EDITORIAL

A common myth about the creation of the universe in ancient cultures and religions of the world is that God created the world and all its beings through utterance or the word/speech. The Greek called it *Logos*, though in all its uses *logos* may not mean speech; it may denote reason, measure, law, etc. All the same, *logos* is in a fundamental way the same as 'Word'. A pre-Socratic philosopher, Xenophanes (born 570 BCE), in one of his extant fragments, says that "God shakes or puts into motion all things without effort, only with the thought (*phreni*) of his mind or intelligence (*noou*)." If this mental energy implies words, then this can be read as a version of creation by word. The *Gospel according to Saint John* is more explicit, it says: "In the beginning there was Word, the Word was with God, the Word was God". In the Jewish Old Testament also there are several references to the power of the Word. In the ancient Egyptian account of cosmogony, the High God Ptah is said to have given life to all gods "through his heart and through his tongue". In the Indian tradition too, we see some account very similar in spirit, in the *Ṛgveda*. Bhartṛhari, in the fifth century CE, in his treatise on language, *Vākyapadīyam*, states that the world devolved out of *śabda* 'word'[1]. Interestingly, he says, echoing the account in the *veda*, that in the beginning there was only consciousness which was one with the ultimate, immutable and eternal Brahman from which came *vāc*[2], that is, language. This was in tune with his monistic metaphysics. His four-fold division of language is well-known. According to his doctrine, there are three abstract levels of language — *parā*, *paśyantī* and *madhyamā*, in decreasing order of abstractness; the fourth, is known as *vaikharī*[3], which is the form men speak. Of course, we cannot take these accounts seriously, yet it is worth noting that our ancestors (in all cultures, for that matter) somehow seem to have intuitively understood the connection between language and reality, the word and the world. The great Sanskrit poet Kālidāsa, in the opening stanza of *Raghuvamśa Mahākāvya*, has famously analogized the union of Lord Śiva and Pārvati, 'parents of the world', to the coming together of word and meaning.

Language, from those early days to today, has never ceased to be a mystery. The fact that humans have been using language to convey

their ideas, feelings and emotions, and also to express thoughts, disagreements, arguments, dreams and what not does not in any way make language any less of a mystery. If anything, this power of expressibility embedded in language renders it an even greater enigma. There is a host of questions about language that we have no good answers for. Foremost, among them is the one concerning the origin of language. A second one, as inscrutable as the first, is why there are so many languages, thousands of them! A little further into language proper, why are the grammars of languages so different from one another? It is not so much the words (and their associated meanings) that make the learning of a second language difficult, it is the grammar. Why are they designed so different, and who is behind the design? Or can we simply ignore grammar and get along with language?

Language and Thought

Once we start reflecting on language, it becomes imperative to look at the relation between language and thought. The activity of thinking presupposes the existence of a language. It is quite plausible that language arose in humans because of the need to think coherently and systematically. Communication with other members of the society (or speech community) came later. Be it as it may, one needs to go one step further and take note of the presence of consciousness which is a precondition for thought. Thus, language, thought and consciousness can be said to constitute the three vertices of a cognitive triangle. All the three have been studied independently, and interdependently, by thinkers since the beginning of time. This special issue of *Studies in Humanities and Social Sciences* (SHSS) attempts to bring together recent studies by philosophers, linguists, cognitive scientists and historians, on this theme.

The relation between thought and consciousness is an important strand that has been explored by philosophers for a very long time. Thought has been defined in a number of ways. For Frege, thought is the sense of a sentence. Wittgenstein agrees when he describes thought as a proposition with a sense. Others who take thought as dispositional mental states having propositional content conceive them as having potentiality for thought-acts with specific content. Another way is to conceive these mental states as having potentiality for complex behaviour of an organism in the presence of the right stimuli. Thought has also been characterised as mental acts, with specific propositional content. Therefore, they can be called

thought-acts. Consciousness, however, is the most evasive of the three. One could be talking about phenomenal consciousness defined in terms of experiential properties. Sensory states are examples of this. Brentano insists that consciousness, per force, is intentional in that it is a mental state that is directed towards an object or state of affairs. A third way consciousness is characterized is as awareness. The paper by C.A. Tomy juxtaposes thought and consciousness, each looked at in three different ways as indicated above, and then considers all possible combinations and permutations to arrive at the deeper conceptual relation between the two.

