Samir Karmakar
Indian Institute of Technology Kanpur

Possibilities and impossibilities of meaning: A study in semantics

> *"…the meaning of an episode was not like a kernel but outside, enveloping the tale which brought it out only as a glow brings out a haze, in the likeness of these misty halos that sometimes are made visible by the spectral illumination of moonshine."*
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> - Joseph Conrad, Heart of Darkness.

0. Mission Impossible:

Meaning is fugitive in nature though we are continuously creating meaning out of the utterly nonsensical reality. We engage ourselves with each other in discussing either the recent earthquake in Kashmir, an economically hard time, a popular movie, or so many other things, which range from the micro-world to the macro-world of the giant heavenly bodies. The delicacies of human emotion, the subtleties of the material world – whatever may be the topic – rest on the belief that language conveys meaning, though any effort to systematize the theory of meaning will always be considered a mission impossible, since language is vague, ambiguous and, most interestingly, it is not about the precision but about the imprecision – it is not about the exactness but about the approximation – it is not about the certainty but about the uncertainty! This kind of unsystematicity and irregularity is not at all a product of the 'historical accident' (as it was generally believed by the logical positivists, in contrast with the ordinary language philosophers), but the very essence of life – the essential ingredient of human existence or an absolute necessity to reign over the universe, a pre-condition for the survival and creativity, not in the mechanical sense of 'generation'. It allows us to assimilate new information by opening the immense panorama of possibilities.

1. Phenomenological proclamation:

Language is the ultimate form of self-deception, camouflaging all the information about itself.
This point has been correctly emphasized by Wittgenstein, in TLP, 4.002, where he states that
language disguises thought, so much so, that from the outward form of the clothing it is
impossible to infer the form of the thought beneath it, because the outward form of the clothing is
not designed to reveal the form of the body, but for entirely different purpose. It plays a crucial
role in putting questions about all kinds of possibilities and impossibilities, excepting its own
existence! Language has the capacity to mean something not because it represents a static
repository of meaning and every one has the key to access that secret vault.

2. Designated rapporteur:

Language can convey meaning because it is a potential designator. While talking it designates
something which is common to all speakers. And what is common among the speakers is a
domain of discourse which is relative to a particular model of the world around us. The model of
the world varies synchronically across the different cultural communities. It also varies
diachronically depending on the facts of socio-cultural evolution. Since the modeling of the
domain of discourse, as a reflection of the phenomenological world, is always a matter of
subjective prejudices, because of being molded by socio-cultural beliefs, this domain is fugitive
in nature. Most of the above mentioned properties, such as vagueness, ambiguity, imprecision,
approximation, etc., are the attributes of this domain of discourse. Under these circumstances,
looking for a semantic theory which is preconditioned by an existence of a repertoire of
expression-meaning relation, at least in case of the basic expressions, no matter with whatever
degree of generative power, will always remain beyond the scope of human endeavor. If so, then
what would be the goal of a semantic theory?

In my understanding, in such a situation semantic theory should try to conceptualize the determinant goal of the language as a potential designator. Therefore, the main concern for a logician is to develop a theory which may take an account of a language as a potential designator, irrespective of its content.
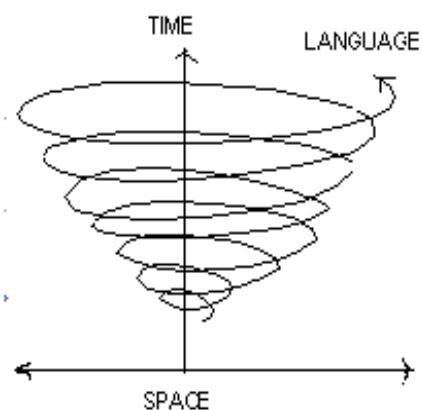
As a potential designator, it has the soul command over time and space. Or a more ambitious claim would be that it is the creator of time and space. But if the author said so, the skeptic will come up with an axe to grind the argument, and will ask who has the authority to fix the supreme primacy of the language. So, in spite of taking a particular position, it is always better to blur the boundary conditions, since the concept of 'position', like space and time, is contingent in nature. Thus, it remains always within the scope of the revision. But we will not take a dip in this metaphysical ocean; rather we will argue that language contains time and space, and at the same time spacio-temporal considerations constrain the language. Isn't it circular, or hazy, lacking precession? Obviously, but it has been argued already that language is all about the imprecision, imperfection, and approximation. Nevertheless, the entire intellectual history of human being is full of these vague arguments, since it is really difficult to describe adequately a system while residing within it! Human existence and language are intrinsic to each other.

