Getting a grip on infants’ event representations:
Participant number in TAKE and PICK-UP
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**Big Picture: How do children acquire verb meanings?**
- Infants exploit relations between linguistic and conceptual structure to infer kinds of events a new verb can label [1]
- What kinds of relations do learners exploit, number-based [2-3] or content-based [4-5] mapping?
  - Teasing apart these hypotheses requires fixing both sides of the bootstrapping equation

**Syntactic-Conceptual Mapping**
- **Number-based**: Children expect number of participants perceived in an event to match one-to-one the number of arguments in the clause describing that event [2-3]
  - e.g., two-argument clauses describe two-participant events
- **Content-based**: Children expect particular argument positions to name certain participant roles [4-5]
  - e.g., transitive subjects tend to name agents; objects name patients
- Evaluating these strategies requires identifying how infants represent particular events in the world

**Event Representations**
- An event concept entails many relations; Only some of these are psychologically privileged, explicit in the structure of the representation. Call these participant relations [4]

**Entailments of TAKING**

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**Method: Habituation-Switch (8)**
- 32 infants aged 9;21 – 12;15 (mean=10;23) habituated to 2-participant (girl, truck) picking-up event, with boy sitting idly
- Participant change: boy added as a participant in the event
- Manner change: arc motion replaced with slide
  - Perceptually salient change
  - Manner of motion is an event sortal (e.g., PICK-UP versus SLIDE)

**Results**
- Infants dishabituate when manner is changed
- Infants dishabituate more when the boy is added as a participant than when manner of motion is changed
- Infants, like adults, view our taking video under a concept with the boy filling a psychologically privileged role

**TAKING(e) & AGENT(e, girl) & PATIENT(e, truck) & SOURCE(e, boy)**

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**Method: Verb-Extension Task (9)** – Three-participant video paired with two-argument clause

**Future Directions: Adding Language**
- Being more confident that infants view this TAKING scene under a 3-participant event representation, we can evaluate how they map a sentence to that representation

**Evidence from Habituation-Switch Studies**
- 10-month-olds notice when a gift (teddy bear) is removed from videos of giving events, but not when the same object is removed from videos of hugging events [6-7]
- 10-month-olds notice when an instrument (lever) is added to or subtracted from an opening scene [7]

**Lever Addition**

**Lever Subtraction**

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**Participant Change**

**Perceptual Change**

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**Control Conditions**
- The girl pimed the truck from the boy (pim=TAKE under both theories)
- The truck pimed (pim=MOVE under both theories)

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**References**

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