The Real Story of Child Language Acquisition

Day 3

Tips for homework assignments:

> General statement
>
> Specific examples/discussion to show the point
>
> Summary (Not cut and paste of the text: Use your own wording)
>
> Use single space (半角) for your alphabets and numbers all the way.

0.   Questions

- Dogs can be trained to understand and execute specific orders, and dog trainers say that dogs recognize the stressed sound in the sentence.   Could it be similar to the way children recognize words?   ▮▮▮▮

- Sensitivity to the sentence final element is the same for Japanese children?

- Japanese does not have stressed and unstressed syllables. So how do Japanese children identify words? ▮▮▮▮▮▮▮

> See 窪薗晴夫『アクセントの法則』(岩波書店)
>
> Venditti, Jennifer, Sun-Ah Jun, and Mary Beckman. 1996. Prosodic cues to syntactic and other linguistic structures in Japanese, Korean, and English. In J. Morgan and K. Demuth (eds.), *Signal to syntax*. Erlbaum, 287-311.

▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

- How do children know articles like "a" "an" or "the"? Because these words are pronounce weakly, it seems to be quite difficult to catch them.   ▮▮▮▮▮ =>see p.56ff.
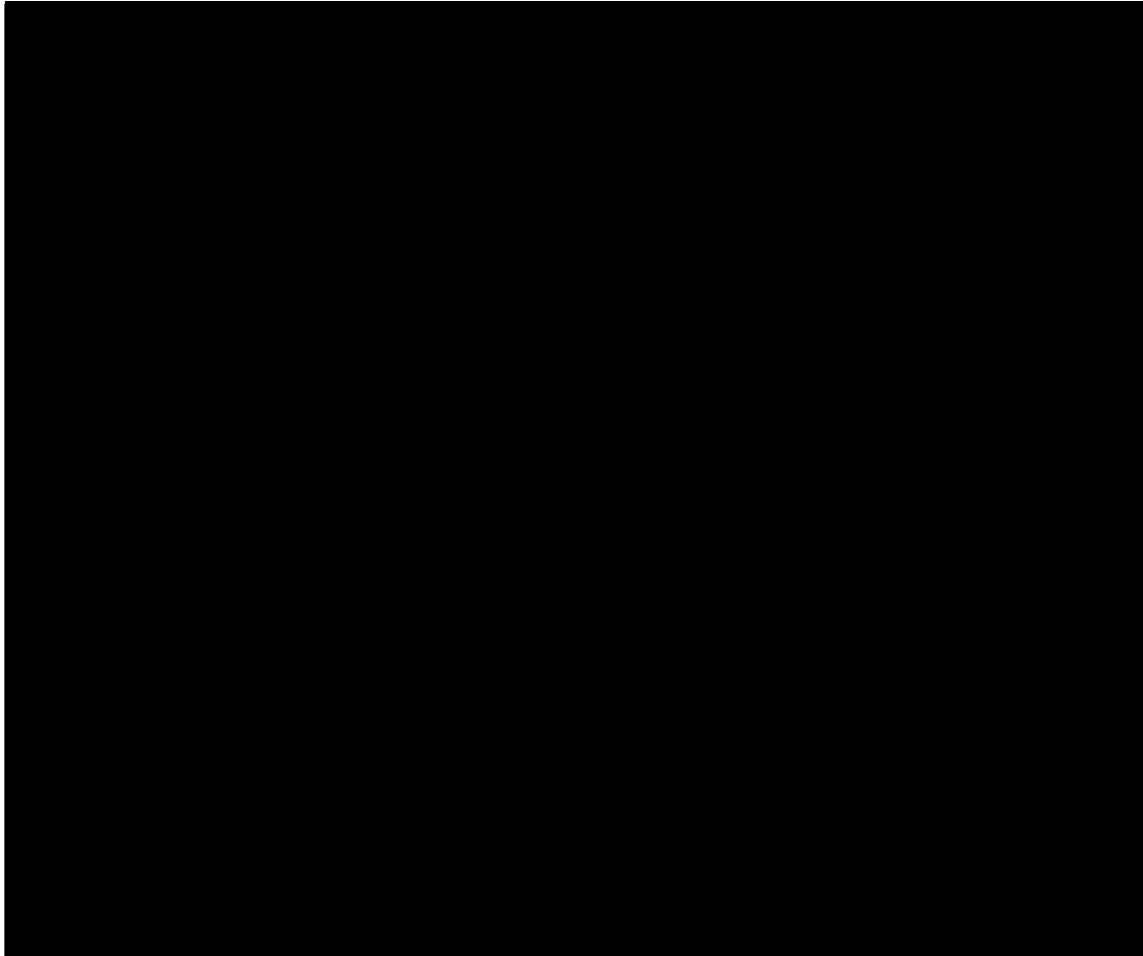
- If some child hears many difficult words every day (for example, news on TV), why can't he/she use them when they talk?   ▮▮▮▮

