

# Second Language Acquisition

**LG 376 — Semester 2, 2021 (Jan-May 2022)**

**CLASS 3: AGE AND SLA**

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# Outline

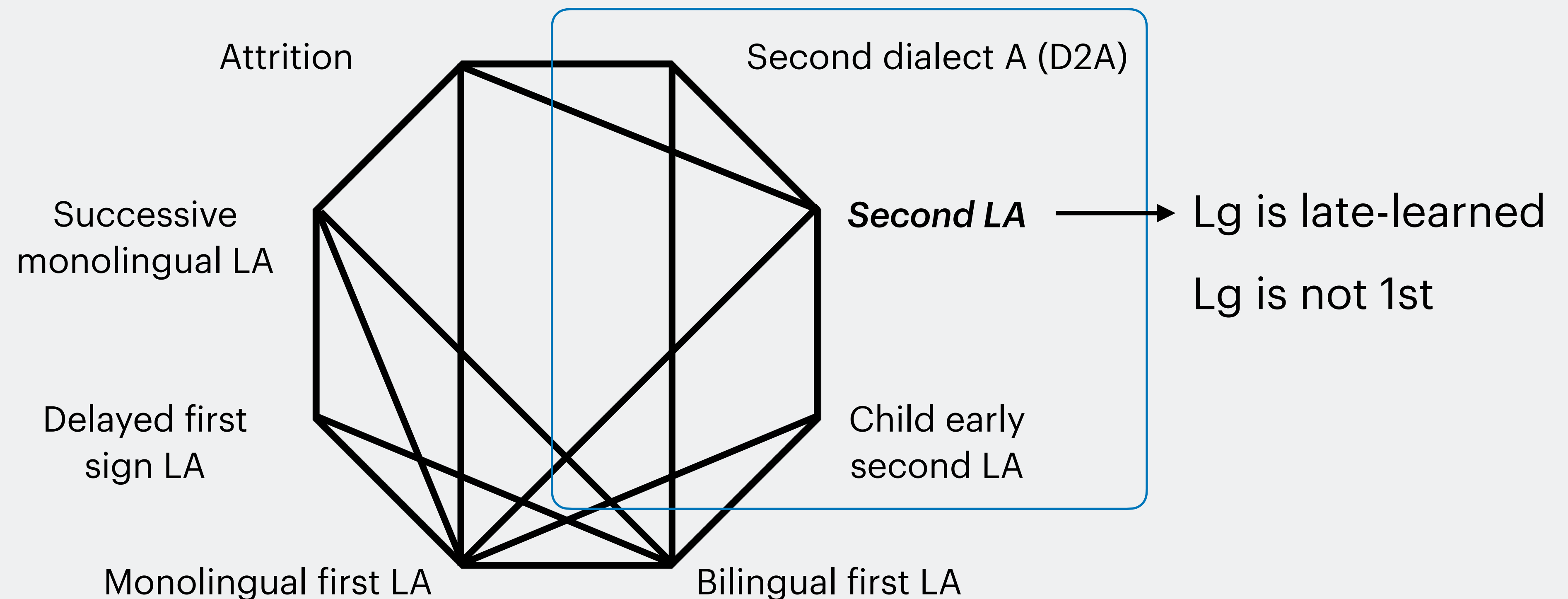
- Recap
- Critical/sensitive period
- Rate and context of L2 learning
- Study synopsis practice
- Looking ahead: Week 4

The slide features a central white rounded rectangle with a double black border. The word "Recap" is centered within this rectangle in a pink-to-red gradient font. On the left side, there are three vertical bars: a thin green one, a thin blue one, and a thicker grey one. At the bottom, there are two horizontal bars: a thin grey one and a thicker orange one.

