THE UNIVERSITY OF ZAMBIA
DIRECTORATE OF DISTANCE EDUCATION

STUDY MATERIAL
1999

COURSE E/LAL112
BATCH NO. 1

INTRODUCTION TO LANGUAGE
COMPILED BY DR. N. KATSUVA

Serial No. E/LAL112/99/1

E/LAL112: Introduction to Language and Linguistics

Introduction

This course (E/LAL112) is a sister course of E/LAL111: Communication and Study skills. While E/LAL111 is designed to help students cope with studies at the University (by improving their communication and study skills), the present course introduces you to language in general, basic concepts, terms and methods in general linguistics in preparation for a scientific study of language in general and in particular. English and African languages.

Objectives

By the end of the course students are expected to:

- have an adequate understanding of the of nature of language in general and human articulated language in particular;

- gave an adequate understanding of the different levels of linguistics i.e, phonetics and phonology, morphology, syntax and semantics;

- have some background knowledge in general linguistics with reference to linguistic terminology and areas of linguistics such as syntax, semantics, pragmatics and sociolinguistics;

- be aware of some theories underlying language acquisition, language handicap and the identify of individuals through language.

Contents

Topics to be taught will include, among others the following:

1. **What is Language**?

    1. On the biological foundations of language
    2. On the origins and evolution of human language.
    3. Design features of language
    4. Human language and animal language
    5. Language acquisition and language handicap
    6. Language and identity
    7. Language functions
    8. Language and Communication

11. **What is Linguistic**
    1. Linguistics as a science

2. Linguistics and some other disciplines
3. Phonetics
4. Phonology
5. Morphology
6. Some basic concepts in morphology
7. Morphological processes

III. **Some basic concepts in Syntax, Semantics, Pragmatics and Sociolinguistics**.

1. Snytax: the sentence and its constituents
2. Semantics: what is semantics?
3. Some theories of meaning
4. Some semantic relations and properties
5. What is Pragmatics?
6. The speech acts theory
7. The maxims of conversation
8. What is sociolinguistics?
9. Speech Community
10. Language and the nation
11. Code switching, Code-mixing

Method of Teaching

Distance students will receive intensive instruction during residential school. The number of contact hours is as determined by the Directorate of Distance Education and the course Co-ordinator.

Assessment

This course will be assessed as follows

- Continuous Assessment (CA) 50%
  2 assignments 15% each
  1 test 20%

- Examination 50%

N.B. The test will be written during Residential School.

In order to fulfil the conditions of this course students are expected to pass both continuous assessment (course work) and the final examination. A student who fails either of these components will be deemed to have failed.

Students are also reminded that attendance at lectures, tutorials and/ or seminars are compulsory and disciplinary action which, may in some cases, include de-registration

from the course, may be taken against students who habitually are absent from most course activities.

Assignments should be submitted **on** or **before** the due date. Assignments that are submitted late without any serious reason, will not be marked and will consequently accrue a failing grade.

We know that students, just like any other person may at some point, face problems. Some problems may occur just when you are about to submit your assignment. If you realize that you cannot submit your assignment on time, you should immediately inform your lecturer and the Directorate of Distance Education.

We also know that some of you may be living or working in the countryside where libraries are non-existent, and therefore it is impossible to get material for your assignments. To go round this problem, all assignment questions will be given to you during residential school. The reason for doing so it is to enable you to do all the necessary library research while you are on residential school.

BATCH ONE

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E/LAL112: INTRODUCTION TO LANGUAGE

UNIT ONE

WHAT IS LANGUAGE

Like most word, the word, language is polysemous, i.e. it has more than one meaning. The Longman Dictionary of Contemporary English (1995: 789) defines language as follows:

1. "a system of communication by written or spoken words which is used by people of a particular country or area", as in: the Japanese Language; How many languages do you speak?

2. "the ability to use words to communicate", as in: the origins of language;

3. "a system of instructions and commands for operating a computer", as in: a programming language as Basic on Pascal;

4. "the kind of words and style used in one kind of writing by people in a particular job or activity", as in: medical language, poetic language;

5. "a way of expressing meaning or giving information through sounds, signs, movements, etc.", as in: the language of music, the deaf people use sign language;

6. "words that most people think are offensive", as in: You never heard such language' it was disgusting'

An articulated language is a language using vocal sounds, i.e. sounds produced by human organs (lips, teeth, larynx, etc).

From the above definitions it is clear that:

(a) human language (as opposed to, e.g., computer languages or "animal language") need not be articulated since according to definition 5, a human language, may be made of signs or movements; and that

(b) Language may be used by non-humans since to definition 5
animals have languages to the extent that they can express
Meaning or give information through sounds, movements etc.

In defining language, it is important to distinguish between a narrow sense and a broader sense. In the narrow sense, the term language refers only to articulated language (i.e. using vocal sounds0 and its written substitute. In a broader sense, "Language means any system of signs used by humans and/or non-humans for the purpose of interaction.

To define a term belonging to a given language is to talk or write (depending on whether the definition is oral or written) on that language. This kind of activity (to talk or write about language) is referred to as a metalinguistic activity. Metalinguistic activities are so complex, or complicated, that even eminent linguists have defined language in a biased or incomplete manner. Take for example the following definitions of language proposed by eminent linguists and discussed by Lyons (1990: 3 – 8):

1. **SAPIR (1921: 8**)

   "Language is purely human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols".

2. **BLOCH AND TRAGER (1942: 5)**

   "A language is a system of arbitrary vocal symbols by means of which a social group co-operates."

3. **HALL (1968: 158)**

   Language is "the institution whereby humans communicate and interact with each other by means of habitually used oral – auditory arbitrary symbols."

4. **CHOMSKY (1957: 13)**

   A language is "a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements."

   Discussing the above definitions, none of which is entirely satisfactory, Lyons (1990: 3 – 8) makes the following comments:

1. **Lyons' Comment on Sapir's definition**

   (a) Language is not only used for communication (though communication is the principal language function);

   (b) Many systems of 'voluntarily produced symbols' can only be language in an extended or metaphorical sense, for example the so – called 'body language'

   (c) Whether language is purely human and noninstinctive is an open question.

   Supplement to Lyons' Comment

While Lyons' comments (a) and (c) are correct, his comment (b) is not: studies of the so called" body language', i.e. sign language as used by deaf people is a language in its own right with possibilities and a complexity comparable to articulated (i.e. spoken/ written)

human language. In connection with comment (a), we shall see some other functions of language in another lecture). As for comment (c), many, if not most, Linguists will agree that animals, perhaps with the exception of protozoa (very small unicellular living beings) have languages to the extent that they interact with other, within the same species. One of the best known animal language is the bee language.

3. **Lyons' Comment on Bloch and Trager's Definition**

(a) The definition puts all the emphasis on the social function: co-operation. It is therefore only indirectly, by implication of the concept of co-operation, that it makes an appeal to the communicative function of language.

(b) The Bloch and Trager definition also differs from Sapir's in that it Brings in the property of arbitrariness and restricts language to spoken Language (e.g. 'vocal symbols' in the definition).

Supplement to Lyons' Comment
As noted by Lyons, Bloch and Trager's definition restricts language to spoken language. Note that although spoken language is chronological prior to written language and we generally communicate and interact more through spoken I Language than through the written medium, the latter is also important and is indispensable in modern society. Another problem with the Block and Trager definition is that it restricts language i.e. language based on vocal sound, excluding, therefore, such languages as Sign Languages.

Lyon's Comment on Hall's definition.

Both communication and interaction are used in the definition.
It is worth noting that interaction is a broader concept than 'co-operation'.

The term 'oral-auditory' is equivalent to 'vocal'. However, it is more specific in that it explicitly makes reference to the speaker (e.g. 'Oral') and the hearer (e.g. auditory'), i.e. both the addresser and the addressee.

The meaning of the expression 'habitually used' is connected to the Stimulus – response theories of he behaviourists, which (theories) strongly influenced linguistics and the Psychology of language in the first
Half of the century, especially in America. In these theories, the term 'habit' was used to refer to bits of behaviour which were identifiable, the assumption being that the same stimulus calls for the same response. This assumption is untrue. For example, it is not always the case that when we find ourselves in a situation where we see a bird (= stimulus) we produce an utterance continuing the term 'bird' (= response)

Supplement to Lyon's Comment
The Hall definition is also inadequate in that restricts language to human language, assuming, by implication that there is no such a thing as animal languages, an assumption which many, if not most, Linguists and even non-Linguists will not be willing to accept.

Lyons' Comment on Chomsky's Definition

Unlike the other definitions, Chomsky's is intended to cover much else besides natural languages. According to Chomsky's definition, all natural languages, in either their spoken or their written form, are languages. It is the task of the Linguists describing a particular language to distinguish between what is a sentence and what is not a sentence. According to Chomsky, the structural properties of language are so abstract, so complex and so highly specific that they cannot possibly be learned from the scratch by an infact. They must be known somehow to the child, prior to and independently of his experience.

Supplement to Lyon's Comment

(a) Chomsky's model of language learning in which the infact credited with an inmate predisposition to acquire linguistic structure is know as Language acquisition device (LAD) (Crystal 1992; 6.) As pointed out by Crystal (1992; 6), 'This view is usually opposed to those where language acquisition is seen as a process of imitation – learning or as reflex of cognitive development'.

(b) Chomsky (1957; 13) explains that all natural languages in their spoken or written form are languages because they satisfy his definition his definition (namely that a language is "a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements') since "each natural language has a finite number of phonemes (or letters in its alphabet) and each sentence is represented as a finite sequence of these phonemes (or letters), though there are infinitely many sentences".

Note The term 'phoneme' as used here refers to a Distinctive sound, that is, a sound whose replacement By another can result in a change of meaning, as Z and S in Zip and Sip.

(c) Chomsky does not restrict language to human articulated language. On this, he adds that "similarly, the set of 'sentences' of some formalized system of mathematics can be considered a language".

(d) The only problem with Chomsky's definition is that it may exclude those' animal languages' in which there are no sequences of elements, for instance those 'animal languages' in which there are no sequences of elements, for instance those 'animal languages' where one cry corresponds to a sentence in a human language.

One fundamental difference between the Chomsky definition and the other definitions examined here is that, unlike the others, it does not make an appeal to any function of language.

CONCLUSION

Theoretical and descriptive linguists generally fail to adequately define the term language because they tend to define language in one sentence, a tendency which one might attribute to their assuming that the term language is monosemous, i.e. it has only one meaning. The only way the term 'Language' can be defined adequately is to do what lexicographers do: to fully appreciate that the term is Polysemous (= it has more than one meaning) and, since it is difficult to extract what is common to all the meanings of the term, define each meaning separately (see, for example, Longman Dictionary of English)

REFERENCES

Bloch, B, and G L Trager (1942) outline of Linguistic Analysis. Baltimore: Linguistic Society of America/Waverly Press.

Chomsky, N., (1957) Syntactic Structures. The Hague, Paris, New York: Mouton Publishers.

Crystal, D. (1992) A Dictionary of Linguistics and Phonetics. Oxford Basil Blackwell.

Hall, R. A. (1968) An Essay on Language. Philadelphia and New York; Chilton Books.

Lyons, J. (1990) Language and Linguistics: An Introduction. Cambridge: University Press.

Sapir, E. (1921) Language: New York: Harcourt Brace

REVISION QUESTION

1. With four examples, show the term 'Language' is polysemous (= it has more than one meaning)

2. What is an articulated language?

3. Discuss the following statement:

"In defining language, it is important to distinguish between a narrow sense and a broader sense of the term."

4. Explain and write a commentary of the following definitions:

(a) "Language is a purely human and non-instinctive method of communicating ideas, emotion and desires by means of voluntarily produced symbols" (E. SAPIR).

(b) "A language is a system of arbitrary vocal symbols by means

of which a social group co-operates"
(B. BLOCK & G. L. TRAGER).

(c) Language is "the institution whereby humans communicate
And interact with each other by means of habitually used oral
Auditory arbitrary symbols" (**R.A. HALL**).

(d) A language is "a set (finite or infinite) of sentences, each finite in length and
constructed out of a finite se of elements "N. Chomsky).
Why do theoretical and descriptive linguists generally fail to
to adequately define the term 'Language'?

UNIT TWO

ON THE BIOLOGICAL FOUNDATIONS OF LANGUAGE

The Psychologist B. F. Skinner has emphasised the role of nurture, i.e. training acquisition, while the linguist N. Chomsky has emphasised nature in the sense that all normal children are born with the ability to learn any human language just as any animal belonging to a given species is born with the ability to use the language of that species. On his debate between the two scholars, debate known in the linguistic literature as the Chomsky/Skinner debate or the Nature/Nurture controversy, the following conclusions are arrived at:

(a) language is species – specific, i.e. each species has its own kind of language; and

(b) human language is both innate (or inborn) and learned, in the sense that all normal children are born with the ability to learn any human language (for example, and normal child, including a Zambian child, can learn any language (Bemba, Lozi, English, Chinese, Japanese etc) but for one to know a particular language he must learn that language through exposure.

In this unit, we shall consider in more detail species – specificity of language.

1. The relevance of biology to language

1.1 Anatomy and physiology

The kind of language a species can have is determined or limited by its anatomy and physiology. Vocal sounds depend on

(a) the morphology (= shape) of organs, (b) the number of organs and (c) the number, volume and morphology of cavities, which function as resonators for sounds, vary from one species to another. Therefore, we should expect, for example, that only humans can produce some of the kind of sounds found in human articulated languages (= languages using vocal sounds). For instance, no worm could produce /d/, /s/ or / z / since the production of such sounds involves, among others, teeth and worms have no teeth. Similarly, no human being could produce all the sounds produced by a bird, or an animal, because he is not anatomically/physiologically equipped to produce them.

Language is not only species-specific for anatomical reasons, but also due to quantitative and qualitative differences in nervous activity and, therefore, the composition of the brain.

On the relevance of anatomy and physiology, Lenneberg (1972: 344), referring to other authors, wrote:

> "There is increasing evidence that verbal behaviour is related to a great number of morphological and functional specialisation such as oropharyngeal morphology (- -); cerebral dominance (- - -); specialisation of cerebro-corticortical topography: special co-ordination centres (or foci) for motor speech; specialized temporal pattern perception; special respiratory adjustment and tolerance for prolonged speech activities; and a long list of sensory and cognitive specialisations prerequisite for language perceptions.

1.2 **Development schedule**

"It has been observed that language development in the child follows a regular pattern, the onset of speech appearing at a certain time in the child's physical development and following a fixed sequence of events, as if all children followed the same general 'strategy' from the time they begin to the period at which they have mastered the art of speaking" (Lenneberg (1972: 344). This regular, or uniform, language development can only be explained in terms of (a) the quasisameness of the physiology of human beings and (b) the quasisameness of physical development of human beings.

1.3 **Difficulty in suppressing Language**

All human beings, who are normal, live in community. In fact, under normal circumstances for a child to survive he must be taken care of by an adult and the community, and, indeed, members of that community to survive, communication is vital. On this, Lenneberg (1972: 245) says:

> The ability to learn language is so deeply rooted in man that children learn it even in the face of dramatic handicaps. Congenital blindness has no obvious effect on requisition even though there is only a small fraction of words whose references can be defined tactually. Congenital deafness has a devastating effect on the vocal facilitation for speech, yet presentation of written material enables the child to acquire language through a graphic medium without undue difficulties. Children suffering from gross and criminal parental neglect, or who have parents who have no spoken language whatever, as in the case of adult congenitally deaf parents, may nevertheless learn to speak with only a minimal delay, if any, according to research now in progress".

The difficulty in suppressing human articulated language, as illustrated above, can also only be explained by the fact that human beings are physiologically (i.e. they are born with the ability) to learn it. This fact, coupled with the fact that no animal can learn wholly a human articulated language, shows that language is species – specific. However, humans are not only endowed with the ability to learn human articulated

languages but in the absence of articulated language they always develop another kind of language also more sophisticated than any 'animal language'. The best example is sign language: deaf people living together naturally develop a sign language using manual gestures, bodily movements and facial expressions. Example of sign languages include American Sign Language (ASL or Ameslan), British Sign Language (BSL) and Chinese Sign Language (CSL), to name but a few. Many sign languages are fully – fledged languages which can be used to 'talk' about anything (science, philosophy, etc). Not only do sign languages have a vocabulary and a grammar, just like spoken languages but just like spoken languages they are creative, discrete and dynamic (they change in space, time and context), etc.

2. Animals and Languages

2.1 Do animals have language?

On the question whether animals have languages, the linguists Victoria Fromkin and Robert Rodman (1974: 39) have aptly pointed out that

> "Whether language is the exclusive property of the human species ( ) depends on what properties of human language are considered."

Animals, except, perhaps, protozoa (i.e. small single-celled living things), do communicate; therefore, if "language is viewed only as a system of communication" (Fromkin and Rodman, (Ib.) then animals have languages. However, even if language is viewed only as a system of communication, human language is still superior to any animal language to such as extent that we can safely say that human language differs from animal languages qualitatively (i.e. in kind), rather than quantitatively (i.e. in degree).

On the superiority of human language over animal languages, the great philosopher Bertrand Russell quoted by Fromkin writes.

> "No matter how eloquently a dog may bark, it cannot tell you that his parents were poor but honest."

2.2 Can animals learn human languages?

Some animals, for example the so-called talking birds (e.g. parrots) can imitate human utterances (words, phrases, and sentences) but their knowledge of the language to which these utterances belong is limited to only these utterances they heard while a normal being who 'knows' a language can produce/understand a theoretically infinite number of utterances in that language including utterances he has never produced/heard before, because, in the use of language, and other types of behaviour as well, human are creative (see 'design features'), unlike animals. Since some animals can produce many of the sounds used in human languages, human languages cannot be said to differ from animal

languages by the fact that all human languages (except sign languages) use sounds. The differences must be characterised by other design features.

The difference between human language, on the one hand, and animal languages, on the other, is due to biological differences especially the difference in the powers of the brain: the human brain is more developed than the brains of the animals due to, among others, the size of the human brain (the human brain has more neurones (i.e. nervecells) than that of any animal.

Esau (1974: 5) has characterised the differences between human language and animal language as follows:

	HUMAN LANGUAGE	**ANIMAL LANGUAGE**
DISPLACEMENT	+	NO DISPLACEMENT
OPEN-ENDED SYSTEM		CLOSED SYSTEM
ARBITARY SOUND MEANING RELATIONSHIP, PAIRING THROUGH CULTURAL AGREEMENT	+	ARBITARY SOUND MEANING RELATIONSHIP, PAIRING FIXED
DUAL STRUCTURE	+	SINGLE LEVEL STRUCTURE
INNATE BUT LEARNED	+	GENERALLY, PREPROGAMMED FULLY DETERMINED
CREATIVE	+	NO CREATIVITY
DISCRETENESS	+	NO DISCRETENESS

Definitions

(a) Dual structure (or double articulation): human language utterances can be split up into meaningful units such as words (= first articulation)and into meaningless units such as syllables and individual sounds (= second articulation)

(b) Opened, closed, open-ended system

(i) Open system
An open set made of either an unlimited number of elements or a theoretically unlimited number of elements (e.g. nouns in human languages).

(ii) Closed system
A closed system is composed of a limited number of elements (e.g. articles, Prepositions).

(iii) Open-ended system

An open-ended system is a system composed of one or more open sub-systems and one or more closed subsystems. Many experiments to teach human and other languages to animals have failed. The experiments include, among others, the following;

(a) Jarvis Bastian's experiment with dolphins
The objective was to teach dolphins to communicate messages to each other, using lights (Fromkin and Rodman 1974: 45 – 46).

