

Ten defined characteristics of language which proves Language to be a unique possession of Human Beings but not of Animals

Somnath Mukherjee

Pupil-Teacher

Affiliation: B.A. B.Ed. 4th year

Regional Institute of Education, NCERT

Utkal University, Bhubaneswar, Odisha

India

Abstract

It is said that '*Human beings are social animal*'. The very question that arises in our mind is why? What makes it social? The obvious answer to this would be because human beings live in a society. The word society doesn't only constitute of Human beings. It constitutes of animals, too. Now, what makes us more socialized than animal around us? It is just because of the language by which we communicate with each other and make a society to live in. Then, is language only used for communication? Animals, too communicate. Don't they have a language? One of the basic characteristic features of language is communication, to express feelings, produce messages etc. But that does not make language only for human beings. It is the human brain which plays a very important role in making language a 'unique' possession of human beings. In this paper, I have tried to focus on the various differences between human language and animal communication by elucidating different characteristics of human language. Language cannot be defined. But then also I have tried to quote some of the famous definitions given by world renowned linguists. This paper also describes the role played by Human brain and society both in learning and acquiring language. All in all this article of mine is a mind bobbling presentation of differences between human language and animal communication.

Keywords: *Language; Human language; Animal Communication; Discrete; Arbitrary; Unique;*

Introduction

'Language is a mirror of mind in a deep significant sense. It is a product of human intelligence, created anew in each individuals by operations that lie far beyond the reach of will or consciousness'.

Chomsky (1975).

The brain of man is different from that of animals. The human brain has an innate capacity for learning language creatively. Scientists say that language is connected with brain-functions. Neurologists who have studied the biological foundations of language and the brain mechanisms underlying its acquisition and use, have found that language is a left hemisphere function, which is seated in the cerebral cortex, primarily in the left perisylvian region. The human language is localized in the posterior inferior part of the frontal lobe in the left cerebral hemisphere, now known as Broca's area. Today, neuro-psychologists agree that

