




The Real Story of Child Language Acquisition

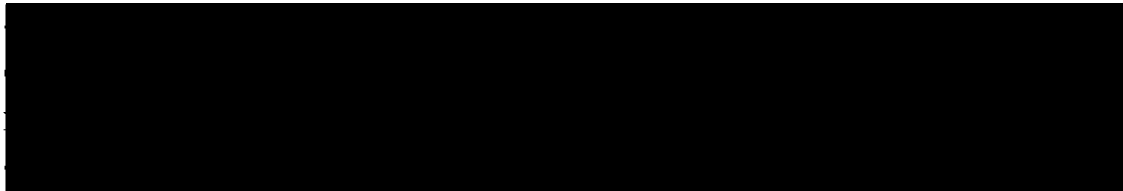
Day 11

0. Questions

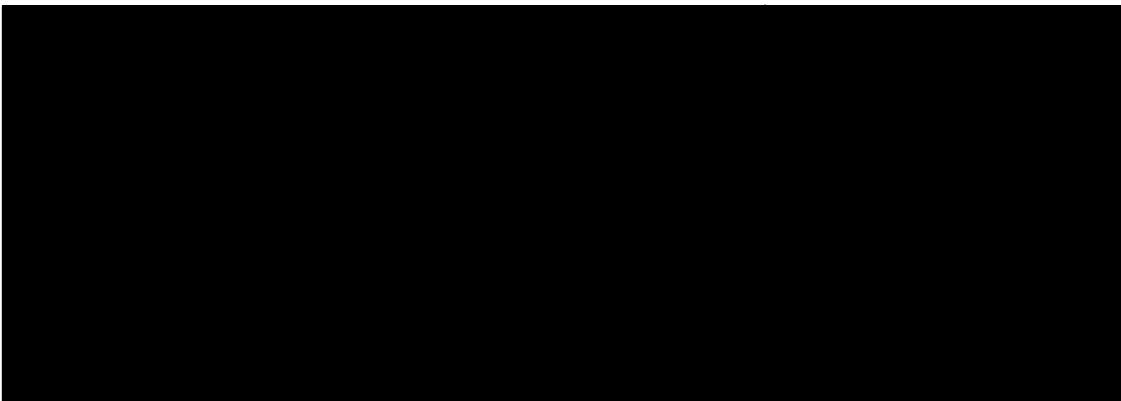
a. In experiments with children, when the children answer incorrectly, are they usually shown or taught the "right" answers afterwards? For example, with the doll experiment, are the children who responded incorrectly taught (immediately after the experiment) that "Is the doll easy to see" means that someone else is doing the seeing, rather than doll? 

