• Evidence that children are creating grammar

• Children’s “errors” (evidence for children’s innate ability to create their own grammar)

<table>
<thead>
<tr>
<th>Creating regular rules of morphology and syntax (Pinker, p. 274)</th>
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<tbody>
<tr>
<td>Keeping verb root invariant; single form for past tense and past participle.</td>
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<tr>
<td>I heared [hird] it. ‘I heard [hارد] it.’</td>
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<tr>
<td>Daddy drank it. ‘Daddy drank it.’</td>
</tr>
<tr>
<td>Baby woke up. ‘Baby woke up.’</td>
</tr>
<tr>
<td>Double marking (often on irregular forms).</td>
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<tr>
<td>She wants to be feded. ‘She wants to be fed.’</td>
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<tr>
<td>I stepted on it. ‘I stepped on it.’</td>
</tr>
<tr>
<td>Regularizing noun plurals.</td>
</tr>
<tr>
<td>foots ‘feet’</td>
</tr>
<tr>
<td>feet ‘feet’</td>
</tr>
<tr>
<td>swimming suitses ‘swimming suits’</td>
</tr>
<tr>
<td>Double marking (often on irregular forms)</td>
</tr>
<tr>
<td>Take off it. ‘Take it off.’</td>
</tr>
<tr>
<td>(Child keeps “verb + particle”, such as wake up, take off, as a unit; standard English must put the particle after a pronoun object, but may keep it before a noun object—I came to wake up Daddy, Take off your shoes.)</td>
</tr>
</tbody>
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Extending the possibilities available to the adult grammar

<table>
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<tr>
<th>Creating causative verbs (see Pinker 279-280)</th>
<th>Stay those home. ‘Leave those home.’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daddy pee him. ‘Daddy make him pee.’ (a urinating doll)</td>
<td></td>
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• Complex structures young children master that they could not have been taught (see 2nd and 3rd pages of film outline, esp. section in boxes)

Film “Acquiring the Human Language”, story about a boy who fell out of a tree and hurt himself:

• Children were entirely consistent in recognizing that there are two possible answers to (1), but only one answer to (2):

  (1) When did the boy say he hurt himself? [When he was taking a bath.] [When he fell out of the tree.]

  (2) When did the boy say how he hurt himself? [When he was taking a bath. *When he fell out of the tree.]

Can you figure out why this is so?!
• **Learning words:** children construct their own ideas about what a word means, but their “constructing” has certain apparently innate restrictions, such as the *gavagai* or “Whole Object” principle

• An apparent application of the *gavagai* principle is the following from Jean Stilwell Peccei, *Child Language*, Routledge, 1994, p. 7:

  One afternoon Christian pointed to a spider web and asked *What that?* His father replied *An abandoned spider web.* For several weeks Christian insisted on calling spider webs *bandido.*

  That is, the child took his father’s phrase to be a generic term for the object, not a comment on its attribute of being abandoned.

• Child language literature is full of examples such as the “Nunu” case in the film (4th page of film outline), e.g. *duck* refers to “a duck swimming in a pond; a cup of milk; a coin with an eagle on it; teddy bear’s eye” (Peccei, p. 11). Do these “extended” applications of words pose a problem for the claim, “Children are biased learners” (5th page of film outline)?

• **Children’s phonology:** shows children’s ability to break the speech stream down into individual sounds

  • Systematic substitutions for adult sounds:
    
    *n* for *l* at the beginning of a word: *neg* ‘leg’, *nedi* ‘lady’
    
    *w* for *l* in the middle of a word: *sawud* for ‘salad’, *pawish* for ‘polish’
    
    realizing consonant cluster as one consonant: *gas* ‘grass’, *nack* ‘snack’, *kos pin* ‘clothes pin’

  • Ability to *hear* distinctions not yet able to *produce*

    Gretchen: They are *sweeping.* (meaning “they are sleeping”)
    