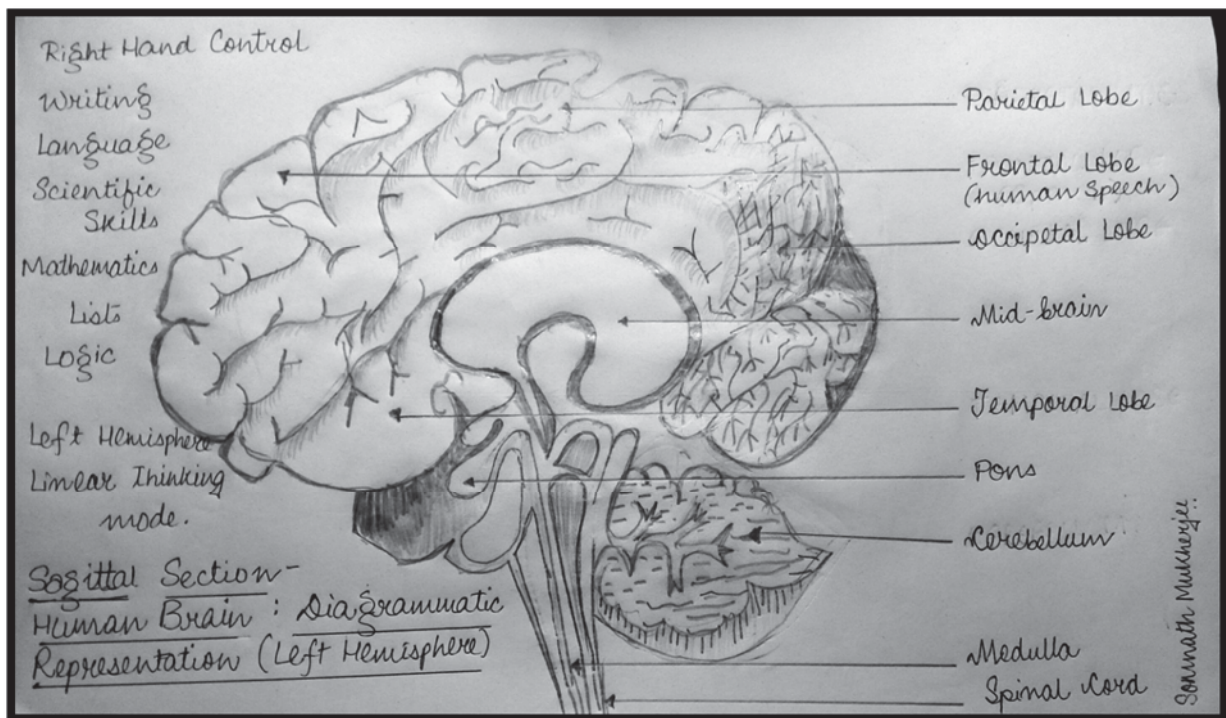


Fig. 1: Sagittal Section- Human Brain: Diagrammatic Representation (left hemisphere).

specific neuroanatomic structures, generally of the left hemisphere, are vital for speech and language production. Any injuries to the left hemisphere result in language disorders called aphasia, but injuries to the right hemisphere do not. If both parts of the brain were equally involved with language, this could not be the case. The left hemisphere of brain is also specialized for problem solving, judgment on order of events, analysis of complex patterns into its parts, and determination of sequencing of events.

'The birds and animals are all friendly to each other, and there are no disputes about anything. They all talk, and they all talk to me, but it must be a foreign language for I cannot make out a word they say'.

Mark Twain, Eve's diary.

Language is obviously as different from other animal's communication system as the elephant's trunk is different from other animal's nostrils. When animals vocally imitate utterances, it does not mean they possess language. Non-human communication systems are based on one of the following three designs: 1. A finite repertory of calls (one for warnings of predators, one for claims of territory and so on). 2. A continuous analog signal that registers of some state (the livelier the dance of the bee, the richer the food source that it is telling its hivemate). Or 3. A Series of random variations on a theme (a birdsong repeated with a new twist each time). Animals can convey various messages to each other, such as feelings, warnings, desire/willingness to mate and location of food sources...etc. Nonetheless, animals lack anything like human language.

- **Honeybee dance:** Dance to communicate: directions distance & food source. A forager bee is able to return to the hive and communicate to other bees where a source of food is located. It does so by performing a dance on wall of the hive that reveals the location and quality of the food source. The bees dance is an effective system of communication for bees. It is capable, in principle, of infinitely many different messages, like human beings; but unlike human language, the system is confined to a single subject- food source.
- **Birdcalls & Birdsongs:** Birdcall (one note) messages about surroundings. Birdsongs (patterns of notes): terrestrial purposes and mating purposes. Some birds like parrot imitate human speech. But cannot learn structures; cannot create novel utterance; and imitate sounds regardless of source. The kinds of messages that can be conveyed are limited, and messages are stimulus controlled.
- **Talking Birds:** Language is a system that relates sounds or gestures to meanings. Talking birds such as parrots and mynahs are capable of faithfully reproducing words and phrases of human languages that they have heard, but their utterances carry no meanings. They are speaking neither English nor their own language when they sound like us.
- **Dogs** learn to understand certain commands.
- **Chimpanzees** did not develop the language ability because they did not need to.

- **Primate communication**, in their native systems: lacks displacement; lacks productivity; they are unable to produce human speech sounds and they use communicative gestures in the wild.
- **Spider & Crabs:** Most animal possesses some kind of 'signaling' communication system. Among certain species of spider there is a complex system for courtship. The male spider, before he approaches his lady love, goes through an elaborate series of gestures to inform her that he is indeed a spider and a suitable mate, and not a crumb or a fly to be eaten. A similar kind of gestural language is found among the fiddler crabs. These are forty species, and each uses its own claw-waving movement to signal to another within the particular variety. Whatever the signal means, it is fixed. Only one meaning can be conveyed.

