

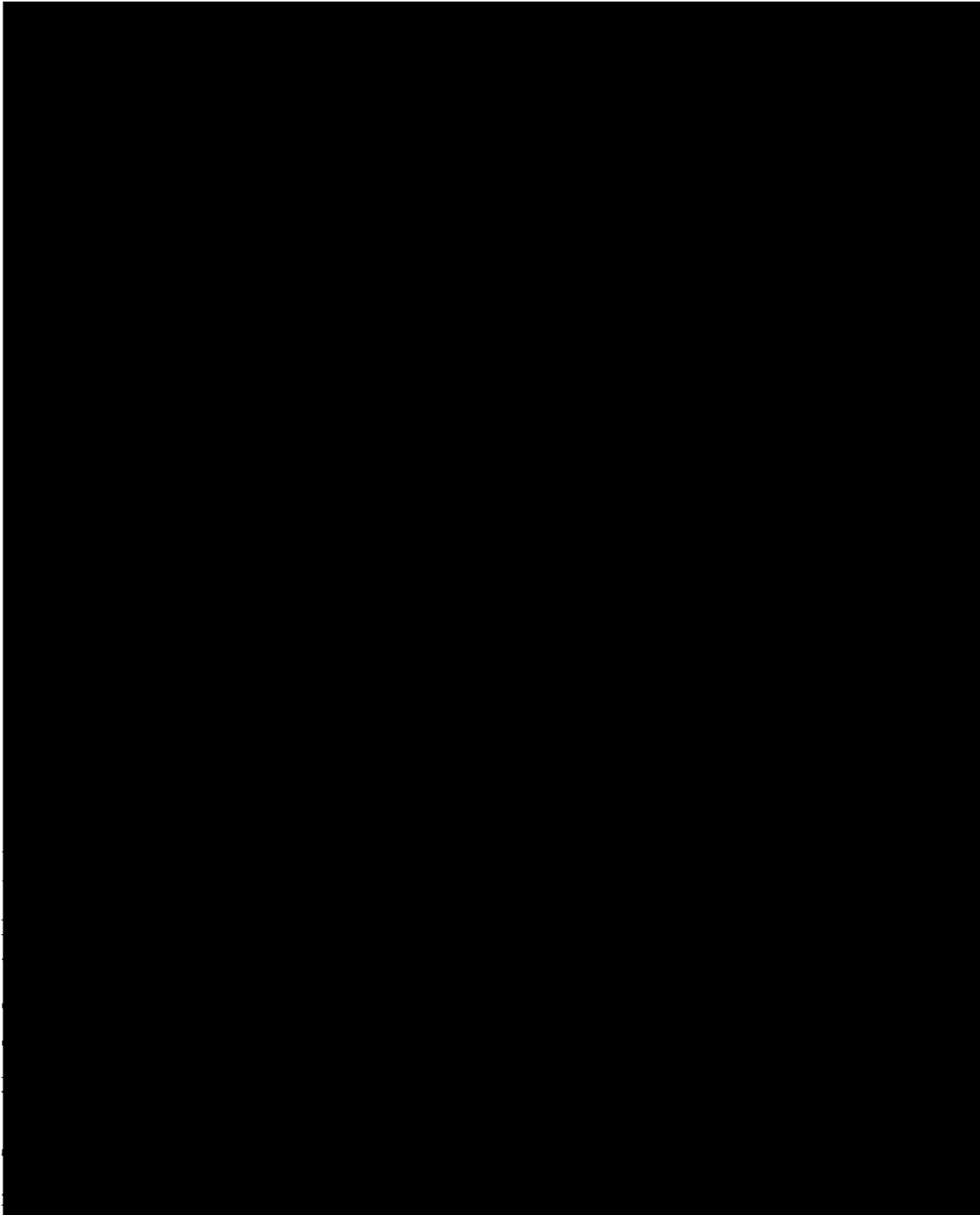
The Real Story of Child Language Acquisition

Day 8

0. Questions

See "Some feedback on Q's" handout.

