Development of Body Image in Toddlers

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Background & Questions

- Body knowledge is a key component of the “social brain” and underpins understanding of one's own and others' actions
- Awareness of one's own body is served by distinct brain regions in adults (Chaminade, et al, 2005)
- The body image is well-established by age 5 but little is known about its origins (Smolak & Levine, 2001)
- Between 18 & 24 months, toddlers become objectively aware of their own bodies as obstacles and of their own body size (Brownell, et al, in press)
  - When do children begin to develop a body image, i.e., knowledge about the spatial or topographic configuration of their own bodies?
  - How does this relate to their ability to describe themselves objectively?

Methods & Results

“Sticker Task”: Body Part Localization

- Experimenter places sticker on assistant without labeling location (12 locations)
- Child asked to place sticker on own body in same location

“Meaningless Gestures Task”: Body Part Spatial Relationships

Adapted from Goldenberg (1996)

- Left parietal damage → Imitate at inaccurate location = Impaired spatial representation of own body configuration

Current Study

- 16 body locations
  - Gesture vs. Object
  - To body vs. To table

Self Description & Body Part Knowledge

Self Description
- UCLA Self Understanding Parent Questionnaire (Stipek, et al, 1990)

Self-other Language
- MacArthur CDI: Personal Pronouns

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<th>Body Part Spatial Relationships</th>
<th>Self-Description</th>
<th>Self-other Language</th>
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<td>Imitated</td>
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*age controlled, p < .05

Summary & Conclusions

- The body image emerges early in the third year of life as a topographic or spatial representation of the child’s own body
  - 30-month-olds, but not 20-month-olds, demonstrated nonverbal knowledge of where unnamed body parts were located on themselves & the spatial relationships among their own body parts
  - These two aspects of body knowledge were related, independent of age

- Early body image develops in concert with self-understanding, especially children's ability to describe & refer to themselves objectively

References:

- Brownell, Zerwas & Ramani (in press). Child Development
- Chaminade, Meltzoff & DeCety (2005). Neuropsychologia, 43, 115 – 127
- Smolak & Levine (2001). In Thompson & Smolak (Eds), Body image, eating disorders & obesity in youth. (pp. 41-66). Wash, DC: APA.