

## THE BACKGROUND OF THE SPOKEN WORD IN THE SPEECH-LORE OF INDIA

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Patañjali, the great philosopher and grammarian of ancient India, who lived during the second century B.C., explained, almost in the form of an aphorism, what (following the ancient Indian tradition or point of view) he considered to be the nature of the Word in man's speech. He said: *pratīta-padārthakō Dhvaniś Śabdaḥ* 'the Sound by which an object or a concept is made out, is the Word'. He made this definition still shorter and pithier when he declared that "the Sound is the Word" (*Dhvanīś Śabdaḥ*).

Behind this is that most vital thing in India's language-consciousness, in which India was quite unique among the nations of antiquity, viz., her early discovery of the supreme importance of the SOUND as uttered by man in his speech, her recognition of PHONETICS or the study of speech-sounds as the basis of linguistic description and investigation. It was not the concrete object or the abstract idea which demanded immediate representation in writing. It was the SPEECH-SOUND which made up THE WORD as the audible symbol, representing the object or the idea, that characterised human language. Over and above this, there was, among the Seekers in the field of Speech in Old India, a feel for some unheard and unseen beauty and power in Speech, the sense of mystery behind it, which also we find, in some way, among two of the most advanced peoples, contemporaries and peers of the ancient Indians, the ancient Greeks and the ancient Chinese. But that sense of mystery takes us into the realm of philosophy and inner consciousness, which is considered to be the other side of physical science. We are concerned here with the scientific aspect of existence, of the various phenomena which come to our perception — in its sequence of physical and psychological cause and effect. Language thus resolves itself into the audible (and in an ancillary manner, through gestures, to some extent also the visible) representation of man's thinking, in its most ancient and most characteristic manner. The WORD or VOICE — *Epos, Vāk, Vox* — and the sense or the thought behind it, are inextricably linked up with each other — as much as are the Ultimate Reality and Matter-cum-Energy, God-in-Cosmos and the Cosmos itself, conceived as Śiva and Śakti, the Father and Mother of the Universe, in Indian thought and Indian mythology.

When man first thought of recording his speech, in the most ancient times in Egypt and Mesopotamia and China, and in Mexico in the New World, his main pre-occupation was with WHAT he had in mind rather than HOW he sought to express it with speech-sounds. He was not conscious of the value of what he recognised as the God-given faculty of SPEECH, which had made him rise superior to the lower animals which lacked this faculty.

And yet when he started to keep a record of his thought as manifested in his Speech, he somehow forgot or failed to take immediate note of the sound or phonic basis of language. He felt in many languages that speech came out of the vocal organs forming a part of his physical body, and he took his word for the 'tongue', as apparently the most active among the organs which produced articulate sounds, as the word for 'language' also — as in Greek *glotta*, or *glossa*, Latin *lingua* (\**dingua*), Germanic *tunge*; Iranian (Modern Persian) *zubān*, Slav (Russian) *yazyk*, Semitic (Arabic) *lisān*, etc. The ancient Chinese, in framing in their written language the character for 'language' or 'speech', made up a new compound or combined character with two separate elements, *mouth + breath or wind coming out*, in which the phonetic basis of speech was the only one which they thought of. But in their system of writing they did not think of representing SPEECH-SOUNDS at all. It started with PICTOGRAMS of concrete objects which one can see, and with IDEOGRAMS which symbolised abstract notions; and in further evolving their writing, the sounds were thought of only in a round-about way, when they sought to build up new words by combining two pictograms, one of which stood for the concrete picture and the other for the sound which came to be associated with it.

But in India, a phonetic analysis of the word started from the very beginning of linguistic speculation over 3000 years ago, and in all likelihood this was helped by the system of writing which about that time came to be adopted for writing the Aryan language in India. It is exceedingly likely that, round about 1000 B.C., towards the end of the Vedic age in India, the Aryan speech, a kind of Vedic Sanskrit, was first written down in a make-shift system of a phonetic script, which may be called PROTO-BRAHMI, which was a far cry from the completed Brahmi script of a thousand years later. And this Proto-Brahmi could only be a modification of the last (possibly syllabic) phase of the pre-Aryan Indus Valley script of India as in the Mohen-jo-Daro and Harappa Seals.