(b) W. M. and L. A. Kellogg's experiment with a Chimpanzee named Gua
At 16 months Gua could understand about 100 words (more than the authors son could at that age) but she never went beyond that (Fromkin and Rodman 1974: 46 – 47).

(c) K and C. Hayes' experiment with a Chimpanzee named Viki
She too could understand a number of individual words. Besides she learnt to articulate, though with great difficulty, the words mama, papa, cup but she did not go beyond that (op cit. p. 47).

(d) David Premack's experiment with a Chimpanzee named Sarah
Sarah was taught a nonacoustic language using coloured plastic symbols. Sarah was taught to associate particular symbols with particular meanings including some abstract concepts such as "same as" and "different from". She even managed to learn a number of syntactic rules. The experiment was more successful than those in (a) – (c) above were but, at any rate, Sarah's language and her performance as a "speaker" were much less complex than man's language and his performance as a language user. For example, Sarah could form new "sentences" only in the exact form of those she had been carefully taught. Besides she learned her language in such a way that each rule was introduced in a deliberate and highly constrained way (op. cit. pp. 47 – 49).

What must be concluded from the above and the other attempts to teach human and other languages to animals is that (a) no animal can fully learn a human language and that (b) any language learnt by an animal is less complex and less efficient than human language.

2.3 Kinds of animal languages

Animal languages are of two major types, namely (a) acoustic languages, that is, language which, like human languages, use sounds, and (b) gestural languages. All animal languages lack discreteness.

However, some animal languages are made of both sounds and gestures. Chimpanzee's language is one such language. The language of the dolphin, the "monkey of the sea" which is made of squawky sounds and whistles, is an example of acoustic language. Note the dolphin also produces clicking sounds but these are used to communicate but they are radar detection sounds: the dolphin produces such sounds to locate objects (Fromkin and Rodman, 1974: 45)

Animals using gestural languages include, among other, spiders, fiddler crabs honey bees. On spiders Fromkin and Rodman (op. cit.) report: "Among the spiders there is a complex system of courtship. The male spider, before he approaches his lady love, goes through elaborate gestures to inform her that he is indeed a spider and not a crumb or a fly to be eaten." According to the same authors (1b), there exist forty different varieties of fiddler crabs "and each species uses its own particular' claw – waving' movement to signal to another member of its 'clan'. The timing movement and posture of the body never change one time to another or from one crab to another within the particular species." Therefore, we conclude that fiddler crabs' like other animal languages are fixed, invariant.

Honeybees language

The honeybees language is one of the most remarkable animal languages. As pointed out by Atkinson et al. (1988: 6), "honeybees live in highly structured societies, and efficiency of communication is essential for the survival of the colony." When a forager (i. e. foraging bee) returns to the hive, it releases an attraction pheromone (i. e behaviour – triggering chemical) from the scents she has taken from the food source and performs a dance to communicate some information on the food source. There are three types of dance, namely (a) the round dance, (b) the sickle dance and (c) the tail wagging dance:

Round Dance **Sickle Dance**

In the round dance, the dancing forager describes a circles, going now in one direction, now in the other. The odour and state of the food source are directly transmitted by the dancer to those bees, which are in close contact, by their outstretched feelers (Atkinson et al 1988: 6).

In the sickle dance, the dancer describes a figure resembling eight "where a straight run is followed by a semi-circle in one direction and back to the origin of the straight run, another straight run, another straight line and a semi-circle in the opposite direct" (Atkinson et al. 1988: 6 – 7).

In the tail-wagging dance, the dancer makes a straight zigzag, and at one point the bee describes semi-circle up to the origin of the zigzag, makes another straight zigzag, then a semi-circle in the direction opposite to the direction of the first semi-circle, and so on (Fromkin and Rodman 1978: 42).

According to Fromkin and Rodman (1974: 42), the semantic information imparted by each dance is as follows:

(a) **The round dance**

- Approximate distance between the hive and the food source up to about 20 feet.
- Quality of the food.

The piece of information indicated respectively by the number or repetitions of the basic pattern and the vivacity of the dancing. This holds for the other two types of dance.

(b) **The sickle dance**

- Approximate distance between the hive and the food source situated approximately between 20 and 60 feet.
- Quality of the food.
- Direction.

(d) The tail-wagging dance

The tail-wagging dance provides all the three types of information imparted by the sickle dance with, however, the following important addition: the number of repetitions per minute of the basic pattern of the dance indicates the precise distance between the hive and the food source. The slower the repetitions rate, the longer the distance.

While the honeybees' language is complex, sophisticated, and capable of imparting a variety of information, human language is superior. For example, unlike human language, the honeybees' language is confined to a single subject; it is frozen (Fromkin and Rodman 'op. cit. pp. 43 – 44, Atkinson et al, op. cit. pp 8 – 9).

CONCLUSION

Language is species-specific; i.e. each species has its own kind of language due to biological and physiological differences. If follows that we should note expect to find, the same design features in language used by different species and hold the view that something hat does not have all the design features of human articulated language is not a language.

REFERENCE

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Esau, H (1974) Language and Communication.

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Lenneberg, E. H (1972) 'A Biological Perspective of Language.' In malmberg, B., ed. 91972) Reading in Modern Linguistics, PP. 344 – 358. Laromedelsfoslagen/Mouton (Stockholm).

REVISION QUESTIONS

1. With examples, explain the relevancy of anatomy to language.

2. What is proved by the sameness of language development schedule?
3. How do you explain the difficulty in suppressing language?
4. Sign language as used by deaf are visual systems while 'spoken' languages are auditory systems. Explain.
5. Do animals have languages! Explain
6. Can animals learn a human articulated language? Explain
   Discuss any two fundamental differences between human language in general and animal languages in particular. Refer to Esau's (1974) Language and communication.
7. What do you know about the language of

   (a) the dolphin and
   (b) Honeybees?

UNIT 3

ON THE ORIGINS AND EVOLUTION OF HUMAN LANGUAGE

This Unit is about the origin of human language in general not the origin of particular languages. The question of when, how and where man first developed language has always fascinated scholars and man in general but all attempts to answer the question have failed and have only yielded speculations. This is so because, as suggested by Hartmann and Stork (1972: 159), "human speech is probably as old as man. Written records only go back for about 4000 years".

1. **Monogenesis or Polygenesis**?

An issue related to the question of where human language originated is whether all human articulated languages (Bemba, English, French, German, Japanese, Kaonde, Lozi etc) originated from the same ancestor language. "The monogenetic theory of language origin holds that all human articulated languages developed from a single ancestor language while according to the polygenetic theory of language origin at least some articulated languages developed from different sources, therefore places. Note that mono-and Poly – come from Greek: they mean 'once / single 'and' 'several' respectively, and genesis also from Greek, means 'birth/origin/creaton'.

The Monogenesis/Polygenesis Controversy cannot be settled for lack of facts or records. Both theories may reflect what actually happened.

2. Some theories – about language origin (Hartmann and Stork 1972: 159 – 60.

2.1 **Divine Gift theory**

This is the general term used to refer to all theories that suggest that human language was created by God or some divinity. Here are some examples (Fromkin and Rodman 1988: 413).

(a) According to the Book of Genesis of the Bible (Chapter 2 verses 18 – 20) God gave Language to Adam so that he can use it to name the other creatures. As observed by Glatthorn et al. (1971: 116), "This original language was then supposedly passed down unchanged from generation to generation until the time of the Tower of Babel "This story in the Genesis, Chapter 11, verses 1- 9, tells how God punished man by creating many different languages"

(b) In ancient Egypt people believed that the god Thoth was the creator of language.

(c) According to the Babylonians, the god Nabu was the creator of language.

(d) The Hindus believe that the god Brahma created
Language, together with the whole universe and his wife,
the godless Sarasvati gave language to mankind.

(Fromkin and Rodman 1988: 413)

2.2 **Ding-Dong theory or Mativistic theory**

The essence of this theory, put forward, put forward by M. Muller (1823 – 1900) is that there is an intrinsic, or natural, link between words and what they mean or refer to, and Language developed from primitive man naming objects. Note that ding dong is an English onomatopoeia ("word imitating a natural sound) imitating the sound of a bell. The theory is called the Ding Dong theory because it holds that human language developed from words that had a natural link with their meanings or the things they refer to, just as there is a natural link between an onomatopoeia (for example ding dong) and the sound it represents.

2.3 **Sing – song theory**

According to this theory, postulated by the linguist Otto Jespersen (1860 – 1943), human language developed from inarticulate chants of primitive man. On Jespersen's theory of language origin Fromkin and Rodman (1988: 417) had this to say:

"One of the more charming views on language origin
was suggested by Otto Jespersen, who proposed that language
derived from song as an expression rather than a communicative need,
with love being the greatest stimulus for language development".

On the same, Glatthorn et al (1971: 117) wrote:

"Otto Jespersen, one of the pioneer linguists of
this century, attempted to explain the origin of
Language by relating speech to emotional songs.
He believed that the emotion of love probably brought
with man's first utterance in song form. From this
beginning other emotions brought forth similar chants
reflectings strong feelings. And from these songs finally
came speech. Other authors have offered the nickname the
'woo-woo' theory for this explanation".

2.4 **Bow Wow theory**

Bow-wow is the English onomatopoeia imitating the barking of dogs.
This suggests that the Bow – wow theory as a sound-imitating theory holds that language developed from primitive man imitating natural sounds, such as cries or thunder. "Hearing trees crash or dogs bark urged him to imitate these sounds as best as he could: 'boom' and 'bow-wow,' for example"

2.5 **Pooh – Pooh theory**

The proponents of this theory (e.g. L. H. Gray (1875 – 1955), also referred to as the Exclamation Theory or the Interjectional Theory, believed that language

derived from interjections expressing emotions. The nickname "pool-pooh was proposed by Max Muller but the theory was proposed by others.

2.6 Yo-He-Ho theory

This theory traces language back to cries uttered to co-ordinate collective work. The motivation of this theory is that "when we do heavy muscular work, we often breathen heavily", "At the same time we may also make noises with our voices" and "If we work with other people, the rhythmic noises may produce a kind of group work song" (Glatthorn et al 1971: 117). The main objection to this theory is that group work presupposes prior communication.

2.7 Ta-Ta theory

According to this theory, proposed by A. Johannesson and R. Paget, human language developed from man's use of gesture. "Primitive man supposedly first communicated by gesturing with his arms and hands. Then, as he began using tools, his hands became occupied. As a result he began gesturing with his mouth, lips, tongue, and teeth, visible parts of the body that form the speech sounds of language. Perhaps, then, man first spoke because he had his hands full" (Glatthorn et at. 1971: 117)

General Comment on all theories of language origin

All these theories, and all the other theories on language origin, must be regarded as mere **speculations** because they are not based on any documentary evidence.

3. Linguistics and the question of language origin

Linguistics, the scientific study of human language in general and of particular human languages, comprises several branches.

Comparative Linguistics, whose method, called the comparative method, was developed by European scholars in the 19th century, is one such branch of linguistics. The comparative method aims at establishing relationships between two or more genetically related languages by comparing cognate words (i.e words related in form and meaning to similar words in another language) (Hartmann and Stork, 1972; 40) with a view to reconstructing proto-forms (i.e, hypothetical forms supposedly to the ancestor language, called the proto-language which is also phypothetical). The method was successfully applied to the so called Indo-European languages (i.e. most languages of Europe and the Near East (India, Pakistan and Iran) in the 19th Century in that European comparative showed the many relationships between the language and reconstructed Proto-Indo-European forms. The method was so successful that many a scholar thought it could be used to answer questions on the origin and evolution of human language. However, as pointed out by Hoijer (1978: 57), 'later researches demonstrated (ii) that the methods of historical reconstruction, even when applied to ancient languages preserved in writing, yielded a history of only ten thousand years or less, a period much too brief to provide data on origins.

4. Archaeology and the question of language

4.0 General

The aim of archaeology, is to discover remains of ancient times, such as remains of Buildings pots and tools. Concerning the origin and evolution of human language, one must distinguish between direct archaeological evidence and indirect archaeological evidence (see Hoijer, 1978). Only the latter is of interest on the question of languages origins and evolution

4.1 Direct archaeological evidences

What constitutes direct archaeological evidence on Language is writings. This means therefore that such evidence does not go further than 5,000 years since the oldest writings systems were invented; this means in turn that direct archaeological evidence does not solve the problem of either the origin or the evolution of human language since this is much older as shown by indirect archaeological evidence (5. 2 below)

All direct archaeological evidence does prove the existence of human language since at least 5, 000 years.

4.2 Indirect Archaeological Evidence

What constitutes indirect archaeological evidence is the archaeological discovery of cultures which are cumulative and are traditionally transmitted from one generation to another through the medium of language (Hoijer 1959). From the fact that such cultures have been archaeologically shown to have been in existence since at least one million years, we can infer that language has been in existence since at least one million years, since there is no culture without language to transmit it. However, as rightly pointed out by Hoijer (1969), 'archaeological evidence, although it can set an approximate date for the beginning of language, offers no evidence from which we can reconstruct its evolutionary development. Nor does it offer an evidence regarding where language begins"

5. KEESING (1965) AND HOIJER (1956, 1969) ON LANGUAGE

EXTRACT A

KEESING (1965: 364 – 7)

THE ABILITY to communicate by way of precise symbols was spoken of as a main condition for cultural growth (Chapter III). The important theorist Sapir emphasized that

all cultural behaviour, by virtue of its forms and meaning, may be looked at as a symbol system. The running of spectators to watch a fire, a smoke signal seen in the distance, the rhythm of a drum, the scent of perfume may convey "message" by way of sensory perceptions. Par excellence, however, it is language, that is, the vocal symbolism of speech with its related bodily gestures and mechanical signals, such as writing, which gives precision and finesse to communication.

Reference was made in the first chapter to the development within anthropology of a special sub-science called "linguistics" or "anthropological linguistics." The field worker, to penetrate the settings where he does research, has been forced to learn more of less efficiently the language of the people concerned. From this handling of local language materials came an interest in comparative language studies, and in the place of language in culture. Linguistic specialists in the "humanities" have concentrated upon a relatively few major languages, nearly all with written literary traditions (e.g., Indo-European languages, the major east Asian languages). It has been left almost exclusively to the anthropologist to investigate the very great number of other language traditions over the earth. The development of a general "science" of linguistics has become a joint enterprise of both these groups, as is seen in the "linguistics department" of some Universities.

Linguistics has become a highly technical field. Only a small number of anthropologists consider themselves to be linguistics specialists. They must be skilled in handling what are often exceedingly complicated symbol systems, oral and written, with sounds, grammars, meaning, and externalized writing or other supplements quite different from those familiar Western languages. The trained linguist now may make extensive use of statistics and of mechanical devices such as recorders, movies, X rays of vocal movements, special typewriting and other signs needed for recording beyond the everyday alphabet. Linguistics is a very rapidly moving front of knowledge, as scrutiny of such professional serials as language and the International Journal of American Linguistics would show. Any student who wants to pit his wits against the specialists at work could do so by way of a conference report edited by Hoijer titled language in Culture (1954). Our discussion here will minimize the more technical phases of the study and concentrate on the cultural significance of symbolic communication.

The Nature/ and Significance of Human Communication.

How do speech and other signal – and-meaning systems enable humans to communicate? What is known of the origin and development of language?

Language is a form of learned behaviour and so is recognized by anthropologists as an aspect of culture. There is no substance to the story of the white couple who adopted a Chinese baby and then began to learn Chinese so that they could understand it when it started to talk. But, like other facets of culture, language has its own special characteristics-in this case based upon the physiological fact that it is primarily a training of the speech in the production of sound signals. Persons who have learned the same set of signals, and the cultural meanings which attach to them, "speak the same language."

Realization of this basic principle will guard the student against of ten strange and mystical ideas as the nature of 'human communication.

Exercise
Get some person or persons who speak another language than your own to say some phrases in that language. You hear (and see) the signals involved, but the meaning is not communicated. Now give a phrase from your own language to be translated, so that you supply the meaning. You then hear (or see) unfamiliar signals which you will only recognize as you make the effort to learn them.

Bloomfield, in an important general text (1933), says that "the whole working of human society is due to language." Sapir (1931) speaks of society as comprising, in one sense," a highly intricate network of partial or complete understandings between the members of organizational units of every degree of size and complexity, ranging from a pair of lovers or a family, to a league of nations." He sees group life as "reanimated or creatively reaffirmed from day to day by particular acts of communicative nature which obtain among individuals participating in it.

Animal signals, taken note of earlier, have broadly similar trigger action from one organism to another. But such communication has none of the exactness, specific "definition of situation," which marks the transfer of information between humans. Speech, especially, tickets experience in terms of precise labels variously for classes of phenomena (e.g. "man," "dog," "movement") and for exact objects, people, actions (e.g. "my father, "that terrier there, "they ran!).

Often the meaning of speech is refined, or even corrected, by supplementary communication signals made with the body, broadly called gesture. When we are inside the universe of discourse, as some have called a particular signal - meaning system, we can understand the culturally defined movements of head, hands, and other body zones, including zones, including facial expressions (language, scowling, raising the eyebrows and so on), and activities such as bowing, Passing noses, or kissing. Such expression forms vary from group to group, and can attain great precision, as with the "sign language" of the American Indians, the hand language of the deaf and dumb, and the technical signals of the stock exchange floor. Great contrasts exist among different peoples in the nature of gestures and the extent to which they have a conventional place in communication; one has only to walk on the streets of London and Paris to see this. We also have had the experience of feeling strange in the presence of people whose particular facial expressions we do not understand; this is one of the important high-visibility factors in so-called race prejudice. Signals with drum and smoke and the development of writing illustrate further extensions of symbolism which have become increasingly diversified in man's more recent history.

Inevitably a great deal of speculation has accrued as to the origins of language. It must be met with the now familiar critical attitude to the extent hypotheses are dogmatically stated – the more so because no externalized evidence appears until the identification of writing in the archaeological record. The main theories are often summarized under

somewhat popularized labels. One has been called the "bow-wow" theory, namely, that language began with the imitation of characteristic sounds of nature ("splash," "roor, "patter" are examples of such onomatopoeic expression); another is the "pooh-pooh" theory, seeing it as arising out of "interjections," instinctive," instinctive utterances called forth by pain or other intensive emotional states ("oh," "Ouch," and so on); still another is the !Yo-he-ho" theory, considering the earliest language sound as "natural phonetic accompaniments" of repeated muscular acts performed in common, these coming to stand as verbs signifying the acts themselves: "heave, "haul," and the like. Even more wildly speculative is the "ding-dong" theory of a mystic harmony between sound and sense which caused speech to be evoked instinctively as the ring emerges from a bell. Jesperson, a humanities specialist in linguistics (1923), going by way of an analysis of the laws of linguistic development, sees at or near the beginning a few "half-mystical unanalysed expressions for individual beings and solitary events." Another, Vendryes (1925), sees emotional cries or simple chants taking on symbolic value as being associated with particular activities. Ingenious as such theories may be, they must be counted at best as suggestive hypotheses.

Some earlier scholars believed that the beginnings of language might be ascertained by studying the speech of "savages." Nowhere, however, do anthropologists find a symbolic communication system, spoken or otherwise, which is "rudimentary" or simple"; indeed, they often discover instead that the language of isolated peoples has become specialized along highly complicated lines of sound and grammar. Another approach, tried out particularly by early phyologists in the humanities, was to isolate by critical analysis the oldest ancestral roots of contemporary languages; but this rapidly becomes speculative: as Vendryes puts it, "Despite all our efforts, between the primitive 'bark' and our oldest there a gulf which can never be bridged."

