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ZOLTAN GENDLER SZABÓ

LANGUAGE, INDIAN THEORIES OF

Language is a much debated topic in Indian philosophy. There is a clear concern with it in the Vedic texts, where efforts are made to describe links between earthly and divine reality in terms of etymological links between words. The earliest surviving Sanskrit grammar, Pāṇini's intricate Aṣṭādhyāyī *(Eight Chapters), dates from about 350 BC, although arguably the first explicitly philosophical reflections on language that have survived are found in Patañjali's 'Great Commentary' on Pāṇini's work, the* Mahābhāṣya *(c.150 BC). Both these thinkers predate the classical systems of Indian philosophy. This is not true of the great fifth-century grammarian Bhartṛhari, however, who in his* Vākyapadīya *(Treatise on Sentences and Words) draws on these systems in developing his theory of the* sphoṭa, *a linguistic entity distinct from a word's sounds that Bhartṛhari takes to convey its meaning.*

Among the issues debated by these philosophers (although not exclusively by them, and not exclusively with reference to Sanskrit) were what can be described as (i) the search for minimal meaningful units, and (ii) the ontological status of composite linguistic units. With some approximation, the first of these two issues attracted more attention during the early period of linguistic reflection, whereas the subsequent period emphasized the second one.

1 Historical sketch

Linguistic science in India started soon after the Vedic period. The earliest grammarian whose work has survived is Pāṇini (*c.*350 BC), author of the *Aṣṭādhyāyī* (Eight Chapters). This work consists of some 4,000 aphoristic statements (*sūtras*) which describe the Sanskrit language in considerable detail, but leave no space for explicit reflections about the nature of language. Such reflections make their appearance in the voluminous *Mahābhāṣya* (Great Commentary) of PATAÑJALI (*c.*150 BC). The *Mahābhāṣya* is a commentary on the *Aṣṭādhyāyī* (but not on all of its *sūtras*), and on the aphoristic *vārttikas* of Kātyāyana, which comment upon Pāṇini's *sūtras*. Another linguist whose work has been preserved and who, like Kātyāyana, appears to belong to the period between

Pāṇini and Patañjali, is Yāska, author of the *Nirukta* (Etymological Explanation).

All these authors precede the formation of the classical systems of Indian philosophy; their reflections on language are therefore largely unaffected by them. This changes with BHARTṚHARI (*c.* fifth century), perhaps the first commentator on Patañjali's *Mahābhāṣya*, and the author of the *Vākyapadīya* (Treatise on Sentences and Words). Bhartṛhari is well aware of the philosophies of his time, and makes ample use of them to construct his own system, which he presents as the philosophy of grammar. The subsequent Pāṇinian tradition accepts this philosophy (or what it preserves of it) as its own, but there are remarkably few grammarians who write treatises on it. Apart from the three principal commentators on the *Vākyapadīya* – Helārāja (tenth century), Puṇyarāja and Vṛṣabhadeva (dates unknown) – by far the most important among them are Kauṇḍa Bhaṭṭa and Nāgeśa Bhaṭṭa, both belonging to the most recent period of grammatical studies (after 1600). Some authors belonging to different schools of thought, however, adopt and defend some of the points of view of the grammarians. The ontological status of composite linguistic units is a subject that evokes special interest.

2 The search for minimal meaningful units

The different linguistic sciences of ancient India – and in particular grammar and etymological explanation – have to be understood against the background of the practice, common in the Vedic Brāhmaṇas (before Pāṇini), of giving etymological explanations of names of gods and of other terms, usually related to the saçrifice and often occurring in sacred formulas (*mantras*). Unlike those of modern linguistics, the etymologies of ancient India have nothing to do with the origin or the history of the words concerned. They cannot, because language, and the Sanskrit language in particular, was looked upon as stable in time; from the subsequent period we know that many even believed Sanskrit to be eternal, that is, without beginning. These etymologies establish links between things and the mythological reality that hides behind them. The god Agni ('fire'), for example, is thus called because he was created first (*agre*). There are countless etymologies of this kind in the Brāhmaṇas. These texts frequently add that the gods have obscured a number of the etymological links. The god Indra, for example, is 'really' called Indha ('the kindler') because he kindled the vital airs. However, people call him Indra because the gods are fond of the cryptic, and dislike the evident. Knowledge of the links revealed by etymologies is important in reaching one's religious goals.

