

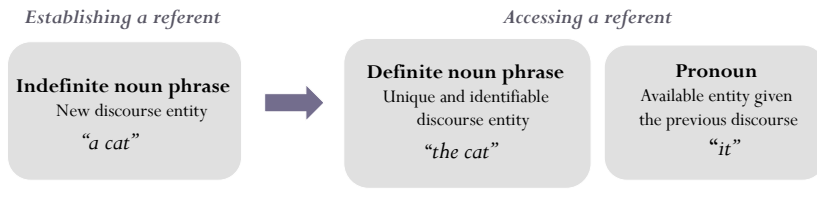


The introduction and maintenance of referents in the English narratives of bimodal bilingual children

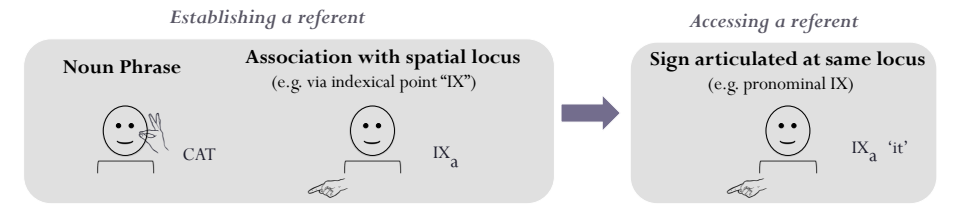
Kathryn Davidson, University of Connecticut



Referent Tracking in English



Referent Tracking in American Sign Language (ASL)



Research Questions

I. Cross-linguistic influence

Sign and spoken languages have different (modality-influenced) strategies for tracking referents through a discourse

Do bimodal (=sign and speech) bilingual children acquire the English system in a pattern similar to monolinguals?

II. Cochlear implants and early sign exposure

Deaf children who receive cochlear implants (CIs) perform below hearing peers on spoken language assessments (Sarant et al. 2009, i.a.) including pragmatics (Most et al. 2010), potentially due to:

- insufficient audiological input, or
- lack of early language pre-implantation

Here, we study (rare!) children with CIs who have deaf signing parents, and so were never without language input

Do native signing CI children succeed at acoustically non-salient items like English articles and pronouns?

Participants

9 bimodal bilingual (ASL/English) children:

- 5 typically hearing children of deaf signing parents ("CODA"s), ages 5;10-6;3 years, mean 6;1
- 4 children who received cochlear implants and have deaf signing parents ("CI"s), ages 5;6-6;8 years, mean 6;1

All scored within normal range on the Leiter nonverbal IQ test

Methodology

Data Elicitation

Each participant viewed a short child-friendly video involving animals and relayed the story in English to a hearing experimenter

Data Coding

Elicited narratives varied in length, so each child's narrative was coded for their first 10 uses of each of the following:

- 3rd person pronouns (*he/she/it*)
- Indefinite noun phrases with indefinite articles (*a/an*)
- Definite noun phrase introduced by *the*

Each of the above were coded for pragmatic appropriateness:

- Available referent for pronouns and definites
- No previous mention and/or no unique referent for indefinites

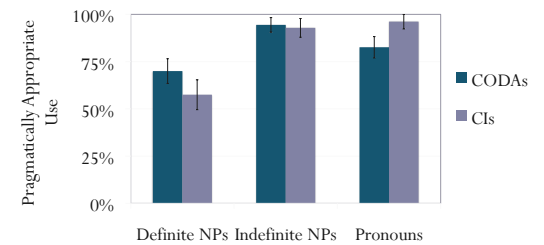
Results: Cross-linguistic influence

- Appropriate use of discourse referents develops around the age of study: participant age correlated with pragmatic appropriateness of their noun phrases, $r(413) = 0.097, p < 0.05$
- Pragmatically appropriate use by CODAs of pronouns (Mean = 0.83) and indefinite noun phrases (Mean = 0.94) were high, with definite noun phrase performance somewhat lower (Mean = 0.70)

This pattern is consistent with monolingual English children's overuse of definites (the "the" problem) compared to indefinites at this age (Maratsos 1974, Karmiloff-Smith 1979)

Results: CIs and sign exposure

- A mixed logit model with status (CI/CODA) and NP type (Definite, Indefinite, Pronoun) as fixed effects and participant as a random effect found no significant effect of status ($\beta = 0.85, z = 0.73, p = 0.46$)



- The same model did find significantly improved use of Indefinite NPs ($\beta = 2.60, z = 2.86, p < 0.01$) and Pronouns ($\beta = 3.48, z = 2.91, p < 0.01$) over Definite NPs, but no interactions between status and NP type

Conclusions

- ✓ Bimodal bilingual children exhibit a typical English developmental pattern despite the difference between sign and spoken languages
- ✓ Children with cochlear implants who receive *both strong signed and spoken language input* performed similarly to hearing bilingual peers in pragmatic use of referents in an English narrative, an important developmental marker for young elementary school-age children

References: Karmiloff-Smith, A. (1979) *A Functional Approach to Child Language: A Study of Determiners and Reference*. Cambridge University Press. Sarant, J., Holt, C., Dowell, R., Rickards, F., & Blamey, P. (2009). Spoken language development in oral preschool children with permanent childhood hearing impairment. *Journal of Deaf Studies & Deaf Education*, 14(2), 205-217. Most, T., Shina-Angust, E., & Meilijon, S. (2010). Pragmatic abilities of children with hearing loss using cochlear implants or hearing AIDS compared to hearing children. *Journal of deaf studies and deaf education*, 15(4), 422-37. Maratsos, M. (1974) "Preschool children's use of definite and indefinite articles," *Child Development*, 45(2), 446-455.