

- Animal language: is the modeling of human language in non human Animal system, while the term is widely used. researchers agree that animal languages are not as complex or expressive as human language.
- The linguist "Charles Hockett", who proposed a list of design features of human language. argue that there are significant differences separating human language from Animal (language) Commun.
 - Thomas a Sebeok proposed not to use the term language in case of Animal sign systems.

→ Definition of Animal Communication: any behaviour

- Zoosemiotics: Sign of Communication.
- Semiosis: study of Animal signs.
- Anthroposemiotics: study of human Communication.

→ Forms of Animals Communication:

- Gestures.
- Facial expression
- vocalization:
- olfactory communication.
- electro communication.
- Functions of animals Communication:
 - 1) Agonistic interaction
 - 2) courtship rituals
 - 3) Ownership / territorial
 - 4) food-related signals
 - 5) Alarm calls
 - 6) Multi-communication.

Components of linguistics: phonetics, phonology, morphology, semantics and syntax.

1) Phonetics: study of sound that are used in all human languages
branch of linguistics

- * Articulatory phon: study of how sounds are produced.
- * Acoustic " " : study of physical characteristics of sound
- * Auditory " " : has sth to do with ears.

2) speech organs: lips, tongue, teeth, larynx, pharynx,

1) lungs, uvula, velum, hard-palate.

* lips: bilabial sounds (p, b, m). both lips are used.
tip blade, front, back

2) tongue can be raised up, or down.

3) teeth: Used to produce some words.

4) velum: soft: produces sounds like G. used back part of the tongue

- Consonant: can be voice or voiceless. there're obstructions.

V: = (all are voiced).

bi-labial consonant [p] [b] Plosives.

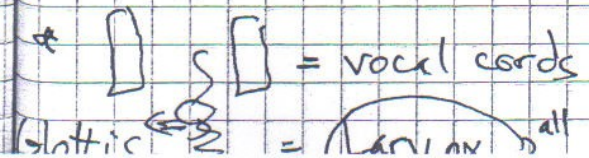
[f] : labio-dental consonants: [f] [v] lower lip with teeth.

- Dental sounds: [θ] IPA. used tip of tongue inserting with [ð] = the.

- Alveolar sounds: [t] [d] [n] [l] [r] [s] [z]

- Palatal consonant: blade of the tongue comes or touches the hard-palate [ç] shower, [j] : magic.

windpipe or trachea:



Pulmonic:
 voiceless: They remain (cords)
 voice: They vibrate.

- Velar Consonants: back of the tongue touches the soft palate
(velum) eg: [g], [k], [ŋ]

- Uvular sounds: [ʁ], [ʁ̥]
s3 [ʔ], [ʕ] aa, [ħ] = ʔ Phonology of pharynx

- Pharyngeal consonants: [ʔ], [ħ]

- Glottal Consonants: The vocal cords are temporarily held together temporarily then released
s [ʔ] (voiceless) [ħ] (voiced)

Diagram of the vocal tract showing the location of the velum, uvula, and pharynx.

Diagram of the vocal tract showing the location of the glottis and pharynx.

Diagram of the vocal tract showing the location of the pharynx and larynx.

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Velar consonants: back of the tongue
[g], [k], [ŋ]

Uvular sounds: [ʁ]

sibilants [ʒ], [ʃ] aa, [tʃ] - Point of pharynx

Pharyngeal consonants: [ʕ] [ħ]

Glottal consonants: The vocal cords are temporarily held together temporarily then released: s [ʔ], voiceless [h] who

1) Manner of articulation

1. Stops & continuants:

Once the airstream enters the oral cavity, it may be stopped or it may be partially obstructed, or it may flow freely out of them

Sounds that are stopped completely in the oral cavity for a brief period are called:

stops = eg: p, b, m, t, d, n, k, g, ŋ.

For m, n, ŋ, even if the air continues to escape through the nose, they're considered as stops because the feature [±

continues) refers to the passage of air through the mouth.

The oral stops are also called plosives since they are released with a kind of explosion.

p, b, m are bilabial stops with the air stream stopped at the mouth by the complete closure of the lips.

t, d, and n are alveolar stops. The airstream is stopped by the tongue making closure at the alveolar ridge.

g, ŋ are velar stops, the closure occurs with the back of the tongue coming in close contact with the velum.

For uvular stops like [ʁ] in Arabic the airstream is stopped with the back of the tongue coming in close contact with the uvula.

with the air is stopped at the level of the glottis with

two vocal cords joined tightly together

2) Aspirated and unaspirated sounds

- what happens during the articulation of voiceless sounds?

the glottis is open and the air blows freely, but voiceless sounds

fall into two classes depending on the timing of the vocal cords closure.

when we pronounce the word pit, there is a period of voicelessness

immediately after the ~~p~~ sound is released

such sounds are called aspirated sounds [+ aspirated]

[P^h] + aspirated (comes with air)

[P]

[P] - aspirated.

because there is a puff of air which accompanies the sound.

but when pronouncing [P] in spit the V.C start vibrating as soon as the lips opened.

such sounds are called unaspirated sounds [- aspirated]

3) Fricatives: In the production of some sounds the air is not completely stopped but is obstructed from blowing freely

when producing s, z, f, v, θ, ð, ʒ, ʒ passage in the mouth

through which the air must pass is narrow, causing friction.

the air molecules are pushed against one another causing friction, such sounds are called fricatives or spirants (from the Latin word spirare meaning blow).

- for [f] & [v] friction occurs at the lips & and the teeth where a narrow passage permits air to escape.

→ for s & z (alveolar fricatives) friction is created at the alveolar ridge

For [θ] & [ð] (labiodental fricatives)

- Frication occurs at the opening b/w the ~~teeth~~ tongue & the teeth ^{tip of}

- For [ʃ] & [ʒ] Palatal fricatives.

Frication occurs at the narrow opening b/w the front of the tongue & hard plate.

4) Affricates: some sounds are produced by a stop closure followed immediately by a slow release of the closure characteristic of a fricative.

∴ it is a sequence of a stop plus a fricative, they're considered as [-continuant]

5) Sibilants: The frication created in the production of fricatives & affricates cause a hissing sound. (they're classified as sibilants)

- sibilants & labiodentals are [+sonorant]

in the production of sibilants & labiodentals there is more noise or sonorancy than is produced by interdental labiodentals & fricatives.