Indian Language Traditions and their Influence on Modern Linguistics

ABSTRACT:

For nearly three millennia, Sub-continental Indian scholarship has codified, organized and analyzed language. It may be relatively unknown, however, that aspects within the modern science of linguistics are directly descended from this ancient lineage. This essay briefly traces the development of Indian linguistic study, from the earliest recorded language traditions, to its influence on the emergence of linguistic awareness and study in Europe.

From the profusion and confusion of the Indian subcontinent have come some of the world's most startlingly scientific systems of knowledge. Among them, the ubiquitous numeral system, including the revolutionary 'zero', which allowed for great advances in mathematics. Indian astronomy, too, is renowned for its accurate predictions of celestial positions, and the production of calendars (Bharagava & Chakrabarti, 1989: 356-357). Metallurgy, medicine, and manufacture all reached sophisticated heights in India during ancient times (ibid.). Among these great achievements were advancements in the study of language that have remained unparalleled for over two thousand years (Emaneau, 1955: 147). Motivated by the need to preserve the ritual properties of their sacred texts, phoneticians provided accurate descriptions of the sounds of Sanskrit, while grammarians such as Pāṇini created systematic grammars for the language (ibid: 145). Only in recent

times – and as a direct result of the West's discovery of Sanskrit and its grammarians – has a modern science of linguistics emerged with the capabilities to rival this ancient system (ibid: 147). This essay provides an historical overview of this development, from the language traditions of the Aryans, to the works of Pāṇini, to the discovery and absorption of Indian linguistics into Western scholarship, and finally, to the position of both traditional and new forms of linguistics in modern India.

The Veda – from the root word *vid* 'to know' (Gowen, 1968: 47) – is the most sacred text in Indian literature (ibid: glossary). It is a collection of hymns, some to be sung in praise of various gods, others to petition for material needs, others to be used as magical spells and cures (ibid: 52 & 82). These various verses and songs were first gathered into a single collection as early as c.1000 B.C., and the exact contents of this collection became standardized around 600 BC (ibid: 48). The Veda was considered divine revelation (ibid: 49); the embodiment of the eternal Sanskrit language, outlasting gods and men (F. Staal, 1979: 11). This divinely revealed literature also included extra-Vedic texts known as the Brahmanas and the Upanishads (Gowen, 1968: 143).

It is important to note that while the Vedas, etc. are identified as 'texts' and 'literature', this great mass of knowledge was originally and for many generations transmitted solely by memory (F. Staal, 1979: 10). It is unclear at what precise point writing was introduced into India. Approximation places it towards the end of the Vedic era, that is, c.700 B.C., though literacy, when it did arrive, was considered inferior and tainted (ibid: 7).

Speech endured as a powerful medium; it even had its own patron goddess, Sarasvatī (Gowan, 1968: 150). The Veda, although its hymns had not originally been composed for specific ritual purpose, provided mantras to accompany religious rites (F. Staal, 1979: 10). The power of the words lay not so much in their meaning but in their enunciation, so the growth of the Veda's ritual importance encouraged the development of a sophisticated system of phonetics (Emaneau, 1955: 145). An incorrect pronunciation could render the magic useless, or even potentially harmful (ibid). Faced with inevitable variation and change, it was necessary that the ritual language, which had fallen out of common use (Belvalkar, 1915: 3), be understood, codified and preserved.

The earliest attempt at this, posited to have taken place c.1000-700 B.C., before the introduction of literacy, was a word-for-word analysis known as a *padapāṭha* (J.F. Staal, 1974: 63). Not only did the padapāṭha extract the individual words from the continuous recitation of the Veda (samhitāpāṭha), it analyzed these morphologically into roots and affixes (Belvalkar, 1915: 4).