Still another approach to origins has been the study of how children learn to talk. Jesperson, for example, speaks of three periods in a child's linguistic development: "the screaming time, the crowing or babbling time, and the talking time" – the last covering successively the acquisition of the more individualistic "little language" (the child's own form of baby talk), and then of the common language through which his wider social relations can be exercised. Granting the importance of studying language training in different socio-cultural settings, not least of all for important clues to personality development and national character, it s clearly an inadequate source for understanding language origins in general. As Krowber (1948) has noted, this approach shows us merely how a child becomes trained to the particular language of his group.

EXTRACT B

Hoijer (1965: 364 – 7)

LANGUAGE IS SO MUCH A PART of our daily activities that some of us may come to look upon it as a more or less automatic and natural act like breathing or winking. Of course, if we give the matter any thought at all, we must realize that there is nothing automatic about language. Children must be taught their native tongue and the necessary

training takes a long time. Language is now something that is inherited; it is an art that can be passed on from one generation to the next only be intensive education.

It is difficult to realize the enormously important role that language plays in our social behaviour. What would a society without language be like? It would of course have no writing or other means of communication by words, for all these are ultimately dependent on spoken speech. Our means of learning would therefore be greatly restricted. We should be obliged, like the animals, to learn by doing or by observing the actions of others. All of history would disappear, for without language there would be no way of re-creating past experiences and communicating them to others. We should have no means of expressing out thoughts and ideas to others or of sharing in the mental processes of our fellowmen. Indeed, it is very likely that we should not think at all. Many psychologists maintain that thought itself requires the use of language, that the process of thinking is really talking things over with ourselves.

A society lacking language would be incapable of engaging in any but the simplest of co-operative enterprises. An individual or group of individuals would have no way of planning such activities, of explaining them to others, or of directing the actions of the participants in co-operative enterprises toward the common goal. Each individual would be to a large extent dependent on his own strength and ability since he would lack the means of securing the help of others.

Most important, a society lacking language would have no means of assuring the continuity of behaviour and learning necessary to the creation of culture. Human society, without culture, would be reduced to the level of present day societies. Apes have a bodily structure very like our own. Like humans, they learn readily from experience and by observing and imitating the actions of others. A number of experimenters have shown apes not only learn to use tools but also invent them. Despite, however, the fact that individual apes learn easily and, as individuals, show remarkable progress in the acquisition of knowledge, apes as a species have never developed a culture.

There are two reasons for this. Lacking language, the apes have no way continuing in word and though their separate experiences in the use of tolls and techniques. When an ape has disposed of a problem the knowledge he has derived from that experience remains static. He may remember it when and if another problem of the same sort arises, but he does not in between times mull over his knowledge and devise means of applying it to further problems. Man does. His overt experiences with practical problems are, like those of the ape, separate and distinct. But because man possesses language, he can continue his problem-solving activities beyond the actual physical experience and so develop, in thought and discussion, new applications of his knowledge and improved means of solving problems. In short, by reason of language, man's experiences are continuous, not discontinuous as among apes, and so show far more rapid development.

Secondly, man's possession of language enables him to share the experiences and thoughts of his fellows and to recreate his personal experiences for their benefit. An ape's knowledge, acquired through experience and observation, is his along except in so

far as he can demonstrate it in physical it in physical activity so that it may be acquired by another ape. No matter how skillful an ape may became in the use of tools and techniques, his off-spring will be obliged to begin their learning as he began his, by experience and observation. The learned ape cannot communicate his knowledge and so enable his successors to build upon it. Culture among men reveals progress. Each generation takes over, buy word of mouth and tradition, the accumulated knowledge of their predecessors, add their own contributions as drawn from their experiences and observations, and pass the whole on to succeeding generations. This cumulative aspect, which differentiates human cultures from the kind of knowledge current in animal societies, is made possible by language.

Studies of the skeletal and cultural remains of ancient man have shown that the first human beings came into about one million years ago. Man's early cultures were very simple and crude and we know only a portion of their material remains, the tools and implements made of materials tough to withstand the passage of time. It is highly significant, however, that these early traces of man's cultures reveal a cultural continuity through time. As we study the several chronological phases of culture in any given area of the world, there is revealed a slow but steady advance both in the number of tools made and in the complexity of their manufacture. The men of successive generations did not begin anew each generation to fashion their cultures but built upon the techniques which had been discovered in the past and transmitted to them by their ancestors.

The fact that the history of man's cultures shows a continuous and cumulative development extending from their earliest beginnings to the present means of course that man has possessed language as long as he has possessed culture. Language must be as old as the oldest of man's cultural artefacts; it began when began and has developed continuously ever since.

This inference as to the age of language is amply born out by other observations which may be made on modern languages. First, it is clear that all human societies have possessed a language for as long as we have known them; there is no group of men anywhere, today or in the past, who lack this important aspect of culture. Secondly, we may also observe that modern languages are very numerous and exceedingly diverse. The precise number of distinct languages spoken today cannot even be estimated, but we know that there are several thousands. Some of these are historically related to one another; that is, they are clearly derived from a singly earlier tongue. Languages so derived are said to belong to be same linguistic family or stock, and there are hundreds of such stocks in the world today. Most of these stocks show no resemblance what so ever to each other, because, as we may almost certainly assume, all traces of common origin have long since disappeared.

The universality of language and the amazing diversity of modern idioms can only mean that language is very old. Studies of languages known for centuries through the medium of written record reveal that languages change with relative slowness. Thus, though English and German have certainly been separate languages for well over 2000 years, they still retain many obvious similarities in both vocabulary and grammar which point

clearly to their common origin. The enormous diversity of modern languages, then must have taken a very long time to achieve.

A third and final evidence as to the antiquity of language is found in the fact that known languages, ancient or modern, cannot be classed in terms of their level of development. There are neither primitive languages nor highly developed ones, if we take into account only their structural features.

Thus, all the languages we know possess a well-defined system of distinctive speech sounds. These are finite in number, are carefully distinguished from one another, and are together to form words, phrases, sentences in accordance with definite rules. In this respect, there is nor real difference between the languages of people who possess very and crude cultures and those of the highly civilized peoples of Europe and America.

Similarly, all human groups, regardless of the crudity of their culture, have a vocabulary sufficiently detailed and comprehensive to meet every need likely to arise. Languages vary, of course, in the size of their vocabularies, but this variation is cultural, not linguistic. The language of a people having a relatively simple or undeveloped culture may have a smaller vocabulary than one belonging to a group with a relatively complex and highly developed culture. It is notable, however, that the vocabulary of any group, however simple its culture, appears to be indefinitely expansible. As new cultural items are invented or borrowed, the vocabulary increases or changes to meet the new requirements imposed upon it. Finally, all languages possess a definite and clear-cut system of grammar. Grammar may briefly be defined as the meaningful arrangement of sounds or combination of sounds to words, phrases, and sentences. Well defined rules governing such arrangements are found in all languages, whether they are spoken by the pre-literate Pygmies of Congo forest or the culturally advanced groups of modern Europe.

The basic similarities mean, of course, that language has so long been a human possession as to have developed to about the same level among people the world over. There remain today no traces of an earlier and cruder stage of linguistic development.

THE ORIGIN OF LANGUAGE

Spoken languages obviously leave no trace in the ancient deposits which mark the history of man's cultures. Written records of human languages began only a few thousand years ago; before that time no human group possessed the technique of writing. It is evident, then, that we have no direct evidence as to the origin of language or of the long period of history that elapsed between its beginnings and the first written records. The problem of the origin of language will never therefore be solved in the sense that we shall know directly the circumstances under which language arose or be able to trace in terms of specific historical events the course of its development.

Many theories have been advanced as to the origin of language. Most of these, however, are based on two central hypotheses: the interjection and the sound imitative or onomatopoeic theory of the origin of language.

Interjectional theories maintain, in general, that interjections or involuntary cries, because these are a good deal alike in all modern tongues, from the earliest stratum of words used by man. All other forms, it follows, must have been derived from these in one or other manner. Sound imitative theories look to words like bow wow, meow, choo choo, or ding dong, and similar attempts by men to imitate animal cries and noises as marking the beginnings of language. From such imitations of sounds encountered in his environment, man formed the hundred of languages we now find spoken.

Both hypotheses fail to solve our problem, however, largely because they fail to account for the linguistic forms. Neither involuntary cries nor sound imitative words are as such true linguistic forms. An involuntary cry is really part of an individual's response to strong stimuli. The involuntary ejaculation of surprise is not the same as the conventional word written oh' because the former represents part of the response itself and does not, like the conventional Oh' symbolize the response of surprise. True linguistic symbols, such as words, are all conventional and arbitrary, and their meanings must be learned by speakers. No one learns an involuntary cry; a baby may cry out long before it learns to speak.

Sound imitative words must similarly not be confused with attempts to reproduce sounds characteristic of man's environment. A word like ding dong for example, is conventionalized representation of the sound of a bell, not necessary self-evident to anyone except a speaker of English who has learned to associate the sound sing ding dong with the ringing of bells. To understand how languages come into being we must know how man came to establish his arbitrary or conventional habits of associating speech sounds with experience. This is not explained by the sound imitative hypothesis which point out merely that men sometimes name things and actions by the noises they make and that on occasion such names became truly a part of language.

It follows, then that a useful theory of linguistic origins must be based on a more careful analysis and study of modern tongue. Such studies, as we have suggested, reveal that the elements of speech, such as word phrases, and sentences, are arbitrary symbols. By this we mean symbols which are themselves no part of the reality or experience symbolized.

Thus, for example, the particular succession of sounds which make up the word horse have no necessary relation to the class or animals symbolized by it. There is, in short, nothing horse-like about the word horse; it is simply that speakers of English have learned to associated the sound written horse with a given class of animal, just as they have learned to associated the forms dog and cat with wholly different groups of animals.

The fact that linguistic symbols are nearly all arbitrary in nature emphasizes the social aspect of languages, are always associated with groups of individuals; they never belong exclusively to a single individual. An individual acquires his language from the group

with which he lives. If he deviates widely in speech from other members of the group, he runs the risk of being misunderstood or of not being understood at all. Horse is not just a word peculiar to an individual speaker of English, it is a word used and understood in much the same way by all English-speaking peoples.

Languages function in human societies primarily as a means of communication and co-operation. By means of language an individual is able not only to re-create his own personal experiences and so share them with others, but he is also able to co-ordinate his labours with those of others. A group of men can thus work together in a task too heavy or too complex to be undertaken by any one of them singly. To exemplify this point, let us imagine that a man, hunting alone, manages to kill an animal too large for him to handle. He leaves the dead animal and returns to his encampment or village. There he tells the others what he has done and secures their assistance. They return to his kill with him and assist him to skin the game, cut up the meat, and carry it back to camp. During the whole of this procedure, one individual may take charge, indicating in words the task of each to perform, so that the separate acts of each man will assist rather than obstruct the total performance.

Contrast the action we have just described with a similar incident among, let us say, a pact of wolves. Here, too, we have a social group albeit one composed of animals who lack language. When one of the wolves makes a kill along, he will eat as much as he can; he will not be concerned or be able to inform the pack of his feat. But should the other wolves come upon him as he makes the kill or while he is eating the carcass, they will certainly join him uninvited. Each wolf will get as much as he can and if there is not enough to go around, the weaker wolves will get none at all. The actions of the wolves in disposing of the meat will be separate and individual, with individual, with no co-ordination or co-operation whatever.

It is probable that the ancient animals from whom man evolved lived in groups very similar to those of present-day animals. Their behaviour was only in a small degree co-ordinated. Each worked for himself alone, with the exception that the very young had to be cared for by an adult. On occasion, however, necessity must enforced some degree of co-operation and coordinated effort. Man's primitive ancestor was not a formidable animal in comparison with may others who shared his environment. He must often have had to defend himself against stronger predatory animals and he probably discovered very early that such defense was more effective if undertaken in co-operation enterprises increased in frequency, the habit pattern built up may easily have led to cooperation under other circumstances, such as, for example, the hunting of large animals for food. Even wolves hunt together and, while so doing, correlate their efforts, at least to some degrees.

The development of co-operative did not along bring about language, however, Many insect groups are effectively co-operative. But co-operation among insects is evidently on a different basis tham among men. Unlike the social insects men are not born to a given role in their social groups. Men must learn to adapt their behaviour to the roles provided by the society, and language provides a vital tool to this kind of learning.

How and in what way man's animal ancestors come employ language as an aid in co-operative labor we shall never know. We may safely assume, however, that man's primitive ancestor could and did make noises and perhaps the noises which accompanied the tasks undertaken together came slowly to symbolize the several actions and ends involved in such tasks. In any case, it appears to be fairly certain that language arose as a result of men learning to work together toward a common end. For what ever reasons, whatever man's primitive ancestors were obliged to acquire such learning, and so they, along of the animals, stumbled upon the tool, language, which more than any other makes co-operative and co-ordinated activity effective.

HOIJER (1969: 57 – 65)

THE ORIGIN OF LANGUAGE

EXTRACT C

A principle means of reconstructing the prehistory of man and his cultures is archaeological research. Such studies provide direct evidence of man's biological evolution and evidence as well of the prehistory of several aspects of culture. But direct archaeological evidence of language appears only after the invention of writing, only in written records inscribed on stone, clay, or some other durable material. Since the earliest of these remains date back no further than five thousand years, and since language is certainly very much older, it is clear that early writings can provide no evidence of either the origin or the evolution of language.

During the nineteenth century, scholars developed a method for reconstructing the early history, and in some instances the prehistory, of languages spoken today and those recorded in older writings. Thus it was shown that most of the languages of Europe and some of those spoken in the Near East and northern India were so related to each other as to make it certain that they developed in large part from an ancient tongue no longer spoken and for which no written records existed. The success of these reconstructions led scholars to the belief that the method might be applied to the reconstruction of the primeval languages of mankind and so possibly solve the problem of the origin of language. Later researcher demonstrated, however, that the methods of historical reconstruction, even applied to ancient languages preserved in writing, yielded a history of only ten thousand years or less, a period much too brief to provide data on origins.

The number of languages spoken in the world today is estimated at more than four thousand. Every human group known, from the tiny tribelets of the California Indians to the great nations of modern Europe, the Americans, and Asia, possesses a language. Comparative studies of these languages reveal that they may be classified into several hundred language families, each of which contains from 2 to 100 or more separate but related languages. Languages so related are said to have diverged from a single ancestral tongue, called a protolanguage, that is now no longer spoken and for which written records are not available. English, for example, is closely related to such languages as German, Dutch, and Swedish, and more distantly related to scores of other languages (for example, Russian, Persian, and Hindi) spoken in Europe, the Near East and Northern

India. It is not related, so far as we know, to such well-known languages as Arabic and Chinese or to the many less well-known of aboriginal America. The large number of unrelated language families points up the great diversity of modern tongues and suggest that language developed very early in man's pre-history, so early that it is quite impossible to recover, by present methods of historical research, any trace of the original language or languages of mankind.

Studies of language during much of the present century have not been confined to the languages of the great civilizations of the modern world. Attention has also been given to the far more numerous languages of primitive people that is, peoples who, like many American Indian tribes, were until recently, little advanced in culture. In the nineteenth century, before the languages of primitives had been precisely described, many scholars believed that these languages, like the cultures of which they are a part, might be in a primitive stage of development and so might attest to earlier stages in the evolution of Australia, New Guinea, and many other regions, failed to confirm the existence of such a primitive speech.

In the contrary, studies of the languages of primitives clearly reveal that these languages, though very different from each other and from the languages of the great civilizations, are fully developed in every essential aspect. Thus, though we can often arrange diverse cultural systems in an evolutionary sequence, there is in language no evidence of a parallel evolutionary development. The most primitive peoples known, whose only tools are of wood, bone, and crudely shaped stones, and who live in very small groups governed primarily by familial relationships, possess fully developed languages that are in every essential respect perfectly comparable to such languages as English, French, German, or Chinese.

It is now clear that the problem of the origin of language is not to be solved by a study of older records or by comparing the languages of the world with each other. We must, instead, approach the problem not only with Linguistic studies, but also with the help of the total context of man's biological and cultural evolution. Archaeological data provides ample evidence that man and his nearest animal relatives, the anthropoid, or manlike, apes, have a common ancestry. The probable ancestor lived on earth several million years ago, and the lines of divergence that ultimately led on the one hand to man and on the other to the modern anthropoids extend far back, perhaps as far as three or four million years.

Recent archeological discoveries in various regions of Africa and Asia suggest the presence, some two million years ago, of hominoid, or manlike, forms: animals that lack certain of the characteristics, such as brain size, found in modern men, that yet are structurally more advanced than the modern apes. These forms, or some other very like them, gave way to the earliest hominids-forms belong, like modern man, to the genus Homo out of more species different from the species, sapiens, to which modern man belongs. Evidence also exists that the earliest hominids, and possibly even the hominoids, made and used very crude stone tools and so had acquired at least the rudiments of culture. In east Africa, for example, professor L S B Leakey found the

bones of an exceedingly primitive hominid form, called Homo habilis, and associated with the bones evidence that H. Habilise made and used crudely shaped stone tools. It seems clear, then that certain aspects of culture may have begun as early as two million years ago, even though evidence of tool-making and tool use, activities that some have claimed for modern apes, may not be conclusive.

Evidence of true cultures, that is, patterned ways of behaviour that are traditionally transmitted and cumulative, do not appear until about one million years later, with the coming of the biologically more advanced hominid species. The existence of true cultures clearly implies the existence of language since language is an obvious prerequisite of the traditional growth of culture. The beginnings of language, a stage of evolutionary development that we might call pre-language may well have taken place among hominids, but it is likely that true language developed among the hominids such later, and at or about the same time that these forms acquired a true culture. Even then we must remember that both the languages and the cultures of the early hominids were exceedingly primitive; so much so that if today we heard them speak, their speech might sound more like animal calls than human language.

Archeological evidence, although it enables us set an approximately date for the beginnings of languages, offers no evidence from which we can reconstruct its evolutionary development. We must approach the problem by comparing human language as a whole with the communication systems of the animals, and primarily with the systems known to exist among the apes.

The communication systems of the modern apes, and probably also of the early hominoids, are in essence closed repetition of calls. Man's language, on the other hand, is an open system, that is capable of producing an almost infinite number of utterances, some learned but many others formed on patterns common to the speech community rather than learned. Indeed, man's language enables him both to produce and to understand utterances that are completely new, that have never been spoken or heard before. The property of language, its productivity, is apparently lacking in the call systems of the animals.

A second property of language, also absent from call systems, is displacement. Displacement refers to man's ability to talk about things and events that are remote in time or space. It is the faculty of displaced speech that enables man to recount events in his past and events that took place before he was born; to talk about things and events he hopes to achieve in the future; and to create, in myth and fiction, beings, things and events, natural or supernatural, that have never existed and perhaps never can exist. Displaced speech, it is evident, also gives a continuity to physical experience, and so enables man, along among the animals, to work out his problems in the absence of the physical situations in which these problems arise.

