

DEVELOPMENTAL CHANGES IN THE DISCRIMINATION OF DYNAMIC HUMAN ACTIONS IN INFANCY

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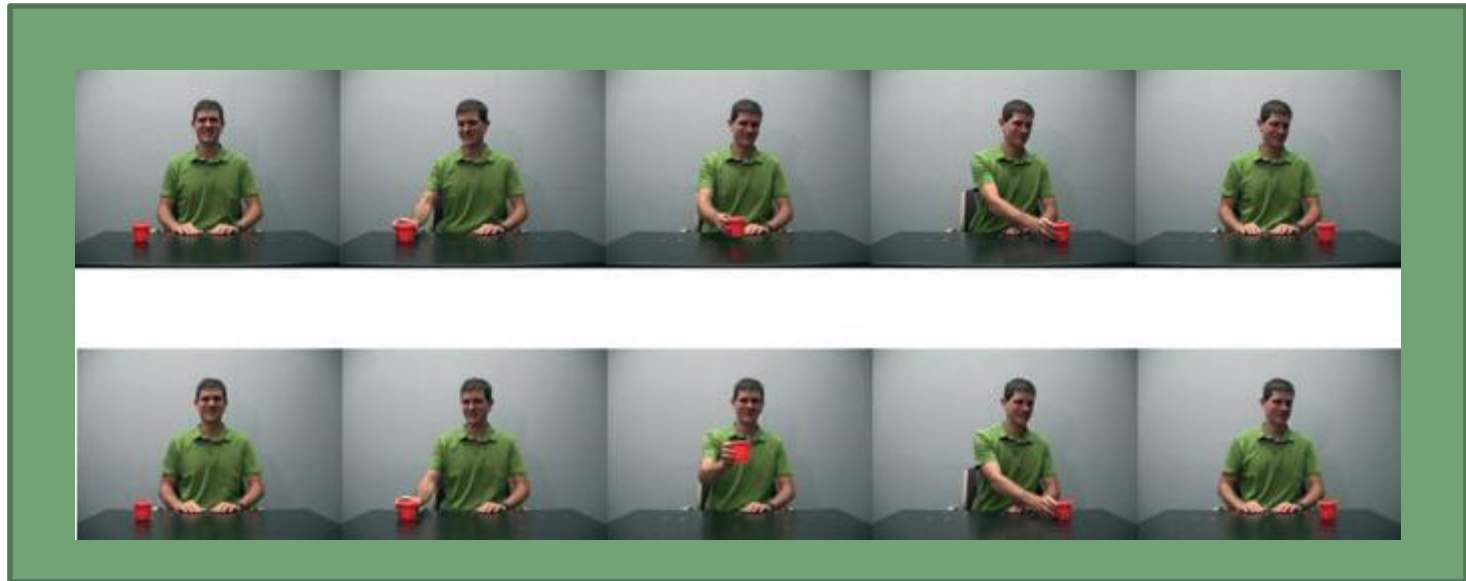
Components of an Action

- Featural – local, how the hand contacts the object



Components of an Action (Cont.)

- Configurational – global, spatial trajectory of arm



- Temporal

Adults- How do you grasp my coffee cup?

- Which information are we more sensitive to ?
- Featural > Configural
 - Adults - **more sensitive** to small changes in featural action than objectively larger changes in configural action.
 - “They are somewhat less skilled in this regard.”
- When we are small, we pay equal attention to all components.
- **So at which age did this “perpetual narrowing” start ?**
 - Infants’ perceptual systems are able to dedicate more processing to featural information at the cost of processing the other two sources of information.
 - Between 4 and 10 months..

Adults say “Goal matter, not the journey “

- Infants' acquire ability to discriminate actions on the basis of goal information at around 4-5 months.
 - (Sommerville, Woodward & Needham, 2005)
- Is discriminating actions on the basis of goal information is somewhat linked to selectively attending to featural action information ??

4 months baby vs. 10 month baby -

- **The primary purpose of processing others' actions is goal inference**
 - (Baldwin & Baird, 2001; Woodward, 2009)
- Adults and older infants may selectively attend to featural information over configural and temporal information for the purposes of goal inference.
- Assuming featural information more important for goal inference !!!
- Not encoded in our **GENES** –
 - It appears as if infants are initially prepared to process multiple sources of information that could potentially be relevant to goal inference, and then learn to identify which sources of information are more and less relevant for this purpose.

Disclaimer

- Current research only examined discrimination based on **one kind of action: a simple grasp and move event.**
- It is NOT clear from the present results whether infants' sensitivity to featural, configural and temporal information is similar for other types of action, and whether similar developmental changes would occur between 4 and 10 months for other actions.
- Future research would explore how generalizable the current findings are to other types of action.

Thank you !!!