HW Review: Good example



<Language Acquisition Model>

- (1) a. Primary linguistic data: PLD
 ↓
 b. Language Acquisition Device, LAD
 ↓
 c. knowledge of language, KL
- (2) Children acquire:
- a. words
 - b. meaning of words
 - c. how to build a sentence (using words they know)
 - d. how to compute the meaning of a sentence
 - e. speech sounds

Today's topic: (2c) How children acquire sentence-building skills (Part 2 of 3)

1. A Quick Review of HW7 (B)

- (3) Missing subjects vs. missing objects¹
- | | Adam (%) | Eve (%) | Sarah (%) (Text p.91) |
|----------|----------|---------|-----------------------|
| Subjects | 57 | 61 | 43 |
| Objects | 8 | 7 | 15 |
- (4) Why are subjects missing more often than objects?
- (5) Text account:
 The referent of the subject of a sentence tends to be easily identifiable from the discourse/context.
- (6) a. Where's Mary?
 b. She went home.
- (7) Reasonable question:
 Is the referent of the objects of a sentence is less easily identifiable from the discourse/context?
- (8) a. Who ate the pizza?
 b. John ate it.
- (9) Then, a real research question:
 What is the exact proportion of the type (6b) sentences and the type (8b) sentences?
- (10) If the proportion in (9) is about the same as the proportion of subject-object drop in (3), the text account in (5)/(6) can be said to be on the right track.
 If not, we need some other way(s) to explain the children's tendency to drop subjects more often than objects.

¹ Bloom, Paul. 1990. Subjectless sentences in child language. *Linguistic Inquiry* 21, 491-504.

2. Missing Grammatical Elements (pp.92 – 102)

(11) “content” words

Nouns: *book, doctor, sentence, speaker, month*, etc.

Verbs: *walk, laugh, eat, like, see, kick, send*, etc.

Adjectives: *slow, clear, small, old*, etc.

Adverbs: *slowly, often, sometimes, very, softly, therefore*, etc.

(12) “function” words (“grammatical items”)

Prepositions: *on, in, under, of, from, to, for*, etc.

Auxiliary verbs (light verbs): *can, will, may, must*, etc.

Articles: *the, a(n)*

Tense markers: *-(e)s, -ed*

etc.

Japanese

particles: *-wa, -ga, -o, -ni, -de, -no, -ka, -yo, -ne*, etc.

tense markers: *-ta, -(r)u*, etc.)

causative marker: *-(s)ase*

passive marker: *-(r)are*

(13) Children’s developmental sequence tendency: **Chart on p.94²**

=> Small children often drop “function words/morphemes” roughly according to this developmental order

(14) **Class Work 8-1**

What would be a possible cause of the difference between **plural** *-s* (which is acquired relatively early) and **verb ending** *-s* (which is acquired the last)?

² Brown, Roger. 1973. *A first language: The early stages*. Harvard University Press.

- (15) Enhancing factors³
- a. regular form
 - b. frequent occurrence
 - c. easy to perceive (see chart at the bottom on p.95)
 - d. clear cut meaning
- (16) Production vs. recognition (again)
- Although small children often drop small grammatical morphemes (function items), they seem to know the correct forms in many cases.
- (17) 21 to 28 month olds (often drop the article *the/a(n)*): comprehension test⁴
- a. Find the dog for me.
 - b. Find was dog for me.
- (18) Or recall "This is Zav" vs. "This is a zav" experiment (text p.56).
- (19) Why are *the* and *a* acquired relatively late then?
- We do not know much yet.
- (20) Class Work 8-2
- About a foreign language you have learned (or are trying to learn), which grammatical items (functional elements) of the language are relatively easy for you to learn, and which are more difficult?

Introduce your experience to your partner, and discuss why some functional element is easier (or more difficult) than others.

³ Li, Hsieh, Laurence Leonard, and Lori Swanson. 1999. Some differences between English plural noun inflections and third singular verb inflections in the input: The contributions of frequency, sentence position and duration. *Journal of Child Language* 26, 531-43.