- About "sensitivity to the end of utterances", I guess child's immature brain cannot memorize so many words, so children can remember and act only last few words. Can this become another hypothesis?   ▮▮▮▮

HW Review

Good examples

▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮

<Language Acquisition Model>
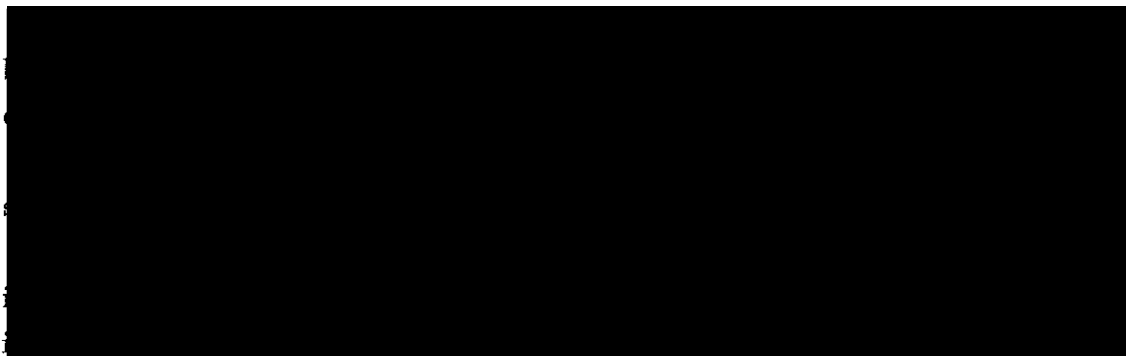
(1) a. Primary linguistic data: PLD

(utterances you hear/experience in the ordinary situation)

↓

b. Language Acquisition Device, LAD

(innate endowment of human beings)

↓

c. knowledge of language, KL

(knowledge here means unconscious faculty/system that enables you to use language)

(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: (2a) words

What do children develop their mental lexicon?

Child Language Acquisition

1.　　　Conversion
(3)　　　Adult examples
　　　a.　　　butter the bread　　　(butter (N → V))
　　　b.　　　get a hit　　　(hit (V → N))
　　　c.　　　dirty the floor　　　(dirty (A → V))
(4)　　　Child examples[1]
　　　a.　　　I sharped them.　　　(sharp (A → V))
　　　b.　　　I tighted my badge.　　　(tight (A → V))

(5)　　　Simplicity of Form　　　← a kind of Language Acquisition Device (LAD)
　　　Create new words from old words without changing their form.　　　(p.30)

(6)　　　*sharp* is a simpler form than *sharpen*. *tight* is a simpler form than *tighten*.
(7)　　　Japanese conversion?
　　　(A1)

- Note: In this course, we use "Language Acquisition Device (LAD)" in a broad sense. That is, some instances of "LAD" may be the ability to apply to other aspects of child cognitive development (than language acquisition *per se*); some instances of "LAD" may be language-acquisition specific.

2.　　　Derivation
(8)　　　Adult examples
　　　a.　　　happy – happiness　　　(A → N)
　　　b.　　　read – readable　　　(V → A)
(9)　　　Child examples
　　　a.　　　saw - *sawer　　　(V → N)　　　overuse of -*er*
　　　b.　　　cook - *cooker　　　(V → N)
　　　c.　　　* ham – hammer　　　(*V ← N)　　　analysis error

(10)　　　Productivity (p.30)　　　← a kind of LAD
　　　Create new words from endings that can be used with many different words.