The analysis of words is generally a two-fold one: (a) into their component phonetic elements, taking note only of the SOUNDS which by themselves go to make the spoken word, either monosyllabic or polysyllabic, and (b) in the semantic-formative and the functional aspects of the word, in which the purpose of the analysis was to separate the meaning-essentials ('roots') and the ancillary accidentals ('affixes'), and also further to see how the word was functioning in connected speech through either some innate change or through addition of other auxiliary elements ('inflexions', 'morphemes'). In ancient Indian grammatical studies or speculations, the beginnings of which go back to the Veda itself, and which was transformed into a serious science

based on observation of facts by 500 B.C., both these forms of analysis went hand in hand, and that was the great glory and success of Sanskrit grammar of which the greatest representative was the *Ashṭādhyāyī* of Pāṇini. Identification and accurate description of the sounds of speech, as well as their behaviour in connected speech in contact or inter-relation with each other, as in the old Sanskrit language which everybody knew, was the beginning of grammar in India. It was in modern parlance PHONETICS and PHONOLOGY, which claimed the first attention of the learner of the ancient and sacred Vedic lore in the early Aryan-speaking community in India. Phonetics and phonology formed the initial and most important discipline or subject of study in learning language and literature, and hence these were known as *Śikshā*, or 'the Discipline or Training *par excellence*'.

As observed before, there has always been in the language-consciousness of linguistic scholars and investigators in India a sense of the power and beauty, of the dynamic and the esthetic, and the mystic underlying the scientific, in speech, from very ancient times. In the *Rig-Veda* (roughly c. 900 B.C., the *terminus ad quem* for this great collection of hymns and popular poetry, forming the *fons et origo* of Indian thought and culture), already we find the following passage:

catvāri vāk parimitā padāni,  
tāni vidur brāhmaṇā yē maṇiṣiṇaḥ;  
guhā trīṇi nihitā nēṅgayanti,  
turīyam vacō manuṣyā vadanti (*Rig-Veda*, I, 164, 45)

This has been translated by Ralph T.H. Griffith as —

Speech has been measured out in four divisions, the Brahmans who have understanding know them;  
Three kept in close concealment cause no motion; of speech, men speak only the fourth division.

This is indeed mystic, and cryptic, and we have attempts to explain this verse throughout the history of linguistic speculation in India, from Patañjali (second century B.C.) to Sāyaṇa (fourteenth century A.D.), and many moderns. A reasonable interpretation, in conformity with later speculations and theories with reference to the origin of sounds, inarticulate or articulate, meaningless or meaningful, is this (and it may be mentioned for what it is worth): 'speech consists of sounds'. And there is sound as an abstract, or sound in itself, which is going on in the universe, heard or unheard. This is the first of the four divisions or kinds of speech mentioned in the Vedic verse quoted above. Then comes the world of articulate sounds which can be heard, of all noises and sounds made by lower animals without any meaning for man, for *homo sapiens*. This is the second kind of sounds or noise which is manifest, while the first kind is unmanifest, and that is 'sound in the abstract'. Then we have the dawning of human speech sounds as indicative of names, ideas and concepts, which have their abode in the middle region, in the thinking region of the heart. Finally, there is the fourth or last phase or form of speech, which is expressed

by sounds made by the vocal organs as part of the head, speech-sounds fully matured, which are used by thinking man, *homo sapiens*. The first three are only speculative, they are kept in the dark of the cave, they are not effective, they do not move — that is, do not serve any purpose, but wise men and thinkers understand their implication.

This four-fold classification of speech sounds, and this interpretation of the above Vedic verse, are in accordance with the philosophy or ideology of the *Yoga*. They have been named successively in *Yoga* terminology as (1) *Parā* or the Supreme, or Ultimate, or that which is Beyond; (2) *Paśyantī*, i.e., speech or sound WHICH SEES, or is capable of being heard; (3) *Madhyamā*, i.e., Speech which has acquired a meaning in the Central Region, the heart, which was considered, in primitive thinking, as the abode of experience or thought; and (4) *Vaikhari*, i.e., Speech which is received from Space (*kha*), which belongs to Space, which is the abode *par excellence* of all sounds.

