Reflexive Pronouns in Chinese-Learning Monolingual, Bilingual, and Trilingual Toddlers, and Their Parental Input

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Multilingual input & child language development

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Background

Reflexive pronouns in Chinese have two forms:

- Compound reflexives (e.g., ta-ziji 'himself' in Mandarin) governed by binding principles in ways similar to reflexives in English.
- Bare reflexives (e.g., ziji in Mandarin, zi6qei2 in Cantonese) functioning as local anaphors, generic pronouns or intensifiers [Wang and Pan, 2021] (examples in Data Annotation).
- English-speaking children use reflexive pronouns as a generic pronoun in addition to anaphorical and logophorical use before age 7 [Wexler and Chien, 1985, Chien and Wexler, 1990, Mandarin children exhibit a fundamental grasp of the local and long-distance (LD) function of bare reflexive around age 4 [Li, 2024].

Research Questions

- What types of reflexive pronouns are notably absent or more prominently used by children learning Chinese?
- How do parental input and cross-linguistic influence affect the absence of reflexive pronouns among these children?

Data Set

- 365 instances of reflexive pronouns produced by monolingual (n = 17), bilingual (n = 23) and trilingual (n = 9) toddlers (total n = 49) and their parents in naturalistic adult-child play sessions
- Extracted from Early Additive Child Multilingual Corpus [Mai, prep])
- Sampled longitudinally over 1.5 years (1;6-3;0)

References

[Chien and Wexler, 1990] Chien, Y.-C. and Wexler, K. (1990). Children's knowledge of locality conditions in binding as evidence for the modularity of syntax and pragmatics. Language acquisition, 1(3):225–295.

[Li, 2024] Li, R. (2024). The Acquisition of Anaphora in Child Mandarin: Reflexive Binding and Argument Dropping. Taylor & Francis.

[Mai, prep] Mai, Z. (in prep). Early additive child multilingual corpus. dataset.

[Wang and Pan, 2021] Wang, Y. and Pan, H. (2021). Chinese reflexives. In Oxford Research Encyclopedia of Linguistics.

Wexler and Chien, 1985] Wexler, K. and Chien, Y.-C. (1985). The development of lexical anaphors and pronouns. Papers and reports on child language development, 24:138-49.