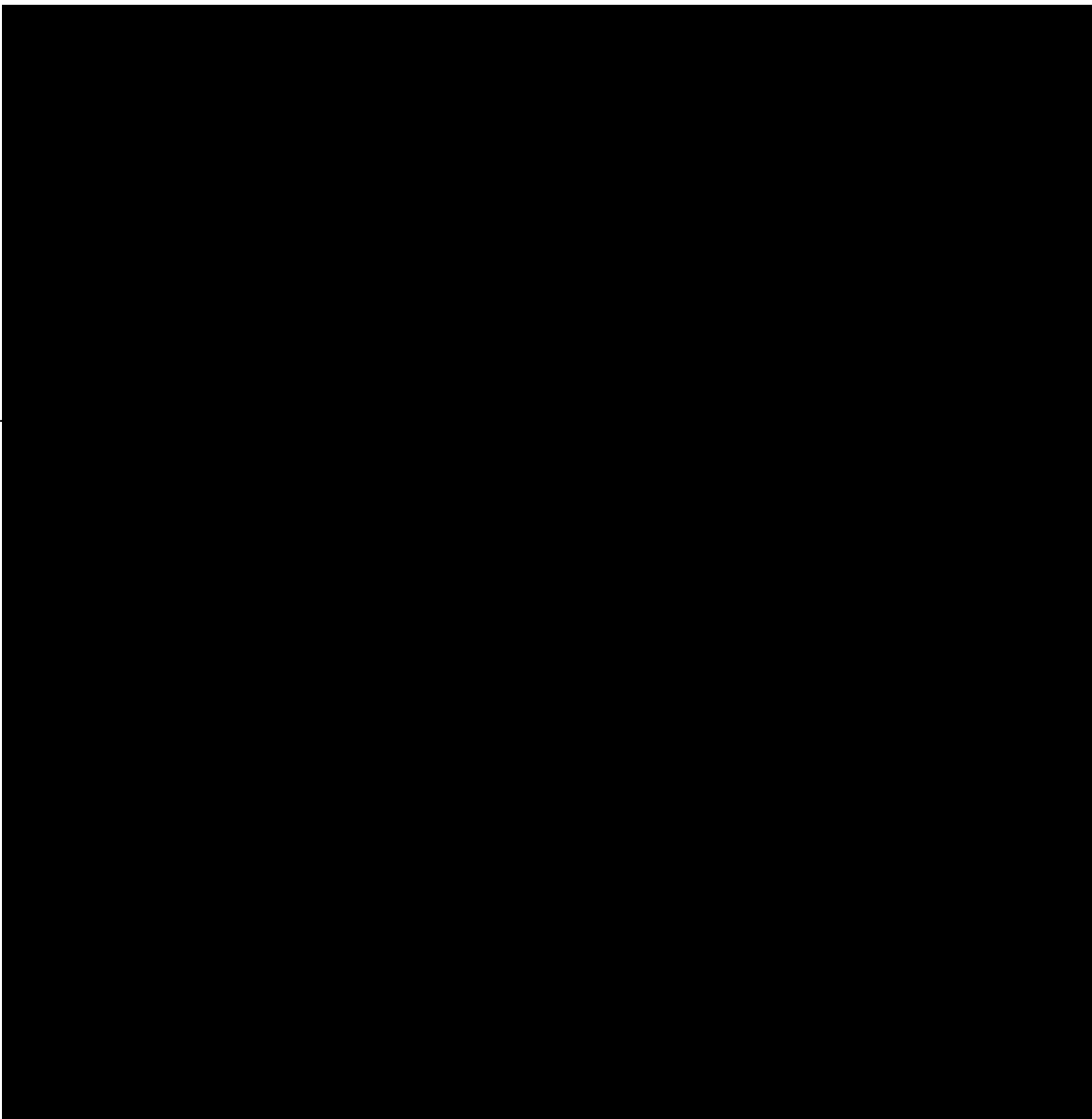
b. Although grammatical rules and pronunciation are very different from one language to another, the speed of acquiring one's native language seems to be almost the same. Why does this happen? Does this mean a level of every human language is the same? 

c. What is the role of the mother in the experiment? I guess she helps to keep the child calm and put him in confidence. But on the other side, is it possible that she (not on purpose) gives hints to the kid (by looking at one of the pictures for instance) and thus influences the result of the experiment? 

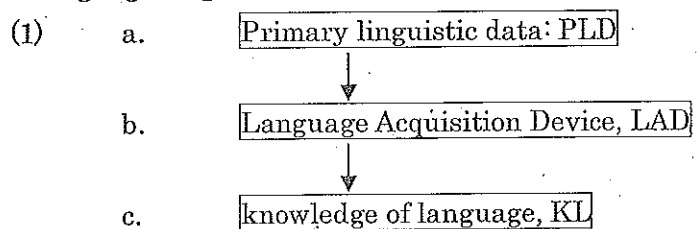


HW Review: Good examples





<Language Acquisition Model>



(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: (2d) How children know what the sentence means (part 2 of 2)

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1. Pronouns and Reflexive Pronouns (pp.130 - 135)

(3) 2.5 to 3.5 years old children are pretty good at using pronouns.

(4) "Repeat after me" game:¹

a. Adult: Because **Sam** was thirty, **Sam** drank some soda.

b. Child: Because **Sam** was thirty, **he** drank some soda.

(5) Warming up

Who is *her* in (a)?

a. Mary thinks Suzie pinched her.