**Recap**

# Types of LA

SLA investigates how humans learn  $L_n$  later in life after learning their  $L_1(s)$



# Success in L2A

- Success in L2A often compared against that of monolingual first LA
  - Comparing bilinguals to monolinguals
- A better yardstick: bilingual speakers (from-birth BFLA)
  - L2 users (e.g., L1 Thai-L2 English) vs. bilingual Thai-English speakers
  - This may not be easy but things are slowly changing in SLA research (e.g., Brown & Gullberg, 2013; see Ortega, 2019)



# Success in L2A

- Comparing L2 users to monolingual native speakers is detrimental:
  - L2 users are bad/poor/deficient learners
  - L2 learning is a failure
- Reframing L2A from a bilingual lens:

*The human mind is as prepared to acquire two first languages as it is to acquire one. (Werker & Byers-Heinlein, 2008)*

# Success in L2A

- Success in L2 is not all-or-nothing or categorical
  - It is context and task dependent
- A new perspective on success may reduce linguistic insecurity:

*[many multilinguals]... evaluate their language competencies as inadequate. Some criticize their mastery of language skills, others strive their hardest to reach monolingual norms, others still hide their knowledge of their “weaker” language, and most simply do not perceive themselves as being bilingual even though they use two (or more) languages regularly. (Grosjean, 2008, p. 224)*

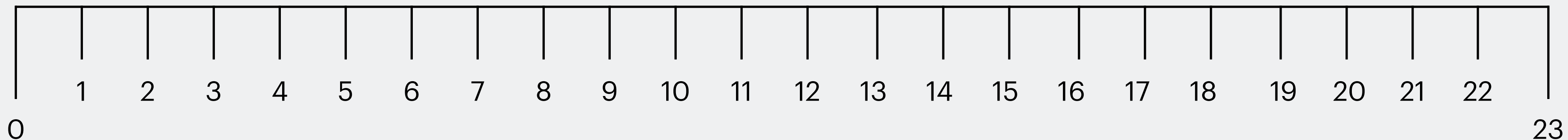
# Critical/Sensitive period



# Language chart

Individual work

- How many languages (and/or varieties) do you know? When did you start learning each one? At what age did you become fluent in each of those languages (and/or varieties)?



# Setting the scene...

- Monolingual or bilingual children learning their L1(s):
  - The first 6 years of life
- L2 learning may happen at different points
  - Late childhood (9-12 years old)
  - Adolescence (10-19 years old)
  - Adulthood (20 up)
- Because of this difference, age is one of the major issues in SLA

# Setting the scene...

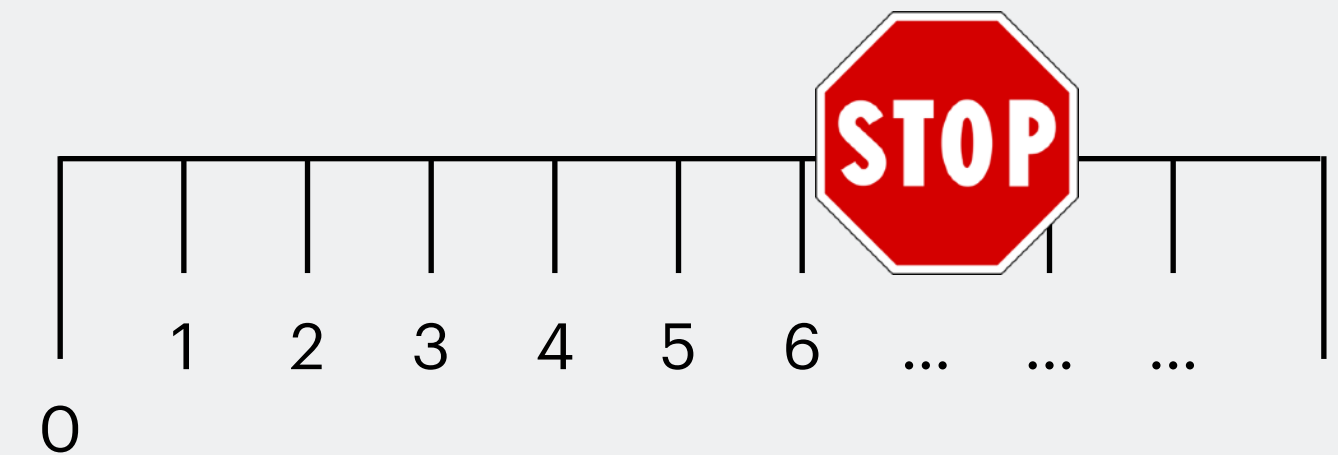
Two questions regarding age in SLA:

1. Critical/sensitive periods for L2 acquisition

- Is there a biologically determined optimal timing for Lg. learning?

2. Ultimate linguistic success

- Is it (im-)possible for late starters to be as good as those who learn Lg. X from birth?