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Data Annotation

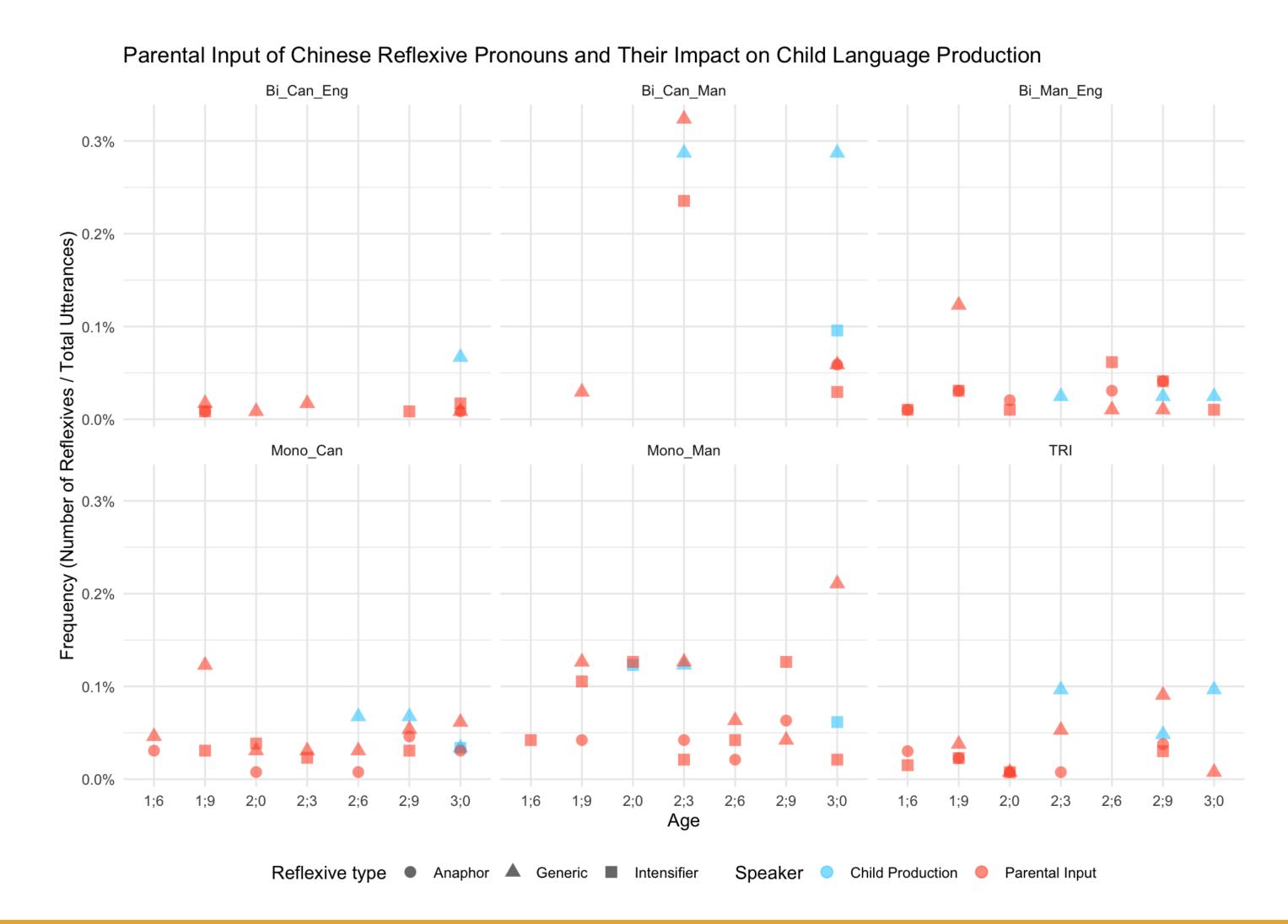
A total of **367** utterances containing reflexive pronouns were selected (332 utterances from parental input and 35 utterances from child production) and categorized into 3 main groups:

Examples of different forms of reflexive In Mandarin

- Anaphor: reflexives obeying Binding Principle A meng-jian Z1J1ierz_{1i} gen pengyou-men wan ASP self PROG with friend-PL dream-see play son 'The son also dreamed about him(self) playing with friends.' (Parental input, 2;9)
- Generic Pronoun: reflexives used as personal pronouns shua Z1]1 teeth brush 'Brush (my) teeth by myself.' (Amy, 2;3, Trilingual)
- Intensifier: reflexives emphasized through discourse or prosody xiang Z1]1 self want read you 'You want to read by yourself.' (Eason, 2;0, Monolingual Mandarin)

Results

- Early emergence of bare reflexive around 2;0 from a monolingual Mandarin speaking children.
- Anaphorical use of reflexive pronouns missing across all groups, consistent with low dosages of anaphorical use in parental input (0.03%).
- Generic use of reflexive pronouns dominates the use of bare reflexives across groups (0.08%)aligning with patterns reported for English children.
- Intensifier use of reflexive pronouns (specific to the Chinese languages; not found in English) is only present in the monolingual and bilingual children who are learning Cantonese, Mandarin or both, and absent from children who are acquiring English alongside one of two of the Chinese languages, suggesting effects of multilingual input and cross-linguistic influence on the production of reflexives in the early years.



Conclusion

- This study investigated the acquisition of reflexive pronouns in Mandarin and Cantonese among young children, uncovering an early mastery of bare reflexives by age two.
- Findings indicate a lack of anaphoric use, reflecting minimal parental usage, while generic use predominated, similar to trends in English-speaking children [Wexler and Chien, 1985, Chien and Wexler, 1990.
- Notably, the use of reflexives as intensifiers was prominent in monolingual and bilingual children, emphasizing the role of multilingual settings in linguistic development.
- These insights highlight the critical influence of language exposure and cross-linguistic interactions on early language acquisition in bilingual and multilingual contexts.