



# ELN101: Intro to Bilingualism

## Week 7 First Language Acquisition

Tomonori Nagano <[tnagano@lagcc.cuny.edu](mailto:tnagano@lagcc.cuny.edu)>

Education and Language Acquisition Dept.  
LaGuardia Community College

Wednesday, October 28, 2026

## Announcements this week

- Assignment deadlines are always on Sundays
- You can still submit overdue assignments (PLA, PLC, and RC). For RC, please speak with me before/after class.
- Paper 1 is due this week
  - Look at the paper rubric
  - Analyze the bilingual type of your interviewee (Cite Wei (2009)).
  - Anonymize the participant
  - Use quotes from the interview transcript.
  - Attach the transcript to the paper
- The instructions for Paper 1 has been modified with information about AI  
<https://t-nagano.link/9nW95>
- The last day to withdraw from classes is Thursday, November 12, 2026

# Overview of First Language Acquisition (1)

- A fictional case of Francisco and his family members

Francisco came to the U.S. from Mexico with his family when he was 5 years old. Alejandra, his sister, was 13 years old. None of his family members, including both of their parents, spoke English when they arrived at the U.S. After 5 years, Francisco speaks English as his primary language. In fact, he feels that he cannot express himself very well in Spanish any longer. Alejandra speaks English fairly well, but she had to stay in ESL much longer than Francisco and she still feels that her English is not perfect. Even after 5 years, their parents have only minimal proficiency in English and the children often have to be informal translators for their parents.

## Overview of First Language Acquisition (2)

- Why was their final attainment so different?



## First Language Acquisition (FLA)

- Child language development is:
  - predictable (i.e., every child follows the same error pattern)
  - fail-safe (i.e., all children recover from errors)
  - universal (i.e., all languages follow the same pattern)
- Why is FLA so different from Second Language Acquisition (SLA)?
  - SLA is unpredictable (i.e., every adult follows different patterns)
  - SLA almost always fails (i.e., every adult keeps making errors)
  - SLA is not universal (i.e., our experiences vary depending on which language we learn)

# Overview of First Language Acquisition (4)

- Why FLA should not look like SLA

## The logical problem of language acquisition (Baker & McCarthy, 1981)

- Without consistent and useful explicit or implicit negative evidence (i.e., correction), induction is not possible.
- However, children rarely receive corrective feedback from their caregivers or do not pay attention to it. (Bohannon and Stanowicz 1988)

|                                              |                                                  |
|----------------------------------------------|--------------------------------------------------|
| Child:                                       | Nobody don't like me.                            |
| Mother:                                      | No, say "Nobody likes me."                       |
| Child:                                       | Nobody don't like me.                            |
| [... Eight repetitions of this dialogue ...] |                                                  |
| Mother:                                      | No, now listen carefully; say "nobody likes me." |
| Child:                                       | Oh! Nobody don't like me.                        |

# Overview of First Language Acquisition (5)

- Morphological overgeneralization (Pinker, 1989; Braine & Brooks, 1995)
  - arrive - arrived
  - call - called
  - go - \*goed / went
  - throw - \*threwed / threw
  - mouse - \*mouses / mice
  - foot - \*foots / feet



# Overview of First Language Acquisition (6)

- Why SLA should look like FLA.

## Advantages of adults in learning a new language

- Adults have
  - a higher cognitive ability than children
    - such as understanding logic, accepting error corrections, identifying patterns, etc.
  - more life experience than children
    - the existence of irregular members or items in a group, etc.
  - more resources
    - foreign language classes, textbooks etc.
  - a language to talk about rules and meanings of another language
    - "What is *perro*?" – "Ah, it's a *dog*"

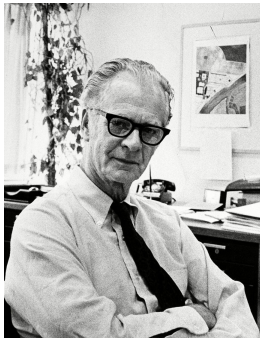
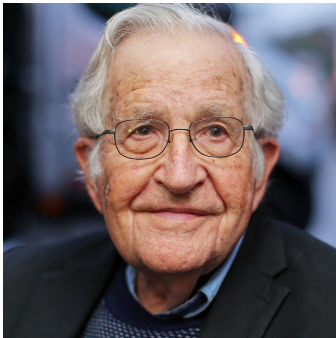
# Overview of First Language Acquisition (7)

- Why do you think FLA is so different from SLA?