Animals make noises to communicate with the other members of their group. Human beings also make noises to communicate with other human beings. There are, however, significant characteristics features of human languages are the following:

1. **Duality of patterning:** *'Language is a symbol system based on pure or arbitrary conventions... infinitely extendable and modifiable according to the changing needs and conditions of the speakers'*. Robins (1985). Language is not an amorphous, disorganized or chaotic combination of sounds. Language operates at two levels of systems: Phonological and Syntactical. At the phonological level, Sounds are arranged in certain fixed or established, systematic order to form meaningful units or Words and of smaller formal units called Morphemes. For example, in a sentence: *'The birds are flying in the sky'* is a combination of seven words *The+ birds+ are+ flying+ in+ the+ sky*; which further have words made up of morphemes like *bird+ s/fly+ ing*; again it has words made up of sounds like the word *sky* is made up of three sounds: consonant /s/ + consonant /k/ + diphthong /ai/. Also, the sounds of a language appear only in some fixed combinations. There is no word, for example, that starts with *bz-*, *lr-* or *zl-* combination. Again, while there are *'spring* or *string'*, there are no tetra phonemic consonant clusters in English. There is no word that begins with a /n/ sound and ends with a /h/ sound in English. Similarly, words too combine to form sentences according to certain conventions i.e. grammatical or structural rules of the language. For example, the sentence *'the ripped mangoes are falling from the trees'* is acceptable but the sentence *'trees from mangoes the are ripped falling the'* is not acceptable as the word order in the latter sentence does not conform to the established language conventions which are called the Syntactical rules of the language. The same words can be rearranged in order to construct another sentence: *'From the trees are falling the ripped mangoes'* which is syntactically correct.

Language is thus rightly called as system of systems as it operates at the two levels of 'patterning' which is also called as 'duality of patterning'.

Animal communication consists of meaningful cries which cannot be analysed into words.

- 2. Discrete Symbolic System:** *'Language is a system of conventional spoken or written symbols by means of which human beings, as members of a social group and participants in its culture, communicate'*. Encyclopedia Britannica.

Language makes use of clearly distinguishable discrete, separately identifiable symbols.

One can clearly distinguish between /s/, /i:/ and /t/ in the word 'sit'. A

symbol is a concrete event, object or mark that stands for something relatively abstract.

A speaker or writer wants to communicate with another fellow being, puts his message across in the form of symbols. The receiver of the message, who shares a common code with the sender of the message, decodes this message sent in the form of symbols and interprets these to arrive at a certain meaning. Thus language is a symbol system and every language is discrete.

Animal communication is non-discrete, as one cannot identify different discrete symbols in the long humming sound that a bee produces or caw-caw sound of a crow.

- 3. Grammar:** *'When we study human language, we are approaching what some might call the "human essence," the distinctive qualities of mind that are, so far as we know, unique to mind'*. Noam Chomsky, Language and Mind.

The human brain contains a program that can build an unlimited set of sentences out of a finite list of words called as 'mental grammar'. Children develop these complex grammars rapidly and without formal instruction and grow up to give consistent interpretations to novel sentence constructions that they have never before encountered. Hence, human language has a very different design. The discrete combinational system called 'grammar' makes human language infinite, digital and compositional.

Animals don't have the ability to acquire the complex grammar of a human language. For example, if a talking bird like parrot is taught cat and cats, dog and dogs, and then learn the word parrot, she will be unable to form the plural parrots as children do by the age of three; nor can a parrot form an unlimited set of utterances from a finite set of units, nor understand utterances never heard before.

- 4. Species-Specific & Species-Uniform:** *'Language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols'*. Edward Sapir (1921).

Only human being possesses language and all normal humans uniformly possess it and use it for communication. Language is, in that sense, species-specific- it is specific only to one set of species. Also, all human beings uniformly possess language. It is only a few deaf persons who cannot speak. Thus language is species-uniform to that extent.

Animals also have their own system of communication but communication between them is extremely limited. It is limited to very small number of messages.

- 5. Form of Social Behavior:** *'Language is the institution whereby humans communicate and interact with each other by means of habitually used oral-auditory arbitrary symbols'*. Hall (1969).

Language has to be acquired and learnt, it do not passes from parent to a child. Both acquisition & learning of language is possible in society. A human child learns to speak the language of the community or group in which he or she is placed. For example, a Japanese infant, if placed in an Indian Bengali family, will easily learn to speak bangle. S/he picks up the language of the social set-up in which s/hegrows by listening to the language of the immediate environment in which the child is immersed. Language is thus a form of social behaviour.

