

THE VEDANGAS FOR THE FIRST TIME READER

PREFACE

In the ancient Indian approach to knowledge, the individual could take an intellectual position from where he could proceed in any of two directions : one probing with his resources of faith, instinct, and intuition to a synthetic understanding of existence in terms of the highest levels of abstractions in the widest possible philosophical or spiritual context; and the other, probing with the resources of thought, sound, word and meaning to an analytical understanding of the deepest detail of the specifics of the more immediate and compelling circumstances of physical existence. The terms Sruti and Smriti applied to the ancient sources of Knowledge seemed to reflect this dual approach. If the Vedas or Scriptures followed the direction of synthesis, the Shashtras or Disciplines followed the direction of analysis. If Vyasa and the Rishis before him were exemplars of the first group, Panini and the Linguist-Grammarians who followed were clearly the exemplars of the second. In respectively presenting truly massive perspectives of these two approaches to knowledge, Vyasa and Panini had an awesome reputation that raised them to the status of divinity. They were indeed the only two of the ancient seers whom Sankara addressed as Bhagavan.

Where do the two apparently diverging paths of synthesis and analysis ultimately take us ? Some irreverent wags have it that both seek to know more and more, the first about larger ideas at level of principle and the second about smaller details at the level of fact, but both ultimately learn everything about nothing. Yet, the ancients of India on both sides of this seeming semantic divide, remained committed to a total over-arching Unity of all principle and fact, where divisions were but constructs of a roving mind that could proceed, indeed wander, in any direction it chose.

In understanding these two perspectives of Knowledge, one must first take note of the fact that the Scriptures or Vedas are described as Sruti, what was heard by the ancient Rishis. That they were “Aupurusheya” or Divine, and “Anadi” or Timeless, were not so claimed in the Vedas themselves but were so described by later texts like the Mimamsa, to invest them with the status of a divine authority that placed them beyond question. Few however would doubt that the Rishis who composed them were men of great insight and what was “heard” by them could well be understood as what they received in inspiration, and were therefore considered as authoritative prescriptions that were beyond question. In contradistinction, texts like the Vedangas that later, sought to elaborate or explain what the Vedas said or meant, were considered to be Smriti, the products of lesser minds, that could be questioned, debated and even contradicted. The fundamental debate on whether knowledge could be authoritative or empirical continues to the present day, with scholars ranged on the two sides of the divide, especially between those referred to as the Darshanikas or philosophers, and the

Vaiyakaranikas or grammarians, and often taking seemingly opposite and irreconcilable positions in respect of the knowledge about Reality of Existence.

It should also be noted that the Vedas, whether considered authoritative prescriptions or not, did present knowledge at two levels; one addressing the small number of higher aspirants in terms of spiritual knowledge; and the other addressing the large mass of common people in terms of physical, ritualistic activity. The distinction clearly arose from the level and extent of understanding that obtained at their respective levels. And in any case, with the Vedic texts being far too esoteric and cryptic for easy or clear understanding, there was a serious need for elaboration and explanation of the texts so that their content and intent could be maintained and preserved in their pristine purity for all time. This need was fulfilled by successive generations of scholars focusing on one or other facet of the textual corpus of the Vedas. It was this impetus that led to the creation of the Vedangas, meaning limbs of the Vedas. Two of the Vedangas, Jyotisha (Astronomy and Astrology) and Kalpa set out details respectively, of how the auspicious time and place for the performance of rituals could be determined and how precisely, the rituals should be organized and conducted. The other four of the Vedangas addressed the structure and function, the Word content and the Meaning intent of the Vedas, through the disciplines of Siksha (Phonetics), Nirukta (Etymology), Vyakarana (Grammar), and Chandas (Poesy).

Over the succeeding centuries, each elaboration of the content of the Vedas and Vedangas generated a vast corpus of various disciplines and sub-disciplines by scholars of exceptional merit. The analysis of the early scholars like Yaska, Panini and Patanjali, continue even to this day, to unleash a vast proliferation of knowledge in the fields of linguistic disciplines like Phonetics, Phonology, Morphology, Philology, Etymology, Semantics, Pragmatics, Epistemology, Ontology etc, with the highest of modern scholars like Bloomfield and Chomsky acknowledging that they drew their inspiration ultimately from those awesome early pioneers.