Yāska's *Nirukta* takes the validity of such etymologies for granted, but secularizes their use. It presents etymologizing as a way to arrive at the meaning of unknown words. Moreover, only nouns and adjectives can be etymologically explained, and then only in terms of verbal forms: verbs explain nominal words, and show the (or an) activity that characterizes the object named. Yāska illustrates his method with the help of known words. One might expect that this procedure would lead to the identification and isolation of the common parts found in different words (such as the common part *ag* of *agni* and *agre* in the above example), and would determine their meanings. But Yāska's demands with regard to the semantic adequacy of etymological explanations are so stringent that this turns out to be impossible. He insists, for example, on two different etymological explanations for words that have two meanings. This rigour forces Yāska to be very undemanding with respect to the phonetic similarity required in etymological explanations. With the help of a number of examples from grammar, he shows that phonemes may disappear, be modified, change position, and so on. The same applies, *a fortiori*, to etymology. Similarities between words in etymological explanations may, as a consequence, be minimal: one single phoneme in common may have to do. The main thing is that one should not be discouraged; one should not stop looking for an etymological explanation simply because one does not find similar words.

It is interesting to observe that Patañjali's *Mahābhāṣya* contains a passage which, like Yāska's *Nirukta*, shows how phonemes may undergo change of position, elision and modification in grammatical derivations. Unlike Yāska, Patañjali concludes from this quite explicitly that phonemes by themselves cannot have meaning, although it seems likely that Yāska, even though he does not state it in his *Nirukta*, drew the same conclusion as Patañjali. It appears that Yāska's semantic rigour prevented him from trying to identify the ultimate meaningful constituents of Sanskrit (as we see for ancient Greek in Plato's *Cratylus*, for example). This task, but on a far less ambitious scale, is left to the grammarians, among whom Pāṇini is the most famous. His grammar is not an analysis of Sanskrit but a synthesis: it produces the words and sentences of the language, starting from their ultimate meaning-bearing constituents, essentially stems and affixes. To be precise, Pāṇini's grammar first furnishes stems and affixes on the basis of a semantic input, and these stems and affixes are subsequently joined together, and modified where

necessary, so as to yield words and sentences (see Bronkhorst 1980).

In view of the background of Vedic etymologies, discussed above, one may legitimately conclude that Pāṇini considers these ultimate meaningful constituents to be really meaningful, more so perhaps than the 'surface forms' they help produce. The search for 'really meaningful' ultimate constituents of language is clearly present in the efforts of the grammarians. Pāṇini's *sūtra* 1.2.45, which recognizes but three meaningful entities, namely verbal roots, nominal stems and suffixes, indicates that words and sentences are considered to have at best a composite meaning. This search manifests itself later in the attribution by a number of Tantric thinkers of metaphysical meanings to individual phonemes. They can afford to go further than Pāṇini and Yāska in their analysis, continuing all the way to the individual phonemes, owing to the fact that they are less limited by semantic considerations. This in its turn is no doubt linked to the circumstance that sacred formulas (*mantras*) in Tantrism (unlike the Vedic ones) have shed their connection with ordinary language and its semantic constraints.

Returning to Pāṇini and grammatical analysis, later grammarians, mainly under the influence of Patañjali and Bhartṛhari, reject the position according to which the ultimate meaningful constituents presented by grammar are somehow more real than the words they produce. For them, stems and affixes are conventions, or rather inventions of grammarians. This reaction is to be understood in the light of the ontological concerns to be discussed below. The semantic analysis underlying Pāṇini's procedure, on the other hand, came to be generally accepted (albeit sometimes with slight modifications). Later thinkers use this analysis as the basis for deliberations on the relative importance of the various 'semantic elements' that Pāṇini assigns to a sentence in the understanding obtained by a hearer (*śābdabodha*). In a sentence like *caitraḥ pacati* ('Caitra cooks'), to take a simple example, the grammatical elements are: *caitra-s pac-a-ti*. Of these, the following are expressive: *caitra, pac* and *ti*. Thinkers of the new Nyāya school (Navya-Nyāya) consider the grammatical subject (in this case *caitra*) most important, and give (approximately) the following semantic analysis of the sentence: 'Caitra characterized by the activity of cooking'. The grammarians look upon the meaning of the verbal root (*pac*) as central, and paraphrase the sentence (again approximately) as: 'The activity of cooking whose agent is Caitra'. The Mīmāṃsakas, finally, put emphasis on the verbal suffix (here *ti*); since they are primarily interested in Vedic injunctions, and consequently in imperative and optative verbal forms, we shall not enter into the details of their analyses.