# Critical Period Hypothesis (CPH)

## Concept:

A critical period is a **time during an organism's life** span when it is **more sensitive to environmental influences** or stimulation than at other times during its life



# Critical Period Hypothesis (CPH)

## Critical period:

- begins and ends abruptly (e.g., a clear cut-off)
- period beyond which a damage is irreversible

## Sensitive period:

- begins and ends gradually
- period of maximal sensitivity (e.g., unsuccessful later on)



# CPH: Imprinting



NOTE: This video has no audio



# CPH: Hubel & Wiesel's kittens

PERCENT LEFT VISUAL CORTEX CELLS  
RESPONDING TO CLOSED RIGHT EYE  
(Normal > 50%)

Age at eye closure(days)

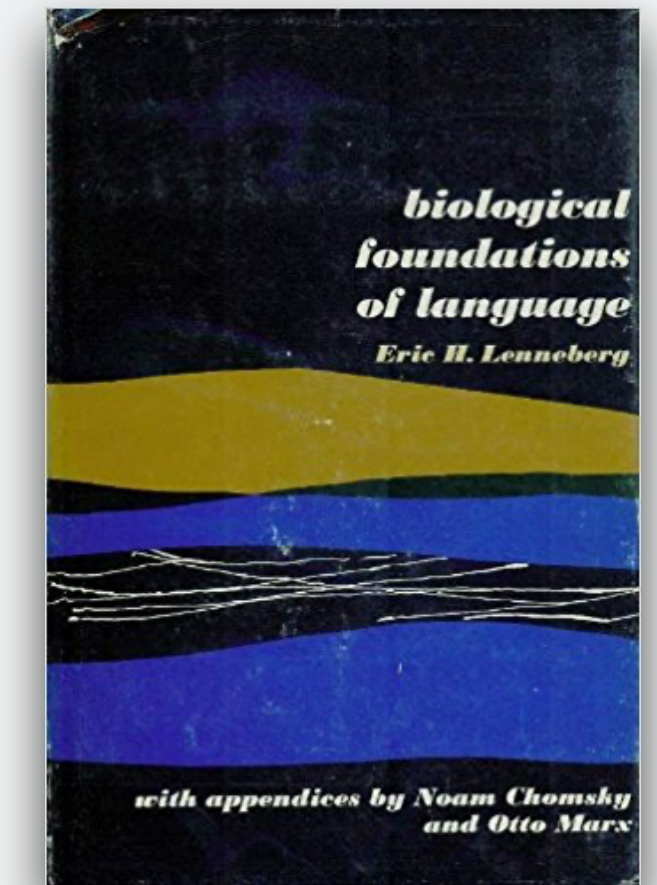
| Duration (days) | 10 | 23 | 30 | 60 | 120 | 180 | Adult |
|-----------------|----|----|----|----|-----|-----|-------|
| 0               |    | 84 |    |    |     |     |       |
| 3               |    | 32 |    |    |     |     |       |
| 6               |    | 0  |    |    |     |     |       |
| 9               |    |    | 0  |    |     |     |       |
| 21              | 26 |    |    |    |     |     |       |
| 27              | 14 |    |    |    |     |     |       |
| 30              |    |    |    |    | 19  |     |       |
| 31              | 12 |    |    |    |     |     |       |
| 65              | 10 |    |    |    |     |     |       |
| 90              |    |    |    |    | 59  |     |       |
| 120             |    |    |    |    |     | 53  |       |
| 480             |    |    |    |    |     |     | 70    |



# Critical Period Hypothesis (CPH)

Major early work in monolingual child L1A:

- Penfield & Roberts (1959)
- Lenneberg (1967)



(Some of) Lenneberg's arguments:

- Ability to acquire language biologically linked to age
- Native-like mastery of grammatical structure not possible
- Cause: lateralization of language



# Evidence for CP/SP in LA

- Child abuse
  - Genie began learning English at age 13 and did not acquire it
- Delayed American Sign Language (ASL)
  - Deaf children born into hearing parents do not immediately learn ASL; they exhibit “incomplete” acquisition of ASL
- Children with cochlear implants
  - Children with implantation before 2 has the greatest likelihood of catching up with their hearing age peers