Today Panini is acknowledged as the first and greatest grammarian known to any of the world's cultures, with an influence reaching even into the structures of computer languages of today. And the content of the Jyotisha and the Kalpa Vedangas have been shown to carry a great range and depth of knowledge of Astronomy and Mathematics and have also been considered by many great scholars to have indeed been the ultimate source of the knowledge of these subjects that for long had been attributed by historians to other ancient cultures like those of Egypt, Greece, Sumeria and Mesopotamia One of the striking features of the ancient knowledge of India, documented in its Srutis and Smritis, is the range and depth that it achieved over 5000 years ago, through the use of just one instrument, man's own mind, and had anticipated so much of what the modern mind had achieved but with the aid of the vast methods and instrumentation of Science. The range and depth of the ancient knowledge is however recognized today as so incisive, that they have had a profound influence

on modern studies especially in the area of linguistics,. And much of the ancient knowledge in this area form the corpus of the Vedangas.

The central concern of the ancient Rishis of India, revolved around the basic question of existence and its meaning and purpose. The starting point of their philosophical formulations was that existence was a manifestation of something that was finite in terms of time and space from out of something that their intuitions indicated as being infinite and eternal. Existence as a manifestation, implied creation of form with a purpose, which meant an action with a result, or a cause with an effect. This generative concept evolved in a variety of contexts, like sound generating the word, or as the ancient grammarians proposed, at the later levels of development, the cause-effect chain of thoughts generating words, and from within the domain of words, the verb generating the noun, and then the sentence and language as the final vehicle of meaning.

Sound in the ancient Indian tradition was considered the first manifestation of a divine vital energy or Prana, the vital energy that created and sustained all life and its activities. Sound in its crudest form is what we call noise, an unregulated chaos of vibrations or what in physics might be called frequencies. The word 'vibrant' suggests something that is full of energy, full of life. Vibrations in the air register on our ear as sound, and if they are in the higher frequencies they may register on our eye as colour, or on our skin as heat or on our wireless instruments as a buzz, all of which we describe as noise until they become vehicle bearing significance of some kind, like meaning. Once frequencies become more regular, they become recognizable as tones and if they fall into the intervals of an octave, they acquire the more attractive forms of music. The voice box of all creatures produce all these shades of sound, ranging from the croak of a frog to the song of the bird. While man too can sing, he has the endowment of a powerful mind that uses sound for articulating his thought into the word, laden with meaning and structured by language for communication with the world around him. The mind of man also gives him a host of other capacities : the capacity to count and calculate, draw and measure, compare and contrast, differentiate and integrate, elaborate and explain (and also confuse and confound), observe the external world around him, store internally what he sees, hears or otherwise senses, as images or words and reflect on all that happens in the world within him. These skills lead him into deep understanding and great accomplishments of knowledge of both the external world of Nature and internal world of the human Nature. And given the duration and rhythm of the breathing process, When the Rishis committed all this knowledge to the word in the Rig Veda and Sama Veda, it seemed just natural that they should set the word to poetry and music in the rhythms of metre and tala

A sound when the mouth was opened, automatically became the sound of the letter A or its equivalent in all languages. As the mouth started closing, the sound gradually morphed into the sound of U, and when the mouth was closed with the sound continuing, became the hum of the silent M, a hum that even then, retained

its capacity for music ! Here then was the first word “AUM” proclaimed by the Vedas as the very first manifestation of the Divine as the Word ! Of course, the mouth continued to use the different parts of its anatomical structure to give further shapes and stresses to these basic vowel sounds. It used the throat, palate, tongue, teeth and lips to create the guttural, cerebral, palatal dental and labial consonants that could then create all the possible basic sound components of speech, not surprisingly common to virtually every language spoken by man. The pure sounds that originated in the vocal chords were the Svaras or vowels and when these were shaped by the different parts of the mouth, they became the Vyanjanas or consonants of the Sanskrit alphabet. It is of special interest that the shaping of sound as it emerged from the throat to the lips should be reflected correspondingly in the Ka-Cha-Ta-Tha-Pa syllabic groups of the consonants, five in number, called the Vargas. What should surprise the first time reader is that these components were first suggested in the Vedas and clearly elaborated later by the Shiksha, one of the six Vedangas, constituting a masterly exposition of the disciplines of Phonology and Phonetics developed in India, long before any other culture of the world had anything comparable to show for itself.