The utterances of a language consist wholly of a sequence of elementary signalling units – distinctive sounds, or phonemes. Phonemes have no meanings in themselves but serve only to keep meaningful utterances apart, as when the utterance I hit him is clearly

distinguished from I bit him simply by changing the first phoneme of hit and bit. Language also has a structure in terms of morphemes, minimum meaningful elements, such that a pair of utterances like he walks along and he walked along are distinguished by the contrast between walks and walked; more specifically, by the fact that the morpheme written – S and marking the present tense appears in the first utterance, whereas the morpheme written – ed and marking the past tense occurs in the second utterance.

This design feature of language, whereby morphemes are differentiated by varying combinations of phonemes, is called duality of patterning. It is duality of patterning that makes it possible for a language to possess several thousands of morphemes, even though the number of distinctive signalling units, or phonemes, is rarely more than fifty. In a call system, each call differs as a whole from the rest, both in total sound effect and in meaning.

The fourth distinctive property of language, traditional transmission refers to the fact that language is taught and learned; it is not, as be the case with call systems, transmitted by the genes. Human children have no language at birth; they acquire one by hearing and rehearsing utterances made by adults and, later, by inferring from the utterance made by adults and, later, by inferring from the utterances they hear the meanings of morphemes and more importantly, the process by which phonemes and morphemes are built into complete utterances. Once they have acquired these processes, the children build their own, often quite novel utterances, ones they have neither heard nor rehearsed.

The problem of the origin of language may now be stated more precisely. It is to reconstruct the evolutionary changes whereby a call system, almost certainly passed by one or more groups of hominoids, developed the properties of productivity, traditional transmission, displacement, and duality of patterning that made it a true language. Such a reconstruction has been made by Charles F. Hockett and Robert Ascher, and I shall present here a brief summary of their work as described in their article "THE HUMAN Revolution." [1]

A call system, as we noted earlier, is closed; that is, it contains a finite and usually a small number of calls, each of which is unique in both sound and meaning. At some time in man's prehistory, a hominoid form may have encountered a situation that required him to communicate both the presence of food, let us ay, and the presence of danger. It is conceivable that in such an instance the animal would emit a single call that combined part of the call signifying danger. Blended calls very likely occur among modern animals, although such an occurrence has not been observed.

1 "The Human revolution," Current Anthropology.

V, No. 3 (June 1964).

Should such blends become common, it is clear that an originally small number of calls would become larger. Thus, if we assume a closed system of ten calls, and assume further that each of these is blended with each of the others, the result is one hundred calls. Furthermore, and this point is of far greater importance, each of the blended calls now has two parts, and each part recurs in other blended calls. The habit is established of building composite calls out of meaning for parts of calls, whether or not these occur independently as whole signals. "It is this habit," according to Hockett and Ascher, "that lies at the center of the openness of human languages. English allows only a finite (though quite large) number of sentences only two words long. But it allows an unlimited number of different sentences because there is no fixed limit on how long a sentence may be."

1 "the Human Revolution," Current Anthropology.
V, No. 3 (June 1964).

When a closed system of calls becomes open and productive in the manner described, the properties of traditional transmission and displacement must also be developed. The existence of blended calls requires that the young learn to infer the meanings of the parts and the many ways in which these parts are put together to form whole utterances. Such inferences, it is clear, must be drawn from the contexts in which the composed signals are used and from the resemblances in sound that exist among the composite calls. A premium is therefore placed on whatever space for teaching and learning a group may posses, and there results a selective pressure toward an increase in the genetic basis for that capacity.

Teaching and learning result in displaced speech, for teaching and learning, if they are to be effective, must take place apart from the situations in which the utterances that are being taught and rehearsed are pertinent. It is reasonable to suppose that, in prehistoric times as now, much of the teaching of speech took place along with other teaching and learning and that the young acquired not only their patterns of speaking but other patterns of their culture as well. We should expect, therefore, that the properties of language we have called productivity, traditional transmission, and displacement came into being at approximately the same time that much of the rest of culture appeared.

With the development of productivity, traditional transmission, and displacement, earlier call systems, such as probably existed in many hominoid groups, became incipient languages or pre-languages, differing from true languages only in the absence of duality of patterning. Pre-languages, we may assume, became increasingly complex and flexible, since the possession of such communication devices had many advantages for the survival of the group. Blending generated an increasingly large stock of minimum meaningful signalling units, or pre-morphemes, each of which, in the absence of duality of patterning, had to be holistically different from all others. As a result, some pre-morphemes became so similar to others that keeping them apart, either in speaking or listening, became too difficult a task for the early hominoid vocal apparatus, ears, and brain. Some of these overloaded communicatory system may even have collapsed and their bearers, as a consequence, become extinct.

In time, however, and with emergence, possibly one million years ago, of more advanced hominids, the pre-morpheme came to be heard not as a holistic unit, but in terms of the same sound components that occurred in it. Similarly, articulation came to be directed not toward the production of the acoustic pattern of the pre-morpheme as a whole, but toward an articulation of the smaller sound components sufficiently precise to distinguish each component from others. When this change took place, the pre-morpheme became a true morpheme, that is, a minimum meaningful unit of speech made up of phonological components without meaning, the phonemes. At that point, the pre-language became a true language, with all the properties that today distinguish language form the communicatory systems found among animals.

This evolutionary sequence should not be viewed as a sequence of replacements whereby language replaced earlier pre-language and pre-language replaced a still earlier system of calls. To quote again from Hockett and Ascher.

> The emergence of true language from a closed system….
> should properly be thought of … as the growth of a new
> system within the matrix of the old one. Certain features
> of the Proto-hominoid call system may still be found in human
> vocal-auditory behaviour, but as accompaniments to the use
> of language rather than as part of language. The Proto-
> humanoids could vary the intensity, the pitch, and the duration
> of a single call. We still do this as we speak sentences in a language;
> we speak sometimes more softly, sometimes in a higher register and
> sometimes in a lower, and so on. Also, we use certain grunts and cries,
> that are not words or morphemes and not part of language.
> These various pre-linguistic phenomena have been reworked
> and modified in many ways by the conditions of life of
> speaking humans, but their pedigree is older than of language itself.

It cannot be said that all problems connected with the origin of language have been solved, but anyone interested in measuring progress toward a solution need only look at the speculations on language origin wittily described by Max Muller in the middle of the last century speculations which sought the beginnings of language largely in imitations or else in instinctive cries. These were the theories still remembered by their nicknames rather than their content: the "Ding-dong", the "Pooh-pooh." Comparing these theories with what the work of modern linguists has accomplished, we find that men like Hockett and Ascher have at least greatly narrowed the problem and made it much more precise. The problem of how pre-language became language is now narrowed to the specific one of the development of duality of pattern. Such a precision of definition is a great advance, yet it can be noted that Hockett and Ascher have succeeded essentially only in pointing out that for language to develop, the transition to duality was needed, simply because proliferation of meaningful elements without it would have been too complex to be useful. They have not been so successful in showing the process by which the need was met.

Nevertheless-even though the process of development is not clear-there is one minor side result which is of fascinating suggestiveness: As Hocker and Ascher have defined duality, its development is so far reaching, so revolutionary, and so fruitful as to suggest that it was created only, and in one place. Once created, it would have spread to all hominids irresistibly and speedily. It suggests, in other words, the unitary origin of language, and the unitary origin of language suggests, in turn, that men are cultural as well as genetic and biological brothers.

CONCLUSION

While we know a great deal about the nature of human language (see 'design features'), we do not know when and where human language originated and how it developed. The last clause of the previous sentence (how it developed') implies that when human language began, it was not as developed as it is now. Archaeological evidence has shown that contemporary man has developed from earlier forms with a brain less developed than the brain of contemporary man. Since linguistic activity is controlled by the brain, we can infer that language too developed, becoming more sophisticated as the brain developed. On the other hand, we can inter that at the various stages of the physiological evolution that has produced contemporary man the various forms that are ancestors of contemporary man were not anatomically equipped enough to produce some of the contemporary sounds. On the evolutionary nature of language, the consolidated Encyclopaedia (volume (V) (London: Consolidated world Research Society Ltd, 1936) Whatever the truth concerning its origin may be it is certain that from the first gestures or sound by which one human being sought to communicate with another, language has been a thing of continuous growth".

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REVISION QUESTIONS

1. **Comment on:**

   (a) the Divine Gift Theory
   (b) The ding-Dong or Nativistic Theory
   (c) The Ta-Ta Theory
   (d) The Bow-Wow Theory
   (e) The Yo – Ye Ho Theory.

2. Can linguistics contribute to the debate on language origin? Explain.

3. What is Proto-Indo-European?

4. What is archaeology? Can it contribute to the debate on language origin? Explain.

5. **EXTRACT A.**

   (a) How does Keesing view the relationship between language and culture?
   (b) What are the various views on the origins and antiquity language presented by the author?
   (c) Does man communicate with speech and writing only?

6. **EXTRACT B.**

   (a) With reference to the text, discuss the importance of human language to mankind.
   (b) Briefly summarize the view of the author on:

   (i) the antiquity of human language:
   (ii) the origin of human language.

7. **EXTRACT C.**

   (a) What is the principal tool of reconstructing the prehistory of man and his cultures? Why.
   (b) How can linguistics contribute to the reconstruction of the prehistory of man and his cultures
   (c) What language design features are discussed by the author? In what context does he do so?
   (d) What is the view of the author on the duality of language?

UNIT FOUR

HUMAN LANGUAGE AND ANIMAL LANGUAGE

One of the most intriguing questions confronting linguists is the relationship between human language and the communication systems ('languages?) of lower animals. As was mentioned about one's decision n whether or not animals have language depends on how one defines language. If one defines language broadly, then even animals possess it; if one defines language narrowly, then only humans possess it. It is with the latter definition in mind that Crystal (1969: 30) says that:

> … there is little in common between human and animal forms of communication. And if one insists on talking about language of the birds and bees, then one must remember that this is a different and strictly analogical sense of the word language. What the linguist means by language is essentially a human phenomenon.

Note that the quotation above points to the assertion that language is an exclusive property of the homo sapiens. In the quest to establish if language was exclusively human, scholars carried out numerous studies on other animals, predominantly the chimpanzee. The choice of the chimpanzee was not accidental. The chimp is closer to many than any other creature intellectually, psychologically and even emotionally. As will be soon later, while some of these studies were complete failure, other scored come success. It should be stated here that while the effort put in these studies is commendable, I think it was not fair to expect a chimp to learn and articulate human language because its vocal apparatus was not designed to do so.

Studies on other creatures (such as the bees) have revealed striking qualities of their communication systems; to some extent, their ability to communicate is not far lower than man's. in the pages that follow, we present some extracts from published works or attempts to investigate animal communication (and attempts to teach human language to other creatures). The student is encouraged to look at these studies critically and establish their strengths and weaknesses.

EXTRACTS ON ANIMAL COMMUNICATION

Fromkin, R. and Rodman, R. (1988) An Introduction to Language. Fort Worth: Holt, Rhinehart and Winston, Inc. Pp. 19 – 24.

ANIMAL "LANGUAGES"

No matter how eloquently a dog may bark, he cannot tell you that his parents were poor but honest." (Bertrand Russell).

Whether language is an exclusive properly of the human species is an interesting question. The idea of talking animals probably is as old and as wide spread among human societies as language itself. No culture lacks a legend in which some animal plays a speaking role. All over West Africa children listen to falk tales in which a "spiderman" is the hero. "Coyote" is a favourite figure in many native American tales, and there is hardly an animal who does not feature in Aesop's famous fables.

If language is viewed only as a system of communication, then many species communicate. Humans also use systems other than their language to relate to each other and to send messages. (We have in this batch discussed specific properties as defining human language). The problem is whether they, or any subset of them, are unique to the human animal.

"Talking Parrots"

Most humans who acquire language utilize sounds to express sounds to express meanings, but such sounds are not a necessary aspect of language, as evidenced by the sign language of the deaf. The use of speech sounds is, therefore, not a basic part of what we call language. The chirping of birds, the squeaking of dolphins and the dancing of bees may potentially represent systems similar to human languages. If animal communication systems are not like human language, it will not be due to a lack of speech.

Conversely, when animals vocally imitate human utterances, it does not mean they posses language. Language is a system that relates sounds (or gestures) to meanings, "talking" birds such as parrots and mynah birds are able to faithfully reproduce words and phrases of human language that they have heard; but when a parrot says "Polly wants a cracker, "she may really want a ham sandwich or a drink of water or nothing at all. A bird that has learned to say "hello" or "goodbye" is likely to use one as the other, regardless of whether people are arriving or departing. The bird's utterances carry no meaning. They are speaking neither English nor their language when they sound like use. Talking birds do not dissect the sounds of their imitations into discrete units. "Polly" and Molly" do not rhyme for a parrot. They are as different as "hello" and "goodbye" (or as similar). (One property of human language, as is discussed in this batch, is that of discreteness.) A parrot says what it is taught, what it hears and nothing more …. Therefore, the ability to produce sounds similar to those used in human language cannot be equated with the ability to learn a human language.

It must be emphasized, in conclusion, that the principle that there are no primitive languages is not so much an empirical finding of linguistic research as a working hypothesis. We must allow for the possibility that language do differ in grammatical complexity and that these differences have not far been discovered by linguists. It would

be as unscientific to deny that this possibility exists as it is to say that Latin is intrinsically noble or more expressive than Hottentot or one of the Australian Aboriginal languages.

THE BIRDS AND THE BEES

Most animals posses some kind of "signalling" communication system. The male spider, before he approaches lady love, goes through an elaborate series of gestures to inform her that he is indeed a spider and not a crumb or a fly to be eastern. These gestures are invariant. One never finds a "creative" spider changing or adding to the particular courtship ritual of his species.

A similar kind of "gesture" language is found among the fiddler crabs. There are forty different varieties and each variety uses its own claw – waving movements to signal to another member of its clan. The timing, movement and posture of the body never changes from one time to another or from one crab to another within the particular variety. Whatever the signal means, it is fixed. Only one meaning can be conveyed. There is not a finite set of fiddler crab "sentence".

The imitative sounds of talking birds have little in common with human language, but the calls and songs of many species of birds do have a communication function, and they resemble human languages in that they are "dialects" within the same species. Bird calls convey messages associated with immediate environment, such as danger feeding, nesting, flocking, and so on. Bird songs (which are more complex) are used to "stake out" territory and to attract mates. There is on evidence of any internal structure of these songs nor can they be segmented into independent meaningful parts as words of human language can be. In a study of the territorial song of the European robin, it was discovered the rival robins paid attention only to be alternation between high-pitched and low-pitched notes, and which came first did not matter. The messages varied only to the extent of how strongly the robin feels about his possession and to what extent he is prepared to defend it and start a family in that territory. The different alternations therefore express "intensity" and nothing more. The robin is creative in his ability to sing the same thing in many different ways, but not creative in the ability to use the same "units" of the system to express many different messages with different meanings.

To what degree human language is biologically conditioned (or innate and to what degree it is learned is one of the fundamental questions of linguistics (i.e. the nature-nurture controversy).

Despite certain superficial similarities to human language, bird calls and songs are fundamentally different kinds of communicative systems. The number of messages that can be conveyed is finite, and messages are stimulus-controlled.

This distinction is also true of communication used by honey-bees. A forager bee is able to return to the hive and tell other bees where a source of food is located. It does so by forming a dance on a wall of the hive that reveals the locating and quality of the food

source. For one species of Italian honey-bee, the dancing behaviour may assume one of three possible patterns:

(a) round dance indicates Location near the hive, within 20 feet or so:
(b) sickle dance: indicates locations at 20 to 60 feet distance from the hive and
(c) tail-wagging dance: indicates distances exceeding 60 feet.

The number of repetitions per minute of the basic pattern in the tail-wagging dance indicates the precise distance, the slower the repetition rate, the longer the distance.

The bees' dance is an effective system of communication for bees. It is capable, in principle, of infinitely many different messages, like human language but unlike human language, the system is confined to a single subject-distance from the hive …. The absence of creativity makes the bees' dance qualitatively different from human language.

In conclusion, we need to emphasize that if language is defined merely as a system of communication, then language is not unique to humans. There are, however, certain characteristics of human language not found in the communication systems of any other species.

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BY

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PP. 14 – 20

1.5 HUMAN-LIKE LANGUAGE IN HIGHER PRIMATES?

Considerations such as those just mentioned are supportive of the long-held belief that non-human animals simply do not possess the innate mental structures which are essential for the acquisition of language. If so, it would appear to follow that no amount of training can lead to the use of a human language by animals. Undeterred by such inauspicious prospects, two American couples, the Kelloggs and the Hayseses, attempted to train two young chimpanzees (Gua and Viki) in their own family environments, in the 1930s and 1950s, respectively. The choice of the chimpanzee as a subject was of course not random, since, besides their well-attested intelligence, these animals are closest to human anatomically, genetically and even emotionally. The results were none the less disappointing; Gua did not learn any word, and Viki barely managed to pronounce mama, papa, cup and up.

In the mid-1960s another American couple, the psychologists Allen and Beatrice Gardener, speculated that possibly the responsibility for these failure ought to be apportioned not so much to the animals themselves as to the medium, speed simply being inappropriate for the chimpanzee (cf. E.g. the research by Lioberman mentioned in Section 1).

The Gardeners embarked on a project designed to exploit the renowned manual dexterity of the chimpanzee, adopting as a medium American Sign Language (ASL), the communication system used by deaf in most of North America. Crucially, although articulated with the hands and thus lacking the feature 'vocal-auditory channel', ASL shows very strong parallels with ordinary vocal language: largely arbitrary relationships between signifier and signified, meaning word order differences, regional divergences, incomprehensibility to other deaf communities, translation difficulties, and so on.

The subject of the experiment was a female chimpanzee named Washoe, captured wild in Africa and about 1 year old when the training began in 1966. all efforts were made to provide an environment conducive to spontaneous and creative behaviour, and Washoe enjoyed a freedom of movement similar to that of human children. The use of ASL was strictly adhered to in Washoe's presence, to the extent of repressing all human sound not vocalisable by chimpanzees. The instruction procedures were deliberately eclectic, and included imitation (immediate or delayed) instrumental conditioning (the 'shaping' into ASL of apparently random signals; cf. Chapter 2, Section 5, for a general discussion of this technique, pioneered by the psychologist B. F. Skinner) and moulding (the direct physical guiding of the animal's hands into the target sign).

Before enumerating and evaluating the results, we shall briefly refer to a few of the growing number of studies prompted by Washoe's apparent success.

In the Gardners' tradition is the experiment by Herbert Terrace with the Chimpsky (the name is hardly coincidental 1), a 2 – month-old male chimpanzee born in captivity. Here, too, eclectic teaching was adopted, with the emphesis no moulding and imitation, and the ape was provided with an informal environment where socialisation and emotional bonding with his trainers (about sixty in all) could take place. Possibly the most significant difference was the subjection of Nim to a daily sign-tuition routine on a school-like schedule in a special cell-type 'classroom', bare but for a few objects related to the learning task, to prevent distraction, and where the basic pedagogic principle was to focus on only one activity at a time.

Similarly, Francine (penny) Patterson's Koko, a 1 – year old captive born female gorilla, lived mostly in a house trailer in conditions comparable to those of her chimpanzee counterparts, including a substantial amount of daily sign instruction (ten hours on average), which Patterson purposely describes as 'non-'regimented'. The specific interest of this experiment is of course the extension of the investigation to a different (if very closely related) biological species, one which has traditionally been regarded (perhaps unfairly) as inferior to the chimpanzee in both intelligence and social adaptation. The series was completed with the addition of the orang-utan, the third of the great apes. Departing slightly from his predecessors, Lyn Mile, was deliberately treated as a wild, if sociable, creative (i.e not as a human child), and a 'junglegym' was accordingly provided adjacent to the house-trailer where he was ledged.