Her in (a) (can / must) be _____, and cannot be _____.

Who is *herself* in (b)?

b. Mary thinks Suzie pinched herself.

Herself in (b) (can / must) be _____, and cannot be _____.

¹ Lust, Barbara. 1981. Constraint on anaphora in child language: A prediction for a universal. In S. Tavakolian (ed.), *Language acquisition and linguistic theory*. MIT Press, 55-76.

- (6) *The Reflexive Pronoun Rule* (p.132)
 Reflexive pronouns must refer to someone mentioned in the same small sentence.
- (7) *The Plain Pronoun Rule* (p.132)
 Plain pronouns cannot refer to someone mentioned in the same small sentence.
- (8) Research Question²
 Do children know these rules?
- (9) Act Out Task: comprehension test 1 (p.133)
 Playing with a child using dolls and other toys, and the experimenter takes a Elmo and Peter Bunny and says (a) or (b):
 a. Peter thinks that Elmo scratched himself. Show me what Elmo did.
 b. Peter thinks that Elmo scratched him. Show me what Elmo did.
- (10) Truth Value Judgment Task: comprehension test 2³
 Showing one of the pictures on p.134, the experimenter asks (a) or (b):
 a. Is Mama Bear touching her?
 b. Is Mama Bear touching herself?
- (11) Result (for 3 to 5 years old)
 Very well with reflexives pronouns, but having trouble with plain pronouns:
 They tend to interpret plain pronouns as if they were reflexives.
- (12) Why?
 One possibility: Children are using a kind of “effort-saving strategy”.
 (Overuse of “Minimal Distance Principle” (p.125))
- (13) How about children’s production of pronouns and reflexives?
 → HW11 (A)
- (14) Let try Japanese *zibun* ‘self.’
 Act out task

² O’Grady, William. 1997. *Syntactic Development*, Chicago University Press.

³ Chien, Yu-Chin and Kenneth Wexler. 1990. Children’s knowledge of locality conditions in binding as evidence for the modularity of syntax and pragmatics. *Language Acquisition* 1, 225-95.

2. Pronouns and Discourse Contexts: Gricean Maxims (pp.135-138)
- (15) "children do have at least one problem with plain pronouns" (p.135)
- (16) Mother: Hi dear, how was the kindergarten today?
Child: He took it from me and she got angry.
- (17) "Tom took my pen from me and Ms. Brown got angry about it."
- (18) See also examples on p.136.
- (19) Unidentifiable (ambiguous) use of pronouns as in (16) is very common in preschooler's speech.
- (20) Class Work 11-1
What would be possible reason(s) for this kind of pronoun use of preschoolers?
- (21) 6 year olds and older children do a lot better.
What is missing in preschooler?
- (22) Conversational Maxims (Grice 1975)⁴
- a. Quantity: not too much, not too little
 - b. Quality: be truthful
 - c. Relevance: be relevant
 - d. Manner: Be perspicuous ("clear")
- (23) Small children may not be fully capable of (22).
You have to reasonably assume what the listener already knows/presupposes.
- (24) See example on p.137:
The child provides no information about where he was, when the events happened, or who was with him.
- (25) But again, all children naturally acquire the kind of "pragmatic competence" as in (22) in due course (probably a bit slower than the acquisition of formal grammatical competence, though). No adult directly teaches (22).

⁴ Grice, P. (1975) "Logic and Conversation," In Cole, P., and J. Morgan, eds. *Syntax and Semantics 3: Pragmatics*, Academic Press.