This is one of the lines along which the mystery of sound or speech was sought to be explained in its origin and nature. In one of the oldest treatises on Sanskrit phonetics ascribed to Pāṇini (fifth century B.C.), the origin of speech and speech-sounds is speculated in these words: “*Ātmā*, the Inner Spirit, the Soul, joined with the Intelligence, perceives things, and sets the Mind to an intention of speaking; the Mind then gives impetus to the Fire within the Body, and the latter drives the breath out.” Then the breath circulating within the chest (the lungs), creates the basic tone, and circulating in the throat and the mouth cavity, attains to the mouth and produces the various speech-sounds. So here we have an attempt to find out the origin of speech-sounds. This of course is not what would be called scientific, or very clear, but still it is remarkable for an uncritical and pre-scientific age.

Religion and mythology brought art and poetry. The inarticulate speech sounds, as analysed into vowels and consonants, are but the sounds which come out of the Supreme Divinity Śiva’s hand-drum (shaped like the hour-glass), when he sounds it at the time of his Cosmic Dance; and this is how the sounds of speech as in the Vedic or Sanskrit language, which is the only speech they know or are interested in, originated and came to the perception of man. Quite early in the history of linguistic studies in India, however, — how early one does not know — these sounds were classified and arranged in the most scientific manner imaginable.

We have thus the most scientifically phonetic scheme for an alphabet of sounds in any language:

Vowels: *a, ā; i, ī; u, ū; r, ṛ; l, ḷ; ē (= āī), āi; o (= āū), āu;*

*m̐* = nasalised extension of a vowel;

*h* = unvoiced extension of a vowel, which is same as an UNVOICED *h*, with variants *χ* (guttural spirant, unvoiced) and *φ* (labial spirant, unvoiced).

Consonants:

Velars: *k, kh, g, gh, ṅ (= ṅ)*

Palatals: *c, ch, j, jh, ñ (= ṅ)*

Retroflex Consonants: *ṭ, ṭh, ḍ, ḍh, ṇ;* also retroflex *l;*

Dentals or Alveolars: *t, th, d, dh, n.*

Labials: *p, ph, b, bh, m.*

Semivowels: *y, w;* Liquids, *r, l.*

Spirants, Sibilants: *ś (ç), ṣ, s;* Guttural Aspirate, *h.*

The above is the traditional order of sounds in the Sanskrit Alphabet, and the earlier one. But Pāṇini, to fit in with the complicated and all-inclusive system of his grammar, with special technical symbols added, rearranged it in a different way: he had good reasons for this, which would be too complex to explain here.

The interpretation of this highly technical system of Pāṇini, with the rearrangement of the sounds of Sanskrit for purposes of his grammar, has now become a major subject of enquiry and research in Sanskrit studies, to which a number of Western, as well as present-day Indian Sanskritists, have dedicated themselves.

Some of the most remarkable findings of the ancient Indian phoneticians may be mentioned. They noted the working of the glottal region in the production of sounds, simply by feel and intuitive study, without the help of instruments which did not come into existence at the time. The vital part played by the opening or closure of the glottal passage in producing voiced and breathed sounds was a great discovery in phonetics made by them, although the anatomy of the glottal area was not fully known. When the glottal passage was left wide open, and the breath passed out without break or hindrance, there was just BREATH, or BREATHED SOUNDS, which passed out of the mouth. In the parlance of the early Sanskrit phoneticians, with the *ābhyantara-prayatna* or ‘inside working’ in the throat there was *vivāra* or ‘fully-open passage’, the *bāhya-prayatna* or ‘outside or outer’ sound-production from the mouth resulted in *śvāsa* or *breath* i.e., breathed sounds, which were *aghōṣa* or ‘unvoiced’. When on the other hand, in the ‘inside working’ there was *saṁvāra* or ‘closure of the throat-passage’, the result was *nāda* or ‘loud sound’ as opposed to *śvāsa* or ‘breath’ in the other case, and the sound made by the ‘outer’ working of the vocal organs within the mouth was *ghōṣa* or ‘voiced’; i.e., voiced sounds resulted through the closure of the glottal passage. The nature of the voice-production through the VIBRATION of the glottal chords was not clear to them, but they appreciated the position that it was closure of the throat-passage that produced voice, as opposed to just breath coming out freely.

