



Influence of Caregiver Status on Joint Attention in Children

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Background & Research Question

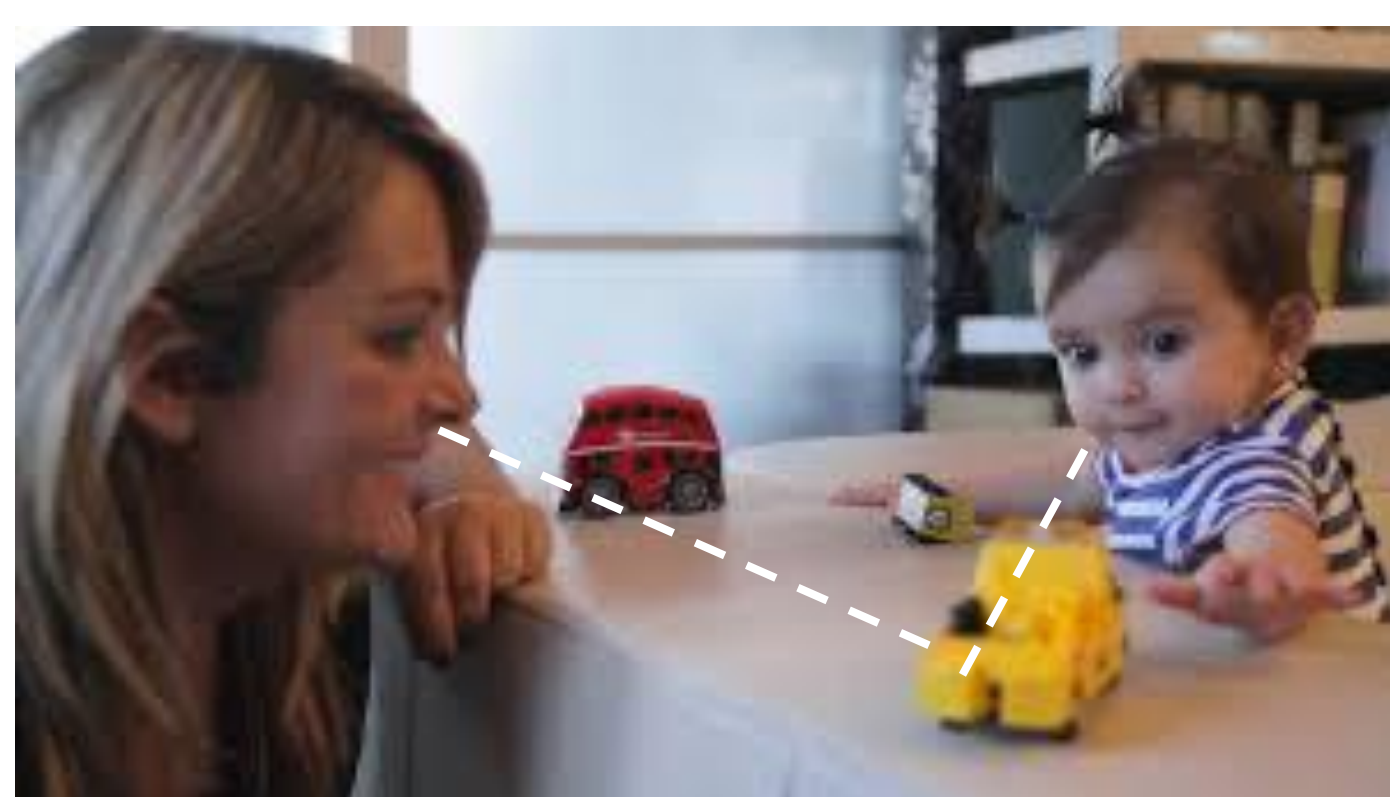
- The care of parents regardless of gender, is equally necessary for the health and well-being of their children [1]. Despite occupational differences, parents manage to provide similar amounts of care through outside resources such as daycares and early programs [2].
- However, each parent brings unique contributions – primary vs. secondary – to their child’s care instead of an expected equal contribution [3].
- There are two important perspectives on how caregivers should interact with their children in a way that promotes social interaction behaviors, such as joint attention.
 - View 1: Parents who allow their children to lead in play are better at engaging their children [4].
 - View 2: Parents who are directive with their children better promote their child’s learning [5].

Research Question:

- Does this mean then, parental status (primary vs. secondary) influence the way parents support social interaction?
- To address this research question, the present study will investigate the effect of caregiver status on social communication. The study focuses on joint attention as a measure of social communication and uses dominant vs. non-dominant as measure of parental status.

Hypothesis:

Parental status will influence the frequency and duration of infant’s joint attention experiences during a parent-infant play task.



Joint attention (JA) is when the parent and child are looking at the same target.

Methods

Participants:

- 24 typically-developing infants from 12 to 24 months of age.
 - 12 with primary parental status (occupation: homemaker).
 - 12 with secondary parental status (occupation: full time outside).



Task & Procedure - Object Play:

- The play task will be 5 minutes and 40 seconds long.
- During the play task, the parent will be instructed to freely use 8 toy objects to play with their infant as they do at their home.
- Both parent and infant will wear head-mounted eye-trackers to record their momentary gaze behaviors from their first-person view.
- Two room cameras (wall mounted and hung from ceiling) will record the play session and provide supplementary resources to make annotation decisions for less clear gaze behaviors.