(11)　　　cf. edit – editor
　　　"backformation"

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[1] Examples are taken from Clark, E. (1993) *The Lexicon in Acquisition*, Cambridge University Press.

· Basics of English affixation

(12)   affixes (prefixes and suffixes) are very small but have powerful specific functions.

(13)   Category-changing function

    a.   -er   (Take V and change it to N): [v teach] + er => [N teacher]

    b.   -ness (Take A and change it to N): [A happy] + ness =>[N happiness]

    c.   -able (Take V and change it to A): [v read] + able =>[A readable]

These suffixes also have meaning change properties.

(14)   Two types of *un-*   (prefix)

    a. un_1- takes A and makes its meaning "negation of the state of the A" (there is no category changing function: *unhappy* is still A)

        e.g., *unhappy, unlucky, unkind*, etc.   (A → A)

    b. un_2- takes V and makes its meaning "do reverse action of the V"

        e.g., *undo, untie, uninstall*, etc.   (V → V)

Class Work 3-1

(15)   Now, given (13) and (14) above, *unlockable* can have two different meanings depending on how the internal structure of the word is analyzed. What are they?   What are the relevant internal structures?   Try hard.

(16)   Coffee Break: Adventure of A "Microwave Oven"

    a.   mirco + wave   (prefixiation)

    b.   microwave + oven   (compounding)

    c.   microwave ~~oven~~ (meaning "microwave oven")   (clipping)

    d.   microwave the milk   (conversion: N → V)

    e.   This cup is microwavable.   (derivation/suffixation: V → A)

    f.   That one is unmicrowavable.   (prefixation)

    g.   unmicrowavability   (derivation/suffixation: A → N)

3.   Compounding

(17)   Adult examples

    a.   streetlight   (N + N)

    b.   bluebird   (A + N)

    c.   swearword   (V + N)

(18)   Child examples

    a.   car-smoke   "exhaust"

    b.   sky-car   "airplane"

    c.   store-man   "clerk"

They love compounds:[2] They are very productive, trying to say something with the materials they already know.   <= LAD

Class Work 2: banana-crocodile? crocodile-banana?
(19)   a.   Which compound well describes which picture?
         b.   Why is it so?
                Try hard.

(20)   Compound Rule: Head-final (English and Japanese)   <- KL
         a.   streetlight   (a kind of light, not street)
         b.   bookcase   (a kind of case, not book)
         c.   jidosha gakko   (a kind of gakko 'school', not jidosha 'car')
                car   school   'driving school'
         d.   Sapporo biiru   (a kind of biiru, not Sapporo)
                         beer

(21)   In English and Japanese compounds, the last element determines the property of the entire compound: English/Japanese compounds are head-final.

(22)   Therefore, even if we encounter unfamiliar compounds [N1 + N2], we interpret it as a kind of N2, not a kind of N1.
         wani-banana vs. banana-wani

(22)   Stress pattern   <- KL
         a.   HOT dog vs. hot DOG
         b.   GREEN house vs. green HOUSE
         c.   the WHITE house vs. the white HOUSE
         d.   HIGH chair vs. high CHAIR

(23)   Children younger than 11 years old gave the right answer only about 55 – 60 % of the time.[3]

(24)   Transparency of Meaning [4]   <- LAD
         Create new words whose meaning comes from the meaning of their parts.

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[2] Clark, E. (1993).
[3] Vogel, Irene and Eric Raimy (2002) The acquisition of compound vs. phrasal stress: the role or prosodic constituents. *Journal of Child Language* 29, 225-50.
[4] Clark, E. (1993)

(25)   *HOT dog* is not transparent since it is not a kind of dog. Simple composition of the element word meaning does not give us the right meaning. We have to learn its meaning as a whole one by one. (Gestalt Style)

(26)   When [W_1 + W_2] is a kind of W_2 (or W_1), it is called endocentric compound: One of the elements inside determines the semantic property of the entire compound.

