Introduction

- Early on, children struggle to behave in self-directed ways, and frequently rely on reminders from adults to achieve goals (Munakata, Snyder, & Chailum, 2012)
- Executive Functions (EFs) are important for achieving goals (e.g. academics, health, and wealth; Moffitt et al., 2011)
- Prior investigations focus on cues and reminders from adults instead of self-directed tasks
- Less is known about how kids begin to engage EFs in self-directed ways
- Parents may play an important role in how children develop EFs
  - Intrusive mothers control content and pace of play, which undermines child motivation (ipsa et al., 2004)
  - Autonomy-Supportive mothers support children to achieve goals independently by providing space for the child’s choices (Bernier et al., 2010)

Hypotheses

- Does maternal intrusiveness at age 5 predict children’s self-directed EF at age 7, controlling for earlier self-directed behavior?
  - Children with more autonomy supportive mothers will have better EF in self-directed contexts at age 7 controlling for EF at age 4
  - Children with more controlling mothers will have worse EF in self-directed contexts

Methods

- Examined relationships between maternal behaviors and developing self-directed EF in a subset of the Colorado Longitudinal Twin Sample (N=97)
- Maternal autonomy support was measured in a mother-twin co-construction task at age 5
  - Raters coded interactions using NICHD Maternal-Child Interaction Rating Scale (Cohen’s Kappas= .77-.79)
  - Constructs of Interest:
    - Maternal Intrusiveness
    - Maternal Detachment
  - Secondary Measures (Positive Regard, Stimulation of Cognitive Development, and Sensitivity)
- Children’s self-directed EF is indexed by switching performance in semantic verbal fluency (VF)
  - Children are given time to produce exemplars of a categorical prompt (e.g. “Animals”)
  - Children who produce many words show a spontaneous clustering and switching strategy

Preliminary Analyses

- Early VF switching predicts later VF switching ability
  \( r = .35; p < .001 \)
- NICHD ratings of maternal behaviors demonstrate predicted relationships between constructs
  - For example, Maternal Intrusiveness is inversely related to Maternal Sensitivity
  \( r = -.40; p < .001 \)

Primary Results

- Maternal intrusiveness or autonomy support are not related to children’s verbal fluency switching performance
  \( r = .08; p = 0.45 \)
- In exploratory secondary analyses, maternal parenting behaviors are not related to children’s performance on verbal fluency
  \( p > .3 \)

Discussion

- No relationship between observed age-5 intrusiveness and children’s VF switching at age-7 before or after controlling for age-4 switching ability
- May suggest parenting behaviors and children’s developing self-directed EF are not related
- Limitations:
  - A lack of task direction may not have been optimal to determine autonomy supportive parenting
  - Unplanned variation in experimenter instructions may have impacted dyadic behavior and reduced our ability to see systematic differences across dyads

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