Structure of the Language Faculty

In the last 60 or so years, the structure of the unique language faculty in humans has been the focus of investigation, owing to the 'Chomskyan turn' in Linguistics. Noam Chomsky's signal contribution in this field, the so-called "innateness hypothesis" underscored the structural similarities among languages of the world, which, in turn, inaugurated a massive research programme that undertook the task of meticulous examining of the syntactic properties of the languages of the world. The pooling of the results of this investigation led to the first truly universal model of syntactic description, the so-called 'Government and Binding' theory, in 1981. Further studies uncovered deeper principles that underlie the organization of the language faculty, culminating in the current minimalist model.

K.A. Jayaseelan's article shares with the reader his excitement about the possibilities ushered in by this minimalist syntax. The push has been towards explaining the principles of Universal Grammar completely in terms of a) the legibility conditions imposed on a derivation by outside systems that interface with language and b) considerations of computational efficiency. Not only has this brought linguistics into the domain of biology, but also close to brain research. The questions are so framed that they now look more and more potentially verifiable by experiments in brain studies. Jayaseelan cites the example of how minimalism replaced bounding theory by the late building of adverbial adjuncts and relative clauses, and what the latter implies for memory, a module of mind/brain that plays a significant role in the online assembling of sentences.

The Chomskyan programme also influenced studies on mind/brain by cognitive scientists. Cognition is a property of mind which, in the ultimate analysis, must be reducible to a series of electrochemical neuron activity in the brain cells. The remarkable strides made in

brain mappings like real-time eye-tracking have made it possible to study the connections between language cognition and other systems like vision. This has also enabled researchers question earlier notions of domain specificity of cognitive functions. Does language share brain centres supposedly dedicated to other functionalities like mathematics and music? The fact that these and similar questions are now being raised augurs well for the study of mind in coming days that can radically alter the long-held mind-matter dichotomy. Included in this issue are two articles that report the results of experiments conducted using sophisticated brain imaging technology. The first one is by R. K. Mishra, a linguist-cum-cognitive scientist, who first gives a brief history of the eye-movement studies, starting from Yarbus (1967), followed by Cooper (1974) and Just and Carpenter (1976). The eye-mind hypothesis claimed that the locus of our gaze reflects what is on our minds at that moment. The experiments run by Mishra and his team were intended at testing the cross-modal nature of cognition where both vision and language interacted dynamically. They used the visual-world-paradigm and studied ambiguous homophone processing (in Hindi). The eye-movements measured showed not only comprehending of language by subjects (who included illiterates) but also their predictive strategies.

Mythili Menon's article reports the experiment where the team tried to seek the cognitive connection between the system of language and the system of music. In particular, the study was aimed at finding out whether language processing and music processing have shared representations, and whether they can be activated across domains. For this they selected sentences in English with relative clauses that could modify either of two noun phrases, as in:

(i) Jessica visited the doctors of the supermodel <u>who lived in LA</u>.

The underlined relative clause in (i) is ambiguous as regards which of the noun phrases 'the doctors/the supermodel' it modifies. The hypothesis was that high/low attachment of relative clauses resembles changing the notions of harmonic distance in western music. The novelty, however, was in the employing of the priming paradigm across the domains of syntax and music. It has been observed that if the subjects are primed with a certain structure, where a reading with an alternative structure is possible, with subsequent inputs they tend to go with the primed structure. This had been tried out earlier with active/passive structures and with transitives.

The results of this highly controlled experiment provided striking

evidence for the domain general level abstraction in the level of representation of hierarchical structural information.