The last two experiments to be reported on here represent a dramatic departure environmentally, linguistically and pedagogically. In one, conducted by the psychologist David Pemack, a 6 – year old wild-born chimpanzee (Sarah) was taught to communicate by placing metal-backed plastic chips representing words on a magnetised board. In the other, the 2 – year – old Lana (also a female chimpanzee) was trained by Duane Rumbaugh to utilise a keyboard linked to configurations ordered in accordance with the rules of a language especially devised for the purposes of the experiment. Both animals were placed in a confined space where strict conditioning techniques could be easily implemented.

Sarah's training consisted in the matching of a social situation with a language presentation. A transaction was first established through the offer of a fruit by a friendly trainer. When the transaction was well established, additional fruits were placed out of the reach of the animal, while a plastic chip was left in her vicinity. If Sarah placed the chip on the beard, she was immediately rewarded with the fruit. Sarah's target sentences ultimately consisted of four elements (donor + action + object + recipient, as in Mary give apple Sarah'), and the training typically proceeded step by step, substituting only one element at a time in the sentence (and correspondingly, in the situation), in such a way that all but one of the elements would be known to the ape. Notice that Premack's design minimises the number of variables; vocabulary size is directly controllable, memory as an extraneous factor is dispensed with (the plastic chips do not posses 'rapid

fadin), and it is relatively easy to ascertain what type of difficulty may be involved in any particular problem.

Lana's 'room' contained several objects and goods-dispensers, screen for the projection of slides and motion pictures, stereo equipment, a sliding door and an outside window, which was normally closed. He interacted with this environment took place exclusively through the manipulation of her linguistic facilities. In addition, conversations could be held between ape and trainer, who had access to a similar computer-linked keyboard. Like Sarah's Lana's training was based on conditioning, although guiding, both verbal and direct, was also used.

Taken at face value, the results of these and other similar experiments are impressive. In all cases precautions were taken to ensure the objectivity and robustness of the field observations. Thus the Gardners stipulated that, in order for a sign to be 'officially' declared acquired, it had to have been reported by three independent observers as occurring unprompted daily over a fifteen-day period under conditions of contextual appropriateness. Such strict control was somewhat relaxed in other studies, in ways which were deemed not to jeopardise the significance of the results (Terrace, for instance, required a period of only five days). A particular misinterpretation risk is presented by the so-called 'Clever Hans' phenomenon, so named after a German horse that tapped numbers with his hoof in tune with visual cues unconsciously given out by his trainer. Accordingly, the Gardners chose a 'double-blind' testing procedure, where the stimulus is out of the visual field of the judge, and Premack used testers ignores of the chimp language. Finally, the apes were generally submitted to routine psychologist testing with the aim of ascertaining the general cognitive or perceptual strategies which may underlie their linguistic performance.

The number of signs mastered by the apes over the average four year training period falls typically between 100 and 150. moreover, after the initial learning period, the signs are reported to have been transferred to other objects of the same class and used creatively and appropriately, in a manner which resembles the communicative activities of young children. Much quoted, for instance, is Washoe's utterance water-bird at the sight of a duck. Errors are relatively infrequent (Sarah's and Lana's test).

Performances are reported often to have been over 80 per cent accurate and, when they occur the are open to alternative interpretations, such are breaking up boring situations (Terrace on Nim) or indulging in verbal abuse (Patterson on Koko). Terrace also reports on Nim's capacity for deuplicity, and Patterson on Koko's for humour.

Word order, a significant trait of human language including ASL, was strictly required of Sarah and Lana, and interestingly, the sign sequences produced by the 'natural' apes show a spontaneous preference for certain permutations. Because of the controlled nature of Sarah's experiment, the list of her overall achievements is particularly detailed and will be given here as exemplification: naming, sentence formation (including compound sentences. Sarah insert banana pail apple dis'), comparison ('same' v. 'different'), questioning, negation, pluralisation, qualification, (use of 'all', 'none',

'several), questioning 'several'), conjunction ('and'), logical connection ('if Sarah take apple, then Mary give Sarah chocolate') and expression of spatial relations (as in 'red on green' on presentation of the appropriate visual stimulus).

Sarah has also shown a capacity to name classes such as colour, shape, or size. Also, more interestingly for the linguist, she exhibited some metalinguistic ability (cf. the design feature 'reflexiveness') by performing an activity involving linking a symbol with an object by means of the operator 'name of' (also represented by a symbol) Another design feature worthy of mention in the context of the present experiments is learnability, a property of all human languages, including ASL, which, rather obviously, can be said to be learnable by human organisms (some other system, such as a computer program, might not be). The interest of the research is to course that it directly addresses the question of the biological prerequisites of such learning. More specifically, the argument could be made that, if ASL is learnable by both humans and apes, then apes must share the appropriate biological structures with humans. And if the list of design features defines the scope of human language, it would appear that at least the 'natural' apes have successfully acquired one of such language. The only feature open to question appears to be 'displacement', but even here, Patterson explicitly mentions reference to past and future events by the animal.

The argument above assumes that the apes have indeed acquired ASL, and we shall now review some of the criticisms which question both aspects of this assumption: that the system is, it was indeed acquired as a human-like language.

It is important to realise that the structure of ASL exhibits a considerable degree of complexity, and in addition to hand configuration and movement in a structured space, signs are defined by means of eye gaze, facial expression and head and body shifts. Crucially ASL sentences do not have a direct correspondence with English. Now, with very few exceptions, the personnel involved in the ape projects were not fluent signers, their output being thus closer to 'signed English' than to true ASL. Moreover, signs were frequently simplified, at the ape's natural gestures simply taken over, all in an effort to adapt to the animal's abilities, which manifestly are not suited for any of the complex aspects of standard ASL. Given these facts, it is perhaps more accurate to describe the system used by the apes a 'pidgin' sign language. While 'pidgins' (cf. Chapter 12, Section 8) are also used by humans and share at least some of the characteristics of natural human languages, the level of achievement of the primates is thus somewhat reduced.

The next question relates to the nature of the animals' feats. In particular, is there evidence that they used the system in a manner approximating language? It is questionable whether the apes involved in the 'artificial' experiments did, their performances being probably explainable as a chain-of-conditioned responses (cf. chapter 2); pigeons also have been shown to be able to peck a sequence of coloured keys (reminiscent of Lana's sentences' e.g. 'please machine make window open'), but it is not clear that it is legitimate to interpret this behaviour as 'language'.

The 'natural' apes, on the other hand, invariably produced unrequested sign sequences. For instance, some 20, 000 such utterances by Nim with anything up to sixteen signs in each were recorded over a two-year period. However, the critics of the experiments (and, interestingly, these include Nim's trainers Herbet Terrace and Laura Petitto) have forcefully pointed out a collection of flaws which seriously vitiate the interpretation of this output as language.

First, it is not always easy to establish what the accomplishments of the animals really are, since the data are typically under-reported and' 'leaned up'. In particular, errors are hardly mentioned, and repetitions are deleted as a matter of general policy, for instance, an utterance like Nim's give orange me give and orange me eat orange give me eat orange give me you' could well have been transcribed as 'give orange me eat'. This, of course gives the false impression of a carefully thought-out sentence, similar to that of a human child. In actual fact, however, not only are children's utterances free of such redundancies, but typically they are drastically reduced.

It has been suggested that the strategy underlying the apes overproduction might be one of maximising signing correspondingly to maximise the reward. Obviously, this has little to do with the expression of meaning, the primary aim of language as normally used by humans, children included.

The apes' tendency to repetition extends to the domain of discourse, where it has been observed that a substantial proportion of their utterances simply show the trainer's output. The consequences of this are fairly serious, critically undermining the claims made in the literature about the contextual appropriates of their use of signs. It also highlights another shortcoming of the animals' performance, namely, their general lack of motivation and spontaneity, since they usually require considerable prodding by the trainers before an adequate response is elicited. Finally, they have difficulties as regards conversational structure, typically interrupting the trainer in ASL) who are known to initiate conversations and to the turns in didactic exchanges.

As hinted at above, one of the most characteristic traits of human language relates to the use of word order to express different meanings. Importantly, each such order is relatable to the semantic classes present in the sentence, and is thus not contingent on the specific identity of the lexical items. The best documented case of syntactic tendencies in the 'natural' experiments is provided by Nim. It is telling however, that for each putative 'semantic role' in his sentences, only one lexical item was normally used, thus weakening the likelihood that a general semantic base underlay his performance. Also, and perhaps not unrelatedly, the average length of his utterances failed to show any significant increase throughout his training. Finally, because of the redundancies mentioned above, greater sentence length did not necessarily result in greater sentence length did not necessary result in greater information content. Once more, these traits contrast sharply with those found in the speech of human children, whose sentences, even when reduced, also exhibit hierarchical structure, as is typical of human syntax (cf. Chapter 6, Section 2).

In the fact of such unfavourable assessment of the apes' performance, it would appear that only their ability to name remains as a solid achievement. But here again the differences with children are significant. In effect, while the latter go through a 'naming stage' of relentless questioning, the animals have to be submitted to intensive teaching, sometimes involving thousands of hours for any one sign. Moreover, particularly in the habitual absence of 'displacement', it is not obvious that their comprehension of the meaning of individual words greatly exceeds that of lower organisms conditioned to particular behaviours in the presence of certain stimuli (cf. Chapter 2). Thus, while the apes have undoubtedly grasped the utility of the signs (e.g. 'Banana' can bring about the obtainment of fruit), it appears unlikely that they have understood that the signs refer to particular objects (on 'reference' cf. Chapter 7, p 201). Accordingly, it seems more parsimonious and perhaps more realistic to adopt a pragmatic (cf. Chapter 7, Section 6) rather than a linguistic interpretation of their sign behaviour, reminiscent of children's earliest steps in language.

Faced with this barrage of criticism, the advocates of the linguistic ape have striven for a higher level of refinement in experimental design, which allegedly has overcome some of the shortcomings of previous attempts, and have examined critically some of their opponents' changes. A typical strategy has been to remove the burden of failure from the biology of the animal to the experimental procedures. In the context of the social and communicational aspects of language, the stilted learning conditions prevailing in the 'artificial' experiments and to some experiments and to some extend also in Nim's have the target of social attack. Also, possession of language has been claimed to be a gradient, rather than an all-or-nothing, affair, and this would subtract legitimacy from the use of a rigid defining set of necessary conditions such as the design features. Finally, and importantly, there are reports of the spontaneous teaching of signs by Washoe (now 'retired) at the Institute for Primate Studies, in Norman, Oklahoma) to her adopted infact, who has apparently begun to use them. All this leads us to conclude that the ape language controversy is still very must alive, and that it will probably take years of patient but dispassionate research and interpretation before the final word on the matter is said.

Extra From: AITCHSON, J. (1976 The articulate Mammal.
London: Hutchinson Publishing Group (pp. 34 – 50)

Do animals talk naturally?

Our first task is to find out whether any animals naturally have a true language. In order to answer this question, we must compare human language with animal communication. But such a comparison presents a number of perhaps unsolvable problems. Two in particular need to be discussed before we can start to give a coherent reply to the query. 'Do animals talk naturally?

The first problem we must consider is this: are we comparing systems which differ quantitatively or qualitatively? On the one hand, human language may have gradually evolved from a more primitive animal mans of communication in a continuous line of growth – a – viewpoint sometimes known as a 'continuity' theory on the other hand, human language may be something different from our basic animal heritage, and superimposed on it. This is a 'discontinuity' theory.

Supporters of continuity theories suggest that language grew out of a primate call system, like the ones used by apes today. They assume that humans started out with a simple set of cries in which one meant something different such as "Danger" or "follow me. "Don't touch that female, she is mine'. "These cries gradually became more elaborate, and eventually evolved into language…..

Proponents of discontinuity theories claim that man still retains his basic set of animal cries, which exist alongside language. Yelps of pain, shrecks of fear, and the different types of crying observed in babies may be closely related to the call system of monkeys. If this view is correct, then it is fairly difficult to compare human and animal means of communication. It may be like comparing two things as different as the Chinese language and a set of traffic lights. But at the moment the question is an open. We do not yet know whether the continuity or discontinuity theories are correct. But we must keep both possibilities in mind when discussing the main topic of this chapter.

The second major problem we face is that it is not always easy to decide what counts as communication in animals. As one researcher notes "students of animal behaviour have often noted the extreme of restricting the notion of communication to anything less than every potential interaction between an organism and its environment," (Marshall, 1970: 231).

Note: In this section, Aitchson goes on to compare human language and animal language using the design features.

TEACHING ANIMALS TO TALK: WASHOE AND SARAH

In discussing attempts to teach language to animals, it is important (as we have already noted) to distinguish mimicry from true" language. Parrots and mynah birds can imitate humans with uncanny accuracy. But it is unlikely that they ever understand what people are saying. There are reports of grey parrots which could say "Good evening" at the right times, and "Goodbye" when guests left (Brown, 1958). But most talking birds are merely "Parroting" back what they hear.

Although psychologists have spent considerable time experimenting with mynah birds, it is perhaps not surprising that the results have been disappointing. Apes seem more promising candidates. Over the past forty years several attempts have been made to teach human language to chimpanzees.

The first experiments was a failure. An animal named GUA was acquired by professor and Mrs. Kellog in 1931, when she was seven months old. She was brought up as it she was a human baby, and was fed with a spoon, bathed, pinned up in nappies, and continuously exposed to speech although she eventually managed to understand the meaning of over seventy single words, she never spoke'. Gua showed clearly that is not just lack of opportunity which prevents a chimp from learning language. The Kellogs' son Donald, who was brought up alongside Gua, and was approximately the same age, grew up speaking normally.

A second chimp acquired by Keith and Cathy Hayes in 1947 also proved disappointing, Vicki was given intensive teaching in English; she eventually learned four words: **MAMA, PAPA, CUP, UP**. But these were very uncleared, articulated, and remained the sum total of Vicki's utterances after three years of hard training.

It is now clear why these attempts failed, chimps are not physiologically capable of uttering human sounds. More recent experiments have avoided this trap and used sign language, the manipulation of tokens or button pressing. Let us consider some of this research.

We shall confine our discussion to Washoe (Garden and Garner, 1969; Gardner and Allen, 1971) and Sarah premack 1970, 1971, 1972). These are the two chimps who, so for seem to have acquired most "language" and whose achievements have been most widely reported.

Washoe exact age is unknown. She is a female chimp acquired by professor and Mrs. Gardener in 1966, when she was thought to e approximately a year old. She has been taught to use American deaf-and-dumb sing language (ASL). In this system signs stand for words…

Washoe acquired her language in a fairly natural' way. The Gardeners kept her continuously surrounded by humans who communicated with her and each other by means of signs. They hoped that some of these would "rub off" on her. Sometime they

asked her to imitate them, or tried to correct her. But there ware no rigorous straining Schedules …

Washoe's progress was impressive and, at least in the early stage, her language development was not unlike that of a human child.

First, she acquired a number of single words, e.g. COME, GIMME, HURRY, SWEET, TICKLE – which amounted to thirty – four after twenty-one months, but crept up to well over one hundred…."

Washoe's speech clearly had semanticity" she had no difficulty in understanding that a certain sign means a certain object or action, as was shown by her acquisition of the word for toothbrush."

Washoe could also generalize from one situation to another, as was clear from her use of the sign meaning 'more'… Her 'speech' also incorporated a limited account of displacement, since she could ask for absent objects and people.

But most impressive of all was Washoe's creativity – her apparently spontaneous use of combinations of signs. She produced two – and three – word sequences of her own invention such as GIMME TICKLE, OPEN DRINK, HURRY GIMME TOOTHBRUSH, OPEN THE FRIDGE ETC. Washoe's signs were not just accidental juxtapositions.

Unlike human children, however, Washoes did not care in what order she gave her signs. She was as likely to say "SWEET GO" as "GO SWEET" to mean "Take me to the raspberry bushes".

UNIT FIVE

SOME DESIGN FEATURES OF HUMAN LANGUAGE

The various properties of human language have been termed 'design features' of human language by the American linguist Charles Francis Hockett. Commenting on Hockett's design features of human language, Atkinson et al. (1982: 11) had this to say:

> "The usefulness of the features resides in the fact that they permit a fair characterisation of human language as well as a straight forward means of comparison with other communication systems but it must be noted that their choice is ultimately motivated by the arbitrary decision of the individual researcher at a particular time, the list having undergone various changes over the years, and there is no indication that it has reached its final format".

Design features of human language may be regarded may be regarded as linguistic universals, that is properties/facts which are shared by all individual languages (Bemba, English, Kaonde, Lozi, Lunda, Chinese, Japanese, etc.). It is important to note that some design features apply only to articulated language, although they are presented as design features of 'human language'. Below are nineteen design features:

(a) Human language is articulated

As already defined in Unit 1, an articulated language is one that is made of speech sounds, that is, sounds produced by the so-called organs of speech (lips, teeth, tongue, etc). it must be noted that to accept this design feature is to imply that other communication systems used by humans, such as Sign Languages (languages used by deaf people), are not languages. It is now recognized that Sign Language is not only a language is not a language in its right but also a fully-fledged language. Singers (= users of a sign language) also are competent in their Sign Language (SL), for example American Sign Language (Ameslan or ASL), British Sign Language (BSL), Chinese Sign Language (CSL), etc., do communicate effectively with fellow signers who are competent in the same SL and can talk about anything (science, maths, literature, etc) just as users of articulated language do. Just like articulated languages, SLs have a vocabulary and a grammar.

(b) Arbitrarines

Arbitrarines as a design feature of human language does not mean that one can speak, or write anyhow. One can't speak, or write anyhow because human language has accepted norms of pronunciation and is rule-governed. Rather, it means that human language is conventional in the sense that there is no natural relationship between words and their meanings or things they are used to refer to.

Sound symbolism (= situation where there is a link between sound and meaning) is an exception to linguistic arbitrariness, as defined above but only to some extent. Examples:

(i) onomatopoeia or onomatopoeic words

Onomatopoeias, or onomatopoeic words, are words that imitate natural sounds, for example the words underlined in:

- BEMBA: aamuuma ulupi pa
  '(s) he slapped him/her, the slapping sounding pa'

- TONGA: kukompoka mpo
  'to break suddenly with aloud noise sounding mpo'

However, to some extent, even onomatopoeias are arbitrary. For instance, it is not all languages which mimick the sounding of slapping by "pa" or the noise of a sudden breaking by "mpo". Traugott and Pratt (1980: 4) observe that while the long and loud cry of a cock is mimicked by 'cock-a-dooble-doo' in English, it is mimicked by 'cocorico' in French and 'kekoko' in Japanese. The above and similar examples show that even onomatopoeias are language-specific.

(ii) Synaesthesia

Synaesthesia the 'associating of a particular sound or group of sounds with a particular meaning, e.g. fl – in flare, flicker, flame, flash, flick, fleeting, etc. Such a combination of sounds, is called a PHONAFSTHENE OR PHONESTHEME and such a series of words a PHONAESTHETIC SERIES OR CONGENENIC GROUP (Hartmann and Stork 1972: 229).

Here again, however, things are language-specific. Thus, while fl is a phonaestheme in English, it is not in Bantu, for example. After all the sequence fl does not even exist in Bantu!

