William O'Grady:

The Acquisition of Syntactic Representations: A General Nativist Approach

Special Nativism	General Nativism
Chomsky	O'Grady
UG	cognitive psychology
"From the poverty of the stimulus"	the nature of experience, interpretability requirement
inborn knowledge, genetic	innate knowledge is more general in nature, mechanisms responsible for language acquisition and use are not narrowly linguistic in character

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 assymetry (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 represetation)

  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
  [singular]
  Theme ASTRONOMY
  [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?

Bibliography:

O'Grady, William. *The Acquisition of Syntactic Representations: A General Nativist Approach*. In: *Handbook of Child Language Acquisition*. Eds. William C. Ritchie and Tej K. Bhatia. San Diego, London, Boston, New York, Sydney, Tokyo, Toronto: Academic Press, 1999, pp.157-189

Fodor, Jerry. The mind doesn't work that way, the scope and limits of computational psychology. Cambridge, Massachusetts, London: Massachusetts Institute of Technology, 2000.