articles on Buddhism, history and law of Thailand, Indochinese law, and Hindu classical law (*dharma*).

While this was the trend in the use of the term in early times, in later centuries its usage has been confined more or less to the four Vedas.

Thus, the conceptual foundations and the framework of the Vedantic quest for knowledge as well as of *dharma* are permeated with an intense longing to discover the ultimate truth and are generally very broad based. Neither starts with any preconceived notions, or unquestionable dogma or articles of faith that might put any constraints on free progress of reflection or cogitation. There was therefore nothing in the basic stance and the mental set of the Vedic seers or of the *dharma* ideologists that is incompatible with the mental set and stance of the Western scientists in their search for truth.

On the other hand, in the West, the starting points and the mental set of religion on the one hand and science on the other are radically opposed. Religion starts with specific preconceived assumptions, as articles of unquestionable faith, in anthropomorphic causes of creation, control and conduct of the universe. In some religions, there are additional dogmas also that are liable to stir emotional fanaticism when questioned by thought or action. Religion, thus, puts constraints on free, unhampered progress of thought and reasoning, while science expressly wants freedom of thought as a precondition for its unhindered, uninhibited progress.

Capra has pointed out that the two methods of search for true knowledge, the mystic's or the Eastern seer's (*rsi*) intuitive-insightful method and the Western scientist's rational-empirical-experimental method, are not as antithetical in every respect as they appear to be. (Capra, 1978, pp. 36-42). There are some parallels between the two. Both use observation. The scientist observes through analysis and experimentation; the mystic through meditative insight. The scientist uses elaborate technology for which he has to undergo long training. So does the

mystic use his own highly developed subtle technology of meditation, for which he has to undergo long training. Both repeat their experiences for confirmation of conclusions. Both are empirical in the sense that they trust their respective experiences and not mere poetic fancy or unfounded imagination.

With all these characteristics common to both the methods, the difference between them lies in one respect : the tools of exploration of the subject of investigation. The scientist relies upon cognition through external senses of observation and experience called *buddhindriyani*, senses of intellect viz, hearing, touch, eyes, taste, smell and reasoning. Ability to experience through these senses is augmented by inventing instrumentation and technology for the same. The mystic relies upon ability to experience by developing his faculty of cognition beyond the reach of these senses (*atindriya jñāna*, *antar-jñāna*, direct in-sight). He also has developed his own technology to augment this faculty of his cognition. And this has made a difference in the time required for the two to reach the same truth, as we have noted above.

It is probably because both the Vedic seers and the Western natural scientists were on the same planes, mentally on the same "wavelength" as it were, with clean slates at the starting point, and were both fired by the same intense desire to discover the truth and nothing but the truth, and had no emotional stake involved in their search for knowledge, that both arrived at similar conclusions. And this has happened regardless of the fact that the methods of seeking knowledge used by the two were different. The Hindu seers predominantly used the intuitive-insightful method facilitating direct insight into phenomena, generally known as the mystic method. The Western scientists predominantly used the rational-empirical-experimental method. What has amazed the Western scientists is the fact that the Indian seers could arrive at the fundamental conclusions three

thousand or more years ago and by a shorter route, while it has taken for the West Twentyfive hundred years, hundreds of generations of scientists, thousands of experiments, highly developed technology, numerous laboratories and huge expenditure of manpower and money to arrive at the same truth.

The discovery of resemblance between the conclusions of modern science and those of the Vedantic seers have recently raised the question of the roles of reason and experimentation *versus* intuition and insight in the advancement of knowledge. I have dealt with this question elsewhere and will not go into it here. (Prabhu : In press, See also Capra, op.cit; Ornstein, 1977). I will just limit my observations to a few broad conclusions:

Although in the East, intuition was the predominant method of reaching (or "seeing") truth, it was not devoid of reason and intellect. Similarly, although in the West, stress was laid on reason and intellect by science, some of the scientists who have made fundamental contributions of far reaching significance to science have noted the important role of intuition in their discoveries. Exclusive stress on either at the cost of the other is not conducive to the full growth of science. And both the East and the West have a lot to learn from each other about how to combine the two methods for a more effective progress in their search for true knowledge which is also human welfare oriented at the same time. (Prabhu : *ibid.*)

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