Cases of onomatopoeias, synaesthesia and similar situations displaying some association between sound and meaning (within a given language, that is) have collectively been referred to in the linguistic literature as sound symbolism (also spelt sound-symbolism).

(c) Human language is creative

In contemporary linguistic theory, the phrase 'linguistic creativity' has mainly been used to refer to:

(i) man's ability to produce and understand a theoretically infinite number of sentences including those he has never produced, or heard before so long as such sentences belong to language he knows;

(ii) the fact that, although in any language the number of elements (sounds, words, etc) and rules is finite, the number of sentences that can be produced using such elements and rules is potentially infinite;

(iii) there is no limit to how long a sentence can be. For example any sentence can be lengthened using coordination or subordination, as in

- Dingi is a politician / Dingi and Hapunda are crafty politicians/
- Dingi, Hapunda and Sata are crafty politicians/……
- I will sell the book / I will sell the book which is on the table/
- I will sell the book which is on the table which is there /…….

Crystal (1992: 89) advises to take care to "avoid confusing this sense of 'creative' with that found in artistic or literary contexts, where notions such as imagination and originality are central."

(d) Human language is systematic

This means that language is a whole whose components "stand in particular relation to each other and perform particular functions" (Traugott and Pratt 1980: 5). Here are some examples:

- The sounds of a particular language do not combine anyhow but they combine into syllables following certain rules that define permissible sequences of sounds in that language. Thus although the sounds f and I in both English and most Bantu languages, English permit the sequence fl (as in flower) while Bantu does not.

- Words do not combine anyhow. For example, the English words he, party, defected, our and to can combine into he defected to our party but not e.g.,
defeated the be party our to or party to he defected our (the asteristic or star* is used in linguistics to mean among others, that what follows is not accepted as correct or appropriate).

Human language is structured and rule-governed. In fact, as pointed out by Hartmann and Stork (1972: 231), language is "a system of systems", i.e. a system composed of subsystems, a whole characterized by "the arrangement of units on hierarchically ordered and inter-related levels." For instance, on one level, called the morphological level, there are elements such as person (singular), book and s (plural). At a higher level, the word level, these elements (morphemes) combine to form word-forms: persons and books. At the highest level, the syntactic level, the word-forms writes and books may combine as part of a sentence, e.g. he writes books.

(e) Human language is discrete

When one says that human language is discrete (not discreet!) what is meant is that any human language is made of distinct (= separate) elements, e.g. sounds, syllables, words, phrases and sentences. Such distinct (or discrete) elements are put together when speaking or writing.

(f) Human language has a double (or dual) articulation

This is a decision feature of human articulated language recognized by the French linguist A Martinet. The double, or dual, articulation is as follows:

(i) The first articulation

This refers to the fact that the continuum of speech is split up into meaningful units (= units which have meaning) such as words.

(ii) The second articulation

This is the splitting up of the continuum of speech into meaning-less units (= units which have no meanings), e.g. individual sounds or syllables.

(g) Human language is dynamic

Any human language changes in time and space. Furthermore, language use changes according to contexts of use. The study of how particular languages have changed in time is called historical linguistics or diachronic linguistics. The study of how particular languages have changed in space, that is, the study of regional variations of the same language, is referred to as dialectology. The study of how languages are used according to contexts of use is known as sociolinguistics. Examples:

(i) changes in time

- A glance at English literary and other texts produced different time shows that English changes in time.

- As Zambia came into close contact with English-speaking people, many English words have entered Zambian languages. Such words are known in the linguistic literature as loan words.

(ii) changes in space

- English is spoken somehow differently in the various 'English speaking' countries. Hence terms such as British English, American English, South African English. Differences among the various 'Englishes' concern mainly pronunciation and the vocabulary and do not prevent

communication. It is important to note that even within the same country English, like any other language, varies according to regions.

- Bemba as spoken in the Kasama area is not exactly the same as the Bemba spoken in Mansa or Mukushi.

(iii) changes according to contexts of use

(Here we have such variables as 'who is speaking to whom', 'what is being talked about,' 'where the speech event is taking place,' etc).

- We do not speak to our parents, our superiors or strangers in the same way as we speak to friends or our younger brothers or sisters.

- The English used in church is different from the English spoken during lecturers or conversations.

- University of Zambia students do not speak (generally, that is) like 'mishanga boys'.

(h) Displacement

Language displacement is a design feature of human language whereby man is able to talk/write about persons, things or states of affairs that are not physically present. The ability to refer to the future or the past, that is to persons, things or states of affairs which are removed in time is termed temporal displacement. Man's ability to refer to something removed in space, that is, things that he can't see, is termed spatial displacement (not 'special displacement). To sum up, human language can be displaced in two ways: temporally or spatially. The term displaced speech is used to cover both types of displacement.

(i) Human language is innate but learned

The psychologist B. F Skinner has argued that knowing a language is merely a matter of nurture, i.e. education/ training, while the linguist N. Chomsky has emphasized the role of nature in that the ability to learn a particular kind of language is innate, or inborn (i.e. something one is born with).

Skinner's view can be supported by the following fact:

- any normal child can learn any language (whether or not the language is its 'mother tongue') provided the child is adequately exposed to it;
- it is possible to teach some animals (e.g. chimpanzees) to respond to and even produce some utterances.

Chomsky's argument is that it is not possible to teach a human language as a whole to any animal, including chimpanzees (animals that are closest to man) and, similarly, it is not possible for a human being to learn fully an animal language.

From Chomsky's argument we conclude that language is species – specific, has its own kind of language owing to biological, or physiological, factors, among others. This fact is known in the linguistic literature as the biological foundations of language.

The debate between Chomsky and Skinner is known as the Chomsky/Skinner. Controversy or the Nature/Nurture Controversy. The reality lies in between Chomsky's view and Skinner's view in that while all normal human beings are born with the ability to learn any human language, for a human being to speak/understand a particular human language he must learn it.

The conclusion is that human language is both innate, or inborn, and learned. To say that human language is both a matter of nature and nurture is to say that human language is transmitted both genetically (= ability to learn any human language) and culturally (= learning).

(j) Semanticity

"Semanticity is a design feature that refers to the existence of associative ties between elements in the linguistic system and things on situations in the environment" (Atkinson et al 1982: 12). For instance, if I see a liquid known in English as beer I can refer to it using the word beer and not, for example, sugar. That is, in the English language the sequence of sounds in beer is associated with a certain liquid (known as beer in English, ubwalwa in Bemba, bucwala in Lozi, bukoko in Tonga, etc). Of course associative ties between linguistic elements and extralinguistic elements are languages-specific, i.e. different languages have established different associative ties.

(k) Reflexiveness as a design feature of human language refers to man's ability to use language to talk or write about language. The language used to talk/write about language is known as metalanguage and the language talked/written about is a target language. Note, however, that the term 'target language' is also used to refer to the language into which an original text is translated (Hartmann and Stork 1972: 234). For instance, if an English text is translated into Bemba, English is the source language and Bemba the target language.

(I) Prevarication

Prevarication as a design feature language refers to man's ability to deliberately tell lies (Atkinson et al 1982: 12). Note that telling a lie is one of two cases where language does not represent the actual state of affairs, the other case being the

case where the user of a language does not present the real state of affairs out of ignorance or misunderstanding.

(m) Cultural transmission

This is a design feature of human language that refers to the fact that particular human languages must be learned and are transmitted from one generation to another. However, such transmission does not imply that language is static (= does not change) (see design feature (g).

(n) Learnability

This is a property of human language that simply refers to the fact that any normal child can learn any human language (Atkinson et al 1982: 17 – 18). Any human language is learnable by normal humans.

(o) Interchangeability

Anyone who knows a language can both transmit a message in that language and receive and understand a message in the same language (Atkinson et al 1982: 21).

(p) Complete feedback

The "speaker himself can perceive the totality of his own signal, through the sense of hearing" (Atkinson 1982: 21). This means that if someone says something it is not only the addressee who hears the message but also he (= the speaker) himself. In fact, under normal circumstances the speaker always hears all that he says while the addresses may not.

(q) Rapid fading

Because of the very physical nature of sounds, "the signal vanishes fast, thus freeing the channel for the next unit of transmission" (Atkinson et al. 1982: 9).

(r) Broadcast transmission

This is design feature referring to the fact that the transmission of sound is "omnidirectional, thus increasing the efficiency of the signal, albeit at the expense of privacy, a potentially disadvantageous fact" (Atkinson et al 1982: 10).

(s) Directional reception

While the transmission of sound is omnidirectional, the reception of sound is unidirectional. Directional reception (= unidirectional reception) "permits the location of the sender by the receiver" (Atkinson et al. 1982: 10.

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REVISION QUESTIONS

1. With examples, show that the term 'language' is polysemous.

2. Explain the concept of 'design feature' as applied to language. What is the usefulness of design features?

3. With examples, briefly explain each of the following:

(a) human language is articulated

(b) arbitrariness

(c) creativity (of language)

(d) human language is systematic

(e) discreteness

(f) dual articulation

(g) human language is dynamic

(h) displacement

(i) the Nature/Nurture controversy

(j) semanticity

(k) reflexiveness

(l) prevarication

(m) cultural transmission

4. Explain the following:

(a) language is species-specific

(b) onomatopoeia

(c) synaesthesia

(d) sound symbolism

(e) first articulation

(f) second articulation

(g) historical linguistics

(h) diachromic linguistics

(i) dialectology

(j) sociolinguistics

(k) metalanguage

((l) target language

(n) learnability

(o) interchangeability

(p) complete feedback

(q) rapid fading

(r) directional reception

5. Are human languages articulated? Justify your answer.

UNIT SIX

LANGUAGE ACQUISITION

0. GENERAL

0.1 Definition

The term **language acquisition** is used in this lecture as synonym (i.e. equivalent) of **child language acquisition**, i.e. the mergence and growth of language in children. However, the term **child language acquisition** also refers to the field of study involved, a branch of **psycholinguistics**, a branch of linguistics which is concerned with the correlation between "linguistic behaviour and the psychological process thought to underlie that behaviour" (Crystal 1992: 284). One recurrent topic of child language acquisition has been the postulation of several stages in the chronological development of language in children: Note that in a broader sense, the term **language acquisition** refers to the learning of any language including the learning of languages by adults.

0.2 Language acquisition versus language development

While some theories use the terms **language acquisition** and language development interchangeably others use the term **language acquisition** to mean the learning of a particular rule, lexical item or grammatical item and **language development** to mean the use of that rule, lexical item or grammatical item in an increasingly wide range of linguistic and social situations (Crystal 1992: 6).

1. Language Acquisition Device (LAD)

The term language acquisition device (LAD), one of Noam Chomsky's coinage, refers to an infant's innate predisposition to acquire linguistic structure (Crystal 1992: 6). The postulation of LAD is opposed to the view that language acquisition is a mere process of imitation – learning or a reflex of cognitive development (Crystal, ibiden), Hartmann and Stork (1972: 125) explain LAD as a follows:

> "Linguists and psychologists study the process of language learning by comparing the language an infant is exposed to with the language an infant produces. Exactly how the brain acquires language competence is unknown, but the term language acquisition device… is applied to the unknown quantity in the model roughly as below:
>
> input ⟶ [L A D] ⟶ output"

Note that in the model "input ⟶ [L A D] ⟶ output"

"L A D" is like a processor.

Crystal (193: 234) has made the following comment on LAD:

> "There have been many differences of opinion over how best to characterise LAD. Some have argued that LAD provides children with knowledge of linguistic universals, such as the existence of word orders and word classes; others, that it provides only general procedures for discovering how language is to be learned. But all of its supporters are agreed that some such notice is needed in order to explain the remarkable speed with which children learn to speak, and the considerable similarly in the way grammatical patterns are acquired across different children and languages. Adult speech, it is felt, cannot of itself provide a means of enabling children to work out the regularities of language for themselves, because it is too complex and disorganized. However, it has proved difficult to formulate the detailed properties of LAD in an uncontroversial manner, in the light of the changes in generative linguistic theory that have taken place in recent years; and meanwhile, alternative accounts of the acquisition process have evolved."

2. CHRONOLOGICAL STAGES IN CHILD LANGUAGE DEVELOPMENT AND THEIR CHARACTERISTICS.

Hartmann and Stork (1972): 124) distinguish six sages in the child language development, as follows:

1. **3 – 6 months**: Babbling or word play: understanding of facial expressions and tones of voice; exercising of organs of speech to produce a wide variety of sounds, but no coherent utterance;

2. **6 – 9 months**: LALLATION: reaction to gestures and single commands; continuation of self-stimulated combination of sounds;

3. **12 months**: IMITATION: active response to outside influences; first 'words' (one-word sentences) and repetitive verbal play;

4. **15 months:** JARGON: incorporating elements of the talk of environment into flow of uncontrolled speech; vocabulary rises to over 20 words; communication through two-word phrases;

5. **2 years:** TALKING; full understanding of instructions; beginning of verbalisation of wants in phrases;

6. **4 years:** LOQUACITY; full understanding of adult speech directed at him and almost complete mastery of patterns.

It is important to note that the words in capitals (LALLATION. IMITATION, JARGON, TALKING, LOQUACITY) are used here to pinpoint the major characteristics of the six sages:

(a) to **balance** means "to speak quickly in a way that is difficult to understand or sound silly" (**Longman Dictionary of contemporary English** (LDCE 1995: 77); the word is used here to emphasize the fact that a 3 – 9 months the child produces a lot of sounds of which are meaningless;

(b) **lallation** is the production of more or less articulated sounds by the child in such a way that the child tends to combine repeated syllable – like combinations of sounds such as lalala, tatata, etc;

(c) **imitation** is used here to emphasize the fact that the child strives and manages to imitate not only the individual sounds but also sounds produced by adults. The kind of speech produced by the child during this period is called holophrastic speech, a holophrastic speech being a speech in which single words express complex ideas which are normally expressed by more words especially full sentences (McNeil 1970);

(d) **Jargon** literally means "technical words and expressions that are used mainly by people who belong to the same professional group and are difficult to understand" (e.g. "documents full off legal jargon") (LDCE 195: 757); here the term **jargon** is simply used metaphorically to emphasize that the child is able to produce (two-word) utterances but these utterances are difficult to understand. During this period, the child tends to produce two-word utterances which correspond in the child speech to the full sentence from which some words have been omitted; for this reason, this kind of speech is **termed telegraphic speech** (McNeil 1970). During the "Jargon" or telegraphic" period, the words used by the child fall into two classes (McNeil 1970), namely the PIVOT CLASS and the OPEN CLASS. **Pivot** is a small number of words which are frequently used while **open-class words** are in a greater number and are infrequently used. Furthermore, pivot always appear with open words while open words may appear alone, a situation which is visualized as follows (up = pivot class word

P + 0

0 + P

0 + P

0

(e) **talking**: at the age of 2 years, the child has gone beyond telegraphic speech and that speech it produces is closer to the adult language; hence the choice of the term 'talking' used to characterize this period;

(f) While the word **loquacity** literally means linking to talk a lot or too much, the term is used here not only to mean that the child likes to talk a lot or

too much but also to mean that the child has mastered the language almost completely.

3. **THEORIES OF LANGUAGE ACQUISITION** (Crystal 1993: 234 – 5)

The best known theories of languages acquisition are the **imitation theory**, the **innateness** theory and the **cognitive** theory.

Imitation

(a) According to the imitation theory, language acquisition is a long process of imitation whereby the child copies, or imitates, the utterances heard from adults. The problem with this theory is that while children do imitate a lot in the area of sounds and vocabulary, little of their grammatical ability can be explained in this way Crystal 1993: 234) (refer to the many grammatical irregularities in child language) and "the children seem unable to imitate adult grammatical constructions exactly, even when invited to do so "(Crystal 1993: 234).

(b) **Innateness**

The innateness theory of language acquisition has already been discussed in connection with the language acquisition device (LAD) (see above).

(c) **Cognition**

On the cognitive theory of language acquisition, Crystal (1993: 234 – 5) had this to say:

> "The main alternative account argues that language acquisition must be viewed within the context of a child's intellectual development. Linguistic structures will emerge only if there is an already established cognitive foundation – for example, before children can use structures of comparison (e.g. **This car is bigger than that),** they need first to have developed the conceptual ability to make relative judgments of size – However, it is difficult to show precise correlation between specific cognitive behaviours and linguistic features at this early age. The issue is a highly controversial one, which increases in complexity as children become linguistically and cognitively – more advanced."

4. **CONCLUSION**

A lot is known on the stages in the chronological development of child language. For instance, all studies have shown that, as a general rule, by the age 4 years the child in all languages has almost completely acquired a speech comparable to adult speech. However, many questions are still unanswered. One of such questions is what happens in the child's brain.

On the three theories of language acquisition discussed in this lecture, it is to be noted that no theory can explain alone all aspects of language acquisition: imitation, innateness of the ability to learn human languages, cognitive development and, indeed, other factors all play a role in child language acquisition.

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REVISION QUESTIONS

1. What is meant by **language acquisition** in general and what is meant by **language acquisition** in this lecture?

2. Is there any difference between **language acquisition** and **language development**? Explain.

3. Explain and comment on what is meant by LAD

4. Explain the various stages in the chronology development of child language according to Hartmann and Stork (1972).

5. Write brief notes on the following:
   (a) holophrastic speech;
   (b) telegraphic speech;
   (c) pivot (- class) word;
   (d) open (- class) ward

6. Name and critically discuss any two theories of language acquisition.

UNIT SEVEN

LANGUAGE HANDCAP

0. G**eneral**

Language handicap is any systematic deficiency in the way people speak, listen, read, write or sign that interferes with their ability to communicate with their peers (Crystal 1993: 264). In medicine, the term **pathology of language** may be used to refer to diseases which cause language handicaps.

The term **language handicap** may be used in a broad sense and in a narrow sense. In the broad sense, it refers to any type of handicap (including cases where you cannot express yourself properly in a foreign or second language simply because you haven't mastered it due to lack of adequate exposure). In the narrower sense, it refers only to those cases where handicap is due to malfunctioning of the body.

1. **STATISTICS**

Because handicap exists in a continuum from mild to severe, it is very difficult to obtain accurate estimates of its **prevalence** (= the number of cases in a population at any one time) or **incidence** (= the number of new cases within a particular period) (Crystal 1993: 264). Crystal (1993: 264) reports that

> "A British government survey of the 1970s indicated that about ½ % of the population were sufficiently seriously handicapped as to required as to require the service of a speech therapist ---, but accepted that this figure was vague and probably far too low",

that

> "If other categories of the population are included, such as less seriously impaired people, on those whose have an abnormal degree of difficult with reading, writing, or spelling the figure must approach 2 – 3%",

and that

> "if a functional notion of handicap is used, to include the language problems faced by immigrants and other minority groups, the total increases dramatically to perhaps as many as 5% of the population.

2. **THE CAUSES OF LANGUAGE HANDICAP**

(Excerpt from Crystal 1993: 264 – 5)

In about 40% of cases, a language handicap can be related to a **clear physical** cause. For example, many children are born with **brain damage** that causes a degree of mental or physical handicap, and linguistic skills are usually seriously impaired as a consequence. **Deafness** can have a crippling impact on the normal development of spoken language. Parts of the brain can be destroyed by illness, strokes, accidents, or acts of violence, to produce the many forms of **aphasia**: various kinds of abnormal growth may affect the functioning of the **vocal cords**, or may lead to the **larynx** having to be surgically removed. In such cases as

these, there is no doubt that the causes of the linguistic handicap lies in a person's abnormal physical condition.