Again, early language often used letters of the alphabet for numeric representation, till the appearance of specific symbols and words standing for numbers. The external world needed to be understood as much in quantitative as in qualitative terms. Time and distance required to be expressed in units. One early device was to embed numeric codes through letters in texts. A typical example was the Katapayadi scheme where one could derive the numeric position of a Raga in the 72- Melakarta Raga scheme of Carnatic music, from the letters that figured in the name of the Raga. That scheme that tabulates the system of 72 basic ragas derives from a permutation and combination of the 12 half-tone intervals that comprise the octave and that figures so universally as to suggest an almost natural endowment or inheritance of all mankind. One can recognize in these devices, the concepts could have led inevitably to the development of mathematical symbols and skills, and on the later development of advanced levels of knowledge in Mathematics and Astronomy. A fascination for Music, Mathematics and the Stars, leading on to God, would seem to characterize man everywhere and at all times !

This brings us squarely into the discussion of what Words mean and indeed to the philosophical question of what Meaning itself means. A fundamental question then is, where does meaning come from ? From the thought, the word, from the choice or sequence of words, the whole sentence, or even the silent expression of what is not spoken ? Is there a gap between what is said and what is meant, and if so, how is it bridged ? These are the central concerns of language, communication and meaning. And it is these questions that are addressed by the Vedangas. These disciplines of the Vedangas were later elaborated, codified and

presented in extraordinary range and depth by a succession of the early brilliant scholars like Yaska, Panini and Patanjali and the later ones like Bhartrhari.

Their concepts reach down today in every significant work of modern linguistics Panini's central work, the Ashtadhyayi, so named after the eight chapters that comprise the work, has the totality of the Sanskrit language corpus, analysed and presented as rules of grammar in a total of 3998 Sutras or aphorisms of phenomenal brevity. It has indeed been considered a masterpiece of encapsulation of the entire science of linguistics in a way that George Cardona says : "*Panini's grammar merits asserting ... that it is one of the greatest monuments of human intelligence*".

An enormous amount of scholarly writing has been addressed to the chronology of development of the various disciplines covered by the Vedangas. Much of this seeks to place the origins of these disciplines in various points of time three or more millenia ago and various places like Egypt, Greece, Asia Minor, Mesopotamia and India, with passionate claims for each location. Early Western scholars tended to say everything originated in Greece, till investigations started unveiling incontrovertible evidence from other locations. Claims of India remained unrecognized for a long time, simply because of want of physical recorded material such as were available in other locations, and simply because the significance of the what was derived from a largely oral tradition, in Sanskrit could not be understood or evaluated. Texts and scholars from India were simply not heard.

While Western scholars began to see significances in the Indian tradition in the 19th Century, it was really in the next century that showed great advances in Western scholarship in Sanskrit, when the traditional Western biases started wearing down, and a true understanding and evaluation of the ancient tradition began to be realized. They began indeed to recognize an extraordinary commonality binding languages across the cultures of East and West, to suggest a common Indo-European heritage, that is easily recognizable in the following table of names of numbers

THE NAMES OF THE NUMERALS IN NINE INDO-EUROPEAN LANGUAGES

ENGLISH	SANSKRIT	PERSIAN	GREEK	LATIN	LITHUANIAN	CELTIC	GOTHIC	GERMAN
ONE	EKA	YAK	ELS	UNUS	VINAS	ONE	AINS	EINS
TWO	DVA	DU	DUO	DUO	DVY	DAU	TWAI	ZWEI
THREE	TRI	SIH	TRELS	TRES	TRYs	TRI	THREIS	DREI
FOUR	CATUR	CHAHAR	TERSSARES	QUATTAR	KETURI	CETHIR	FIDWR	VIER
FIVE	PANCA	PANJ	PENTE	QUINQUE	PENKI	COIC	FIMF	FUNF
SIX	SHAT	SHASH	EZ	SEX	SZEZI	SE	SAIHS	SECHS
SEVEN	SAPTA	HAFT	EPTA	SEPTEM	SEPTYNI	SECHT	SIBUN	SIEBEN
EIGHT	ASHTAU	HASHT	OKTO	OCTO	ASZTUANI	OCHT	AHTAU	ACHT
NINE	NAVA	NUH	ENNEA	NOVEM	DEVYNI	NOI	NIUN	NEUN
TEN	DASHA	DAH	DEKA	CECEM	DESZIMT	DEICH	TAIHUN	ZEHN

