

Third Year/ Linguistics
What is language?
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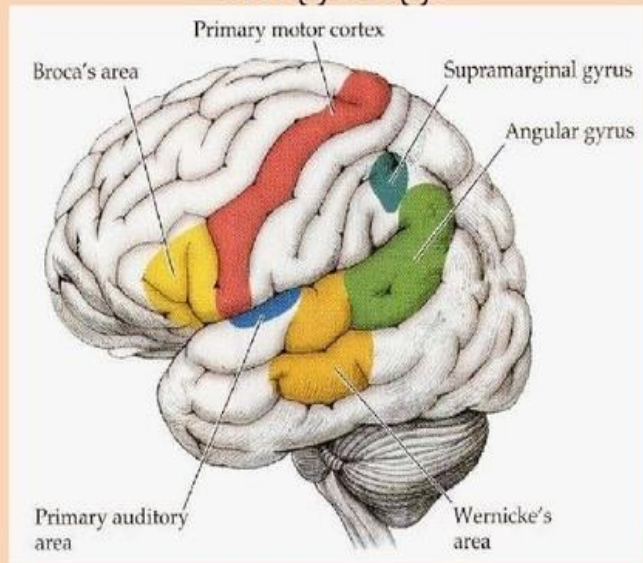
Key points

- Definition of language
- Features of human language
- Human language Vs animal communication
- The role of language

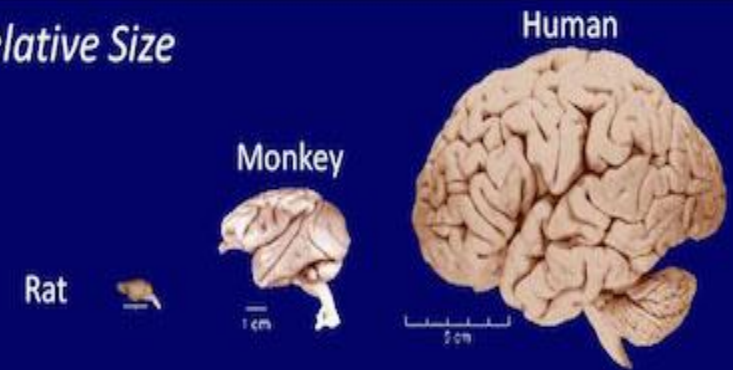
What is language ?

- Language is a specialized sound signaling system which seems to be **genetically programmed** to develop in humans

Brain Areas Involved in Language



Relative Size



Relative Complexity

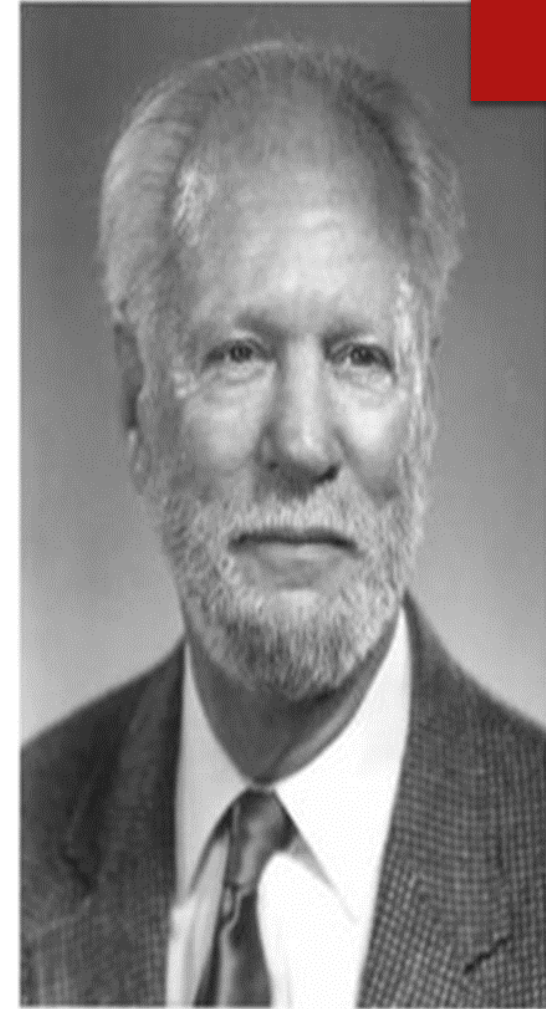


Features of human language

- ▶ All human languages have certain characteristics in common and linguists have identified these characteristics as defining features of human language, which set human language apart from animal cry systems, these features are called **design features**