## Theoretical frameworks for FLA (1)

- A number of often contradictory hypotheses have been proposed to account for the regularity of FLA



### Behaviorist perspective

- B.F. Skinner (1957)
- Ivan Pavlov's operant conditioning (Pavlov's dog)
- Language acquisition is a consequence of stimulus and response (positive reinforcement → verbal behavior)
- See <https://t-nagano.link/umYNa>

## Innativism

- Noam Chomsky
- Language acquisition mechanism is rule-based and is hard-wired in the human brain (it's innate to human beings)
- Heavy emphasis on the pronoun resolution
  - John said that Fred liked himself.
  - John said that Fred liked him.
- Critical Period Hypothesis (CPH)
  - From the clinical data, Lenneberg (1967) proposed that first language acquisition must be completed before the lateralization of the brain (i.e., around puberty).
  - Children acquire language very fast, flawlessly, and effortlessly.
  - Adults have a hard time learning a second language and may never attain the fluency of a child learner.
- See <https://t-nagano.link/J7rfd>

## Interactionist

- Jean Piaget and Lev Vygotsky
- Language acquisition is a consequence of social interaction and a child's cognitive development (Piaget's Stages of Cognitive Development)
  1. Sensorimotor stage
  2. Pre-operational stage
  3. Concrete operational stage
  4. Formal operational stage
- Lev Vygotsky's *zone of proximal development* (ZPD)
- <https://t-nagano.link/hHadb>



## Theoretical frameworks for FLA (5)

- How do these three different frameworks for FLA address the major questions about the child's language acquisition?
- Behaviorist perspective
  - Adults do not receive sufficient positive reinforcement.
- Innativism
  - Whatever innate mechanism a baby has will disappear before adulthood
- Interactionist
  - Adults are not good at social interaction (Adults have a very thin ZPD)

# Developmental Stages in First Language Acquisition (1)

- Let's examine the path of FLA (among English-speaking babies)



## Developmental Stages in First Language Acquisition (2)

- Milestones in the First Language Acquisition
  - **Before birth:** Unborn babies can hear their mother's speech.
  - **Right after birth:** A newborn only a few hours old seems able to distinguish speech sounds in the mother's native language from sounds in another language (cf. the sucking procedure)
  - **First few months:** Generating sequences of vowel-like sounds, especially high vowels [i] and [u]
  - **4 months:** Developing ability to bring the back of the tongue into the back of the palate and generating velar consonants [k] and [g]
  - **5 months:** Distinguishing the difference between [i] and [a] and [ba] and [ga]
  - **6–8 months:** Starting to sit up and producing several different vowels and consonants, such as [ba-ba-ba] and [ga-ga-ga]
  - **9–10 months:** Generating recognizable intonation patterns to the consonant and vowel combinations [ba-ba-da-da]; Nasal sounds such as [m] and [n] become common; Syllable sequences [ma-ma-ma]/[da-da-da]

# Developmental Stages in First Language Acquisition (3)

- Milestones in the First Language Acquisition (cont.)
  - **10-11 months:** The late babbling stage; Being capable of using their vocalizations to express emotions and emphasis. [ma-da-ga-ba]
  - **12-18 months:** One-word stage; Producing recognizable single-unit utterances for everyday objects "milk", "cookie", "cat", "cup", "spoon" etc.

**Table 11.8** Common items in the first fifty words

|                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Entities</i>                                                                                                                                                                                                                                                                                          |
| Words referring to<br>people: <i>daddy, mommy, baby</i><br>food/drink: <i>juice, milk, cookie, water, toast, apple, cake</i><br>animals: <i>dog, cat, duck, horse</i><br>clothes: <i>shoes, hat</i><br>toys: <i>ball, blocks</i><br>vehicles: <i>car, boat, truck</i><br>other: <i>bottle, key, book</i> |
| <i>Properties</i>                                                                                                                                                                                                                                                                                        |
| <i>hot, all-gone, more, dirty, cold, here, there</i>                                                                                                                                                                                                                                                     |
| <i>Actions</i>                                                                                                                                                                                                                                                                                           |
| <i>up, sit, see, eat, go, down</i>                                                                                                                                                                                                                                                                       |
| <i>Personal-social</i>                                                                                                                                                                                                                                                                                   |
| <i>hi, bye, no, yes, please, thank-you</i>                                                                                                                                                                                                                                                               |