Even so, many Western biases persisted, and even today, scholarly opinion remains divided on the origin in place and time, not only the Aryan civilization, but of many ancient knowledge disciplines that formed part of it, especially in the areas of astronomy and mathematics. The conflict of scholarly opinions, such as those of Shrikant Talageri and Michael Witzel, have indeed taken extreme positions of hostility. It is possible however, that all findings or points of view of scholars still rest on inadequate and inconclusive evidence, if we consider that only physical evidence is acceptable. It does not however make sense to quarrel over such issues. It matters little whether the theorem on the right-angled triangle originated from Pythagoras or from the Shulba Sutras. We need to be generous enough to accept it as wonderful human contribution of fellow-human beings, often concurrent or consecutive by accident, and not get drawn into an East versus West song and dance. There seems however, to be one point on which there is general agreement across all shades of opinion : that among all the known cultures of the world, the Indian contribution to an understanding of the philosophy of Language and the mechanics of Linguistics is the oldest and most pre-eminent. And this a position obtaining today that surely originates from the Vedangas.

What then is unique about the Indian contribution ? One of the most crucial starting points was the unquestioned sanctity of the word of the Veda, which presented man's inner and outer world as an indivisible continuum of a Reality that was Infinite and Eternal, and that the best that man could do to understand this Reality was through finite bits of this Reality symbolized by the word. The early scholars started looking at the word of the Veda as something that originated from the intuitive, perceptive mind of the Seer, become a vehicle of meaning, and lend itself to articulation in speech to enable a sharing of all that it was intended to convey. The mind then, clearly bore the faculty, that could just with a thought, initiate the chain of inner events that culminated in the spoken word. The scholars reflected deep on these inner sequences and named the starting point the Sabda, the pure sound or wordless language, originating in turn from an Ultimate Reality called the Sabda Brahman. The Sabda carried the creative energy to shape an intent or meaning into a word and transfer its energy to the vocal chords and cause the word to be articulated. The meaning could come from a recall of an earlier experience stored in their original words, or a new thought or a new experience or meaning, and clothe it in one of the older words, creating additional meanings for the same word, or create a new words derived from the old words or create new words altogether.

The early scholars who first received and reflected on the text of the Vedas were clearly overawed by the range, depth and value of knowledge that was embedded in their hymns. They saw that the Rishis were persons of extraordinary vision, intellect and intuition who set their inspired visions to words. It was inevitable therefore to invest the content and intent of these hymns with an authority and a sanctity of Sruthi, or divinely inspired works and canonize them as a sacred scripture. It became their sacred responsibility to establish every possible

discipline, organization and method to ensure that they would be maintained in their pristine purity for all time.

The first step was to establish an iron discipline for the recitation of the texts, and this became the Siksha Vedanga. A basic step was to compile authoritative lists of the words of which the texts were composed, lists later referred to as the Nighantu, on which the onward related disciplines could then be built. A clear understanding was set out on how basic sounds were physically generated and then shaped by time intervals and stresses and euphonic considerations into the basic components of speech. We see here the first formulations of sound into the gutturals, cerebrals, palatals, dentals and labials; the rising, falling and modulating stresses, analogous to the modern diacritic variations of the accent, grave and circumflex; and the euphonic changes at word junctions, typified in variations in the use of the indefinite article in English as between say, “a ball” and “an apple”. All these formulations represented the oldest known compilations of Phonology and Phonetics presenting concepts that remain valid to the present day.

To explain the Vedas the ancient scholars had obviously to start with the words of the Vedas, and then start looking at the words that had proliferated subsequently, and then determine whether these processes submitted to specific rules or disciplines. The earliest of these exercises were embodied in the Pratihakyas, that attached as explanatory notes to each Veda.

By the time of Panini, the structure and vocabulary of Sanskrit had greatly expanded and it was to this expanded word Universe that he addressed himself. He not only established a rule base governing their totality but went on to state the rule base in terms that would apply to the future growth of Sanskrit, and state these in generalized terms that had obvious applicability to the growth of languages in general even extending to computer languages of today. The first major developments in the progressive evolution of modern Linguistics, in the works of Saussure, Bloomfield and Naom Chomsky were greatly inspired by the work of Panini, which they acknowledged in glowing terms.