

“Wanwan” is easier to learn than “inu”

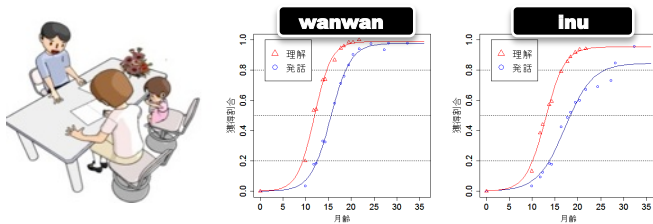
~ Exploring differences in learnability of IDS and ADS words in children ~

Abstract

When Japanese parents speak to their own infant, they often use infant-directed speech (IDS) words such as onomatopoeias and sound-symbolic words (e.g., “bow-wow” for a dog and “vroom” for a car). We are currently interested in the scientific issue of (1) why parents often use IDS words and (2) whether IDS words is easier for infants to learn than adult-directed (ADS) words. To address this issue, we examined whether infants produce IDS words earlier than ADS words by collecting large sample of vocabulary-checklist data and estimated the age of acquisition in each word. Results showed that infants were able to produce IDS words earlier than ADS words. For example, they can produce “wanwan” (i.e., bow-wow) at 15 months and “inu” (i.e., a dog) at 18 months on average. Furthermore, we investigated whether infants preferentially learn IDS words when hearing IDS and ADS words toward novel objects under highly controlled conditions. Results showed that 16-month-olds preferentially associated novel objects with IDS words (e.g., “tenten”) rather than with ADS words (e.g., “yamitsu”), suggesting the priority of IDS words in early language development.

Comparison of IDS and ADS words in acquisition

- Analyzing large sample of vocabulary checklist data
- Estimating the age of acquisition (AoA) using logistic function



Infants learn IDS words earlier than ADS words!

IDS word		ADS word	
wanwan	15	inu(dog)	18
booboo	17	kuruma(car)	19
mama	17	okaasan(mother)	23
papa	18	otousan(father)	24
nyan-nyan	18	neko(cat)	20
baaba	18	obaachan(grandma)	22
jiji	19	ojiichan(grandpa)	21
kukku	18	kutsu(shoe)	19
shishi	20	oshikko(pee)	21
enen	21	naku(cry)	26
ponpon	22	onaka(stomach)	22
gaagaa	23	ahiru(duck)	30
choki-choki	25	kiru(cut)	28
gotsun	24	butsumaru(hit)	29

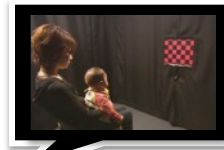
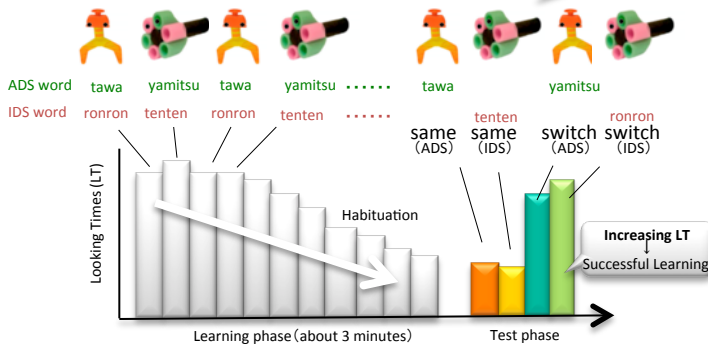
(months)

(months)

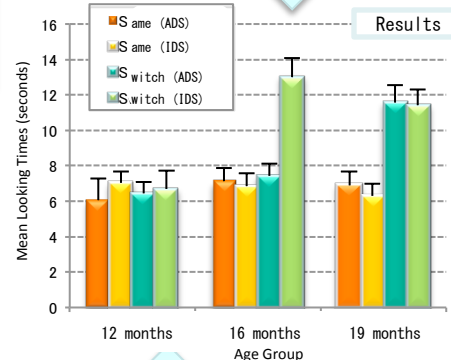
Testing the difference in learnability between IDS and ADS words

- Participants: 12, 16, 19-month-old infants
- Presenting novel IDS and ADS words
- Measuring looking times for each word

Design: Habituation paradigm



16-month-olds learned IDS words rather than ADS words



12-month-olds failed to learn both IDS and ADS words

Related works

- [1] T. Kobayashi, T. Murase, “Associating two novel labels with one object by Japanese 1-year-old children.” in *Proc. 36th Meeting of the Society for Research in Child Development (SRCD)*, 2013.
- [2] T. Kobayashi, T. Murase, “Learning multiple labels for a single object in Japanese children.” in *Proc. 36th Boston University Conference on Language Development (BUCLD)*, 2011.

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