⁴ Gerken, LouAnn and B. J. McIntosh. 1993. The interplay of function morphemes and prosody in early language. *Developmental Psychology* 29, 448-57.
 Shady, Michele and LouAnn Gerken. 1999. Grammatical and caregiver cues in early sentence comprehension. *Journal of Child Language* 26, 163-75.

Purely grammatical vs. general cognitive

- (21) Agrammatic Aphasia (loss of ability to use language because of the brain injury)⁵
- a. The cat chased the rat.
 - b. The rat was chased by the cat.
- (22) What they actually perceive:
- a. ... cat ... chase.. ... rat
 - b. ... rat ... chase.. cat

- Their command of "content" words is more or less retained, while their command of "functional/grammatical" elements seems to be crucially impaired.

3. Learning to say "not" (pp.96 – 99)⁶

- (23) "No" in place of "not." Why?
- (24) No singing song. / No eating that one.
- (25) *No* is more salient than *not/n't*.
- (26) No light verbs
- a. No singing "She is not singing"
 - b. No cup "That is not a cup"
 - c. No ready "I'm not ready"
- (27) Cf. No good / No worry / No problem, etc.
"That's not a problem." => No problem.
- (28) A Negative Beginning (pp.98 - 99) HW7 (C)
- (29) Possibility one: it is not actually a negative sentence
No car is going there => 'No, the car is going there.'
No Leila have a train => 'No, Leila has a train.'
- (30) Possibility two: 'I don't want ...'
No Mommy doing => 'I don't want Mommy to do'
- (31) Possibility three: genuine case of negative
NO MG noisy => 'Our MG isn't noisy.'

4. Nominative, Accusative, and Genitive cases of pronouns (pp.99 – 102)

- (32) First step character of children's use of pronouns:
overuse of accusative cases (i.e., *me*, *her*, *him*).⁷

⁵ Menn, L. and L. K. Obler (eds.) 1990. *Agrammatic Aphasia: A Cross-Language Narrative Sourcebook*, John Benjamins, Amsterdam.

⁶ Déprez, Viviane and Amy Pierce. 1993. Negation and functional projections in early grammar. *Linguistic Inquiry* 24, 25-67.

Dzord, Kenneth. 1995. Child English pre-sentential negation as metalinguistic

- (33) a. Me got bean. (17 months)
b. Me want one. (21 months)
c. Her do that. (20 months)
d. Him gone. (20 months)
e. Him naughty. (24 months)
- (34) Overuse of nominative (i.e., *I*, *she*, *he*, etc) for accusative is rare.
- (35) Why? => A possible account: accusative pronouns are more noticeable.
- (36) Overuse of *her* => HW8 (A)
- (37) Not all children overuse accusative pronouns:
For some children, error rates are less than 5%.⁸
- (38) Some children do overuse genitive pronouns as well.⁹
a. My want the little one.
b. My taked it off.
c. Me jump.

5. Acquisition of "grammatical" items ("function words/morphemes"): Japanese case

- (39) Warm up Quiz
Who is the "catcher (agent)", and who is the "catchee (patient)," and how do you know?
- a. Ken-ga Naomi-o tukamae-ta
catch-ed
- b. Naomi-ga Ken-ni tukamae-rare-ta
catch-passive-ed
- (40) Small children
a. Good for (39a).
b. Slightly worse for (39b):
6 year olds 75% (and younger children are worse)¹⁰
- (41) Smaller children rely more on the word order and "content" words, and not yet very sensitive to function items such as *-ga*, *-o*, *-ni*, *-(r)are*, etc.

exclamatory negation. *Journal of Child Language* 22, 583-610.

⁷ Radford, Andrew. 1990. *Syntactic theory and the acquisition of English syntax*. Blackwell.

Rispoli, Matthew. 1994. Pronoun case overextensions and paradigm building. *Journal of Child Language* 21, 157-72.

Rispoli, Matthew. 1998. Patterns of pronoun case error. *Journal of Child Language* 25, 533-54.

⁸ Valian, Virginia. 1991. Syntactic subjects in the early speech of American and Italian children. *Cognition* 40, 21-81.