American linguist

Charles Hockett (1916-2000)



Charles F. Hockett

Design features

- ▶ Use of sound signals
- ▶ Arbitrariness
- ▶ The need for learning
- ▶ Duality
- ▶ Displacement
- ▶ Patterning
- ▶ Structure dependence

Use of sound signals

- ▶ Crabs wave their claws at one another
- ▶ Bees have complicated sense of dances which signify the whereabouts of a source of nectar.
- ▶ These methods are not as widespread as the use of **sounds**



Round dance



Waggler dance

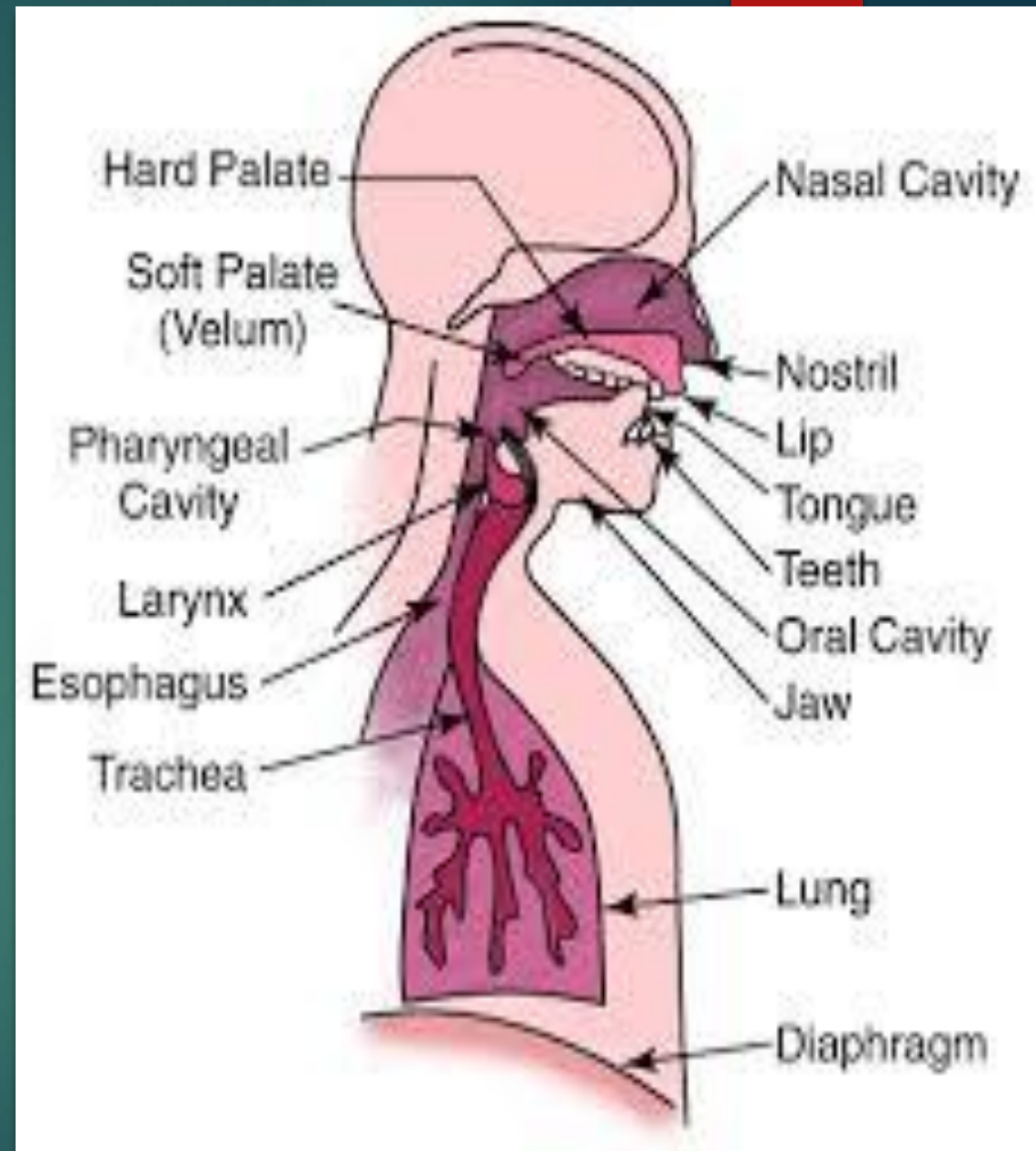
Sounds are employed by humans, grasshoppers, birds, dolphins, cows, monkeys, and many others

