It's my turn! Older siblings' influence on the turn-taking skills of toddlers

Luisa Geib & Bettina Braun
(University of Konstanz)

Keywords: Turn taking – language acquisition – siblings – parent-child-interaction – turn synchronization

In adult conversations, the majority of turn transitions are realized with no-gap-no-overlap (Sacks et al. 1974) and an average gap of only 200 milliseconds between turns. Younger children, however, take up to 1.8 seconds to respond (e.g. Garvey & Berninger 1981 and Levinson & Torreira 2015). Around the age of 12 months, children begin uttering their first words and simultaneously develop interactive and linguistic skills, causing their turn-gap duration to increase and their turn-timing to slow down (Hilbrink et al. 2015). This delay, especially prominent in conversations involving three or more participants, can lead to misunderstandings, as it becomes unclear who will speak next (Dunn & Shatz 1989). Sibling dynamics, particularly with a need to capture the mother's attention quickly, intensify this challenge (Casillas et al. 2016). Toddlers (mean 22.7 months) without siblings tend to perform better in production tasks than toddlers with siblings, whereas those with older siblings demonstrate superior comprehension skills (attention to own name and receptive vocabulary) due to exposure to a more varied linguistic input (Dunn & Shatz 1989 and Malmeer & Assadi 2013).

Research suggests that turn-taking organization is sensitive to changes in infants' social motives, implying that older siblings may improve a toddler's turn-taking skills (Gratier et al. 2015). We hence hypothesize that 12-24-month-olds with preschool-aged siblings will exhibit shorter turn-gaps in conversations compared to age-matched children without older siblings. We recorded two groups of German toddlers in a natural play setting at home. Turn-taking of 16 random 3-minute conversations of eight 15–23-month-old only-children with their mother was compared to a similar number of conversations of children that have a 3–5-year-old sibling. Conversations were sampled from interactions with their mother alone (dyads) and from interactions including the elder sibling (triads). We coded long silences (>3.6s), gaps (silences between speaker turns), pauses (silences within speaker turn), no-gap-no-overlap, turns and overlaps. A χ^2 test showed an unequal distribution of codings across settings ($\chi^2(14)$, p<0.0001). Gap durations before a toddler's turn differed across groups. They were generally longer in only-children than in siblings-dyads and shortest in sibling-triads. Moreover, gap durations for only-children decreased over age, while gap durations for siblings were not affected by age (Figure 1).

Our data show developmental differences in the acquisition of turn-taking skills between only-children and children with elder siblings. Children with siblings approach the adult model of no-gap-no-overlap (or short turn transitions in general) earlier than only-children.
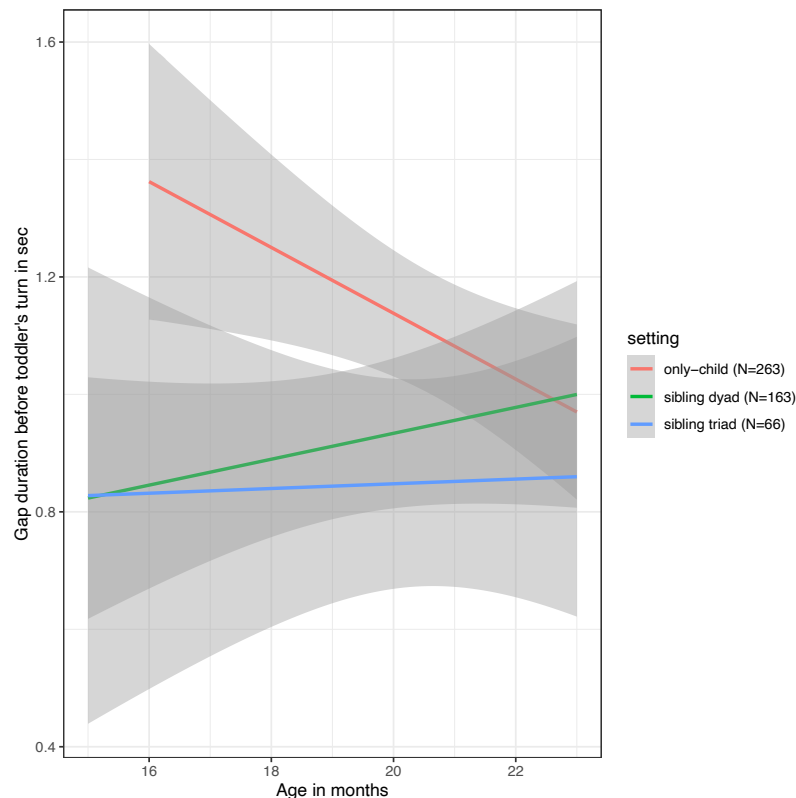
Figure 1: Average gap duration before toddler's turns across settings and age.

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