3. Thesis of situatedness and the world, residing inside: A relativistic stance with a deterministic end

What do we do with a language? For example we talk about the increasing ethnic clashes; we talk about the downtrodden economy of the third world countries; we talk about so many other things, as possibilities permit us. Briefly, by using language we talk about the domain of discourse. It is not the fact that our domain of discourse is full of horror, blood and unwanted digression of the share market indexes! If we feel enough with these depressing situations, let's replace it with a sparkling version of domain of discourse, without violating the functional structure of our language. Now we can draw a picture of growing GDP indexes or the heritage of religious endurance or a picture of a sunlit sea beach with a back-drop of vast azure sky and water! Hence, the domain of discourse is a relative concept. It varies from subject to subject, from one culture to another. Each one of us is a complex world view, and the world, in general, is the multitude of all these individual complexities. Skeptics may call for a no-confidence motion, once again! But we will avoid this unpleasant situation by arguing that though each individual comes with an idiosyncratic backlog of world view, our way of thinking and acting are both socially grounded.

4. Is there anything at all, upon which Archimedes could keep his lever?

What is not relative within the domain of discourse is the fact that, no matter what kinds of entities it consists of, entities are interconnected with each other. Each and every entity comes with luggage – luggage of characteristic functions. And the task of a logician is to devise a theory which can take care of these characteristic functions. This devise will remain unaltered even within a 'horrible' domain of discourse and as also as within a 'prosperous shinning' domain of discourse.

Functions are true and valid only in the sense of being essential ingredient of our cognitive architecture. It will not be an exaggeration (I suppose so,) if a proposal of a functional mind (Jackendoff 2003) is coined. But before proceeding further we would like to argue that domain of discourse can be discussed either in the functional level or in the conceptual level (basically dealing with the content part of language), or in both the levels. The functional level provides us with an invariant understanding of the subjective mind, where as the conceptual level explains the inter-subjectivity, as a product of socio-cultural constraints.

Here in this article I would like to develop an argument in favor of the functional aspect of cognition. As a result it becomes inevitable to answer the following questions: How does the function work? (Not what a particular expression means.) How does the function, as an abstract mental ability, explore the entire panorama of the meaning, out of the utterly non-sensical material world? After all, the universe does not possess intrinsic meaning. Meaning is an emerging property of our brain, what an individual, being functionally situated in a societal environment, attributes to the world outside (Bruner 1995).

4.1. Characteristic function:

The basic concept of formal semantics, then, is that each and every lexical unit is associated with a characteristic function which determines the semantic value of that lexical unit. Here the role of a function can be conceived as a denotator. But, what does a characteristic function look like? Consider the following (Dowty et al 1981):

> If A is a domain of discourse (= set of individuals) and $S \subseteq A$, we define a function f_s on the set A by letting
> $$f_s(a) = 1, \text{ iff } a \in S, \text{ where } S = \text{the extension of } f_s$$
> $$= 0, \text{ iff } a \notin S$$
> This function is called the characteristic function of S (w.r.t. A) and $f_s \in \{0,1\}_A$.
> The characteristic function divides the domain A in two parts, that is S and S^c, such that $S \wedge S^c = A$, and $S \vee S^c = \phi$.

What is really missing from the above definition is that A as a set of individuals may also vary from one possible world to another possible world, depending on its membership. As a result, the domain of discourse becomes an active arena to conceptualize pragmatic contingencies. Cultural-evolutionary pressures constrain this domain of discourse. On the other hand, biological-evolutionary pressures design the deterministic end of this story, by constituting the functional aspect (Chomsky 2002), leading towards the partitioning of the domain of discourse.