Language and Mind

At the same time, it is true that many a philosopher of mind believes that a purely mechanistic view of mind is not going to provide satisfactory answers to the mysteries of human mind. Foremost among these is the creative capacities of human mind, which is at variance with those of the animal kingdom. Similarly, man alone seems to be able to seek meaning in thought and action. A teleological explanation of human mind alone can address these aspects; more broadly, human nature itself may have to be understood in terms of its end/goal. The ontological structure of human subjectivity is a new field in the contemporary philosophy of the mind. Mind is the space of meanings and reasons, and it makes the world belong to this space, opines Ramesh Chandra Pradhan in his contribution, wherein he defends a teleological view of human mind and human nature. Humans are gifted with rational capacities that enable them to create new meanings in science, philosophy, art, religion and literature. Arguing against the mechanistic/reductionist view of the mind, Pradhan points out that mind is intentional in the real sense of the term, and that it is endowed with the capacity to make the mental states goal-oriented. Another aspect of the mind is consciousness and its normative structure. Transcendental consciousness brings into the picture the emergence of meaning and normativity.

Often we take for granted the existence of a 'self' in discourses on consciousness and/or on the philosophy of mind. Buddhist philosophy denies the idea of a self, either as an owner of the experience, or as the agent of action including the thinking of thoughts. The fifth century Theravada Buddhist commentator and scholar, Bhadantācariya Buddhaghosa, denies the existence of a self. Jonardon Ganeri seeks parallels in current philosophy of mind to the notion of the self in Buddhaghosa's formulation, according to which there is no 'self', a self that is the doer of actions and owner of experience. What is mistakenly called 'self' is nothing but attention, asserts Buddhaghosa. One may describe 'self' as minded body. Ganeri points out that Rune Johansson has described *citta* as a sort of core self, variously realized as a conscious centre within personality, a conscious centre of activity, purposiveness, continuity and emotionality. But it is Brian O'Shaughnessy characterization of self as "attention centering" that Ganeri thinks comes closest to Buddhaghosa's understanding of self.

Meaning in Language

It is not from linguists, whose profession it is to study the phenomenon called language from all angles, that we have heard on meaning, but from philosophers. Why, in the first place, are philosophers interested in language? What is their stake in such a seemingly mundane activity as speech, for they are known to deal in topics more sublime. The answer is not far to seek. The primacy of language in human affairs makes it mandatory for a seeker of the true nature of things to probe deep into this uniquely human asset. All our present-day knowledge is made possible because we have language. Therefore, it is no wonder that philosophers have engaged with language from the early days. All branches of philosophy seem to have a connection to language one way or the other because meaning is embodied in the sentences we speak/write.

When we consider meaning in language, one question to be settled is whether we are taking the speaker's meaning or the hearer's meaning. In other words, an approach based on the speaker's meaning is anchored to 'I mean', whereas the one based on the hearer's meaning is anchored to 'he means'. They, therefore, represent subjective and objective attitudes to meaning, respectively. Amitabha Das Gupta's article dwells on this distinction; reinterpreting and extending Kalidasa Bhattacharyya's work on meaning, he suggests that meaning be best treated as an amalgam of both subjectivity and objectivity. The indexical 'this' in an utterance, though semantically vacuous, is enormously significant in the context of utterance. The demonstrative 'this' can denote in two ways: either denote the thing spoken just before or to the thing that is pointed to by the speaker. Das Gupta points out that the Western tradition has, by and large, adopted the standpoint of the speaker; in the Indian tradition, Nyāya epistemology in particular, has taken the hearer's standpoint, as witnessed in the *śabdabodha* debates. This partly reflects the idealist-realist split in their philosophy.