- ▶ These sound signals have several advantages
- They can be used in the dark
- They can be used at distance
- They allow a variety of messages to be sent
- They leave the body free for other activities



Human organs of speech and their function

- ▶ Human acquire their sound signaling system at a fairly later stage in their evolution
- ▶ Basic functions:
 - Lungs ≈ breathing
 - Teeth, lips, tongue ≈ eating
 - Vocal cord ≈ closing off the lungs in order to make the rib cage rigid for actions requiring grate effort



Arbitrariness

- ▶ **In animal language:** there is often a strong recognizable link between the actual signal and the message an animal wishes to convey, e.g.:
- ▶ A cat will arch its back, spit and appear ready to pounce in an act of warning off an opponent



- ▶ **In human language:** there is no link of whatsoever between the signal and the message. The symbols used are arbitrary, there is no **intrinsic** connection, e.g.:

- ▶ Elephant



- ▶ These bananas are bad



Onomatopoeic words

▶ These words are exception where there is a connection between the sounds and the meaning, e.g.:

▶ Quack-quack



▶ Bang!



▶ Ding dong!



The need for learning

- ▶ In animal language: animals automatically know how to communicate without learning. Their communication systems are genetically inbuilt.

- ▶ Chaffinch



- ▶ In human language: there is quite long learning process needed to acquire human language, which is culturally transmitted.
- ▶ A human being brought up in isolation simply does not develop any language

Mowgli the jungle boy



So what is the case?

- ▶ Human language is totally conditioned by the environment
- ▶ there is some sort of innate predisposition towards language in a new-born child
- ▶ This latent potentiality can only be activated by a long exposure to language, which requires careful learning

Duality:

- ▶ **In animal language:** the vocal signals used have a stock of basic sounds which vary according to species:
 - A cow has ten
 - A chicken has around twenty
 - A fox has over thirty
 - Dolphins, gorillas and chimpanzees between twenty and thirty
- most animals can use each basic sound only once
- So, the number of messages an animal can send is restricted to the number of basic sounds plus a few combinations
- ▶ **In human language:** there is a stock of sound units or **phonemes** which similar in number to the basic sounds possessed by animals, but each phoneme is meaningless in isolation.

What is duality?

- ▶ It is the organization of language into two layers:
 - A layer of sounds: /d/, /o/, /g/, /f/, /p/, /i/, /n/ etc...
 - A layer of sounds in combination: fog, dog, god
- ▶ To bring **meaning** to phonemes they need to be placed with others in particular sequence, e.g.: dog, fog, god **OR** pin, bin, tin
- ▶ Is duality a characteristic unique to human language?

Displacement

- ▶ The ability to communicate about things that are absent as easily as about things that are present

Creativity

- ▶ The ability to produce novel and new utterances whenever needed
- ▶ **In animal language:** there are very limited number of messages animals can send or received, e.g.:
 - a grasshopper has only six messages
 - Bees can communicate only about nectar
 - Dolphins seem to communicate about the same things again and again
 - Monkeys they repeat the thirty-six vocal sounds over and over
- ▶ **In human language:** there is no restriction on the type and unnumber of messages they can create (or produce)

Patterning

- ▶ **In animal language:** the communication system consists of a simple list of elements and there is no internal organization within the system.
- ▶ **In human language:** the system is not haphazard heap of individual items. Humans do not juxtapose sound and words in a random way, they ring the changes on a few well-defined patterns.