## Developmental Stages in First Language Acquisition (4)

- Milestones in the First Language Acquisition (cont.)
  - **18-20 months:** The vocabulary size becomes approx. 50 words

**Table 11.16** Semantic relations in children's one-word utterances

| <i>Semantic relation</i> | <i>Utterance</i> | <i>Situation</i>                     |
|--------------------------|------------------|--------------------------------------|
| Agent of an action       | <i>dada</i>      | as father enters the room            |
| Action or state          | <i>down</i>      | as child sits down                   |
| Theme                    | <i>door</i>      | as father closes the door            |
| Location                 | <i>here</i>      | as child points                      |
| Recipient                | <i>mama</i>      | as child gives mother something      |
| Recurrence               | <i>again</i>     | as child watches lighting of a match |

## Developmental Stages in First Language Acquisition (5)

- Milestones in the First Language Acquisition (cont.)
  - **24 months:** A variety of combinations similar to "baby char" "mommy eat" "cat bed" etc.; Producing 200-300 distinct words; Conversational initiative and responsiveness grow
  - **24-30 months:** Producing multiple-word speech (telegraphic speech - only lexical morphemes)

**Table 11.17** Some patterns in children's two-word speech

| <i>Utterance</i>   | <i>Intended meaning</i>             | <i>Semantic relation</i> |
|--------------------|-------------------------------------|--------------------------|
| <i>Baby chair</i>  | 'The baby is sitting on the chair.' | agent-location           |
| <i>Doggie bark</i> | 'The dog is barking.'               | agent-action             |
| <i>Ken water</i>   | 'Ken is drinking water.'            | agent-theme              |
| <i>Hit doggie</i>  | 'I hit the doggie.'                 | action-theme             |
| <i>Daddy hat</i>   | 'Daddy's hat'                       | possessor-possessioned   |

# Developmental Stages in First Language Acquisition (6)

- Milestones in the First Language Acquisition (cont.)
  - **30 months:** The child's vocabulary expands rapidly and the child is initiating more talk while increasing physical activities such as running and jumping; Incorporating inflectional morphemes - "reading books" "cat sitting" "mommy reading book" "some men" "two feed" "girl's dog"

**Table 11.19** Sample utterances from a child's speech over a 12-month period

| Age     | Sample utterances                                                                                                                            |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 28 mos. | Play checkers.<br>Big drum.<br>I got horn.<br>A bunny-rabbit walk.                                                                           |
| 30 mos. | Write a piece of paper.<br>What that egg doing?<br>I lost a shoe.<br>No, I don't want to sit seat.                                           |
| 32 mos. | Let me get down with the boots on.<br>Don't be afraid of horses.<br>How tiger be so healthy and fly like kite?<br>Joshua throw like penguin. |

|         |                                                                                                                                                                                                                                     |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 34 mos. | Look at that train Ursula brought.<br>I simply don't want put in chair.<br>Don't have paper.<br>Do you want little bit, Cromer?<br>I can't wear it tomorrow.                                                                        |
| 36 mos. | I going come in fourteen minutes.<br>I going wear that to wedding.<br>I see what happens.<br>I have to save them now.<br>Those are not strong mens.<br>They are going sleep in wintertime.<br>You dress me up like a baby elephant. |
| 38 mos. | So it can't be cleaned?<br>I broke my racing car.<br>Do you know the lights went off?<br>What happened to the bridge?<br>Can I put my head in the mailbox so the mailman can<br>know where I are and put me in the mailbox?         |

# Developmental Stages in First Language Acquisition (7)

## Practice

- We will play audio recordings from the MacWhinney Corpus (<https://childes.talkbank.org/access/Eng-NA/MacWhinney.html>) (MacWhinney2012). Identify the child's age. MacWhinney recorded his sons, Ross and Mark, from six months to eight years of age.

1. Practice 1: \_\_\_\_\_

2. Practice 2: \_\_\_\_\_

3. Audio 3: \_\_\_\_\_

4. Audio 4: \_\_\_\_\_

5. Audio 5: \_\_\_\_\_

6. Audio 6: \_\_\_\_\_

7. Audio 7: \_\_\_\_\_

8. Audio 8: \_\_\_\_\_

9. Audio 9: \_\_\_\_\_

10. Audio 10: \_\_\_\_\_

- |                    |                    |                    |
|--------------------|--------------------|--------------------|
| • 2 months old     | • 2 Y old          | • 5 Y old          |
| • 6 months old     | • 2 Y 6 months old | • 7 Y 5 months old |
| • 12 months old    | • 3 Y old          |                    |
| • 1 Y 6 months old | • 4 Y old          |                    |