4.2. Characteristic function to relativity:

The semantic value assigned to the characteristic function is of a binary nature. It implicates that the basic intention is to find out either a tautology or a contradiction. Then the most plausible question will be how to deal with the fugitive domain of discourse which remains contingent synchronically and diachronically, since the domain of discourse is neither tautologous nor contradiction, rather it contains all the limits ranging from a tautology to a contradiction. One way to deal with this problem is to develop the existing system of formal logic in such a manner so that it can capture the finer shades of relativity, as both kinds of truth, namely necessary and contingent, give us the metaphysical understanding about the world around us.

The inclusion of alethic logic (= tense logic + modal logic) in formal semantics is an effort to relativize the existing semantic tool synchronically and diachronically; whereas the hidden agenda of the possible world semantics is to relativize it to capture the multiple interpretations (Dowty et al 1981). Therefore the concept of relativism (= context sensitivity) is central to the entire program of the formal semantics.

5. Functional Mind and the Boundaries of the World:

For the shake of precision, the intension of formalism is to capture the dynamics of the human mind, in terms of tautology and contradiction, since both of them are useful to draw the boundary of our contingent world view. Nevertheless the semantic constituent of the surrounding socio-physical realities is a matter of drawing inferences, depending on corporeal information. Since corporeal information is itself an interpretation of the world, the linguistic translation of this interpretation becomes a second order translation and/or abstraction of the world around us (Karmakar 2006). Hence, it is vulnerable to fault, since the probability of fault varies proportionately with the increasing distance towards super-ordination (Nelson 1985).

Paying a little attention to the concept of characteristic function will reveal the fact that acting upon the domain of discourse, it produces the partitions, in terms of class membership, that result in a system of categories, which is important to characterize the cognitive capacity of the species, since to cognize means to categorize (Harnard 2005). In this process of categorization, it explores the syntagmatic and paradigmatic relations (Nelson 1985), that generally hold among the entities of the domain of discourse. As a result a well structured ontological space has been evolved. It is true that nothing is sacrosanct about all these boundaries, since the domain of discourse varies, with the synchronic and diachronic variations. Irrespective of all these things, there is no way to deny the fact that characteristic function plays a crucial role in partitioning the domain.

In formal semantics, the different shades of inter-domain or intra-domain variations can be judged on the basis of the truth scale, on one extreme of which lies contradiction and on the other tautology. In between these two marginal conditions, there exists the world of contingencies.

Both concepts, contradiction and tautology, are important, only in the sense that they determine the boundary conditions for the world around us.

> Contradiction is that common factor of propositions which no proposition has in common with another. Tautology is the common factor of all propositions that have nothing in common with one another. Contradiction, one might say, vanishes outside all propositions: tautology vanishes inside them. Contradiction is the outer limit of propositions: tautology is the unsubstantial point at their centre.
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> - Wittgenstein, TLP, 5.143

6. Recapitulating function: A metaphysical interlude

So far, so good. Let's go back to our discussion of function. Functions are functions not because they impose order among the entities (obviously, in terms of tautological entailment), but rather they comprise that essential intermission between man and nature which helps us to transcend to the world of subjectivity. Then, the concept of f-mind (Jackendoff 2003) is also a transcendental one. Furthermore, it does not exist in the territory of an individual, either under the Cartesian hegemony of mind-body dualism or as an embodiment because of being a projection of the hidden chemistry of human physiology. Rather, it is socio-physical because social reality embeds physical entities and physical reality embeds social relations (Nelson 1985). As a part of physical reality, f-mind constitutes the necessary conditions for human existence, whereas as a construct of social reality it reflects the contingencies we rely upon.