Later, this approach was expanded into a phonetic treatise, known as a *Prātisākhya* (Allen, 1953: 5). Such treatises **were** composed for each of the four main sections of the Veda, and existing written copies have proven their effectiveness: only the slightest changes in the text and its pronunciation have occurred over more than two millennia (Emmaneau, 1955: 145). The prātisākhyas of c.600 B.C. show some of the earliest grammatical awareness and speculation; distinguishing nouns, verbs, prepositions and particles (F. Staal, 1979: 9) (See also Gowen, 1968: 151). Along with the technical methods with which to describe them,

grammatical rules were developed which included the order in which they were to be applied to produce the correct result. (J.F. Staal, 1974: 64). They were not yet, however, applied to regular speech, but remained in the artificial domain of the ritual (ibid: 66).

These texts and others became part of the Vedāngas, or 'Limbs of the Veda' (Gowen, 1968: 149). The Vedāngas were six important subjects in which it was considered necessary to be well-versed should one seek to read, comprehend and make use of the Veda (ibid). The prātisākhyas belonged to the first category, *Ciksha*; the science of accent, pronunciation and phonetics (ibid: 151). The second category was prosody, dealing with the complex formalities of Indian poetic meters (ibid: 150-151). The third category concerned grammar, the fourth, lexicography and etymology: of huge importance given that the language of the Veda and the rituals was no longer spoken (Belvalkar, 1915: 3). The fifth dealt with ceremonial matters, and the sixth with astrology and astronomy – a pursuit at which the Indian peoples would later excel (Gowen, 1968: 152-154).

It is the third subject – grammar – which includes the most prominent work of Indian linguistics; that is, the Aṣṭādhyāyī by Pāṇini (ibid: 151). Suggested dates for this work range from c.2400 B.C. to c.350 B.C., (Belvalkar, 1915: 14) however the estimate for which there seems a conservative consensus to place the work at c.500 B.C. (J.F. Staal, 1974: 66). This lack of precise detail means that very little is known about the life of Pāṇini himself, except that he was probably born in the town of Śālātura, at the junction of the Kabul and Indus rivers, and was possibly eaten by a tiger (Belvalkar, 1915: 19). Śālātura was renowned as a place of scholarship. In the *Siyuki*, a travelogue of 7th Century pilgrim

from China named Yuan Chwang, it is said that "*the Brahmans of this town are well grounded in their literary work and are of high renown for their talents, well-informed as to men and things, and of a vigorous understanding.*" (Misra, 1966: 19) (See also *Siyuki*, trans. Samuel Beal, Routledge, 1884). Tradition states, however, that Pāṇini was such a dull student that he was expelled (Gowen, 1968: 151). Penitent, he called on the god Śiva, who rewarded him with fourteen *sūtras,* that is, fundamental rules of grammar, on which he could enlarge (Belvalkar, 1915: 19) (See also Misra, 1966: 19). He did so, adding nearly 4000 *sūtras* in the eight books (*adhyāyi*) of his Aṣṭādhyāyī , which has been handed down near-intact to the present day (Belvalkar, 1915: 19). Each of these rules is written in a terse, mathematical style, without extraneous explanations or examples, and making use of technical symbols which he borrowed from his predecessors or invented as they were required (ibid: 22-24).

  Pāṇini's predecessors had provided him with a rich grammatical tradition to draw from (Misra, 1966: 14). He focused the efforts of the many different schools of grammatical knowledge – mentioning at least ten other authors by name – into a '*monument at once of encyclopaedic research and technical perfection,*' Belvalkar, 1915: 12. In doing so, Pāṇini departed from the ritual language as studied in the Prātisākhyas, in order to focus on a natural, colloquial language of the Indian priesthood. His descriptive rules were not limited to a specific part of the Veda, but universally applicable to the ritual texts as well as priestly language (J.F. Staal, 1974: 67). In a further departure from the Prātisākhyas, Pāṇini reduced the identifiable parts of speech from four (noun, verb, preposition and particle) to two: verb and non-verb (Misra, 1966: 17).