Animals don't acquire or learn a language. They genetically get it from their parents. It doesn't matter whether and where they are born, all that matters is how their ancestors communicated. No wonder a cat born in Pakistan will also do meow-meow and the same cat if gives birth to their young ones in the streets of Japan will also meow the same way.

- 6. Creativity:** *'A language is a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements'*. Noam Chomsky (1957).

Human brain is competent enough to construct different sentences from out of the limited set of sound/symbols belonging to a particular language. Human brain is so productive, that using a few basic principles of construction, it can create a large number of constructions; there is no limit to the length of anyone sentence. For example, 'The rasogolla is one among the famous sweets of Bengal, which is one of the famous state of India, which is one of the cultural hub of Asia.....' can be continued to any length by repeating the relative clause pattern. This property of language, which enables sentences to be formed inside other sentences, is called recursiveness or creativity.

In animal communication there is very little creativity or recursiveness.

- 7. Arbitrariness:** *'A language is a system of arbitrary vocal symbols by means of which a social group cooperates'*. Bloch &Trager (1972).

This means that there is no inherent connection between sounds and symbols, or between symbols and their referents; for example, the animal known as 'dog' in English is also known as 'kutta' in Hindi; 'kukur' in Bengali; 'naay' in Tamil; 'kukku' in Telugu; 'sobaka' in Russian; 'perro' in Spanish; 'chien' in French and 'Hund' in German. Thus the relation between a word and its meaning is quite arbitrary; it is a matter of convention. Language is arbitrary in the sense that there is no inherent relation between the words of a language and their meanings or the ideas conveyed by them. There is no reason why a female adult human being be called a 'woman' in English; 'aurat' in Urdu; 'zen' in Persian; 'femine' in Persian or 'tinvi' in Punjabi. Language may, therefore, be called a system of conventional symbols, where each symbol represents a stretch of sounds with which a meaning is associated.

It may be noted that had language not been arbitrary, there would have been only one language in the world.

8. Displacement:

‘No

matter how eloquently a dog may bark, he cannot tell you that his parents were poor but honest’. Bertrand Russel.

Human language possesses the quality of being 'context free' i.e. human beings can talk about experiences without actually living them and of objects and events not physically present at the time and place of speaking because the use of human language is not directly controlled by stimulus. This property is called displacement. Only Human language users are capable of producing messages pertaining to the present, past or future, near or distant places, i.e. in a multidimensional setting ; like for example, one can say: *'I went to Shimla during the summers and will be visiting the backwaters of Kerala in the coming winters. Well, was preparing for the competitive exams for the last two years and now eagerly waiting for the results to be out by July'*.

Animal communication is context-bound. In the case of animals, there is a direct relationship between stimulus and response and they can respond to their immediate environment. No animal has succeeded in producing a combination of words on its own to meet the needs of new situations. Animals are not capable of coming to an agreement that a particular sound is to denote a particular meaning.

- 9. Culture-preserving & Culture-transmission:** Rightly said by Descartes, *'Thanks to language, man became Man'*. Language is culture-preserving and culture-transmitting. Language is the most dynamic form in which culture is preserved and transmitted to future generations. For example, the 'namaste' and 'pranam' in Hindi; or the 'Halleluiah' in English or the various manuscripts, Vedas or epics written in various languages passes

from one generation to another and as a result the language too passes in written or spoken form which promotes the culture.

10. Dynamic: *'A language is a symbol system...based on pure or arbitrary convention...infinitely extendable and modifiable according to the changing needs and conditions of the speakers'*. R. H. Robins.

Language is dynamic; it is not static. It keeps on changing at all the levels- at the level of sounds, words and word-meanings, sentences. Language is changing, growing every day, and new words continue to be added to it in the course of time. Each generation modifies and changes its languages in its process to adapt to changing needs and demands of the people who use it. Language is thus open-ended, modifiable and extendable.

Animal communication systems are closed systems that permit of no change, modification or addition. A bee's dance or a cock's crow is today the same as it was 200 years ago.

To hold that animals communicate by systems qualitatively different from human language systems is not to claim human superiority. The possession of language, perhaps more than any other attribute, distinguishes humans from other animals and it makes humans 'unique'.

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