

01:615:201
Introduction to Linguistic Theory

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Wrap up

Human language

- Organ in the brain
 - Does not have to be localized
 - Think skin, circulatory system
- Acquired not learned
 - Critical period
 - Poverty of stimulus
 - Phases in acquisition
- Species specific

Modules - phonology

- Phonology
 - Minimal pairs give us phonemes – smallest units of meaning
 - Allophones derived from predicable context
 - Morphological context
 - Phonological context
 - Crucial notion of alternation

Modules- morphology

- Morphology
 - Smallest element with constant meaning – a morpheme
 - A morpheme can have different forms provided the environment is identifiable
 - Environment can be phonological
 - Morphological, its own output
 - Syntactic?

Modules -Syntax

- Syntax
- Computation of sentence form and connection to meaning
 - Words and phrases used as units of syntax:
phrases
 - Non-linear structure of sentences
 - Movement connects different expressions at level of theta role assignment

Modules - Semantics

- Semantics
 - Computation of truth values of propositions
 - entailment
 - Computation of predicates
 - Constrained by syntax
 - Discourse maxims
 - Implicature
 - Denotation and the real world
 - Tenuous connection

Acquisition

- Language acquisition is part of cognitive development that is not fully equivalent to conscious learning
- Stages
 - Babbling
 - One word, etc.
- No negative data
- Poverty of stimulus
- Species oriented
- Corrections have minimal impact
- Everyone succeeds!

Processing

- Differentiate use from knowledge
- Real time behavior utilizing language knowledge
- Constrained by:
 - Memory, attention
 - Physical capabilities of input mechanisms
 - Strategies: Minimal Attachment vs Late Closure
- Top down sometimes bottom up

Aphasia

- Aphasia
 - Language disorders
 - Specific behavioral impairments
 - Correlated with brain regions
- Might be an argument for modularity but not have to
- Definitely an argument for dissociation knowledge from processing

Networks

- Computer science
 - Computer modeling of language behavior
 - Not necessarily a model of what humans do
 - Need to assume one algorithm hypothesis
- Neural net training is behaviorism
 - S->R
 - Not what children do
- Bayesian enhanced Markov probability counting gets you as far as you can, still need linguistic structure.
- But neural nets can mimic aphasia