

## Nativist Interpretation Syntactic Model

- Extreme “nature” viewpoint
- Belief that language is biologically innate
- Humans are born with a species-specific capacity for language
- Chomsky was proponent, refuted theories of Skinner

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## Core Concepts

- Language is universal among humans
  - linguistic universals are the commonalities among all human languages
- Humans develop language despite poor input
- Rapid acquisition proves language is NOT learned
  - Language Acquisition Device (LAD), the part of the brain specifically designed for language
- Parents don't teach language or use corrective feedback
- Rules drive system and are separate from meaning

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## Animal Communication

- “Washoe,” with Gardner and Gardner
  - 10-month old female chimpanzee
  - used American Sign Language
  - learned about 130 signs
  - spontaneously produced word combinations
    - “water bird” for swan/duck
  - But, no consistent word order or other inflection
- “Koko,” Patterson
  - one of longest of studies, mountain gorilla
  - “finger bracelet” for ring, ability to rhyme and learned homonyms
- See Table 2.1, p. 35 in Owens 2008

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## Nim Chimpsky (Terrace)

- Hoped to prove that chimps could learn language
  - By age 4, Nim learned 125 signs
  - Yet, concluded Nim had not learned "language"
- Differences between Nim's and children's language
  - Nim never initiated sign language
  - 12% of signs were spontaneous, 40% were repetitions
  - Requests were for food and social rewards only, no requests or comments
  - No grammar

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## Transformational Generative Grammar (TG or TGG; Chomsky)

- A description of the possible rules of human language that allow for infinite production of grammatical sentences
  - Generative
  - trying to define a universal grammar (UG)
- Deep structure
  - origins of sentence in brain
  - contains phrase structure rules
- Surface structure
  - form of sentences as they are produced in language
  - requires transformation

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## Three basic phrase structure rules

- Sentence rules, verb phrase rules, noun phrase rules
  - Describe the relationship of the basic elements of sentences
- Sentence
  - S = NP + VP
  - Sentence consists of a noun phrase and a verb phrase
- Noun Phrase
  - (modifiers) + N
  - Optional modifiers before a noun
- Verb Phrase
  - V + (NP)
  - Verb plus optional noun phrase that follows

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## Transformational rules

- (def) Rules that describe the rearrangement of deep structures before they are expressed on surface
  - each language has its own transformations
  - NOT universal
- 3 Common English transformations
  - Question
  - Negative
  - Passive voice

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## Government Binding Theory

- Also known as Principles and Parameters Theory (PPT)
  - Chomsky revised theories of TG in 1981
  - meaning added to deep structure
- PPT to address weaknesses of TG
  - TG able to form grammatical, but NOT meaningful sentences
    - "colorless green ideas"
  - "learnability" issue - need limits on ability of learner to formulate rules of language

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## Changes from TG to PPT

- Deep Structure
  - Added meaning
  - vocabulary or "personal dictionary" part of deep structure
- Surface Structure
  - added Phonetic Form rules
    - rules about the sound system
  - added Logical Form Rules
    - rules that apply logical interpretation
    - ex. Pronouns and antecedents

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## Evaluating Nativist Interpretation

### □ Limitations

- Early versions ignored semantics, phonology, pragmatics
- Language acquisition and complex utterances develop beyond age four
- All children “learn” the language of their parents
- Could precursors, but NOT language be innate?

### □ Contributions

- Basic concept that humans have an innate capacity for language has not been refuted
- Important changes in linguistics due to Chomsky

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