# Rate and context of learning

# Setting the scene...

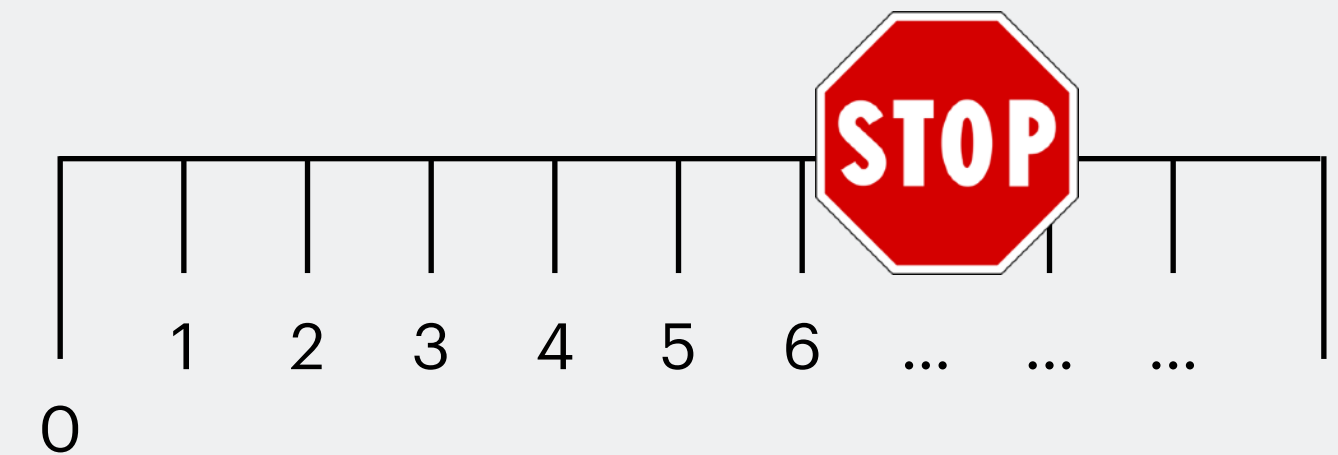
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2. Ultimate linguistic success

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# Setting the scene...

Whole class

## Questions:

- From your own experience or observations, how does age influence the *rate* of L2 learning?
- How does this generalization correspond to the material in the section 2.4?

# Are children or adults better L2 learners?

- Krashen et al. (1979) gathered studies conducted in **second language (SL)** contexts between 1962 and 1979
  - Adults & older children faster than young children initially
  - Young children catch up and surpass late starters after a year or so\*
- This finding is replicated in newer studies!

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## *Age, Rate and Eventual Attainment in Second Language Acquisition\**

**Stephen D. Krashen, Michael A. Long, and Robin C. Scarcella**

This paper presents evidence for three generalizations concerning the relationship between age, rate, and eventual attainment in second language acquisition:

- (1) Adults proceed through early stages of syntactic and morphological development faster than children (where time and exposure are held constant).
- (2) Older children acquire faster than younger children (again, in early stages of morphological and syntactic development where time and exposure are held constant).
- (3) Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults.

While recent research reports have claimed to be counter to the hypothesis that there is a critical period for language acquisition, the available literature is consistent with the three generalizations presented above.

# Are children or adults better L2 learners?

Whole class

## Questions:

- Why are adults and older children better initially?
- Does the fact that young children outperform adults in the end convince you that “younger is better”?