The sounds a, b, s, t can be arranged in only four possible

ways

Why other possibilities excluded, e.g. *sbat, *abts, *stba ?

Is it because they are **unpronounceable**?

Or speakers of English do not allow such combinations ?



stab

Lv.115

Tab the blue button ten times, then tab the red button once.

11



1



Bats



Bast

Words allow specific arrangements

- ▶ Burglar, loudly, sneezed, the
- The burglar sneezed loudly
- Loudly, the burglar sneezed
- The burglar loudly sneezed
- The loudly burglar sneezed X
- Sneezed burglar the loudly X
- A burglars X
- Burglars sneezes X
- Burglar sneeze X



How does items substitution work in English?

- English follows a fixed set of possibilities for the substitution of items, e.g.:
- The word **ba**ts → could be replaced by e or l, but not h or z
- Bets, bits ✓
- Bhts , bzts ✗

- Burglar ≈ cat, butcher, robber OR even engine and shoe in children's stories ✓

- **Every item in language has its own characteristic place in the total pattern**

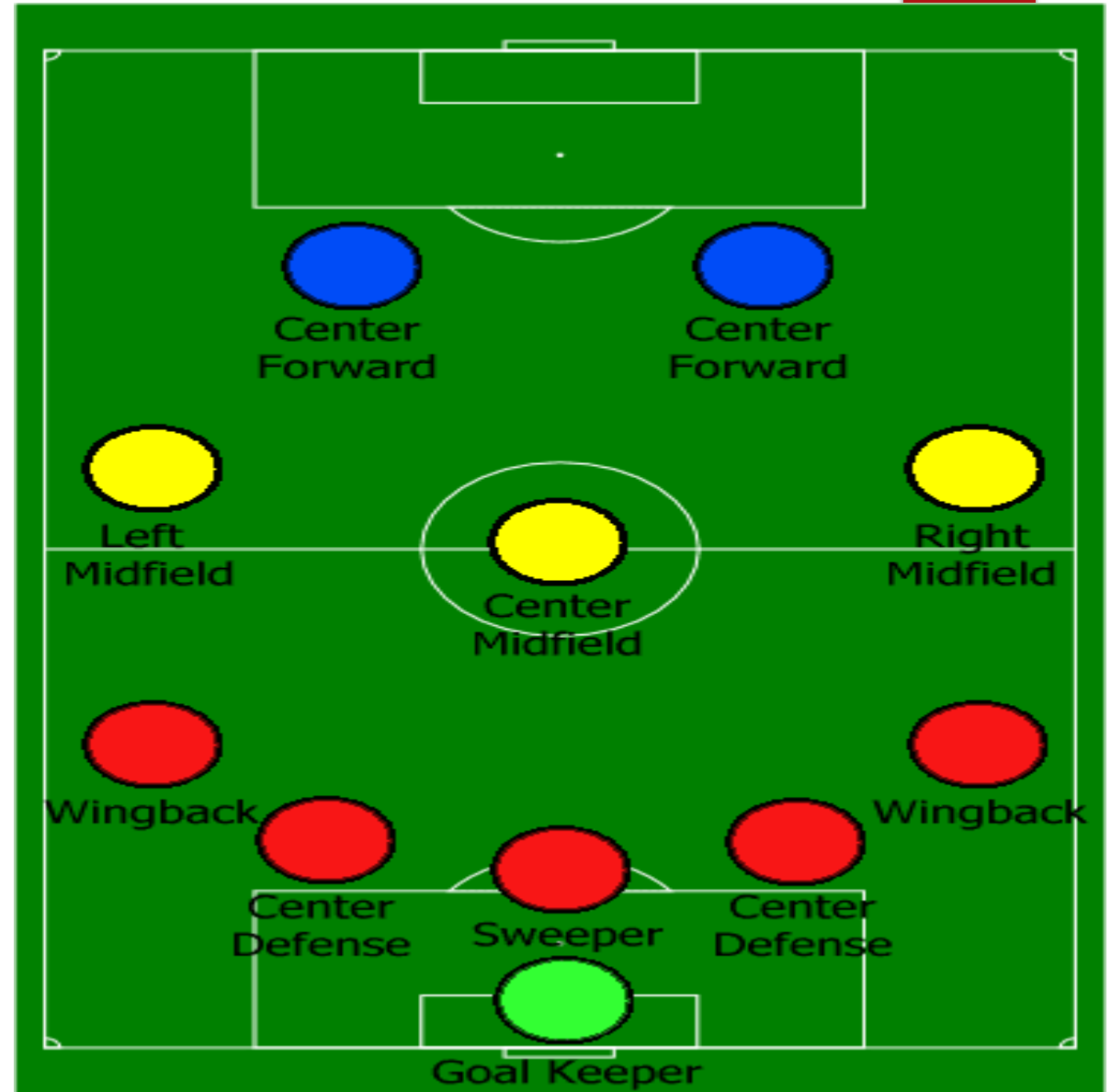
Consider the following table

▶ The	—	burglar	—	sneezed	—	loudly
A	—	robber	—	coughed	—	softly
That	—	cat	—	hissed	—	nosily

- Language is an **intricate network** of interlinked elements in which every item is held in its place and given its identity by all other items.
- Most items do not have an independent validity or existence outside their patterns or structures

Language and soccer

- ▶ Language is similar to the game of soccer
- ▶ Striker or a goal-keeper, has no use or value outside the game. But placed among the other players, a striker acquires an identity and value
- ▶ So, linguistic items such as the, been, very only acquire significance as part of a total language network



Structure dependence

- ▶ Language operations are structurally dependent
- ▶ Language users depend on an understanding of the internal structure of a sentence rather than on the number of elements involved. EX:

The penguin

It

The penguin which slipped on the ice

squawked

-These three sentences have the structure of S V and the number of words is not the right way to tell about their structure.

- Elements of structure can change places, or even be omitted. EX:

[That dirty child] [must] wash

has the related question:

[Must] [that dirty child] wash?

For more examples see p. 20

Human language VS animal communication

Human language