    Dad: They are *sweeping?!*
    
    Gretchen (slowly and emphatically): They are *Sweeping!*

• **Errors children do not make**—Pinker 276-277, 286-287; comments by Lasnik provide evidence of innate restrictions on the type of grammar a child could create. In the video, a child is speaking to a puppet about what Cookie Monster eats:

  The child says: **Cookie Monster eats cookies and what else?**
  
  The child would never say: *What else does Cookie Monster eat cookies and?*

  The non-occurring question (marked by *) is a violation of the so-called **Coordinate Structure Constraint**, which says that things connected by the conjunction *and* must always be treated as a grammatical unit. Thus, grammatical rules cannot operate on just one part of the phrase in the box in

  \[
  \text{Cookie Monster ate } \underline{\text{cookies and cake}}.
  \]

  This accounts for why …

  • We cannot “extract” just one of the nouns to question it:

  \[
  *\text{What did Cookie Monster eat } \underline{\text{cookies and}}?*
  \]
• A negative sentence such as the following can mean only that Big Bird ate neither cookies nor cake, not that he did not eat cookies but did eat cake, or vice versa:

   Big Bird did not eat [cookies and cake].

The Coordinate Structure Constraint seems to be universal to all languages and is thus a candidate for being part of the “language instinct” that we are born with. A child would “innately know” that things joined by and form units in the same way that s/he “innately” knows that languages will have things like subjects, object, possessors, etc.

• Models of acquisition which will not work

• Being smart (Pinker 280), i.e. applying the generally problem solving abilities of a smart creature to the specific task of language learning:

   Young children are incapable of accomplishing tasks which are conceptually vastly simpler than language—see Pinker 281 for some examples. Other tasks might be doing elementary arithmetic or learning the rules of a game like checkers or dominoes.

• Imitation of adults (Pinker 280-281):

   All the examples of child “errors” and features of what child DO during acquisition show that they are not directly imitating adults

• Practice of constructions and correction by adults (Pinker 282-285):

   Interaction with older language speakers is necessary; “Motherese” is helpful because it is often slowed down and simplified. But adults typical do not correct children’s “errors”, and, more significantly, children are usually oblivious to correction and/or do not “correct” the portion of the utterance which the adult is targeting. (See an oft-quoted example, Pinker 285.)

   Gretchen: Where’s me going?
   Dad: Where’s ME going?!
   Gretchen: Where’s I going?

• Analogy (Pinker 276; boxes at bottom):

   Creating new forms by analogy with forms previously heard has a certain appeal and has been considered as a serious model of language acquisition. Pinker and the film give examples of possible analogies that would potentially “tempt” a child but which they would never use. Another example:

   For certain verbs, English allows the verb of the main clause to be negated, even though it is really the verb in the subordinate clause that is negative, e.g. in the following, one DOES think that the juice will NOT BE sour:

   An adult sentence which Gretchen might have heard …  |  Gretchen’s sentence which might have been formed on analogy with the adult sentence…

   I don’t think this juice will be sour.  |  I don’t hope this juice will be sour.  
   (to mean “I hope the juice won’t be sour.’)  |  

   A possible analogical formation which Gretchen seems never to have made …  |  
   *I don’t mean the juice will be sour.  
   (to mean “I mean the juice will not be sour.’)  

   The “transferred” negative is possible only with verbs of OPINION or PERCEPTION (‘believe’, ‘expect’, ‘seem’, etc.). In meaning, ‘hope’ is close in meaning to such verbs, but ‘mean’ is not. The occurring and non-occurring forms in Gretchen’s speech must be
accounted for by the fact that she somehow “knew” the kinds of verbs which would allow a transferred negative—a blind analogy on the basis of sentence form is not sufficient.

• What is acquisition? (first two pages of film outline)
  • Children have an instinct for a communication system with a certain design
  • Children have an instinct for “analyzing” adult speech for relevant language properties
  • Children put the bits and pieces of adult speech together using their innate abilities
  • As children mature, they continually adjust their speech to come closer to the adult model