However, in the majority of cases, it is not possible to find a **clear organic** cause given the present state of medical knowledge. Thousands of children have a delayed language development, and in most of them there is nothing in their medical history that can account for the problem. There are many thousands of stutterers whose handicap, likewise, cannot be explained in any simple physical way. And a large number of people develop problems in the use of their voice that has no physical explanation. In such instances, we can search for '**functional**' **causes** in a person's psychological, social, or linguistic background.

Assessment of language handicap must also allow for the fact that many conditions have **multiple causes**. For example the level of language achievement reached by a deaf child cannot e explained solely with reference to the child's degree of hearing loss: many other factors contribute – such as the kind and amount of exposure to spoken or signed language. Or again, an adult's voice disorder might begin as hoarseness arising out of a straight forward disease, such as **laryngitis**; but anxiety over the continued use of the voice (if the person is a singer, for example) might promote the development of excessive strain while talking; with the result that the hoarseness continues long after the disease has disappeared. Similar combinations of organic and functional causative factors underline most if not all language handicaps.

NOTES

1. **aphasia** = partial or complete loss of the ability to use spoken language as a result of maldevelopment, disease or injury to the brain (Hartmann and Stork 1972: 16)

2. **vocal folds or vocal cords** = the two lip-like membranes of folds which vibrate in the larynx to produce voice.

3. **Larynx** = the upper end of the trachea (= windpipe), which is a frame of cartilage containing the two vocal folds.

4. **Laryngitis** = inflammation of the larynx

3. CLASSIFYING LANGUAGE HANDICAPS

Handicaps may be classified **causally** or **descriptively**. A causal classification is one in which the handicaps are classified according to their causes. According to the causal classifications, a language handicap is either **organic**, if the cause is physical, or **functional**, if the cause is not physical (i.e. if the cause is psychological, social, due to linguistic background, etc). the problem with causal classification is two fold. First, the causation of the same type of language handicap may be organic (= physical) or functional. Second, a language handicap may have multiple causes.

Under a descriptive classification, language handicaps are classified according to what linguistic skill (speech, listening, reading, writing, comprehension, etc) is affected. Here are some examples:

(a) **aphasia** or **dysphasia** = partial or complete inability to use spoken language due to maldevelopment, disease or injury to the brain (Hartmann and Stork: 16);

(b) **alalia** = complete inability to use spoken language due to abnormality or malfunction of external organs (e.g. lips, teeth, larynx);

(c) **dyslalia** = partial inability to use spoken language due to abnormality or malfunction of external organs. (Compare with (b) above);

(d) **alexia** = complete inability to read;

(e) dyslexia = partial inability to read (compare with (d).

4. DEAFNESS

(**EXCERPTS FROM CRYSTAL 1993: 266**)

About 1 in 1,000 children have a hearing loss that is present at birth, or acquired soon after, caused by pathology of the inner ear and its relationship to the auditory nerve. Maternal rubella (German measles), meningitis, and several other diseases are known to be causative factors. Many more children have a haring loss that they acquire in the preschool or early school period, because of pathology of the middle ear, several-ear problems get better without intervention; but other recur, become chronic, and do not respond well to treatment. In such chronic cases, and in all cases of inner-ear deafness, there can be serious consequences for the development of speech comprehension and production.

Many adults – perhaps as many as a third of the population over 60 years of age have an acquired heaving loss, which can noticeably affect their ability to comprehend and speak (the latter, because they are unable to use hearing to monitor what they are saying). Regular exposure to loud noise (at work, in discos, etc.) is a common cause. However,

because language has been acquired before the onset of the deafness, these disorders are usually less serious.

TYPES OF DEAFNESS

There is no single, simple phenomenon of 'deafness' but a wide range of kinds and degree of hearing impairment. The loss may affect only one ear (**umilateral**) or both ears (**bilateral**). At one extreme, there may be a slight inability to hear a few low-intensity frequencies, which interferes only occasionally with normal communication; at the other extreme, a person may have no detectable response to any frequency, no matter how intense the sound. The latter is uncommon: most deaf people have some degree of 'residual' hearing.

The main classification of hearing loss is abased on where the interference lies in the auditory pathway. **Conductive** deafness arises when there is interference with the transmission of sound to the **inner ear**, as when the middle ear becomes inflamed (**otitis media**) or the ear drum or ossicles are affected by disease or trauma. **Sensorineural** deafness arises when the source of interference lies within the inner ear, or along the auditory nerve to the brain.

Other forms of hearing impairment have been identified, such as **tinnitus** – a range of noise in the ear (singing, hissing, presating, etc.) that can occur in acute, delibilitating form. Around 2 million people have this problem, to some degree, in the USA.

NOTES

1. A distinction is often made between **deaf** and **hard-of-hearing** persons: a deaf person is a person in whom the sense of hearing is non-functional at all for the ordinary purposes of life while a hard – of hearing person is one in whom the sense of hearing, although defective, is functional with or without a hearing aid (Riekehof 1990: 8)

2. The kind of body language used by deaf people is called sign language (often abbreviated to SL). There exist several SLs. E.g. American sign language (ASL or AMESLAM), British sign language (BSL), etc.

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REVISION QUESTIONS

1. What is a language handicap?

2. What must one say on the prevalence and incidence of language handicap. Before answering the question, define the terms **prevalence** and **incidence** in this context.

3. Explain the following:
   (a) organic handicap
   (b) functional handicap

4. Explain the following:
   (a) aphasia
   (b) alalia
   (c) dyslalia
   (d) alexia
   (e) dyslexia

5. Explain what is meant by:
   (a) unilateral deafness
   (b) bilateral deafness
   (c) hard-of-hearing person
   (d) conductive deafness
   (e) sensorineural deafness
   (f) tinnitus

UNIT EIGHT

LANGUAGE AND IDENTITY

A language expresses a person's individual identify and social identify and there are many ways in which it does so. This lecture will examine only the following: physical identify, psychological identify, geographical identity and social identity.

1. **PHYSICAL IDENTITY** (Crystal 1993: 18 – 21)

1.1 **Physical type**

There seems to be little clear relationship between speech and such physical characteristics as height, weight, head, size, and shape. That there is some correlation is evident from our surprise when we hear a large, fat person come out with a thin, high-pitched voice. There is a general expectation that size relates to loudness and pitch depth. However, there is no conclusive way of predicting from physical appearance alone whether a person's vocal range is going to be soprano, contrario, tenor, or bass.

There is little in the anatomy of the human vocal tract to account for the linguistic differences between people and groups. The proportions of the various vocal organs seem to be very similar in all human beings. Individual variations do exist but there is no evidence to suggest that anatomical variations have an effect on the ability of a person to learn or use speech. Furthermore, despite the superficial differences, it has generally been concluded that vocal tracts the world over are sufficiently similar that we can regard them as variants of a single, universal type.

1.2 **Physical condition**

That there must be some kind of relationship between physical condition and language is plain from the way language can be affected in cases of physical handicap. Several disorders of constitutional origin have a direct effect on a person's ability to use language, variously affecting the ability to comprehend and produce speech, read, and write.

Note: The relationship between physical condition and language is everyday evidence by the way language is affected by serious illness, drunkedness, etc.

1.3 **Age**

The relationship between age and language can be demonstrated by the fact that no one would have much difficulty identifying a baby, a young child, a teenager, a middle-aged person, or a very old person from a tape recording.

1.4 **Sex**

Phonetic differences (i.e. differences in pronunciation) e.g. voice pitch, are the most obvious measures of sexual identity; but languages provide many instances of males and females **learning** different styles of speech – as in Japanese, Thai; Carib, Chukohi, and Yana. Pronunciation, grammar, vocabulary, and context of use can all be affected. In English, the situation is less clear: there are no grammatical forms, lexical items, or patterns of pronunciation that are used exclusively by one sex, but there are several differences in frequency. For example, among the words and phrases that women are supposed to use more often are such emotive adjectives as **super** and **lovely**, exclamations such as **Goodness me** and **Oh dear**, and intensifiers such as so or such (e.g. **It was so busy).** This use of intensifiers have been noted in several languages, including German, French, and Russian.

More important are the strategies adopted by the two sexes in cross-sex conversation. Women have been found to ask more questions, make more use of positive and encouraging 'noises' (such as **man**), use a wider intonational range and a more marked rhythmical stress, and make greater use of the pronouns **you** and **we. By** contrast, men are much more likely to interrupt, to dispute what has been said, to ignore or respond poorly to what has been said, to introduce more new topics into the conversation, and to make more declarations of fact or opinion.

2. **PSYCHOLOGICAL IDENTITY** (Crystal 1993: 23)

Listeners are very ready to make stereotyped judgment about personality: comments such as **you can tell he's anxious from his voice** or **she sounds very strong minded** are often to be heard. Systematic information has been obtained in social psychology experiments since the 1930s, when researchers began to use the new broadcasting medium to get large-scale listener judgments of different voice. In one study (T. H. Pear, 1931), 4,000 listener judgments were obtained about nine speaker played over the air. Age and sex proved easier to identify, and among the vocations represented, actors and clergymen were most frequently recognized.

Our impressions of a person's guilt, innocence, intelligence, or stupidity are, it seems, much affected by phonetic and linguistic factors.

Comment

Language does very often allow to determine some aspects(s) of the psychological identity of the producer (speaker, writer, signer). Clues included the contents of what he says; the way he speaks, writes or signs; the context (e.g. the place) of performance; etc.

3. GEOGRAPHICAL IDENTITY

The language or language variety someone uses point to the geographical origin of the speaker. However, this is true only statistically. Thus a Bemba speaker speaking Aushi is likely to have grown up in "Aushland" in Luapula province. Similarly, someone speaking American English is likely to be American or have spent a long time in the USA or Anglophone Canada.

4. SOCIAL IDENTITY (Crystal 1993: 38)

4.0 General

In addition to the questions 'who are you?' and 'where are you from?', which have been addressed from a linguistic viewpoint, there is also '**what** are you, in the eyes of the society to which you belong?' It is a complex and multi-faceted question, to which there is no easy answer. People acquire varying status as they participate in social structure; they belong to many social groups; and they perform a large variety of social roles. This section, therefore, has to be extremely selective.

4.1. Social stratification

One of the chief forms of sociolinguistic identity derives from the way in which people are organized into hierarchically ordered social groups, or classes. Classes are aggregates of people with similar social or economic characteristics.

One does not need to be a sociolinguist to sense that the way people talk has something to do with their social position or level of education. Everyone has developed a sense of values that make some accents seem 'posh' and others 'low', some features of vocabulary and grammar 'refined' and others 'uneducated'.

Example 1 castes

Castes are social divisions based solely on birth which totally restricts a person's way of life – for example, allowing certain kinds of job, or certain marriage partners. The best-known system is that of Hindu society of India, which has four main divisions, and many subdivisions – though in recent years, the caste barriers have less rigidly enforced. The **Brahmins** (priest) constitute the highest class; below them, in descending order, are the **Kshatriyas** (warriors), **Vaisyas** (farmers and merchants), and Sundras (servants). The so-called '**untouchables**', whose contact with the other castes is highly restricted are the lowest level of the Sudra caste.

Linguistic correlates of caste can be found at all levels of structure. For example, in Tamil, there are several clear-cut distinctions between the phonology (= sound patterns), and grammar of Brahmin and non-Brahmin speech. The former also tends to use more loan words, and to preserve non-native patterns of pronunciation.

E.g

Brahmin		**Non-Brahmin**
tungu	'sheep'	orangu
krafu	'haircut'	krappu
jinni	'sugar'	cini
vandundu	'it came'	vanducou

Example 2: Speech and silence in Kirundi (After E. M. Albert, 1964, quoted by Crystal 1993: 38)

In the Republic of Burundi, age and sex combine with caste to constrain the nature of linguistic interaction. Seniority (**ubukuru**) governs all behaviour. There are clear caste divisions: Older people precede younger; and men precede women. The order in which people speak is strictly governed by the seniority principle. Males of highest rank must speak first, regardless of age. Females do not speak at all, in the presence of outsiders, unless spoken to.

Upper-caste speakers seem never to raise their voices, or allow emotion to show. In a group discussion, for the senior person to be silent implies disapproval. As others must then also stay silent, any further proceedings are effectively negated.

To speak well is considered a mark of good breeding in men. From their tenth year, boys in the upper castes are given formal speech training – how to use social formulae, talk to superior and inferiors and make speeches for special occasions. Upper-caste girls do not take part in public speaking, but they do develop effective bargaining skills, for use behind the scenes. They are also trained to listen with great are, so that they can accurately recount to the men of the family what has been said by visitors.

4.2 **Restricted and elaborated codes** (Crystal 1992 and 1993)

(a) Crystal 1993: 40

Do people from different social classes display different abilities in their use of language? This was one of the questions widely discussed in the 1970s, as a result of a distinction proposed by the sociologist Basil Berustein (1924-)" (Crystal 1993: 40). The distinction is that between **restricted code and elaborated code**.

(b) **Crystal 1992: 299 and 118**

Restricted code was thought to be used in relatively informal situations, stressing the speaker's membership of a group, was reliant on context for it meaningfulness (e.g. there would be several shared expectations and assumptions between the speakers), and lacked stylistic range.

Linguistically, it was highly predictable with a relatively high proportion of such features as pronouns, tag questions, and use of gestures and intonation to convey meaning. **Elaborated code**, by contrast, was thought to lack these features.

Elaborated code was said to be used in relatively formal, educated situations; not to be reliant for its meaningfulness on extralinguistic contex (such as gestures or shared beliefs); and to permit speakers to be individually creative in their expression, and to use a range of linguistic alternatives. It was said to e characterized linguistically by a relatively high proportion of such features as subordinate clauses, adjectives, the pronoun I, and passives.

The correlation of elaborated code and restricted code with certain types of social-class background and their role in educational settings (e.g. whether children used to restricted code will succeed in schools where elaborated code is the norm – and what should be done in such cases), brought this theory considerable publicity and controversy, and the distinction has since been reinterpreted in various ways.

4.3 **Language of respect** (Crystal 1993: 40)

Many communities make use of a complex system of linguistic levels in order to show respect to each other. The levels will partly reflect a system of social classes or castes, but the choice of forms may be influenced by several factors, such as age, sex, kinship relationships, occupation, religious affiliation, or number of possessions.

Devices for conveying relative respect and social distance can be found in all languages.

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REVISION QUESTIONS

1. With examples, comment on language and physical identity in general.

2. With examples, comment on the following:

   (a) language and physical type
   (b) language and physical condition
   (c) language and age
   (d) language and sexual identity

3. With examples, write brief notes on:

   (a) language and psychological identity
   (b) language and geographical identity

4. With examples, show that there is some relationship between language and social stratification.

5. Explain the dichotomy restricted code/elaborated code.

UNIT NINE

LANGUAGE FUNCTIONS

The phrase language functions may be used to refer to either (a) the various uses of human language in general or (b) the various uses of particular languages by a nation or a community. I shall deal in turn with the two kinds of language functions. This lecture will show that, in addition to the communicative function (undoubtedly the main function), language has many other functions.

1. FUNCTIONS OF HUMAN LANGUAGE IN GENERAL

1.0 General

There is no agreed upon list of language functions in general. This becomes obvious when one compares lists of language functions proposed by different authors. In what follows in this first section, I shall deal with (a) lists of language functions discussed in Dell (1976: 83 – 88), (b) language functions discussed by Hartmann and Stork (1972 – 91), (c) the speech At theory and (d) the functions of literature.

1.1 Language Functions discussed by Dell (1976)

1.1.1 The Traditional three-function model

Traditionally, three functions have been recognized based on the types of contents conveyed by language, as follows:

(a) **The cognitive Function**
This is traditionally recognized as the prime function of language. It is the expression of ideas, concepts and thought.

(b) **The evaluative Function**
The second language function, according to tradition, is the evaluative function: the expression of attitudes and values.

(c) **The affective function**
this is the third traditional language function: the expression of emotions and feelings.

As Dell (1976: 83) points out, "It is of some interest to realize that the same division appears to co-occur in the types of language use singled out by the different branches of the human sciences. Linguistics and philosophy tended to focus on the cognitive, sociology and social psychology on the evaluative and psychology and literary criticism on the affective."

The traditional three-function model outlined above has been found to be unsatisfactory. One reason for this is that the three functions are in fact three aspects of the same function, namely the informative, or communicative, function of language. The three-way division is based on the type of information conveyed by language and, therefore, implies that language is only used to convey information, an implication which is untrue, as evidenced in B. S. R. Jakobson's and M. A. K. Halliday's Models (see Dell 17. 1976: 83 – 87).

1.1.2 **R. JAKOBSON'S MODEL**

Jakobson correlates language functions with aspects of communicative events, as follows (Dell 1976: 83)

ASPECT	**FUNCTION**
1. Addresseer	Emotive, Expressive, Affective
2. Addressee	Conative
3. Context	Referential, Cognitive, Denotative
4. Message	Poetic
5. Contact	Phatic, interaction Management
6.Code	Metalinguistic

What this means is that language functions depend on the communicative aspects focused on by the speaker/writer. Note that in Jakobson's terminology above (a) Emotive, Expressive and Affective are synonymous (i.e. they mean the same thing, they are interchangeable terms) and so are (b) Referential, Cognitive and Denotative and (c) Phatic and Interaction management, although this is not the case elsewhere.

1. Addresser: Expression of emotions, feeling, attitudes

2. Addresseer: to require somebody to convey out some action (cf. the use of Vocatives C-Calling somebody) and imperatives)

3. Context: focusing on the object, topic, content of discourse considered as verifiable facts.

4. Message: focusing on the message itself for enjoyment as in art and most of literature: poetic function.

5. Contact: to initiate, continue a linguistic encounter as in greetings or talking about weather when you happen to sit together with a stranger on a bus (phatic function, interaction management function).

6. Code: use of language to talk about language.

1.1.3 **M. A. K. HALLIDAY'S FUNCTIONS**

Introducing Halliday's language functions, Dell (1976: 84 – 85) writes:

"In a series of papers Halliday … explored the relationship between function and use in child and adult language and proposed a theory of sociological semantics in which he demonstrates the collapse of the seven functions of child language (pre-school children that is) into three macrofunctions which serve adults. The child, he argues, has seven language functions which correlate very closely, initially in one-to-one way, with form e.g. a child wishing to ask for a sweet is likely to say "I want …" rather than the multiple of utterances available to the adult … what the child does with language tends to determine its structure. During the course of maturation, Halliday suggests, the seven discrete functions of child language are gradually replaced by a more highly coded and more abstract, but also simpler, functional system. This system contains only three macrofunctions – the ideational, the interactional and the textual – which to some degree supplement and cut across the three traditional functions".

THE THREE MACROFUNCTIONS

(1) **The Ideational Function**

This corresponds closely to the cognitive function (expression of facts) but also includes the 'expression of experience' as well as the emotional and affective aspects of attitude, value, emotion and feeling. In short, the ideational function is concerned with the expression of phenomena of the external world as well as those of consciousness (Dell, op. cit. p. 85)

(2) **The Interpersonal Function**

This function, which corresponds to the Interaction management or phatic function outlined above, aims at establishing and maintaining social relations.

(3) **The Textual Function**

This function is concerned with the structuring of speech, the choice of grammatically and situationally appropriate sentences and the ordering of the content in a cohesive and logical manner suitable for the interaction as a whole (Dell, op. cit. p. 85)

1.2 **Language function: Discussed by Hartmann and Stork** (1972)

Hartmann and Stork (1972: 91) give us the following list of language functions.