- It is a signaling system
- There is no connection between the sounds and the message sent (arbitrary)
- It is genetically programmed (there is a need for learning)
- It is organised into two layers (duality)
- Ability to talk about past, present and future(displacement)
- Ability to produce novel utterance (creativity)
- Patterning and structural dependence are unique to human language.

animal communication

- it is a signaling system
- there is a connection the signal and the message
- it is genetically inbuilt (there is no need for learning)
- no dual organisation
- extremely rare or even absence of no such ability.
- not present in animal communication system
- no patterning or structure dependency

More details are on p. 21

Origin of language

- ▶ How and when did humans start to talk?
- ▶ Language probably seemed to develop in east Africa 100,000 years ago.
- ▶ Three preconditions must have existed:

- 1- humans had to view the world in certain common ways
 - 2- they were able to produce a range of sounds
 - 3- they must have attained the naming insight
- these three preconditions enable humans to build up a store of words

- ▶ What about linguistic rules, conventional word arrangements?
- ▶ It is believed that these rules came among early humans in much the same way as new rules emerge in any language today. So, preferences tend to become habits and habits become rules.
- ▶ Most languages words of actions near words of objects which are acted upon. EX:
 - The fisherman caught a fish → in English
 - The fisherman a fish caught → in Turkish

The role of language

- ▶ Why did language begin? Functions of language
 - Communicative function: social chit-chat, the meaningless small talks of everyday life.
 - Persuasive function: the use of language for persuading and influencing others
 - Informative function: swapping news and conveying essential commands which is prominent primarily in public language.
 - Expressive function: language is used to express and communicate feelings and emotions
- ▶ There are various other biologically less important functions:
 - Aesthetic function: writing poetry where people manipulate words in the same way as they might model clay or paint a picture.

References:

Aitcheson, J. (2010). Teach yourself Linguistics.

For fuller discussions, see the book pp 12-24

Best wishes
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