

Language, displacement, structure dependence, creativity

We have already discovered that linguistics can be defined as ‘the systematic study of language’. It describes language in all its aspects and reveals theories as to how it works.

Well, language is the object of studying. But what is language in fact? Language is a specialized sound signalling system, which seems to be genetically programmed to develop humans. As Noam Chomsky says, the principles of language acquisition are innate. But we are not programmed to acquire a particular language. Just language as such.

Sound signals as a means of communication are very advantageous. They can be used at some distance. Thanks to media we can use sounds at a distance of thousands of kilometres. They can be used in the dark. We communicate with our articulatory organs, which leaves the rest of the body free for other activities.

Hardly ever there is a link between the signal and the message. It happens just with onomatopoeic words such as *Bang, bang, Quack, quack, Creek* ... These examples are exceptions from our point of view. Normally in human language there is no link between the signal and the message. The symbols we use are arbitrary.

Although we are programmed to acquire language it does not mean we will automatically speak. Language is culturally transmitted. A baby brought up in isolation (see Maugli) does not acquire human language and tries to communicate with the signals animals use (body language, other sounds, if s/he was in a contact with animals). Human language is totally conditioned by the environment.

Each language has a number or a stock of sound units. They are called phonemes. The average number in a language is between thirty and forty. Anyhow each phoneme is normally meaningless in isolation. Just in combination with other phonemes it becomes meaningful. Thus the language is organized in two layers:

- 1) a layer of sounds.
- 2) 2) a layer of larger units, combination of sounds.

This phenomenon is called duality (or double articulation).

Not only that human beings are able to communicate at a certain distance with the sound system, but they can also communicate about things that are absent. This phenomenon called displacement does not usually occur among animals. Honeybees can be a rare example of displacement among animals. If a worker bee finds a new source of nectar, it returns to the hive and with a special ‘dance’ it performs the information about where the source is. Human beings can talk about any subject, and it does not matter how far away the object/topic is in time and space. And what more: humans can produce utterances whenever they want to. We can utter a sentence, which has never been produced before. It is because human language is very creative, productive. On the other hand human beings do not juxtapose sounds and words in a random way. There are certain patterns that only can be used. English for example does not allow the combination of s+b at the beginning of a sequence. If we take the sounds *a,b,s,t*, they can be combined into certain shapes e.g. *tabs, bats, stab* or *bast*. Other possibilities as *sbat, abst, stba* ... are excluded. What appeals to sounds appeals also to larger units. In a sentence *Children are at home*. ‘*Children*’ can be replaced by *pupils, students* ... but definitely not by *into* or *amazingly*. Every item in language has its own characteristic position in the total pattern. Language thus forms a complex network of interlinked elements/items in

which every item has its place and is given character/identity by all the other items. No item can be evaluated independently. It cannot exist independently outside that pattern.

We have just discovered that language items are not very independent. There is a phenomenon called structure dependence. Language operations depend on an understanding of the internal structure of a sentence. The number of elements involved is not important. E.g. the sentence 'Children walk to school.' Transformed into past simple accepts *-ed* component only with the word 'walk'. Not with any other word in a sentence. While in 'I like this short walk.' *-ed* will find another word because 'walk' is structure dependent. The elements of structure can change places, or even be omitted. E.g. 'The patient must eat vitamins.' Has a related question 'Must the patient eat vitamins?'

Well, if we compare human language versus animal communication now, we can say that: The human language uses sounds. The symbols are mostly arbitrary. The system has to be transmitted from one generation to another as a part of culture. Duality and displacement are extremely rare in the animal world. Creativity seems not to exist in communication system possessed by animals. Also patterning and structure dependence are unique human features. As a consequence we may come to a more detailed definition of language: language is a patterned system of arbitrary sound signals, characterized by structure dependence, displacement, duality, creativity and cultural transmission. The definition can be applied to any language, as there are no primitive languages in the world. In the conditions, culture, a surroundings where each particular language is used it is well equipped, well organized according to all needs of communication. It came into existence because humans needed to cooperate in order to survive. As for emotions they are not always expressed by language as we also convey emotions by gestures facial expressions, screams, grunts etc. We may detect also some other biologically less important functions of language. Sometimes we use language for purely aesthetic reasons. See literature, poetry. We also use language to release nervous tension when we mutter to ourselves or swear.

Example of a task:

Duality is

- a) The ability to talk about things that are distant in 1) time and 2) space.
- b) The organization of the language system in a layer of sounds and a layer of larger units.
- c) The fact that any utterance has its meaning and its form.