⁹ Budwig, Nancy. 1989. The linguistic marking of agentivity and control in child language. *Journal of Child Language* 16, 263-84.

¹⁰ National Institute for Japanese Language and Linguistics (ed.) 1977. *Yoji-no Bunpo Noryoku* ("Infant Grammatical Faculty) Tokyo Shoseki. (国立国語研究所 (編) 1977.『幼

→ This suggests that the command of “content” words (and word order) is different from the command of “functional/grammatical” items.

(42) “neglected” sister-brother:¹¹

Found before school age (girl 6 years old: boy 5 years old).

Almost as normal around 12 years old (it seemed), but

feel quite uncomfortable with writing

And not very good at the test in (39).

a. girl (at 12): 50%

b. boy (at 11): 33%

(43) As for other neglected cases, see:

Curtis, S. 1977. *Genie*, Academic Press, New York.

Thompson, A. M. 1986. “Adam-A severely deprived Columbian orphan: A case report,” *Journal of Child Psychology and Psychiatry* 27, 689-695.

(44) Beginners of a foreign language look similar, but it seems that advanced learners are far better than aphasic cases and neglected cases.

(45) Recall that the Japanese neglected sister-brother case in (42) is similar to the agrammatic aphasia case in (21-22) above.

(46) Speculation

“Language faculty” in a broader sense consists of:

a. general cognitive ability

b. purely grammatical ability

(=< “language faculty” in a narrow sense)

6. Summary

(47) Missing elements: influenced by PLD?

(48) Negation

(49) Pronoun cases: some overuse by children

(50) Acquisition of Japanese grammatical items

(51) Children acquire the roles of grammatical items accurately eventually.

(52) Careful study of acquisition process tells us a lot about our language faculty.

HW8

Post-Class Work

児の文法能力』(国立国語研究所報告 58) (東京書籍)

¹¹ Kobayashi and Sasaki (eds.) 2008. *Shin Kodomo dachino gengo kakutoku* 『新・子どもたちの言語獲得』 (“*Children’s Language Acquisition Revised*”), Taishukan Shoten.

Homework Assignment 8

1. Turn in by Tuesday 12:30

via Email (MSWord file attached to email)

Make the name of the file as [ID_your name_hw8]

[REDACTED]

[REDACTED]

*If you have trouble sending your files attached via Email, let me know.

2. Write as concisely as possible. Write the number of words at the end of each Q.
 3. Restrict yourself to A4 paper one page long.
-

A. Children overuse the accusative pronoun *her* a lot more than other forms of pronouns. The text tries to give some possible account(s) of this fact. Read from p.100, 4th paragraph (*But there's an interesting additional puzzle ...*) to p.101, 3rd paragraph (*... a direct object pronoun and a possessive pronoun.*) and summarize the point. (use about 80 words)

B. Try to write two or more forms of sentence to negate the following proposition/statement in English and/or in your native language.

“John has some books on physics.”

C. Read the text from p.106, paragraph 4 (*English has a second major type of question, ...*) to p.,107, paragraph 3 (*... the mental machinery used to build questions pattern malfunctions occasionally.*), and summarize the point. (100 words)

D. Any comments/questions on this homework assignment and/or the last class discussion.

E. Read the text up to page 113.

Some feedback on Qs

Day 8

- What is the role of the grammar classes (of your native language) at school? [REDACTED]

*Children become to speak (and understand) their community language *naturally* in the same way as people around them speak. Every single local “dialect” has its own rich and sophisticated system (i.e. descriptive grammar). In that sense, school grammar classes are not necessary. However, people sometimes want to establish a certain “standard” of their language *artificially* (i.e. prescriptive grammar). Hence, school grammar classes are an attempt to learn some artificial standard of the language. The advantage of having school grammar classes (or trying to setting up some standard) is that “standard language” might be useful when the political boundary is larger than the local language area(s), and people with different versions of the language have to communicate. The downside of it, on the other hand, is that people might think that the “standard” language is superior to local dialects, or local dialects are “incomplete” versions of the standard language – the idea which does not make any sense linguistically and scientifically.