# Are children or adults better L2 learners?

TABLE 2  
Children vs. Adults in Rate of Second Language Acquisition

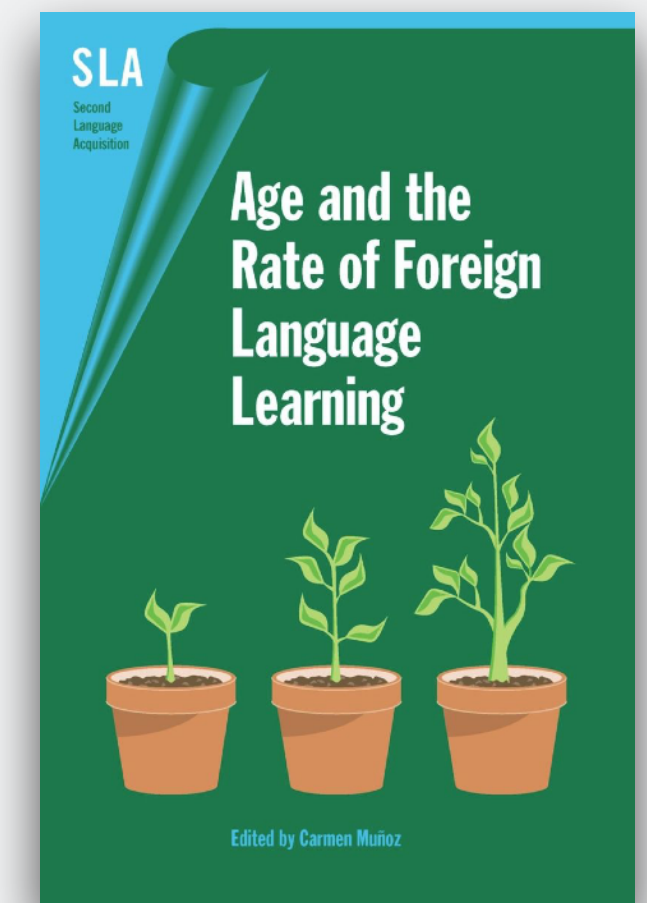
| <i>Study</i>                   | <i>Duration</i> | <i>n</i> | <i>L2<sup>a</sup></i> | <i>Ages Compared</i>  | <i>Treatment</i>                              | <i>Measures</i>                                   | <i>Results</i>  |
|--------------------------------|-----------------|----------|-----------------------|---|---|---|---|
| Asher and Price 1969           | 25 minutes      | 134      | Russian               | Adult (college)<br>8, 10, 12 year-olds                        | Total Physical Response (TPR) Teaching        | TPR   | Adults outperformed all child groups  |
| Olson and Samuels 1973         | 10 sessions     | 100      | German                | Adult (19–26)<br>Junior High (14–15)<br>Elementary (9.5–10.5) | “Phoneme drills”                              | Pronunciation                                     | Adults = junior high<br>Adults and Junior high students superior to elementary students                     |
| Snow and Hoefnagel-Hohle 1978a | 1 month–1 year  | 96       | Dutch                 | 3–15 year olds<br>Adults                                      | Natural Exposure                              | Pronunciation, Morphology, Imitation, Translation | 12–15 best for morphology; adults next best followed by the 8–10 year-olds. Differences diminish over time. |
| Snow and Hoefnagel-Hohle 1977  | 1 session       | 136      | Dutch                 | 5–31  | Initiate 5 nonsense words, repeated 20 times. | Pronunciation                                     | Linear increase in pronunciation according to age   |

<sup>a</sup> In all cases, L1 = English.

*Generalization:* Adults are faster than small children, but not always better than 12–15 year olds in early stages of morphology and syntax development.

# Are children or adults better L2 learners?

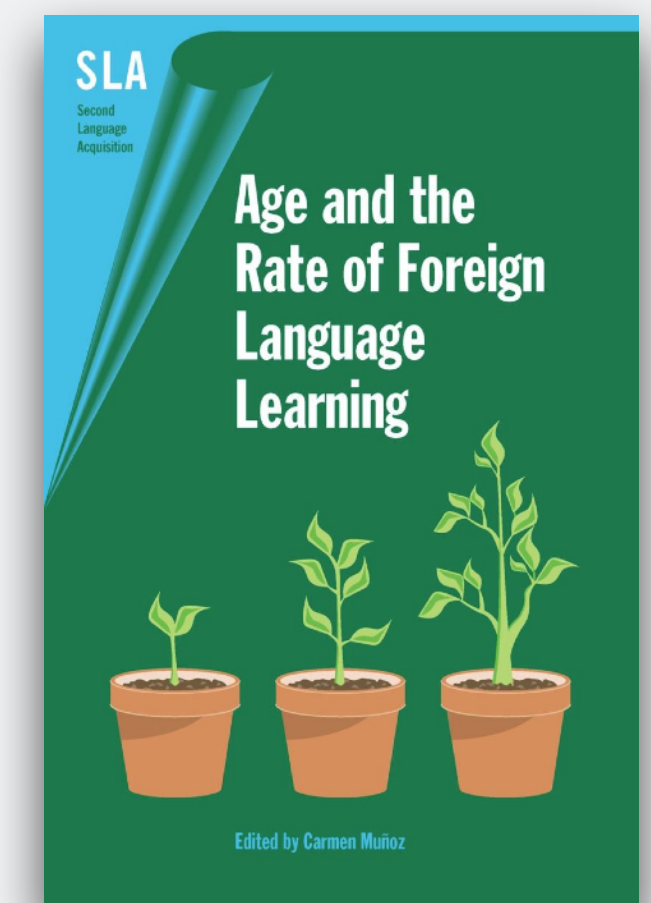
- Muñoz (2006) presents evidence of age in **foreign language (FL)** contexts (English in Catalonia)
  - 2,000 Catalan-Spanish bilingual learners of English
    - Early starters studied English from 8 to 16
    - Late starters studied English from 11 to 17
  - Same number of instructional hours for both groups
    - Data collected after 200, 416, and 726 h of instruction





