DO INFANTS UNDERSTAND FALSE BELIEFS?
Researchers still debate the age at which children first understand that other people may hold false beliefs.

Children 4-5 years of age typically pass verbal false belief tasks (eg. Sally-Ann, Smarties).
However, recent studies suggest infants as young as 15 (or even 13) months understand that others have false beliefs (Onishi & Baillargeon, 2005; Surian, Caldi, & Sperber, 2007).
False Belief Tasks

- Toddlers
  Change-of Location Task (e.g. Sally-Anne task)
  Change-of Contents Task (e.g. Smarties task)

- Infants:
  Violation of Expectation Paradigm
New Paradigms for Infants

- Active Helping Paradigm (Change of Location)
- Unexpected Contents Paradigm (Change of Contents)
Active Helping Paradigm

- Study 1 ($n = 24$)
  Participants: 2.5 year olds
- Study 2 ($n = 100$)
  Participants: 50 18 month-olds and 50 16 month olds
Procedure: Active Helping Paradigm

- True Belief condition: E2 saw the caterpillar physically moved from 1 box to the other

- False Belief condition: E2 was not present to witness E1 “sneakily” move the caterpillar from 1 box to the other
Procedure: Active Helping Paradigm
Results: Study 1 with 2.5 year olds

** p<.01
Results: Study 2 with 16 and 18 month olds

**Graph**

- **False Belief**
  - 7/25 (Former Location)
  - 18/25 (Current Location)

- **True Belief**
  - 21/25 (Former Location)
  - 4/25 (Current Location)

**Significance Levels**

- * p < .05
- ** p < .01
- *** p < .001
Discussion

- Infants as young as 18 months of age can pass a non-verbal false belief task (Active Helping Paradigm) that involves a Change in Location.
- Does this mean that infants truly understand others’ false beliefs?
New Paradigms for Infants

- Active Helping Paradigm (Change of Location)
- Unexpected Contents Paradigm (Change of Contents)
Unexpected Contents Paradigm

- **Participants:**
  36, 18 month olds

- **Materials:**
  4 cardboard boxes with pictures of Lego blocks on 4 sides (front, left, right, and top).
  Familiarization boxes contained: plastic block (yellow, blue, or purple), and the fourth box Target box: contained an orange plastic spoon.

- Before test trial, another block and spoon (both red) were hidden under a piece of cardboard
Procedure
Fig. 2. Percentage of infants who gave E each test object in the two conditions. Numbers within the bars show the number of infants who gave each object. $p < .05$, chi-square test.
Discussion

- Infants as young as 18 months of age can pass a second type of non-verbal false belief task (Unexpected Contents Paradigm) that involves a Change in Contents.
- Does this mean that infants truly understand others’ false beliefs?
Alternative Explanations

- Are infants just applying behavioral rules to infer people’s beliefs in

- The Violation of Expectation paradigm?

- The Change of Location paradigm?

- The Unexpected Contents paradigm?
Questions

- What does infants’ understanding of others’ beliefs entail? Cognitive perspective?

- What factors help enhance false belief understanding?