7. Beginning of the Apocalypse:

If so, then in no sense can the logician's effort be considered a theory of meaning. Rather it is an effort to unveil the disguise of the language – to disclose the underlying structure of human cognition. In our conclusive note, we would like to say that by language we mean the hidden mechanism of designating meaning, by the use of which, one can talk about something; whereas meaning is like those 'misty halos', the treacherous, but intrinsic essence of human existence, in

the sense that it is the f-image / projection of the socio-physical world we live in. But where do we put the 'function', within this entire schema? - The author has some understanding, obviously open to doubt: function is that illuminator, being lit, which cause meaning to come into existence.

Finally, a brief understanding of our discussion, ultimately, reveals the following points. Language is all about imprecision, imperfection and approximation, which are the essence of our existence. Unlike any deterministic school of thought, we don't have any such faith that *word* has meaning, since language is polymorphous in nature. Understanding of meaning needs a manipulation of extra-linguistic information, which may vary either synchronically or diachronically, or both. But irrespective of these issues there is still something which is deterministic in nature, and may be an embodied perspective of the language. We have labeled it as functional mind, which works on the hidden mechanism of functions. Moreover, in the case of forming categories, it plays a crucial role by partitioning the ontological space, facilitating the goal of cognition.

References:

Bakhurst, D. 1995. "Wittgenstein and Social Being", in Bakhurst, D. (ed.) & Sypnowich, C. (ed.), *The Social Self*, SAGE Publications, pp. 30-46.

Bruner, J. 1995. "Meaning and Self in Cultural Perspective", in Bakhurst, D. & Sypnowich, C. (eds.), *The Social Self*, SAGE Publications, pp. 18-29.

Chomsky, N. 2002. "Language and the brain", In Belletti, A. (ed.) and Rizzi, L. (ed.) *On Nature and Language*, Cambridge University Press, pp. 61-91.

Dobbyn, C. and S. Stuart 2003. "The Self as an Embedded Agent", in *Minds and Machines*, Vol. 13, Kluwer Academic Publishers, pp. 187-201.

Dowty, D. R., E. W. Robert, and S. Peters 1981. *Introduction to Montague Semantics*, D. Reidel Publishing Company.

Feibleman, James K. 1979. *Assumptions of Grand Logics*, Martinus Nijhoff.

Haack, Susan. 1978. *Philosophy of Logics*, Cambridge University Press.

Harnard, S. 2005. "Cognition is Categorization", in Lefebvre, C. & Cohen, H., (eds.) *Handbook of Categorization*, Elsevier.

Jackendoff, Ray. 2003. *Foundations of Language*, Oxford University Press.

Karmakar, S. 2006: "Cognitive Semantics: An Extension of Cartesian Legacy". In *SKASE Journal of Theoretical Linguistics*, 2006, Vol. 3, No. 1, pp. 1-11.

Lakoff, G. and M. Johnson 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. Basic Books.

Marion, Jean-Luc. 1992. "Cartesian metaphysics and the role of the simple nature". Translated by Cottingham, J. In Cottingham, J. (ed.) *The Cambridge Companion to Descartes*. Cambridge University Press. Cambridge.

Matilal, B. K. 2001. *The word and the World*, Oxford University Press.

Nelson, K. 1985. *MAKING SENSE, The Acquisition of Shared Meaning*, Academic Press, Inc. Florida.

Putnam, H. 1970. "Is Semantics Possible?" in *Concepts*, edited by Margolis, E. & Laurence, S., MIT Press, Massachussets.

Raymond, W. G. 1984. "Literal Meaning and Psychological Theory", in *Cognitive Science*, Vol. 8, pp. 275-304.

Wilson, Catherine. 2003. *Descartes's Meditation* (an introduction), Cambridge University Press.

Wittgenstein, L. 1961. *Tractatus Logico-Philosophicus,* trans. by Pears, D.F. & McGuinness, B.F., Routledge & Kegan publication. London.

Zacks, J. M. and B. Tversky (2001). "Event Structure in Perception and Conception", in *Psychological Bulletin*, Vol. 127. No. 1. APA Publication., pp. 3-21.

Correspondence:
Samir Karmakar
Department of Humanities and Social Sciences
Indian Institute of Technology Kanpur, Kanpur, India – 208016
E-mail: samirk@iitk.ac.in