# Are children or adults better L2 learners?

- Muñoz (2006) found that:
  - Late starters maintained a slight advantage throughout
  - Younger children did not catch up!
- Muñoz (2014) showed that a better predictor of success in FL contexts is **quality and quantity of input**, not starting age



# Are children or adults better L2 learners?

- Why do early starters not catch up in FL contexts? Consider hrs of input:

A monolingual English-speaking child:  $8 \text{ hrs} \times 365 \text{ days} \times 5 \text{ yrs} = 14,600 \text{ hrs}$

A 10-year-old Thai L1 child in the U.S.:  $6 \text{ hrs} \times 365 \text{ days} \times 5 \text{ yrs} = 10,950 \text{ hrs}$

A 10-year-old Thai L1 child in Thailand:  $3 \text{ hrs} \times 3 \text{ days} \times 4 \text{ wks} \times 9 \text{ mths} \times 6 \text{ yrs} = 1,944 \text{ hrs}$

- At what age do we have to start learning a FL then?

# Lesson #3

- Given limited educational and financial resources, it is foolish—if not downright stupid—to:
  - push for an earlier start in FL education\*
  - while ignoring even more important issues (high-quality materials, quality input inside and outside class, etc.)

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\* On the assumption that there is a need for the same FL across the country

# Study synopsis practice

# Study synopsis

- A one-page summary of an empirical study (#page is in fact arbitrary)
- A good synopsis can help you:
  - see the underlying structure of a research report
  - deepen your understanding of the material
  - articulate in your own words researchers' key ideas

# Study synopsis

- A synopsis consists of the following sections:
  1. Theoretical framework (theories that the study explores/investigates)
  2. RQs or purposes or objectives (questions the study tries to answer)
  3. Method (specific info about participants, data, procedures)
  4. Findings (evidence for or against RQs)
  5. “So what” (what do the results show?)
    - According to the authors
    - Your own “so what”

# Study synopsis: loup et al. (1994)

- First round: Let's begin with some basic questions:
  - What type of study is loup et al. (1994)?
  - How many subjects in the study?
  - Who is/are the subject(s)? Describe:
  - How many tests/tasks? What are they (i.e., types)?
  - How did the subject(s) perform (exceptionally well, good, bad, etc.)?

# Study synopsis: loup et al. (1994)

- Let's complete the synopsis together



# Next week...

- **Topic:** Age (continued) and Crosslinguistic influences
  - Can late starters achieve the same level of success as early starters?
  - How does prior knowledge influence L2 learning?
- **Readings:**
  - USLA (2.5 and 2.7 and 3.1–3.3)
  - 1st quiz (from 9:30 to 9:45); class starts at 9:45 am
    - Three questions from Week 4 readings (Total = 7 points)
    - You can answer in English or Thai (scores not based on your language skills)

# References

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- Krashen, S., Long, M. H., & Scarcella, R. (1979). Accounting for child–adult differences in second language rate and attainment. *TESOL Quarterly*, 13, 573–582.
- Muñoz, C. (Ed.) (2006). *Age and the rate of foreign language learning*. Multilingual Matters.
- Muñoz, C. (2014). Contrasting effects of starting age and input on the oral performance of foreign language learners. *Applied Linguistics*, 35, 463–482.
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- Ortega, L. (2019). SLA and the study of equitable multilingualism. *Modern Language Journal*, 103, 23–38. doi: 10.1111/modl.12525
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