3 The ontological status of composite linguistic units

To appreciate the importance of the debate on the ontological status of composite linguistic units, one has to be aware of the great interest in ontological questions that characterizes much of Indian philosophy. In the realm of language this leads to questions like: Do words and sentences really exist? If so, how can they, given that the phonemes that constitute them do not occur simultaneously? Since, moreover, simultaneous occurrence is a condition for the existence of collective entities, do individual phonemes exist? They, too, have a certain duration, and consist therefore of parts that do not occur simultaneously.

Perhaps the first to address these questions were Buddhists of the Sarvāstivāda school. These Buddhists were active in the first centuries BC in drawing up lists of elements – the so-called *dharmas* – which were considered to constitute all there is (see BUDDHISM, ĀBHIDHARMIKA SCHOOLS OF). The list accepted by the Sarvāstivādins contains three elements which correspond to phonemes (*vyañjana-kāyas*), words (*nāmakāya*) and sentences (*padakāya*) respectively. This means that these Buddhists postulated phonemes, words and sentences as existing entities which, like virtually everything else in their ontology, are momentary. Little is known about the way they visualized the mutual relationship between these entities, or how they would answer the questions formulated above.

The grammarian Patañjali may have been influenced by these ideas. He certainly knew the notion of an individual phoneme and of a word conceived of as a single entity. For Patañjali, these phonemes and words are not momentary; they are, on the contrary, eternal. One should not, however, attach too much importance to this difference: for the Buddhists, everything is momentary; for many Brahmans, the Veda, and therefore also its language, is eternal. It is more important to observe that these notions play a relatively minor role in Patañjali's expositions. They acquire major significance in Bhartṛhari's *Vākyapadīya*, where they are made to fit his general philosophy that more comprehensive totalities are more real than their constituent parts.

It appears that in the period between Patañjali and Bhartṛhari a major shift of emphasis took place in the discussion of linguistic units. The discussion became centred on the linguistic unit as meaning-bearer. The problem of individual phonemes, which have no meaning, came to be separated from that of words,

grammatical elements (stems and affixes) and sentences, which do. In the context of Bhartṛhari's philosophy this is understandable, for here linguistic units and the 'objects' they refer to are treated in a parallel fashion. But this shift of emphasis was not confined to the grammatical tradition. Śabarasvāmin, the author of the oldest and most important surviving commentary on the *Mīmāṃsāsūtra*, and who may be an approximate contemporary of Bhartṛhari, cites (1.1.5; see Frauwallner 1968: 38–) an earlier commentator who rejects the notion of a word as different from its constituent phonemes. This does not, however, prevent him from proclaiming that phonemes are single and eternal. In other words, phonemes and words undergo a different treatment altogether. Moreover, the author of the *Yogabhāṣya* (whose name was probably Patañjali, like the author of the *Mahābhāṣya*, although he was certainly different from the latter; recent tradition calls him Vyāsa) speaks about the single word which is without parts, without sequence, without constituent phonemes, and which is mental (on *Yogasūtra* 3.17). This Patañjali may have lived around 400 AD, and therefore perhaps before Bhartṛhari.

4 Early *sphoṭa* theory

Patañjali (the grammarian) and Bhartṛhari use the word *sphoṭa* to refer to linguistic entities conceived of as different from the sounds that reveal them. For Patañjali, the *sphoṭa* does not necessarily convey meaning; he uses the term also in connection with individual phonemes. For Bhartṛhari, the *sphoṭa* is a meaning-bearer. The *sphoṭa*, he points out, is different from the sounds which manifest it, and he makes several suggestions as to what constitutes it. It might be a mental entity. Or one might take it to be the universal residing in the manifesting sounds. One could even look upon the material basis of words, for example, wind, as being the *sphoṭa*. Bhartṛhari presents these options, but his perspectivism allows him to avoid choosing between them.