Goldstücker suggests that not only did Pāṇini compose his works in writing (as evidenced by his use of symbols) but that the Vedic corpus had likewise been committed to paper by this era (Goldstücker, 1965: 65). While passages in later texts had prohibited the writing of the Veda, and the use of written texts in the memorization of it, an earlier lawgiver had exhorted the first three classes to both hear and *see* the sacred texts (*Italics added*) (ibid: 67-68). Pāṇini, likewise, refers to the 'visible' – and by extension, written – aspects of words. He uses the term *lopa* (to cut off, to make invisible) in reference to allomorphs that disappear under certain derivational conditions (ibid: 65) (See also Emeneau, 1955: 147). Thus to Pāṇini has been attributed the concept of a linguistic 'zero,' implemented hundreds of years before its mathematical equivalent (J.F. Staal, 1974: 69). This is a particular example of the importance of grammar to India. Just as Western knowledge was built on mathematical principles, so has grammar held the defining place in Indian society, influencing all domains of life (F. Staal, 1979: 9 & 11). Pāṇini's achievements have been equated with those of the great geometer Euclid – neither of whose works have yet been superseded (J.F. Staal, 1974: 69).

Although other approaches to grammar developed under the various influences of Hindus, Buddhists and Jains, the Pāṇini school has remained the predominant grammatical tradition across India (ibid). Other great grammarians followed Pāṇini, with his sūtras undergoing a protracted process of refinement that continues to this day (ibid). Of particular note are Kātyāyana (c.300 B.C.) (ibid: 66), a critic and corrector of Pāṇini, and Patañjali (c. 150 B.C.), who took the science of grammar to its peak with his work, the

Mahābhāshya (Belvalkar, 1915: 32 & 34). Together, they became known as the *muni-trayam* : 'three sages' (ibid: 34).

Just as Pāṇini remains the prominent name in Indian linguistics, mention of Sir William Jones is likewise unavoidable in any discussion of Orientalist language scholarship. Jones is credited with introducing Sanskrit to Europe as a language on par – or even superior to – the classical bastions of Greek and Latin (Jones, 1993: 175). He was not, however, the first European to consider it worthy of study, nor the first to notice the striking similarities between the three languages. One Fillipo Sassetti had done so as early as c.1585, including Persian in his comparison (Master, 1956: 186). It was Jones' announcement, though, in his Third Anniversary Discourse to the Asiatic Society he had established in 1783, that caught the attention of Europe's scholars (Jones, 1993: footnote to 172). As a result of his studies in Sanskrit he concluded that the language's similarity with Greek and Latin could not have occurred by accident, but that the languages had '*sprung from some common source, which, perhaps, no longer exists,*' (Jones: 175). He suggests that this proposition might also be extended to the languages of the Goths, Celts and Persians (ibid).

Jones was well qualified to hypothesize. As a student of languages, he was phenomenally capable, mastering the Classics and a number of modern European languages at school, and teaching himself Hebrew, Persian and Arabic (Franklin, 1995: 3-7) (See also Cannon, 1990: 10). To these talents may be added his formidable skills as poet, essayist, critic, philosopher, barrister, judge, and humanitarian. As an example of his fair-minded ideology, he learned Sanskrit while serving as a judge in Calcutta in the 1770s and

'80s, in order to ensure local laws were being carried out without corruption or incompetence (Cannon, 1990: 228).

