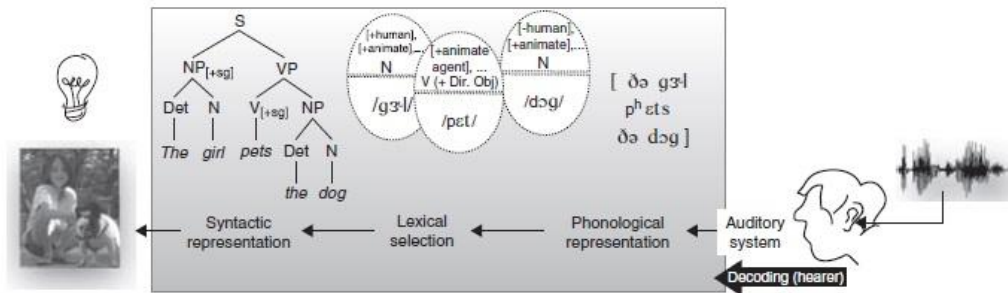


Lecture 10

Speech Perception



Contents:

Perceiving Speech

- The phonemic inventory and speech perception
- Constructive speech perception
- Bottom-up and top-down information
- Suprasegmental information in the signal

The Role of Orthography

Perceiving Speech

▪ The phonemic inventory and speech perception:

Knowledge of the phonemic inventory of a language is necessary for perception. This explains why it is easier for beginning language learners to understand material with subtitles.

▪ Constructive speech perception:

The perception system is constructive because it uses additional information to the signal, such as lip movement, in the perception of speech.

Bottom-up vs. top-down processing:

Bottom-up processing:

Using the acoustic signal (i.e. phonemes) to understand speech.

Top-down information:

Using contextual information to understand speech.

(e.g. sandstorm.. “.... . windows”).

▪ Suprasegmental information in the signal:

Variations in duration, pitch, stress, and amplitude (loudness) can affect speech perception. Compare:

Trustee with trusty

The Role of Orthography in perception (while reading):

Orthography is the writing system of a language.

Researchers have found that phonology and orthography play an important role in the perception of written texts.

For example: French learners of English have difficulties identifying the phoneme /p/ in words like *absurd* than *lapsus*

Exercise

Knowledge of the phonemic inventory of a language is:

- Not necessary for perception
- Necessary for perception
- Necessary for production
- Both B and C

The answer is D