- (26) Grandma: Hello Sara chan, this is your gramma. Is your mother home?
Child: Yes, she is.
3. Can you quantify that? (pp.138 - 142)
- (27) Every child read a book last week. Recall HW10(C)
- (28) a. scope: a book > every child: ("collective" reading)
Jerry read Book A, Ann read Book A, and Sandy read Book A.
(There is only one book.)
- b. scope: every child > a book: ("distributive" reading)
Jerry read Book A, Ann read Book B, and Sandy read Book C.
(There can be three different books.)
- (29) a. All the student wanted to see a movie.
b. Many of the teenagers attend one of the schools in this neighborhood.
d. Most students are interested in something.
- (30) Children (even as young as three) seem to be remarkably good at this.
- (31) Showing one of the pictures on p.139, the experimenter asks:⁵
Is every child riding a horse?
- (32) Even younger children correctly answer "yes" with both pictures.⁶

However,

- (33) "children do sometimes have trouble with interaction between *every* and *a*."
- (34) Showing the picture on p.140, the experimenter asks:
Is every girl riding an elephant?
- (35) Children sometimes respond "no" to this question. Why?
- (36) One possibility
Children somehow think that the meaning of *every* can spread through the sentence.
"girl-riding-elephant" relation should hold for all instances of girls and elephants.
- (37) Another possibility: a flaw of the experiment design
It is obvious (to adults and probably to children, too) that "every girl is riding an elephant" in the picture.
Why then is the experimenter asks "Is every girl riding an elephant"?

⁵ Roeper, Thomas and Jill de Villiers. 1991. The emergence of bound variable structure. In T. Maxfield and B. Plunkett (eds.), *Papers on the acquisition of HW*. University of Massachusetts Occasional Papers, GLSA Publications, 225-65.

⁶ Crain, Stephen, et al. 1996. Quantification without qualification. *Language Acquisition* 5, 83-153.

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- (38) For truth value judgment tasks (asking yes/no questions), there must be an appropriate context so that the question is actually worth asking.
- (39) "Is the doll easy to see?" sounds unnatural if the sentence is asked out of blue. The same may be true for the question on the picture on p.140.

(40) **Class Work 11-2**

Still using the picture on p.140, try to revise the way of the experiment so that asking "Is every girl riding an elephant" is a reasonable question worth asking.

In other words, try to set up some specific context before asking the question "Is every girl riding an elephant" so that it is very natural to ask such a question.

Try Hard.

- (41) Trying to overcome this possible flaw of the design of "girl-elephant picture" experiment, a new series of experiments were carried out. → HW11 (B)

4. Summary

(42) **Summing up**

The meaning of a sentence is not just a random addition of the meaning of its constituent words.

- (43) It is calculated in some specific manners: children have ability to compute the appropriate meaning of sentences.

- a. active vs. passive sentences
(to the extent that they are good at understanding passive sentences, they not only rely on the word order, but also know the proper functions of grammatical items such as auxiliary verbs, -ed, by, etc.)
- b. interpretation of missing subject
e.g., John told Mary [__ to go to school]
- c. syntactic conditions on interpreting pronouns and reflexives
- d. "every-a" interaction (more general quantifier interaction)

Homework Assignment 11

1. Turn in by Tuesday 12:30

via Email (MSWord file attached to email)

Make the name of the file as [ID_your name_hw11]



*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.

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- A. Read the text p.135 and summarize the point, focusing on (i) the result of the study and on (ii) the author's discussion on the result (which seems to be unexpected given the general recognition that children's competence far exceeds their performance). Be concise. Write the number of the words. (use about 100 words)
- B. Read from the bottom of p.140 to p.141 carefully. Then, (i) summarize the design and the result of the experiment, and (ii) state how the experiment tries to overcome the possible flaw of the design of the "girl-elephant" experiment. Be concise. Use about 120 words.
- C. Read from "I said "fis," not "fis" (bottom of p.146) to "... *but it is picked up by the machines that phoneticians use to analyze speech*" (p.147), and summarize the point. Be concise. Use about 80 words.
- D. Any comments/questions on this homework assignment and/or the last class discussion.
- E. Read the text up to page 163.

Some feedback on Qs

Day 11

- On page 135 in the text, it is mentioned how experiments' conditions can have an effect on the linguistic performance of children, and how researchers try to find techniques for a better assessment of children's language abilities. Related to this issue, I was wondering if researchers often conduct their experiments with their own children, if they can get permission to do so and if this might result in more natural conditions for the child and thus a more accurate result (even though a representative number of children cannot be tested this way). [REDACTED]

*To do any research on human beings, you have to get permission by the authority as well as by the parent(s). In reality, it is true that researchers' own children are often the participants of the experiments, but not necessarily. If your design and actual practice of experiment is appropriate, the result may not be affected by whether the participant children are researcher' s own children or not.