The tradition of the old pronunciation (as during the period 1000-500 B.C.) has been sought to be maintained in India through all these centuries. But there have been some unconscious modifications in this tradition which could not be avoided, and even our best scholars in the tradition are not aware of it. The ancient Indian observers of Aryan pronunciation noted quite correctly that, during the early centuries of the first millennium B.C. (tenth to sixth centuries B.C.), as registered in the *Prātiśākhya*s, final stops like *-k, -t, -p* in words like *manāk, vidyut, anuṣṭup* were not ‘exploded’ stops — they were unexploded. So also were the stops before other stops in the middle of words, like *bhakti, supta, utpāta, paṅkti, śabda, vāgdāna, adbhuta,*

*mudga*, etc. This observation was quite a remarkable achievement for such an early period in the study of speech-sounds; and this finding, that of 'unexploded stops', has also been a recent discovery of scientific phonetics. This matter has been discussed by me previously (Chatterji 1926) and there I also touched upon the connection between this habit of unexploded stops in the middle of words in consonant clusters and the ancient Indian Brahmi manner or system of indicating compound consonants or consonant clusters in the script.

On the other hand, in discussing the nature of the stop sounds, the ancient Indian phoneticians fully appreciated the STOP, or the OCCLUSION, within the mouth by some part of the tongue when it touched some part of the throat-area or the palate. But to produce a real proper STOP sound or occlusive, the next necessary gest or movement of the tongue, its detaching itself from the point of contact, its 'release', was not considered — it was either not looked into or ignored, or not fully understood. So that we have the Sanskrit term *sparśa* or 'touch' for the stop consonants — the *spr̥ṣṭa varṇas*; but there is no term like *mōkṣa* or *mukti* 'release' for the connected gest or action which is absolutely indispensable.

The spirit of scientific enquiry, rare in any country in such an early age (first half of the first millennium B.C.), naturally enough could not maintain itself all through. Later developments could not be always taken note of and properly described and explained. In metaphysics and philosophy, the Indian mind was brilliantly operative from the second half of the first millennium B.C. right down to the close of the first millennium A.D., and unfortunately a metaphysical approach obscured to some extent the factual and realistic approach which is very essential in the study of language as a human phenomenon.

Thus the phenomena of the voicing of intervocal consonant sounds, and of the spirantisation of intervocal voiced stops (original or resultant) were not properly understood in the study of the Prakrits or forms of Middle Indo-Aryan as current during the three or four centuries from the time of Christ. Hesitancy in orthography in this matter was a result of this. Then, although it would appear that there was a vague sense that a so-called 'double consonant' was really a long consonant, the indication of these long consonants by writing double consonants, which became established later in the Indian system of writing, was not according to any fixed method, even in the oldest Brahmi writing of the time of Asoka. Further, no one described the voicing of the intervocal sibilants -ś-, -ṣ-, -s- to -ž-, -z-, -z-, which in all likelihood started from the third century B.C. (cf. Asokan Gandhara Prakrit in Kharoshthi writing, *badaya* = \**bādaḥa*, from *dvādaśa*), and the existence of the dental voiced sibilant -z- sound was somehow recognised by devising a ligature *ys* for *z* from the third century A.D. (as in *Ysāmotika* = *Zāmotika*, *Dāmayśada*, also *Dāmajada* = *Dāmazada*; besides the regular adoption of this ligature *ys* for *z* in the Brahmi script as adapted for the Iranian Khotanese or Saka speech. In these matters the later phonetic sense of the Indian grammarians seemed to remain careless, and helpless.

The methods of phonetic investigation and study as adopted by the oldest linguistic scholars, the unknown authors of the *Prātiśākhya*s, and Pāṇini and others were profitably followed by the oldest Tamil grammarians like Tolkāppiyān'ar and the authors of the *Nannūl* and the *Viracozhiyam*, and they successfully described the sounds as well as the phonetic situation and phonology of Old Tamil from the early centuries A.D. to the thirteenth century A.D. Still, some matters have remained controversial. The other Dravidian languages in their sound-system fell in line with the norm as presented by classical Sanskrit, excepting that in their earlier phases Kannada and Telugu retained the special 'palatal *r*' sound found also in Tamil, but the Sanskrit order of sounds also was found quite suitable for them.