Arguments claiming to prove the existence of the *sphoṭa*, as well as arguments which try to refute it, henceforth concentrate heavily, even exclusively, on the *sphoṭa* as meaning-bearing unit. The primary question is not 'What exactly is the *sphoṭa*?' but rather 'How can a sequence of phonemes, each without meaning and not even occurring simultaneously, express meaning?' According to some, a sequence of sounds can express meaning; they have to show how it does so. Others hold that this is not possible; they solve the problem by postulating the existence of the *sphoṭa*. These two positions find their classical expositions in Kumārila Bhaṭṭa's critique of the *sphoṭa* doctrine in his *Ślokavārttika* (Commentary in Verse) (seventh century), and in Maṇḍana Miśra's (*c.*700?) defence against these attacks in his *Sphoṭa-siddhi* (Demonstration of the *Sphoṭa*). Neither Kumārila nor Maṇḍana were grammarians: the former belonged to the school of Vedic hermeneutics called Mīmāṃsā; the latter, too, had links with this school.

Kumārila, elaborating the opinions of Śabarasvāmin (see §3), on whose *Mīmāṃsābhāṣya* he comments, accepts the eternal existence of individual phonemes. But he combats the notion that more than phonemes are required to understand the meaning-bearing function of language. It is true that the phonemes constituting a word are not pronounced simultaneously. But there are situations where everyone agrees that a series of activities that succeed each other in time can none the less jointly produce an effect. He gives the example of a Vedic sacrifice, whose constituent activities are performed at different times, but which produces a single result, namely heaven. Another example concerns counting: we can count objects in sequence, one after the other, and arrive at one result, their number. Furthermore, the fact that individual phonemes are without meaning does not exclude the possibility that they can express a meaning when pronounced in sequence. The parts of a cart, too, cannot fulfil the functions that a cart can fulfil. Last but not least, though the constituent phonemes of a word are not pronounced simultaneously, they are remembered together the moment the last phoneme is (or has just been) uttered.

Maṇḍana answers Kumārila's arguments one by one. He protests against the idea of the combined memory of the phonemes that constitute a word. First of all, one does not remember phonemes, but the word as a whole. Second, memory impressions can only present to us their contents, in this case phonemes, not something else, such as the meaning of the word. And third, two words may consist of the same phonemes, say 'pit' and 'tip' (a Sanskrit example is the pair *saraḥ*/*rasaḥ*, 'lake'/'taste'), so that the memories that combine their phonemes should be the same, yet they are recognized as different. Perhaps Maṇḍana's most interesting contribution to the discussion is his claim that the *sphoṭa* is directly perceived: it is gradually revealed by the phonemes.

The *sphoṭa* constitutes the central element of what came to be called the philosophy of the grammarians. All thinkers who deal with the issue, including Maṇḍana Miśra, refer in this connection to Bhartṛhari's *Vākyapadīya*. But the more encompassing ideas in the context of which Bhartṛhari worked out his ideas on the nature of linguistic entities largely escaped the attention of those who so faithfully cited him.

5 Later *sphoṭa* theory

After a lull, a revival of interest in the *sphoṭa* and related issues took place from the sixteenth century onward. Of the various authors who wrote treatises on the philosophy of grammar, Nāgeśa Bhaṭṭa (c.1700) was the most famous. He wrote a large number of treatises on various subjects, among them the *Sphoṭavāda* (Exposition on *Sphoṭa*), the *Laghumañjūṣā* (Small Casket) and the *Paramalaghumañjūṣā* (Extremely Small Casket) (written in this order), which deal with the philosophy of grammar. These books show that Nāgeśa changed his mind several times with regard to the *sphoṭa* doctrine.