(27)   When [W_1 + W_2] is not a kind of W_2 (nor W_1), it is called exocentric compound: None of the elements inside determines the semantic property of the entire compound.

(28)   a.   redhead   (not a kind of head; a person who has red hair)

        b.   crybaby   (not a kind of baby; a person who cries too often)

        c.   scarecrow   (not a kind of crow; a figure in a field to frighten birds away)

(29)   Any exocentric compound in Japanese?   → HW3

(30)   Children are not very good at understanding exocentric compounds (such as those in (28)) because they are against (24) "Transparency of Meaning" (LAD) and children have to learn the meaning of them one by one.

(31)   Children, on the other hand, are relatively good at understanding endocentric compounds such as *doll chair, pumpkin house,* etc, because they are compatible with (24) "Transparency of Meaning" (LAD).[5]

(32)   Compound Plural Rule: first element of a compound is morphologically bare.

        a.   carwashers

        b.   * carswasher

(33)   toothbrush   (*teethbrush)

(33)   Children are good at understanding the plural rule of compounds.[6]

        Someone who caught rats => rat catcher   vs. *rats catcher

[5] Clark, E., S. Gelman, and N. Lane. (1085) Compound nouns and category structure in young children. *Child Development* 56, 84-94.

[6] Gordon, Peter. (1985) Level ordering in lexical development. *Cognition* 21, 73-93.

4.　　Summary

How children learn words?

Day 02 (last week): How children pick up words out of a stream of speech sounds?

Day 03 (today): How children develop their mental lexicon?

(34)　a.　Simplicity of Form　　　　(innate ability; "LAD")

　　　b.　Productivity　　　　　　　(innate ability; "LAD")

　　　c.　Transparency of Meaning　(innate ability; "LAD")

(35)　Children's expectation (production) matches many "examples" they actually hear.

　　　a.　"water the flower"　　(conversion)

　　　b.　"speaker"　　　　　　(derivation)

　　　c.　"car tire" "ramen shop"　(compound)

(36)　It is reasonable to assume that children's ability in (34) spurs their acquisition of words!

(37)　How children learn words?

　　　They seem to have as their LAD:

　　　Ability to identify words out of a stream of speech sounds

　　　Ability to infer (and to produce) possible words in their speech community

　　　And their experience ("examples" they hear) reinforce their inference.

HW3

Appendix

(A1)　a.　Adjective use of *chikaku*

totemo chikaku natta　　(cf. totemo　ookiku　natta)
very　　close　became　　　 very　　big　　became
'became very close'　　　　 'became very big'

　　　b.　nominal use of *chikaku*

chikaku-ni　　　benchi-ga　aru　(cf. eki-ni　benchi-ga　aru)
neighborhood-in bench-NOM　be　　 station-in
'There is a bench near here.'　　'There is a bench in the station'

Homework Assignment 3

1. Turn in **by Tuesday 12:30** (April//29: Be careful. It's a national holiday)
    via Email (MSWord file attached to email)
    Make the name of the file as [ID_your name_hw3]

████████████████████████████

████████████████████████████████

        *If you have trouble sending your files attached via Email, let me know.
2. Write as <u>concisely</u> as possible. Write the number of words at the end of each Q.
3. Restrict yourself to A4 paper one page long.

＊Note: In summary exercise, do not cut and paste the text sentences. Use your own sentences.

A.   (i) Create new Japanese words of [Noun + suru]: two instances.
        (ii) Create new Japanese [N + N] compounds: two instances.
        Explain the meaning of each new word you have created.
        Be imaginative. Have fun.

B.   Try to find two Japanese instances of exocentric [$N_1 + N_2$] compounds; that is,
        [$N_1 + N_2$] compounds whose entire meaning is not a kind of N_2 (nor N_1).
        There are many.   Try hard and find interesting ones.

C.   Read the text p.34, 2nd paragraph ("Children's eagerness to ...) to p.36 and
        summarize the point.   Be concise.   [100 words]

D.   Read the text p.42, 2nd paragraph ("Why nouns? ...) to the middle of p.43,
        and summarize the point. Be concise.   [100 words]

E.   Read the text up to page 52.