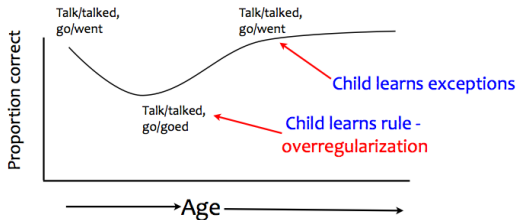
# Developmental Stages in First Language Acquisition (8)

## Brown's morphological acquisition path in English

- Brown observed the language development of three children and found that they all followed the same sequence in acquiring English morphology (Brown1973).
  - Present progressive *-ing* (Mommy running)
  - Plural *-s* (two bookss)
  - Irregular past forms (Bobby went)
  - Possessive *-s* (Daddy's hat)
  - Copula *be-verbs* (Mommy is happy)
  - Articles *the* and *a*
  - Regular past *-ed* (She walkedd)
  - Third person singular *-s* (She runss)
  - Auxiliary *be-verb* (He is running)

## FLA: Children's assumptions (1)

- Initially, children do not distinguish morphologically simple words (e.g., *cat*) from morphologically complex words (e.g., *cats*). Children learn all words as unanalyzed chunks or *amalgams*.



- Signs of children's knowledge about grammatical morphemes
  - Overgeneralization errors
  - Wug test
  - Sibbing test

### Overgeneralization errors

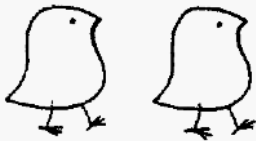
- Children apply regular morphological rules (e.g., plural, past tense etc) to irregular words.
  - \**foots* = children applied the regular plural morpheme -s to an irregular plural word *foot*
  - \**eated* = children applied the regular past morpheme -ed to an irregular past verb *eat*
- Those errors suggest that children know the function or meaning of the bound morphemes -s and -ed.

### Wug test

- Introduce a fictional creature, *wug*, to a child. And ask him/her to describe a picture with multiple *wugs*. If the child answers *wugs* [wʌgz], it demonstrates their knowledge about English plural -s (in addition, the phonological rules that apply to it)



This is a wug.



Now, there's another wug.  
There are two of them.  
Now, there are two . . . ?

### *Sibbing* test

What are (1) *sibbing*, (2) *some pak*, and (3) *the moop*?



### Three strategies for word meanings (a.k.a. Basic-level hypothesis)

- **The whole object assumption:** A new word refers to a whole object
- **The type assumption:** A new word refers to a type of a thing, rather than a particular thing
- **The basic level assumption:** A new word refers to types of objects that are alike in basic ways

- Children understand that *rabbit* refers to
  - a rabbit rather than *whiteness* or *wooliness*
  - a rabbit as a kind rather than this particular rabbit.
  - a rabbit rather than all other white four-legged animals



- Children do make overextension errors
  - *dog* = "horse" and "cow" (all four-legged animals)
  - *ball* = "balloon" and "a small stone" (all round objects)
  - *moon* = "grapefruit halves" and "crescent-shaped car light"



## Ink-shedding (10 min)

1. What is the difference between FLA and SLA?
2. What are the three major theoretical frameworks for FLA? Discuss one of them.
3. Also, write at least one question that you wanted to ask during the class.

# Bibliography (1)

Baker, C. L. and McCarthy, J. (1981). *The logical problem of language acquisition*. MIT Press, Cambridge, Mass.

Bohannon, J. N. and Stanowicz, L. (1988). The issue of negative evidence: Adult responses to children's language errors. *Developmental Psychology*, 24(5):684–689.

Braine, M. and Brooks, P. J. (1995). Verb argument structure and the problem of avoiding an overgeneral grammar. In Tomasello, M. and Welsberger, M. J., editors, *Beyond Names for Things*, chapter 13, pages 353–376. Lawrence Erlbaum, Hillsdale, New Jersey.

Brown, R. (1973). *A First Language: The Early Stages*. Harvard University Press, Cambridge, Mass.

MacWhinney, B. (2012). *The CHILDES Project: Tools for Analyzing Talk: The CLAN Programs*. Carnegie Mellon University, Pittsburgh, PA.

Pinker, S. (1989). *Learnability and Cognition*. MIT Press, Cambridge.

This slide deck was created with  $\text{\LaTeX}$  and the *beamer* class.