- The verb promise seems particularly difficult to acquire. First the meaning itself is hard to understand, and then it has a specific word order rule for the infinitival clauses. I wonder if there is any other word that has so many difficulties. Especially, what other exceptions to the Minimal Distance principle? [REDACTED]

*The representative example is so called "tough-sentences" . *John is tough to please. The doll is easy to see. The book is difficult to read*, etc in which the surface subject is understood as the semantic object of the infinitival verb.

- It also seems that children up to 10 have troubles with this verb. I wonder when children finally get the correct missing subject. And do they get it themselves or they usually need someone to explain them how does it work? [REDACTED]

*We have to see the result of overall research to see when children in average acquire the use of *promise* correctly. (My guess is by 12 at latest)

As with other aspects of verbal acquisition, it is acquired naturally without specific instruction.

- In experiments with children, when the children answer incorrectly, are they usually shown or taught the "right" answers afterwards? For example, with the doll experiment, are the children who responded incorrectly taught (immediately after the experiment) that "Is the doll easy to see" means that someone else is doing the seeing, rather than doll? [REDACTED]

*Usually, we do not try to "teach" the correct answer. First, it may discourage the participant children. Second, all children acquire the correct grammar anyway, without specific direct instruction. Third, even if we try to correct children' s grammatical mistakes, it may not work. See Chapter 7.

- Which comes faster, understanding words or understanding sentences (structures)? [REDACTED]

*It is not possible to answer this questions, because it takes some time to acquire some constructions, which some words are acquired early. On the other hand, it takes some time to acquire some "difficult" words. Actually, person vocabulary expands and changes throughout the life, while basic constructions are acquired while you are a child and the knowledge does not change usually.

- Is adults still missing some part of a sentence, without noticing or do they do it purposely? [REDACTED]

* There are some cases in any language that some sentence element can be omitted grammatically as far as the content is recoverable from each specific discourse. Almost all of such cases, as far as I can see, we do it unconsciously following our mental grammar.

- Although grammatical rules and pronunciation are very different from one language to another, the speed of acquiring one's native language seems to be almost the same. Why does this happen? Does this mean a level of every human language is the same? [REDACTED]

* Since all human languages are the product of human biology (ie. Property of human brain), the system is naturally within the human brain capacity. Any grammatical properties or pronunciations are within the handle of human. Hence, it is natural that the pace of language acquisition is almost the same across languages. Put it differently, grammatical rules and pronunciation are NOT very different among languages: they are almost the same and thus the acquisition pace is the same. We might only have exaggerated minor superficial differences among languages.

- Do semantics play a role in child's understanding? Would "the rabbit was eaten by the carrot" confuse the child since it is semantically odd? [REDACTED]

* This is an interesting empirical question. A good chance is that children who have not acquired grammatical functional elements yet and mainly appeal to word order and semantics of each word would understand the sentence in such a way that the first noun is the eater and the second noun is the "eatee."

- What is the role of the mother in the experiment? I guess she helps to keep the child calm and put him in confidence. But on the other side, is it possible that she (not on purpose) gives hints to the kid (by looking at one of the pictures for instance) and thus influences the result of the experiment? [REDACTED]

* Good question. As far as I know, in the actual experiment in which the infant sits on her mother's lap, the mother wears an eye shade (a kind of bid sunglasses) so that the infant cannot see which the mother is looking at.

[REDACTED]

- Are there languages whose passive sentences are more common than their active counterparts? [REDACTED]

* Usually, passive type sentences use more grammatical items than their active counterparts. Hence, it is natural to say that passive type sentences are "marked" structure, while active type sentences are basic or unmarked. If so, it is natural to expect that active sentences are more common than passive in a given language. There might be an exception to this generalization, so it is an empirical matter to check whether there is a language in which passive are more common.