Introduction:
- Humor perception in infancy starts around 6 months and continues to develop. infants respond to incongruencies, like a person wearing a colorful wig, by smiling and looking.
- Infants engage in social referencing or observe parents’ reactions to events to guide their understanding.
- However, there is not much research on the impact of siblings on humor perception.
- Compared to infants without siblings, infants with siblings are seen to interact and experience more with their siblings, which builds their relationship and attachment.

Research Question:
- Will infants who have older siblings be more likely to socially reference a child when shown an incongruent event than children without siblings?

Hypothesis:
- If sibling interaction and social referencing impact infants’ experiences and perception of incongruent events, then infants with older siblings may be more likely to anticipate incongruent events and look at the child’s image than in neutral events.

Methods:
- Infants will view the stimuli on a computer screen with a Tobii XL60 eye tracker that measures infants’ fixation on the images presented.
  - Video stimulus will be 5 seconds long.
  - Test trial will be paused at 2.5 seconds.
- Infant-looking times to child and adult in the test trials determine preferential looking for each type of stimulus.
  - Calculated as a percentage: Looking time to the child/ Sum of looking time to adult and child.

Stimuli:
- Infants will be presented with 2 types of video stimuli
  - Neutral events: drinking water, reading a book, and eating.
  - Incongruent events: pouring water on their faces, putting food on their face, and putting a book on their heads.
- Video Stimuli of Neutral and Incongruent events will be presented in blocks of 3 trials
  - 2 familiarization trials: side-by-side video of an adult and a child performing identical actions.
  - 1 test trial: side-by-side video of an adult and a child paused before performance of identical actions.

Block Procedure

<table>
<thead>
<tr>
<th>Block</th>
<th>Neutral Event</th>
<th>Incongruent Event</th>
<th>Neutral Event</th>
<th>Incongruent Event</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Familiarization</td>
<td>Testing</td>
<td>Familiarization</td>
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<td>2.</td>
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Planned Analysis:
- Analysis of Variance examines if infants exhibit looking patterns during test trials as a function of the type of stimulus or experience with siblings
  - Dependent Variable:
    - Infant’s preferential looking during test trials.
  - Independent Variable:
    - Between-subjects variable: whether they have an older sibling (sibling vs. no sibling).
    - Within-subject factor: type of stimulus (neutral or incongruent).

Discussion:
- Infants with siblings may look at the child more than the adult during incongruent events but may not look longer at either for neutral events.
  - Suggests that Infants may tend to associate their older siblings with incongruent events.
- Interactions of younger siblings with older siblings provide them with experiences, allowing them to develop theory of mind or understanding of others’ thoughts and emotions.

Participants:
- Two groups of 25 infants, 12-14 months of age.
- One group of infants will have older siblings who are 3-5 years of age, while the second group will not have older siblings.

References
1. Mireault et al., 2012
2. Mireault & Reddy, 2020
3. Mireault et al., 2014
4. Paine et al., 2022