1. The Representational function: to portray a situation;
2. The communicative Function: to convey information between Speaker/writer and hearer/reader;
3. The Appellative Function: to make someone respond – CONATIVE Function);
4. The expressive Function: to verbalize feelings and emotions;

5. The Cognitive Function: to verbalize intellectual reasoning.

Note that the same language function can be referred to by different terms; for example the appellative function is also known as the conative function (NB 'appeler' in French means 'to call' and 'conare' in Latin means 'to try'). Note also that the important language functions are not mentioned by Hartman and Stork (1972 on p. 91), namely the **phatic function** and the **poetic function.** The phatic function is the use of language for social interaction, illustrated by, e.g. the exchange of stereotyped phrases (e.g. greetings or someone saying 'Bless you' when someone else has sheered violently; see Crystal, 1987: 10 – 13). The poetic function is the use of language for pleasure, as in literature.

1.3 **The Speech act theory**

This is a theory on language use developed by the British philosopher J. L. Austin (1911 – 1960) (see, for example, Austin 1962).

The main idea behind the speech Act theory is that whenever we say we always do something: speech is action. There are three kinds of acts we perform whenever we say something:

(a) We perform a locutionary act. This means that when we say/write something, we utter sounds/write symbols, combine sounds/written symbols into words and apply grammatical rules to form sentences and other utterances:

(b) We perform one or more illocutionary acts. Under normal circumstances, we do not speak or write for the sake of speaking or writing but we intend to achieve something: to make a request, to male a promise, to make a command, to inform, etc. What we intend to do (make a request, making a promise, making a command, informing, etc) with language are known as illocutionary acts.

To use Austin's (1962: 121) such acts are performed in saying while perlocutionary acts (see (c) below) are performed by saying. The intention of a speaker/writer producing a given utterance is referred to as the illocutionary force of that utterance. For instance, the illocutionary force of the utterance, I promise to come tonight is promising.

As observed by Crystal (1991: 323), several categories of illocutionary act have been proposed, VIZ.

- directives, when addressers try to get their addressees to do something, e.g. when commanding or requesting;

- commissives, when addressers commit themselves to a future course of action, e.g. when promising guaranteeing;

- declaratives, when an addresser brings about a state of affairs such as baptizing, appointing, dismissing, resigning, etc;

- expressives, when addressers express their feelings, e.g. apologizing, welcoming, sympathizing;

- representatives, when addressers convey their belief about the truth of a proposition, e.g. when making an assertion (= statement) or a hypothesis or when expressing doubt.

Verbs such as say, request, promise, command used to perform illutionary acts are termed performative verbs or performatives.

It is important to note that certain linguistic constructions generally directly reflect its illocutionary force, i.e. its communicative purpose. For instance, commands and requests are typically made using imperatives (e.g. come; give me that book). When this is the case, the illocutionary act is called a direct speech act, as opposed to an indirect speech act, which is an illocutionary act not performed by the usual (i.e. expected) linguistic construction. Thus, the utterance I' m feeling hungry may be used as a request for some food. The (illocutionary) force of an indirect speech act depends on the context of communication, a major concept in pragmatics (= the study of the use of language (= the study of the use of language in context);

(c) by saying, we also perform perlocutionary acts. These are the effects of illocutionary acts. Suppose you are late and I ask you "What time is it?", this is a question (illocution) but by asking you this question I can embarrass you and so embarrassment in this case is a perlocutionary act.

Consider now the case where only the President of Republic can appoint ministers but someone who is not the President of Republic says to you: "I appoint you as minister of Defense". Such an appointment is invalid because the one who appointed you is not the appointing authority. The criteria which have to be satisfied in order for a speech act to be successful are known as felicity conditions (Crystal 1991: 323).

1.4 **THE WHORF HYPOTHESIS**

Crystal (1991: 379) explains the Whorf Hypothesis as follows:

> (---) the Whorfian hypothesis (---) states that our conceptual categorisation of the world is determined (wholly or partial) by the structure of our language. In its strong from, the hypothesis is not accepted by most linguists.

The Whorf Hypothesis (or Whorfian Hypothesis) named after the American linguist Benjamin Lee Whorf (1897 – 1941) was actually initially developed by Edward Sapir (1884 – 1939) of who he once was a student, but it was Whorf who "argued (the

hypothesis) most widely and vividly" (Dale 1976: 237). Comparing the European languages to which he collectively referred to as Sandard Average European (SAE), because they are all quite similar, "to the American Indian languages, which are radically different from SAE and often from another" (Dale 1976: 237 – 8), he came up with the following two hypothesis which form together the Whorf Hypothesis (or Whorfian Hypothesis, or Sapir – Whorf Hypothesis:

(a) Linguistic Determinism: all higher levels of thinking are dependent on language, that is, our first language determines our thinking; and

(c) Linguistic Relativism: since languages differ drastically "the world is experienced differently by speakers of different languages", "The picture of the universe is different for individuals in different linguistic communities" (Dale, op. cit. p. 238).

Note that (b) is a consequence of (a). Based on several experiments, most linguists, appointed out by Crystal (see above), reject the Whorf hypothesis in its strong form.

1.5 **The Functions of Literature**

Concerning the functions of literature, and art in general there have been two opposing views. One view holds that the prime function of literature, and art in general, is entertainment, or pleasure. Wellek and Warren (1982: 36) pointed out that some scholars regard catharsis as the main function of literature, and art in general. Catharsis is a Greek word which means "purification' or 'relief'. Te believe that literature, or art in general, has a cathartic function is to believe that literature, or art in general, relieves writers and readers from the pressure of emotions: "to express emotions is to get free of them" (Wellek and Warren 1982: 36). However, as pointed out by Wellek and Warren 1982: 36), one can object that some literary works actually arouse emotions.

The doctrine of Art for Art's Sake is the strongest view against the utilitarian conceptions of literature and art in general. This doctrine holds, in effect, that art should perform one and only one function: the expression of beauty (whatever this means). Nowadays, most writers and artists believe that, in addition to expressing 'beauty', literature and art should serve some practical purpose. In the words of the Latin poet Horace, this position means that art is both "dulce" (a Latin word meaning 'pleasant/mild') and "utile" ('useful').

2. **FUNCTIONS OF PARTICULAR LANGAUGES**

Besides the general functions of human language, there are functions that are performed by particular languages in particular state of/and contexts of communication. One example is the case of the use of a language as a national official language English in Zambia) or as a Regional Official Language (ROL). Another example is the exclusive use of a language in church services. These and other uses of language in society will be discussed in another lecture.

3. CONCLUSION

In addition to the communicative function, which is the main function, human language has many other functions. However, there is no agreed upon or exhaustive list of language functions and scholars do not always agree on certain proposals.

In dealing with language functions, it is important to distinguish between (a) language functions in general and (b) functions of particular languages in society.

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REVISION QUESTIONS

1. What is meant by ‘language function’?
2. Name and explain all the traditional functions of language.
3. Explain the criteria used by R. Jakobson in his classification of language functions.
4. Explain the following:
   (a) conative function
   (b) phatic function
   (c) metalinguistic
   (d) referential function
5. What are the three macrofunctions of language proposed by M. A. K. Halliday? Explain.
6. Give a synonym of:
   (a) emotive function
   (b) phatic function
   (c) referential function
   (d) conative function
7. Briefly explain the speech Act theory.
8. With examples, explain the following:
   (a) illocutionary act
   (b) perlocutionary act
   (c) perfomative verb
   (d) indirect speech act
9. Name and exemplify any <u>two</u> (2) tubes of illocutionary act.
10. What is your view on the doctrine of Art for Art’s sake?

UNIT TEN

LANGUAGE AND COMMUNICATION

1. Types of Human Communication

Human communication is verbal or/and non-verbal. Communication is said to be verbal if it is done through the medium of an articulated language, i.e. using speech sounds (= sounds produced by the so-called organs of speech). Communication is said to be verbal even if speech sounds are written.

a. oral communication and
b. written communication.

Gunther (1968), as cited by Keltner (1970: 106) gives the following examples of non-verbal communication.

Shaking hands
Your posture
Facial expressions
Your appearance
Voice tone
Hair style
Your clothes
The expression of your eyes
Your smile
How close you stand to others
How you listen
Your confidence
The way you move
The way you stand
How you touch other people

Gunther (1968) is quoted by Kelther (1978: 106) as making the following comment on the above examples of non-verbal communication:

"The body talks, its message is how you really are, not how you think you are".

It is important to note that face-to-face verbal communication is usually accompanied by gestures (with hands and, sometimes, the head) facial expressions. The study of bodily gestures and facial expressions, either made alone or accompanying verbal expressions, is termed kinesics.

There are four communicative behaviours, or language skills as they are called by language teachers, namely: speaking, listening, writing, and reading. These are associated with the addresser and the addressee as follows:

ADDRESSER _____ ADDRESSEE

SPEAKING	_____	LISTENING
WRITING	_____	READING

Note, however, that there are cases where the addresser and the addressee are the same and one persons, as when somebody speaks to himself (it does happen) or when we write notes and other things in our diary for our personal use.

On the four communicative behaviours, or language skills, Keltner (1970: 11) wrote:

> Speaking, listening, reading and writing involve different functions of the body and accomplish different objectives. From the very stages of his existence, after he graduated from the use of signs, man has used speech and listening as his principal meaning.

Keltner (ib) points out that although writing and printing have had a tremendous impact on the recording of ideas, the key interaction that forms the basic of our society is still spoken language or speech. He also reports (on p. 12) that Ralph Nichols and Leonard A. Stevens (1957) have shown that the breakdown of the time spent in normal communicative discourse by the average American is as follows:

LISTENING	42%	74%
SPEAKING	32%	
READING	15%	26%
WRITING	11%	

The distinction we have made between verbal and non-verbal communication is based on, the means of communication (in the sense of tube of code used). We can also categorize human communication in terms of whether a person is communicating with himself (just in case a person is both the addresser and the addressee) or a communicative event involves at least two participants such that the addresser(s) and the addressee(s) are different people. The latter case is known as interpersonal communication. The criterion used here is the number of participants. In connection with the number of participants, Hartmann and Stork (1972: 143 – 4) give the following terms:

(a) monologue: the linguistic activity of a single speaker, e.g.. in the form of a speech or lectures or as internal speech;

(b) soliloquy: the activity of a single speaker when no to other person is present;

(c) dialogue: communication between two speakers;

(d) multilogue or polylogue involves more than two contributing speakers, e.g. in a group discussion or argument.

2. **Some Design Features of Human Communication**

(a) C**ommunication is systematic**

A system is a whole in which there is a "part-to-part, part-to-whole interrelationship and interdependence" (Sereno and Bodaken 1975: 278). Writing on communication as a system, Sereno and Bodaken (op. Cit p. 10) had this to say:

"… communication involves the systematic relationship of elements. The nature of your communicating behaviour in this class, say, cannot be treated independently of the relationships you have with your family, your past experiences in other classes, or the goals you have in mind for yourself. The temperature of the room, the clothes you wear, the night you spent before class – these are also example of interdependent elements in the communication system."

(b) **Communication is perceptual**

There are two types of stimuli: external stimuli and internal stimuli. Perception "is the process in which a person selects stimuli … from the external world and at the sometime mixes and blends them with internal stimuli, which are within him." This is a quotation from Sereno and Bodake (1975: 12) who go on to say:

"when a person tries to make sense out of the world (and people have a deep psychological need to make sense out of the world), he has basically two sources of information available to him: the elements he brings with him-all his past, his attitudes, his personality – and those elements presently existing in the external world – all other people, their words and messages, their gestures, the surroundings. Perception is the individual's blending of internal and external stimuli.

Communication (human communication, that is) is perceptual in the sense that it is necessarily based on perceptions defined by Sereno and Bodaken (1975).

(c) **Communication is processual**

We quote once again Sereno and Bodaken (1975: 14):

A well-established assumption of communicating behaviour, emphasized by most writers in the area, is the idea that communication is a process. The term process describes the ongoing, flowing, ever-changing nature of human communication. Communication has no beginning, has no end, and, analogue to perception, is continuously moving forward. The best we can do is to snap a still picture of the process – arrest the process – for the purpose of examining and analyzing its complexity.

3. COMPONENTS OF A COMMUNICATIVE EVENT

A communicative event involves basically the following elements:

(a) participant: addresser and addressee(s);
(b) message: what is said or written;
(c) channel: the physical means used by the addresser to transmit his message to the addressee(s);
(d) code: symbols used (= language).

Note, however – and we have already pointed it out – that there are cases where the addresser and the addressee are the same and one person, in which case there is only one participant.

Hymes (1972) has proposed thirteen elements reduceable to the acronym SPEAKING: Setting, Participants, Ends, Act sequence, Key, Instrumentalities, Norms and Gennes Bell (1976: 79 - 81) explains these elements as follows:

1. Setting or Scene – refers to the general physical circumstances in which the communication event takes place, particularly the time and place, in the case of the first term and the cultural definition of the occasion in the second. For example, a lecture might be defined within a setting such as, 'the lecture theatre',11.0 a.m. Thursday 14 March, 1974 and the scene 'relatively formal'.

2. Participants: speaker, sender, addresser and hearer, receiver, audience or addressee. For example, fact-to-face communication would involve a speaker and a hearer, while a telephone conversation would require a sender and a receiver and in large interactions like a lecture an addresser and addressee(s) or audience.

3. End – divided into outcomes – results, intended and unintended – and goals individual and general. For example, a lecture may e intended to e illuminating and entertaining but in the event turn out to be vague and boring, while the lecturer's goal may be engender interest in an aspect of sociolinguistics but that of the audience to spend an hour in a warm comfortable atmosphere!

4. Act sequence - the form and content of the message: how and what is said; the 'topic'. To continue the example of lecture, the form would be fifty minutes or so of text analyseable by well-tried, and some less well-tried, techniques of descriptive 'linguistics,' while the content might be subjected to semantic analysis of various kinds and an integrated description of the two attempted.

5. Key – the manner in which the message is conveyed, e.g. the lecture might be delivered in a precise way or perhaps in a light-hearted way.

6. Instrumentalities: - these include both the channels employed and the forms of speech, language, dialect, etc. To return yet again to the lecture, the channel would be essentially spoken language, including the ancillary pseudo-and paralinguistic resources suggested above and probably back-up use of the written channels; handouts, notes on the blackboard and so on, while the form be the lecture's own brand of English, possibly with shifts into other varieties, where the

topic required examples from other dialects and even into other languages, where appropriate quotations from the works of non-English speaking linguists were incorporated into his notes.

7. Norms – both the interaction itself contains norms of behaviour on the part of the participants and the interpretation of the communication can be similarly seen as containing norms, in the sense of expectations, particularly on the part of the receivers. In a lecture for example, the British lecturer and his audience usually expect a monologue, free of interruptions, with questions left until the end, although each group has considerable latitude in this respect and often the lecturer will state at the beginning of a course, what rules he expects the interaction to follow. Similarly, the audience will expect the cognitive meaning of the utterances they hear to be those intended by the speaker. They will not, unless they are accustomed to the lecturer's style, (i.e. key), expect remarks to be ironic for example indeed one of a lecturer's greatest disappointments is that his most humorous remarks fall flat, simply because the audience is not expecting them to be anything other than serious.

8. Genres – categories which can be fairly clearly identified through the linguistic forms they typically employ; the lecture is actually a good example of a particular genre and, of course; the term has considerable history in literary studies.

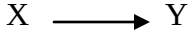
The various elements of communication function as variables. For instance, our style in speaking (choice of words, general behaviour during communication) depends, among others, on whom we are speaking to (= addressee): our relationships with him, his age, his sex, his cultural, religious back-ground, etc. similarly, our style depends, partly, on the channel of communication (letter, telephone, telex, etc).

4. COMMUNICATION: TRANSMISSION OR EXCHANGE

Looking at the question whether human communication is transmission or exchange of information, or messages in general, Sereno and Bodaken (1975: 7 – 8) have identified three approaches to communication, namely communication (a) as one-way action, (b) as interaction and (c) as transaction.

(a) Communication as a one-way action

In this approach to communication, messages are transmitted in one direction, from one person to another. For example, a person has some information, he selects channel and an appropriate code and transmits that information to the addressee. As Sereno and Bodaker (op. cit.) put it, a source originates a message and that message ends, hopefully, in the mind of receiver:



Shortcoming of this model

This model omits the fact that a message does not only end in the receiver's mind but always has an effect on the receiver who often gives some kind of feedback.

(b) **Communication as interaction**

This approach to communication is better than the previous one: it holds that "communication is a string of causes and effects or action and reactions or stimuli and responses: a person speaks, another nods, or speaks, the first speaks again." This can be schematized as follows:

(X ⟶ Y)and (Y ⟶ X)

Shortcoming of this model

This model views communication as an on-and-off interaction: each participant is either sending or receiving and not both at the sometime (see the next model).

(c) **Communication as transaction**

Sereno and Bodaken view communication not as a one-way phenomenon or interaction, but as transaction, by which they mean that in communication each participant is at the sometime a sender and a receiver:

X ⟶⟵ ⟶

What this means is that an addressee does not wait for the addresser to finish the sending of this message for him to react. Rather his reaction (= feedback) begins at the very moment when the addresser begins to send his message.

Shortcoming of this model

Communication is not always a transaction, as defined by Sereno and Bodaken (1975).

5. **COMMUNICATIVE COMPETENCE**

In linguistic theory, especially in generative grammar, the term competence is usually used to refer to "the speaker's knowledge of their language, the system of rules which they have mastered so that they are able to produce and understand an infinite number of sentences, and to recognise grammatical mistakes and ambiguities" (Crystal 1992: 66). This kind of competence may be referred to as pure linguistic competence. However, to communicate effectively, such pure linguistic competence is inadequate. What we need, to communicate effectively, is known as communicative competence, defined as the speaker's ability to produce and understand utterances which are appropriate to the context. In this definition of communicative competence the two key words are 'utterances' and 'context'. We do not always produce sentences when we speak. For instance, a greeting such as Good morning is not a sentence though it is accepted as a correct

utterance. As for 'context', this means that for one to communicate effectively, he must take into account a number of variables, such as the social status of the addressee, his sex, his age, his cultural background, etc. consider for example, the following utterance: The door, If I meet you, at the Independence Stadium in Lusaka and I say to do. The door, this utterance does not make any sense. But if you enter my office and leave the door open and I say The door, this utterance is now acceptable because it is interpreted as "close the door". Also note that this same utterance (The door) can mean either close the door or open the door, depending on the context.

6. CONCLUSION AND SUMMARY

Communication is the main function of language and is a highly complex phenomenon. Because of the complex nature of human communication there have been several views about it. In studying human communication it is important to take into account the various components that act as variable for effective communication and distinguish between (pure) linguistic communication and communicative competence.

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REVISION QUESTIONS

1. With examples, explain what is meant by non-verbal communication.
2. With examples, explain what B. Gunther meant when he wrote that "The Body tactics."
3. Briefly discuss the relationships among and the relative importance of the four communicative behaviours in articulated language.
4. Explain the following:
   (a) monologue
   (b) soliloquy
   (c) dialogue
   (d) multilogue, or polylogue
5. Discuss any three (3) design features of communication.
6. Name, discuss and illustrate any five (5) elements of a communicative event and show, with examples, how they function as variables.
7. Briefly explain D. Hymes' acronym SPEAKING.
8. Explain and show the shortcomings of Sereno and Bodaker's (1975) three approaches to human communication.
9. With examples, explain the notion of communicative competence.