All through the history of epistemology in the West, the focus has been on 'knowledge' as the prime epistemic category. Syed A. Sayeed is wondering why 'understanding' has never been recognized as a distinct, autonomous epistemic category. He argues that understanding cannot be conflated with knowledge; no, it is a cognitive phenomenon distinct from knowledge. For example, says Syed, you may know a poem, but you may not have understood it. Knowing a joke is not the same thing as understanding a joke. *To understand* is to make sense of what is presented to the consciousness; and *understanding* is the state of attainment of a sense of what is

presented to consciousness. Reading *Theaetetus* closely, Syed shows that "in this dialogue, there are many points where, Plato, in his struggle to find an adequate definition of knowledge, stumbles upon 'understanding', but moves on without noticing it." Syed also opines that what Socrates was seeking was 'understanding', not knowledge; also, "some pre-Socratic philosophers had a fairly perspicuous grasp of this notion". Thus, having made a strong case for understanding as a distinct cognitive category, Syed, incidentally tying together the three sub-themes of the present volume, notes that i) within language poetry ii) within thought philosophy and iii) within consciousness emotion represent the ideal object of understanding.

Other Concerns

Probal Dasgupta's article is a little off-beat, it may not be wrong to characterize it as belonging to the genre of Linguistic science fiction. Dasgupta's concern, as he puts it, is to place some classical notions at the heart of the democratic imagination, notions such as freedom of speech, freedom of enquiry, possibilities for criticism and debate, in the context of questions of consciousness. For doing this he invents a novel method, that of retelling the Ascian thought experiment by Gene Wolfe (1983). The members of the imagined community in that fictional piece do not speak by forming new sentences, as is generally the case with speakers of natural languages; they reproduce statements from an officially approved text. The point is to show what happens if a community, due to cultural domination of an extreme kind, systematically flouts the principle that sentences are in principle assembled online. Dasgupta reminds us that structural violence, while bloodless, is nevertheless a system that violates fundamental rights, at all times. The author wants to drive home the point that for consciousness to be meaningful there has to be an atmosphere that allows unfettered thinking.

Rajan Gurukkal's article is a survey of different forms of textual knowledge and their epistemic properties, in the Indian knowledge traditions, sketched from the early vedic period to sixteenth century CE. Using the lens of historical epistemology, he identifies certain logical procedures evolved and applied by the ancient thinkers in order to ensure reliability of knowledge. Originally known by the name *ānvīkṣikī*, which was recognized as one of the four fields of knowledge, the system of knowledge validation came to be accepted across the board[4]. Gurukkal also highlights the key contribution made by Pāṇini's *Aṣṭādhyāyi*, "The fundamental property of knowledge according to Pāṇini is the theoretical generalization of

the ideal, made inevitably at the instance of the empirically given reality, if possible after checking each specific instance."

Gurukkal examines the texts in Ayurveda, Mathematics and Astronomy, among others, and draws a significant conclusion that epistemic properties have a universality that endows a distinctive quality to deeper knowledge, no matter which field of enquiry. Likewise, the region in which the study was conducted is immaterial, there is a single cognitive thread of epistemic control running through all kinds of knowledge production. Instead of making silly, unfounded claims about how all the new scientific inventions were known in the Vedic period, an all too familiar exercise among the ultra-nationalists today, it will serve the cause of knowledge much better if the proponents of this were to realize the true imperatives of scholarly pursuits.

When this special issue was conceived, I mailed Prof. Noam Chomsky, requesting him for a paper. He promptly responded, saying:

> Intriguing and appealing suggestion, and I wish I were in a position to undertake the task. But I am afraid I cannot. Commitments are just too intense, too far ahead.
>
> Really sorry, and thanks for the kind wishes.
>
> Noam Chomsky

Though I deeply regretted the opportunity lost, Chomsky's words were both inspiring and reassuring. I humbly dedicate this issue of SHSS to NOAM AVRAM CHOMSKY, the intellectual *non pareil* of our times.

Notes

1. *śabdasya pariṇāmoyaṁ ityāmnāya vido viduh.*
   That is, this world is transformed out of word, say those who are well-versed in the *Vedas.*
2. *vāc,* also spelt *vāk*, is the goddess of speech.
3. *turīyam vācam manuṣyāh vadanti.* 'Men speak the fourth form of language.' *Ṛgveda*, I, 164. 45
4. The following verse bears testimony to this:

   pradīpah sarvaśāstrāṇāṃ upāyah sarvakarmāṇāṃ
   āśrayah sarva dharmāṇaṁ śaśvadānvīkṣikī matah