Procedure:

- All recordings will be processed with the Yarbus software and synchronized together based on the play timeline.
- Individual’s gaze behaviors will be annotated frame-by-frame throughout the play task by Datavyu.
- We will measure joint attention episodes - mutual gaze sharing between parent and infant when they attend the same target object simultaneously - by (1) frequency and (2) duration (in milliseconds).

Analytical Plan:

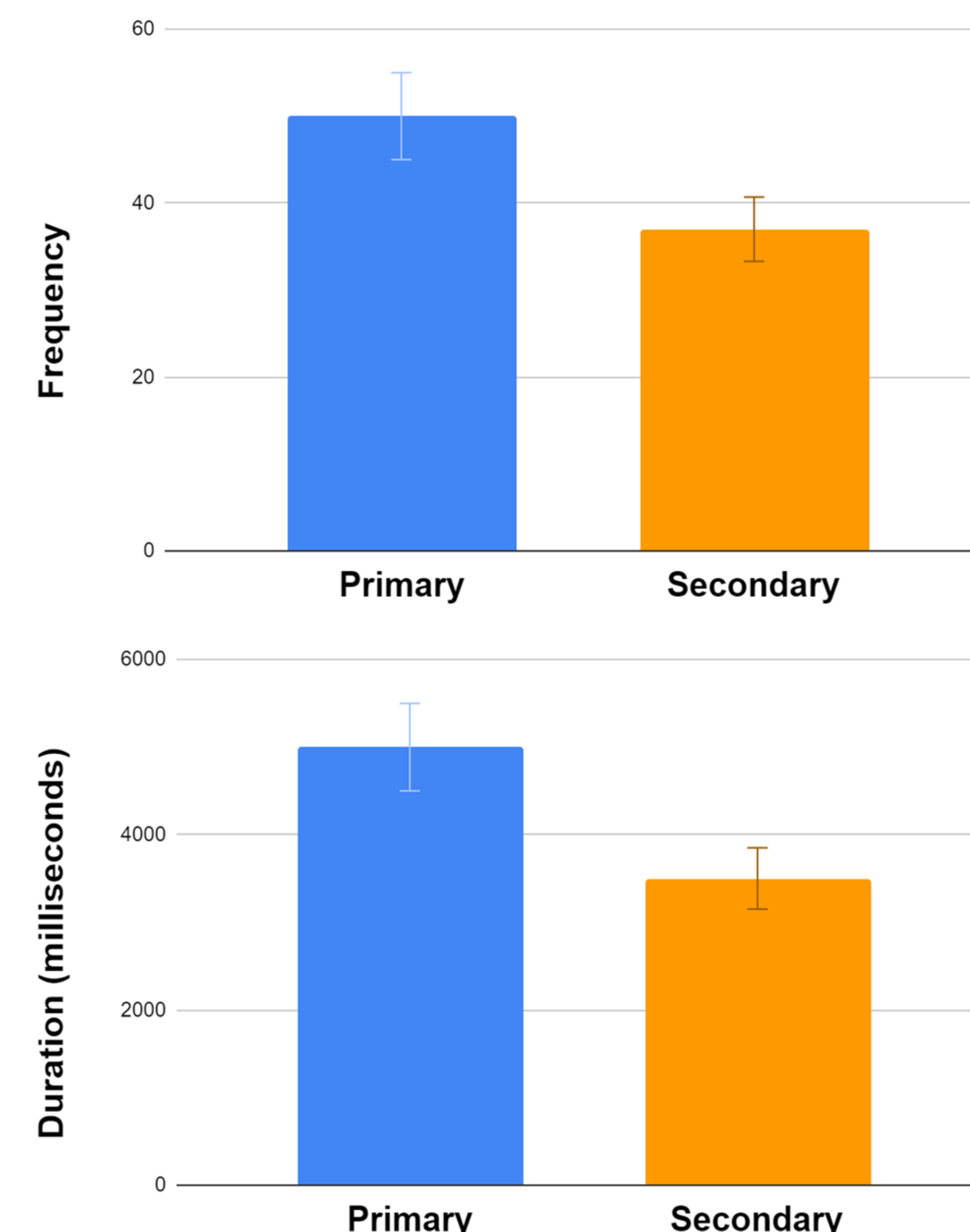
- To examine the difference on infant’s joint attention experiences during play, the present study will compare the overall frequency and duration of JA between primary and secondary parent groups through two-way independent t-test.
- Alternatively, paired t-test can also be appropriate if the age of children from two groups will be comparable.



An example of joint attention on the same toy object from the head-mounted eye tracker.

Expected Results

We expect that infants with their primary caregivers will experience more frequent and longer instances of joint attention than infants with their secondary caregivers (as shown below).



Discussion

- The purpose of the proposed study is to examine whether caregiver status has a significant impact on infant’s joint attention experiences. The expected findings will contribute to our understanding of how parental status shapes early learning experiences and further creates cascading support for early social development.
- However, the one semester research project itself has limitations and confounding factors:
 - Parent and infant gender;
 - Presence of other potential caregivers at home;
 - Dispositional factors, such as parents’ personality (leader versus follower).
- We plan to continue working on this project to address the issues mentioned above.
 - Increasing sample size;
 - Statistically controlling for socioeconomic and demographic factors (e.g. parental occupation and infant birth order).

References

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