The *Sphoṭavāda* enumerates eight types of *sphoṭa*: (1) phoneme, (2) word, (3) sentence, (4) indivisible word, (5) indivisible sentence, (6) phoneme-universal, (7) word-universal, (8) sentence-universal. These *sphoṭas* are primarily meaning-bearers. The first and sixth ones, in spite of their misleading names, refer to grammatical elements (stems and affixes) rather than to phonemes. Nāgeśa's reasons for postulating these eight types are not always clear. This early work gives the impression that he collected various ideas without being able to combine them into one overarching vision.

This changes with the *Laghumañjūṣā*, which opens with the words: 'In this [work] the sentence-*sphoṭa* is most important.' Other parts of the work make it clear that Nāgeśa has been converted – no doubt under the influence of Bhartṛhari, whose *Vākyapadīya* he frequently cites – to the idea that only sentences really exist, that words and grammatical elements are no more than imaginary. He is particularly fierce with regard to grammatical stems and affixes.

Surprisingly, the *Paramalaghumañjūṣā*, meant to be an abbreviated version of the *Laghumañjūṣā*, begins, like the *Sphoṭavāda*, with an enumeration of the eight kinds of *sphoṭa*. Immediately following this it repeats the opening statement of the *Laghumañjūṣā*, according to which the sentence-*sphoṭa* is most important. Closer study reveals that Nāgeśa has been confronted with cases where the sentence-*sphoṭa* view comes into conflict with grammatical derivations. There is a grammatical meta-rule which states that a grammatical derivation evolves in the order in which the expressive elements arise. Expressive elements acquire in this way importance, and it will not do to say that their expressiveness is merely imaginary. The issue is all the more important in view of the fact that there were different opinions as to whether the final substitutes of the grammatical elements – which appear in the 'surface forms' – are expressive, or whether the substituends are. This disagreement can have an effect on the correct derivation of words and sentences. Nāgeśa's final position is chosen in awareness of these complications. He still maintains that the sentence-*sphoṭa* is most important. But he no longer treats the other, 'imaginary', entities as lightly as he did earlier.

Nāgeśa is often thought of as the last great author in the Pāṇinian tradition. His vacillations where the *sphoṭa*-doctrine is concerned illustrate the conflict that exists between the two major issues of grammar distinguished in this entry: the search for minimal meaningful units on the one hand, and the ontological status of composite linguistic units on the other. His final position tries to give both their due: the idea inherited from Bhartṛhari that only the sentence is 'real', rather than words and smaller grammatical elements; and the idea inherited from Pāṇini that grammar is concerned with the smallest identifiable meaningful elements and the way they combine to form larger units.

See also: INTERPRETATION, INDIAN THEORIES OF; MEANING, INDIAN THEORIES OF; MĪMĀṂSĀ §3

References and further reading

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JOHANNES BRONKHORST

LANGUAGE, INNATENESS OF

Is there any innate knowledge? What is it to speak and understand a language? These are old questions, but it was the twentieth-century linguist Noam Chomsky who forged a connection between them, arguing that mastery of a language is, in part, a matter of knowing its grammar, and that much of our knowledge of grammar is inborn.

Rejecting the empiricism that had dominated Anglo-American philosophy, psychology and linguistics for the first half of this century, Chomsky argued that the task of learning a language is so difficult, and the linguistic evidence available to the learner so meagre, that language acquisition would be impossible unless some of the knowledge eventually attained were innate. He proposed that learners bring to their task knowledge of a 'Universal Grammar', describing structural features common to all natural languages, and that it is this knowledge that enables us to master our native tongues.

Chomsky's position is nativist *because it proposes that the inborn knowledge facilitating learning is* domain-specific. *On an empiricist view, our innate ability to learn from experience (for example, to form associations among ideas) applies equally in any task domain. On the nativist view, by contrast, we are equipped with special-purpose learning strategies, each suited to its own peculiar subject-matter.*

Chomsky's nativism spurred a flurry of interest as theorists leaped to explore its conceptual and empirical implications. As a consequence of his work, language acquisition is today a major focus of cognitive science research.

1 The development of Chomsky's nativism

In a review of Skinner's *Verbal Behavior*, Chomsky (1959) rejected the behaviourist view that mastery of a language, or 'linguistic competence', consists in