• L1 acquisition of syntax

Background reading:
• CL Ch 9, sec 5
1. Review — L1 acquisition key ideas

• A child who is in the process of acquiring his/her target (adult) language goes through different stages of development
  - These stages reflect intermediate mental grammars on the way to the adult grammar

• A child often shows variable behavior
  - A rule may be applied only some of the time
  - Multiple versions of a rule may be in use

• But we can still find a great deal of systematicity in children’s language behavior
2. Syntactic development: Overview

• Syntactic development also proceeds in stages

• Examples:
  - Stages in utterance length
  - Stages in development of transformations
3. Development of utterances

The **one-word stage** (12 to 18 months)

- One-word utterances are used to express the meaning of a whole sentence

- Some examples from A (my daughter):
  
  *More*  (‘I want more milk’)
  
  *Foot*  (‘My foot is stuck’)
  
  *Leaf*  (‘That’s a leaf’/’I see a leaf’)
  
  *Mama*  (‘Mama should do it’)

Note: Interpretations of the child’s intended meaning are based on the context of the utterance
3. Development of utterances

The **two-word stage** (a few months later)

- Words very often **lack inflection** at this stage
  
  - Sometimes, children treat adult phrases as words in this stage (A had ‘V-it’ for transitive verbs)

- Some examples from A:
  
  * More crackers*  (*‘I want more crackers’*) said as [tətəz]
  * That bicycle*  (*‘That’s a bicycle’*)
  * Papa eat-it*  (*‘Papa should eat it’*)
  * Duck head*  (*‘I have a duck on my head’*) *don’t ask!
  * Mama up*  (*‘Mama should pick me up’*)
3. Development of utterances

The two-word stage

• Do children have **syntactic categories** in the two-word stage?
  - How could we test this? Can we tell?

• **Word order** mostly matches adult language
  - But children may learn word order verb by verb at first (before using a general X'-schema)
3. Development of utterances

The **telegraphic stage** (approx. age 2)

- What morpheme **type** is missing?
  - From *CL*, p 370  
    - *Chair broken.*
    - *Man ride bus today.*
    - *Car make noise.*
  
  - From *A*  
    - *Eat-it orange fork mouth.*
    - *Mama draw big blue O.*
3. Development of utterances

The **telegraphic stage** (approx. age 2)

- What morpheme **type** is missing? | function morph.
  - From *CL*, p 370  
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- Once the telegraphic stage begins, further development is very rapid (see *CL*, Table 9.19, pp 371-2)
3. Development of utterances

• One fact about individual children that is often reported in research on child language is the child’s MLU, or *mean length of utterance*
  - This can be measured in **words** or **morphemes**
3. Development of utterances

- Why might MLU be more useful than chronological age in comparing children?
3. Development of utterances

• Why might MLU be more useful than chronological age in comparing children?
  - Children’s development follows a typical sequence, but the age at which each child reached a certain stage can vary by months

• Can MLU help indicate when a child has left the telegraphic stage and become more adult-like? (What should happen to MLU at this point?)
3. Development of utterances

- Why might MLU be more useful than chronological age in comparing children?
  - Children’s development follows a typical sequence, but the age at which each child reached a certain stage can vary by months

- Can MLU help indicate when a child has left the telegraphic stage and become more adult-like? (What should happen to MLU at this point?)
  - MLU measured in morphemes should increase when inflectional affixes start to appear!
4. Later development: Movement

- The **Inversion** rule: How does this develop for English-acquiring children?
  
  a. Questions signaled by intonation only
  
  b. A relatively rare pattern: *Can he can look?*
     
     → What rule does this child’s grammar have?
  
  c. Adult-like application of Inversion

- Some children pass through a stage where they can apply Inversion...except when they have to apply *Wh* Movement too
4. Later development: Movement

• Draw a tree and apply the appropriate rules for this *why* question in the adult grammar of English:

> What do you think is in the box?

- Hint: How many TPs/CPs do we have here?
4. Later development: Movement

- Draw a tree and apply the appropriate rules for this *wh* question in the adult grammar of English:
  
  \[
  \text{What do you think is in the box?}
  \]

  - Hint: How many TPs/CPs do we have here?

Deep structure (‘zero’/‘silent’ C in embedded clause):

\[
\text{C NP T V C NP T V [----PP-----]}
\]

+Q you -Pst think \[CP \emptyset [TP \text{what} -Pst \text{is in the box}]\]
4. Later development: Movement

• Draw a tree and apply the appropriate rules for this *wh* question in the adult grammar of English:

  *What do you think is in the box?*

- Hint: How many TPs/CPs do we have here?

• Suppose we want to study this type of *wh* question in child language. How might we collect data?

  - Naturalistic vs. experiment studies (what are the pros and cons?)

  - Here is a [video](#) of a *wh*-question study
4. Later development: Movement

- Consider the syntax of the child in the video:

  *What do you think what is in the box?*

  - What does this child’s current *Why* Movement rule seem to be?
4. Later development: Movement

• Consider the syntax of the child in the video:

*What do you think what is in the box?*

- What does this child’s current *Wh* Movement rule seem to be?

- The child seems to move the *wh* phrase to the specifier of CP, but leaves a copy of it behind instead of leaving a trace (*t*) in the structure!

  This particular child pattern is not necessarily common, but is sometimes observed.