William O’Grady:

**The Acquisition of Syntactic Representations: A General Nativist Approach**

<table>
<thead>
<tr>
<th>Special Nativism</th>
<th>General Nativism</th>
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</thead>
<tbody>
<tr>
<td>Chomsky</td>
<td>O’Grady</td>
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<tr>
<td>UG</td>
<td>cognitive psychology</td>
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<td>“From the poverty of the stimulus”</td>
<td>the nature of experience, interpretability requirement</td>
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<tr>
<td>inborn knowledge, genetic</td>
<td>innate knowledge is more general in nature, mechanisms responsible for language acquisition and use are not narrowly linguistic in character</td>
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</tbody>
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**Properties of the Grammar**

Three components:
- small inventory of syntactic categories (N, V, etc.)
- set of finite mechanisms that combine words into phrases and finally into an unlimited number of sentences
  
  three conditions:
  a) every word and phrase is assigned to a syntactic category
  b) all branching is binary
  c) subject-object asymmetry (verb structurally closer to object)
    a) + b) + c) = tree diagramm
- principles that regulate phenomena (binding principle), relationship between a gap and the displaced element

**Categorial Grammar**
- Builds structure from the bottom up
- verb = head, noun = agent, object = theme
- argument hierarchy: theme first, agent last
- Inheritance principle: the argument that is left uncombined is inherited upward

**The Nature of Experience**

- Interpretability Requirement: utterance-meaning pair (phonetic form and semantic representation)
  Two conditions:
  a) language learners have at least a rudimentary vocabulary
  b) sentences must be encountered in context

**The Acquisition Device**

- five independent modules whose interaction with each other and with experience ultimately gives a grammar
  - Perceptual Module: perception of speech
- **Propositional Module**: provides a representation of propositional meaning, inborn “language of thought”, able to represent propositions in terms of an internal structure consisting of predicates, modifiers and arguments bearing a variety of thematic roles.

  Ex. *Harry studies astronomy*

  Predicate: STUDY (agent, theme)

  Agent: HARRY

  Theme: ASTRONOMY

- **Conceptual Module**: provides an inventory of notions relevant to grammatical contrasts: singular-plural, definite-indefinite, past-nonpast, and so on.

  Ex. *Harry studies astronomy*

  Predicate: STUDY (agent, theme)

  Tense: present

  Agent: HARRY

  Theme: ASTRONOMY

  [singular]

  [noncount]

- **Computational Module**: provides the means to carry out combinatorial operations on functors and their arguments.

  Three important properties:
  
  a) Binarity: its operations apply to pairs of elements
  
  b) Iterativity: Its operations can reapply without definite limit
  
  c) Inheritability: Operations that cannot apply at one level are carried up to the next

- **The Hypothesis Formation Module**: provides the means to formulate and test hypothesis.

  Conservatism Law: prevents the acquisition device from incorrect overgeneralizations:

  Ex. Reflexive pronoun with a subject antecedent:

  *The boy saw himself in the mirror*

  Reflexive pronoun with a genitive antecedent

  *The boy’s mother saw himself in the mirror*

**Points to discuss**

Compare the two following statements. How convincing are they?

-Chomsky: “Every ‘theory of learning’ that is even worth considering incorporates an innateness hypothesis.”

-J. Piaget: “Language is a product of intelligence.”

What do you think of the Interpretability Requirement? Is an utterance-meaning pair necessary to learn a language?

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**Bibliography**
