Who are you looking at? Infant and preschool-aged sibling's locus of attention during play sessions

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Introduction

Children's language development is related to:

- Language input[1]
- Patterns of joint attention[2]

Most of this research has focused on language from adults in daylong recordings or dyadic interactions. However, many children have siblings, and infants with older siblings are found to have slower language development[3,4]

We collected play sessions between a parent, older sibling (3-5 years) and infant (9-15 months) to investigate patterns of language in triadic interactions

- How much directed input are younger infants receiving from parents and older siblings? Do parents direct more language to older siblings?
- Are younger infants attending to speech directed to the older sibling?

Here, we first analyze what younger infants attend to during triadic play sessions, and how that may differ from older siblings and parents.

- **We also look for patterns of joint attention, focusing on when parents attend to the same thing as the infant and/or sibling**

Participants: n = 11 families (n = 60 final sample)

- Infant: 12.79 months (range 9-15 months)
- Older sibling: 3.86 years (range 3-5 years)
- CDI (for infant) and PVT (for older sibling)

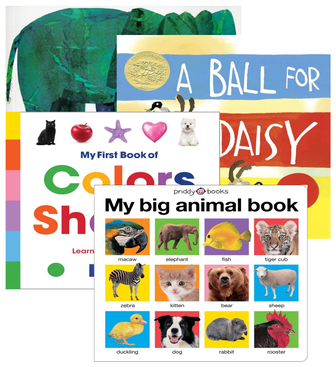

Figure 1. Toys and books that were provided to all families

Acknowledgements

We thank all of the families who participated and research assistants who supported data collection and coding
NIH R21 HD115222 to FB
UB Research and Creative Activities for Undergrads Grant to FB

Citations

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2. Tomasello, M., & Farrar, M. J. (1986). Joint Attention and Early Language. Child Development, 57(6), 1454–1463.
3. Hoff-Ginsberg, E. (1998). The relation of birth order and socioeconomic status to children's language experience and language development. Applied psycholinguistics, 19(4), 603-629.
4. Havron, N., Ramus, F., Heude, B., Forhan, A., Cristia, A., Peyre, H., & EDEN Mother-Child Cohort Study Group. (2019). The effect of older siblings on language development as a function of age difference and sex. *Psychological Science*, *30*(9), 1333-1343.

Methods

Families were told to play as they would at home and were left to play for 15 minutes. Play sessions recorded using NOLDUS 3-camera system.

The recordings were analyzed in ELAN by coding the locus of attention for:

- The younger infant
- The older sibling
- The parent

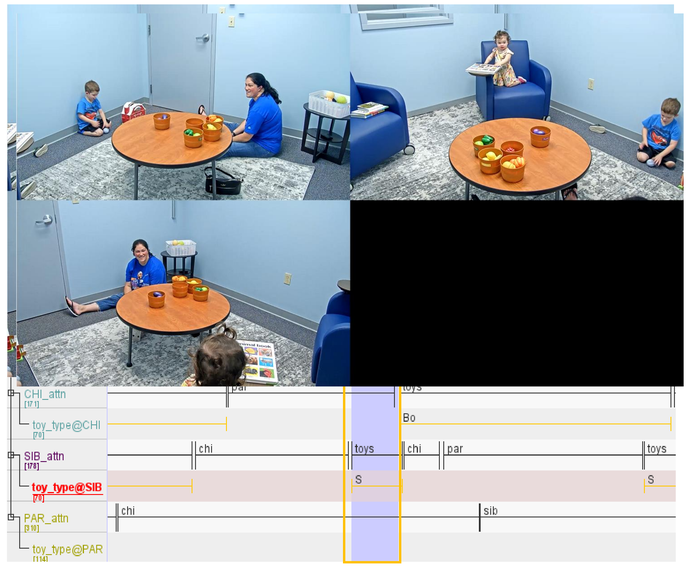

Figure 2. Screenshot of play sessions from three points of view, ELAN transcription tiers for attention and specific toys. In yellow box: S = ball attended to by sibling

Parent, infant and sibling are all attending to different things, not engaging in joint attention.

Parent, infant and sibling are all engaged in joint attention during book reading.

Results

What does each individual pay attention to?

- Both children attend primarily to toys (InfantToy = 10.5 min; SiblingToy = 11.56 min)
- Parents more evenly distribute attention (ParentToy = 5.2min; ParentInfant = 4.7 min; ParentSibling = 4.4 min)

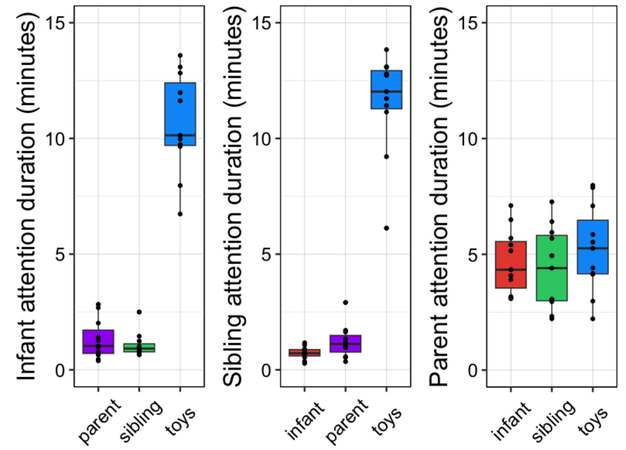

Figure 3. Average attention duration for infants (left), sibling (middle) and parents (right) for other individuals or toys.

Are there bouts of joint attention to toys or other people?

- Yes! Sometimes between parent-infant or parent-sibling, or between all three

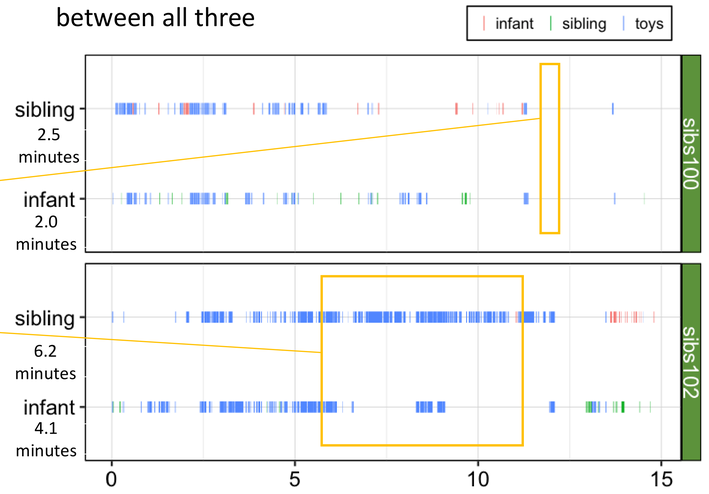

Figure 4. Bouts of joint attention over time (in minutes) between parents and older siblings (top) and younger infant (bottom) for two participants.

Conclusions

This corpus allows us to investigate patterns of attention in triadic interactions:

- Younger infants and older siblings primarily attend to toys, but bouts of joint attention with their parents can lead to optimal language learning moments

Future directions:

- Combined with transcriptions (ongoing), we will be able to investigate who is talking and what they are saying during these bouts of joint attention, and how that relates to language development