From the closing centuries of the first millennium B.C., Indian grammatical and phonetic studies began to spread outside India; and the period of ten centuries from the time of Christ to roughly 1000 A.D. was the age during which Indian influences permeated over almost the whole of Asia through Buddhism and Brahmanism. Indian speech — Sanskrit, Pali, Prakrit — went with the Buddhist and Brahmanical religion, and with that speech the Indian alphabet and the Indian alphabetic-syllabic writing, and also the underlying phonetic basis of this alphabet, were spread.

Many nations of Asia received their alphabet and their knowledge of phonetics and grammar from India.

The Chinese people had built up one of the greatest ancient civilisations of the world, and their system of writing became fully established by the beginning of the first millennium B.C. This was a system unique in its nature, in which the representation of the SPEECH-SOUNDS was not understood at first; and this was a great defect in their sense of the nature of human speech, particularly in connection with the spoken word. The Chinese were a proud people, but they accepted certain elements of culture from India, in the domains of both philosophy and mysticism, as well as art and crafts, to fill up certain *lacunae* in their own very advanced civilisation. They found out in Sanskrit a totally new kind of approach to language, and appreciated the rôle and the importance of the study of sounds in understanding the nature of the word. This matter has been discussed in detail by R.H. van Gulik in his very valuable work (van Gulik 1956). The following observations by van Gulik (1956:36, 37, 38) will illustrate or clarify the situation:

Although the Sanskrit *language* never enjoyed any popularity, the Sanskrit *script* has had an immense influence in China ... This seeming contradiction is to be explained by the fact that until modern times the Chinese did not differentiate between the language and the script ... Although the Chinese script developed into one of the most accomplished and subtle instruments for the expression of human thought, it never provided any effective means for accurately reproducing the sounds of the spoken language. The great majority of the Chinese scholars, throughout the ages, never stopped to ponder over these shortcomings of the Chinese script.

The phonetics behind the Sanskrit alphabet presented a new world of science to the Chinese scholars, and on the basis of these phonetic studies, in the second century

A.D., a Buddhist scholar Sun-yen invented a system (which was a bit too complicated due to the very nature of the unphonetic writing of Chinese and the basic initial lack of phonetic sense), the *Fan-Chieh*, which enabled the Chinese for the first time to have some means of studying the sounds of the words in their language.

The Chinese adoption of Sanskrit phonetics is a unique phenomenon in the long history of China's cultural relations with foreign countries ... it is the only example of Chinese scholarship in past centuries accepting a foreign-inspired improvement on their own philological methods (van Gulik 1956: 146).

The Japanese received Buddhism from China through Korea in the sixth to seventh centuries, and with Buddhist studies there started in Japan a more extensive, as well as intensive, study of the Indian Sanskrit script, the *Siddham*. It is also well-known that the Indian classification and arrangement of the sounds are to be found as the basis of the Japanese *Hiragana* and *Katakana* syllabaries, which became established in the ninth to tenth centuries. The order of these phonetic characters — syllabic in nature — is that of Sanskrit; e.g., *a, i, u, e, o; ka, ki, ku, ke, ko; ga, gi, gu, ge, go; ta, ti (= chi), tu (= tsu), te, to; da, di (= ji), du (= dzu), de, do; etc.*

Korean, a language totally different from Chinese, and allied closely to Japanese, similarly developed its phonetic system of writing, the *Hangul*, which is now the National Script for the language, on the model of Sanskrit, around 1442-1443.

It would appear also that Sanskrit or Indian phonetics influenced four great Semitic languages in medieval times in introducing the use of vowel signs, which were tagged on to the consonant letters, or were written above or below them. This device helped to keep intact the old correct vocalisation of these languages. Ethiopian adopted this device from the Indian Brahmi and Kharoshthi scripts in the fourth century A.D. Arabic then took it up from Ethiopian, and then Jewish scholars, under the inspiration of Arabic adopted this and elaborated it for Hebrew in the seventh and eighth centuries A.D. Syriac also followed suit (see Chatterji 1969).

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