- In terms of word order, is Japanese easier than English? [REDACTED]

*Every human being (unless you are mentally impaired) learns their native language naturally. In that sense, no language is more difficult than the others. Even when you focus on a particular aspect of language (e.g. word order rules), it is not easy to evaluate which language is easier (or more difficult) for children to acquire. For instance, Japanese word order is relatively free compared with English, but this does not mean that Japanese speakers can use any grammatical word order *in any specific context*. You have to learn which is more appropriate in a specific context (SOV or OSV). *Taro-ga sono-hon-o yonda. vs Sono-hon-o Taro-ga yonda.*

- It is easy for adults to understand sentences without subjects but do children know that? If it is true that children drop subjects because they are dispensable, how do they know? [REDACTED]

*There are two things we have to consider. (1) whether the information (to be realized as the subject) is understood to the speaker-hearer in the specific context; and (2) whether subject drop is a *grammatically* possible option in the language in question. These two are related in actual use of the language but are independent in principle. As for (2), children have to learn which type of grammar the language they are learning has. As for (1), it is related to more general ability to understand what is given and what is new to the speaker-hearer in each specific situation.

- Continuing off of Question B, I am slightly skeptical as to whether children drop words because of a “processing bottleneck”. It’s possible that they simply end up speaking without intending to omit some words, perhaps due to a fumble in their thought-speech coordination. While this description seems identical in meaning to a processing bottleneck, the phrase “processing bottleneck” makes it

sound like children are intellectually incapable of reliably producing complete sentences at a young age instead. [REDACTED]

* Good discussion. It is very important to consider exactly what we mean by “processing bottleneck (or computational bottleneck)” in the technical sense used by researchers (the definition can vary from researcher to researcher sometimes). In the current context, it is known that small children’s working memory is smaller than adults’, and the “processing bottleneck” theory proposes that some instances of children’s word drop is due to this small capacity of working memory.

- Do children understand long complex sentences that has many clauses? If they do, how do they do so? [REDACTED]

* In an elicit production task experiment, a three-and-half-year old boy successfully produces a complex *wh*-question like “What do you think Cookie Monster eats?” Given that comprehension presupposes production, it is reasonable to assume that children younger than three and a half can understand complex sentences with embedding. Exactly how they acquire this ability is an issue which many researchers around the world are seriously working on.

- I watched the documentary TV program about the tribe in South America, which said that their language lacks any structure of recursion. [REDACTED]

* It is about the Pirahã tribe living along the Maichí River, Amazon, Brazil. Since Everett reported that there is no recursion in this particular language, hot controversies among researchers have been going on. We have to be careful that the fact that actual structural recursion is not observed in a particular language does not necessarily deny the existence of recursive capacity in human linguistic faculty. (Japanese, for instance, does not have “relative pronouns” corresponding to English *which* etc., but that does not reject the analysis of world languages which presupposes the human linguistic ability to use relative pronouns). If you are interested in the “Pirahã debate”, see the references below:

- “Noam Chomsky: You Ask The Questions”, interview in *The Independent*, 28 August 2006. <<http://www.independent.co.uk/news/people/profiles/noam-chomsky-you-ask-the-questions-413678.htm>>

- Everett, Daniel L. (2005) “Cultural Constraints on Grammar and Cognition in Pirahã”. *Current Anthropology*, vol. 46 issue 4. p. 11

- Everett, Daniel L. (June 2009). “Pirahã Culture and Grammar: A Response to Some Criticisms”. *Language* 85 (2): 405–442.

- Nevins, Andrew; Pesetsky, David; Rodrigues, Cilene (June 2009). “Pirahã Exceptionality: A Reassessment”. *Language* 85 (2): 355–404.

- Sauerland, Uli. (2010) Experimental Evidence for Complex Syntax in Pirahã. ms. Zentrum für Allgemeine Sprachwissenschaft, Berlin.

<<http://ling.auf.net/lingbuzz/001095>>