

Language needs to have...

- Broadcast transmission
- Naming/representation
- Arbitrariness
- Productivity
- Displacement
- Duality of patterning
- Rules or conventions
- Learnability??
- Intentionality

Source: Hockett

Levels of processing

- Phonology
- Lexicon
- Morphology
- Syntax
- Discourse & Pragmatics

Phonology

- What phonemes exist in the language
- Phonotactics
 - Rules about the way in which phonemes combine
- Which allophone occurs in any given context
- Suprasegmental information
 - stress patterns
 - language rhythm/timing
 - intonation differences

Lexicon

- How are words stored in memory?
- How are these organized?
- How do you access that information?
- How do we define a word, or decide which things get the same label?

Semantics refers to the meaning of a word or sentence.

- semantics is wrong in: Colorless green ideas sleep furiously.
- semantic ambiguity: I am going to the bank.

The lexicon, cont.

- Content words vs. function words

- How do children learn the meanings of new words?

Morphology

- “BIRDS” -- does this word have one meaning or two?



- Two: “bird” + “more than one of”

The smallest unit of language which has its own meaning is called a morpheme.

Morphology, cont.

Morphology of a language has to do with the rules for combining different meaning units into larger words.

- Types of morphemes
 - Free morphemes
 - Bound morphemes
- Usage
 - English marks number, person, tense, aspect
 - “agglutinative” languages, such as Turkish
 - “gel” = come
 - “gelemedim” = I couldn’t come
 - “gelemyeceklermis” = It was mentioned that those people won’t be able to come.

Sentence level

Syntax refers to the rules about how words are combined together.

- Syntax is wrong in “Did hit the girl the boys?” & “The girls hits the boys.”
- Syntactic ambiguity in “They are cooking apples.”

A grammar must explain:

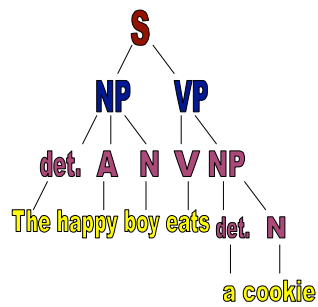
- What makes certain sentences acceptable, and what makes others wrong.
 - why these mean the same thing:
The girl hit the boy. The boy was hit by the girl.
 - why these do not mean the same thing:
The dog bit the man. The man bit the dog.
 - why the following are not correct:
It's flying finches, they are.
The child seems sleeping.
This sentence no verb.
This sentence has contains two verbs.

Sources: Pinker (1994) *The language instinct: How the mind creates language* and D. Moser, cited in Pinker (1994)

Syntax

- Indicates the relationships between different words or groups of words in the sentence
- Sentences can be broken down into groups of words, or constituents.
 - Phrase-structure trees diagram the relationships between constituents .

Phrase structure tree



Discourse or conversation

The rules about how we use language are called pragmatics.

- Register
- Level of detail
- Judging prior knowledge

Levels of processing

- Phonology (level of the sound)
- Lexicon & morphology (level of the word)
- Syntax (level of the sentence)
- Rules of discourse (level of the conversation)

Methodologies

- Examine people who have brain injuries or language disorders
 - Aphasia
 - Word-finding problems
- Look at animals
 - If they behave similarly, then ability is likely
 - Innate, not learned
 - General auditory ability, not language-specific

Methodologies with adults

- Metalinguistic tasks
- Reaction time (RT) tasks
 - it will take longer to respond to a stimulus if there is more processing taking place
- Human errors
 - Speech production errors tell us something about what the brain was processing at the time.
 - “I’d like to muzzle over that”
 - “tabico cat”
 - Errors of speech perception in noise tell us how similar different sounds are to one another.