It is unlikely Jones became familiar with Pāṇini's Aṣṭādhyāyī in his pursuit of Sanskrit, and its cryptic brevity would probably have been little use to him even if he had (Master, 1956: 187). It was another member of the Asiatic Society, Thomas Colebrook, who introduced Pāṇini's work to a European audience in 1801, seven years after Jones' death. (ibid). Jones was, however, aware of Indian linguistic principles more generally. His '*Dissertation on the Orthography of Asiatick Words in Roman Letters*' follows an Indian model for its phonetic descriptions (Allen, 1953: 3). These descriptions, along with Jones' comments on the inadequacies of regular alphabets to account systematically for the sounds of a language, would lead, finally, to the development of an International Phonetic Alphabet (Cannon, 1990: 249). In the mean time, Lepsuis' 1885 work '*A Standard Alphabet for reducing Unwritten Languages and Foreign Graphic Systems to a Uniform Orthography in European Letters*', (Allen, 1953: 3) acknowledged that the distinction of voiced and voiceless sounds had been '*derived from the Sanskrit grammarians.*' (ibid: 3-4).

Jones' big idea, along with his translations of Sanskrit texts (and those of his contemporaries such as French rival, Anquetil-Duperron), opened Europe's eyes to the possibility of other equally-sophisticated civilizations (Cannon, 1990: xv). From this beginning, a new science of language emerged, in which study of the language itself, and not its literature, became the ultimate end (Dowling, 1982: 165). Even in domains with a

differing purpose – such as missionary work – advances were made that would form the foundation of modern descriptive linguistics (ibid).

Britain had amassed a bulk of texts from across their Empire, but the study was initially taken up in earnest by German scholars such as Franz Bopp and Jacob Grimm (Dowling, 1982: 167). Bopp, Friedrich Schlegel and Max Muller each made the journey to East India House in England to study its Vedic manuscripts (ibid: 161). Just as it had been in ancient India, speech became central to the study of language (ibid: 169). This allowed for an equality in the comparison of all languages, and not just those with a corpus of written literature (ibid: 168). Language was broken down into its atomic particles, at which level its meaning – along with its previously inviolate connection to humanity – became irrelevant (ibid: 167). Morphology and phonetics were shown to be systematically determined by laws of change beyond human control (ibid.).

These revolutionary ideas would not be accepted lightly by the Victorian public. The philosopher Herder had paved the way somewhat in Germany by his disavowal of the divine origins of language (ibid: 163). In Britain, however, the apparent ease and enthusiasm with which Germany embraced the new science only added to their concerns (ibid: 165). Previously, the Biblical account of Babel had sufficed to explain language diversity, and Hebrew was accepted as the original language. The condition of language had been seen to influence, and be influenced by, the moral well-being of the nation, with quality literature the most effective preservative from moral decay (ibid: 169). Now,

though, language had become – like geology – a physical science: something evolutionary and impossibly ancient (ibid: 163).

Throughout the majority of the 19th Century, India remained unaware that such developments – sparked by their own traditions – were occurring in Europe (Chatterji, 1985: 321). As their connections to the Indo-European language family were established, the modern languages of the Indo-Aryan branch, such as Hindu/Urdu and Pali were studied in detail in Europe and America (ibid: 321-322). The first Indian to become involved in this study – in particular, the historical development of the Aryan language into its modern vernaculars – was Ramkrishna Gopal Bhandarkar. He delivered his *Wilson Philological Lectures* to the University of Bombay in 1877 (ibid: 322). It was to be another thirty years before the University of Calcutta instituted linguistic study (ibid: 323). The Linguistic Society of India was established in 1928 (ibid: 330), and since that time, scholarship has progressed gradually (ibid: 331).

The story of Indian linguistics is one of great individuals, whose big ideas and achievements shed light on what is generally too close to human experience to be seen with clarity (cf. Dowling, 1982: 166). Many more remarkable scholars have contributed to this pursuit than have been mentioned here. When the scholars of Europe borrowed from the infinite scope of the Indian imagination, they revolutionized the way that one of the fundamental elements of humanity was to be perceived. Sharing a linguistic ancestry with the East, Europe could no longer consider itself to be isolated in a sea of foreign inferiority.

The interest of western scholars has also gently reinvigorated an Indian science that had

seemingly reached its limits over two millennia before. Using the shared knowledge of

the East and West, it is certain that India's great contribution to the science of language

will continue into the future.

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