Introduction

- A critical aspect of social competence is the ability to coordinate multiple processes to meet social demands and achieve social goals (Iarocci, Yager, & Effers, 2007).
- Peer provocation and peer rejection are the most common social interactions that rely on social competence in preschool.
- Executive function (EF), the ability to plan and direct goal-oriented behavior, (Anderson, 1998) can potentially assist with the coordination of processes needed in difficult peer situations (Boseovski & Marcovitch, 2012).

Methods

Participants
- Forty-eight 4- and 5-year-olds (M age = 57 months, s = 6.5), 22 female

Materials and Procedure (see Figures 1 and 2)
- Challenging Situations Task (Denham et al., 2013)
  - Presented with 3 emotional provocation and 3 physical provocation situations and asked how they would respond to each situation if it happened to them.
  - Chose from 2 competent responses (prorsocial or avoidance) and 2 incompetent responses (aggressive or crying)

Dimensional Change Card Sort-Borders (Zelazo, 2006)
- Sort 6 cards by one dimension (i.e., color or shape), and then the other dimension.
  - If successful, participants moved on to the borders level in which they were told to sort cards with a border by one dimension and cards without a border by the other dimension.

Visual Counting Span Card (Case, Kurland, & Goldberg, 1982)
- Participants were told to count the green frogs, while ignoring the red ladybugs.
  - They were then asked to recall the amount of frogs on each card. The number of cards ranged from 2 to 4.

Happy/Sad Stroop (Lapattella, Saffran, & Monsour, 2011)
- Participants were presented with 20 cards with either a happy or sad face on each and were told to say “happy” when they saw a sad face, and “sad” when they saw a happy face.

Results

- Competent responding on the Challenging Situations Task was positively correlated with the DCCS (r = .357, p < .001) and the Visual Counting Span (r = .604, p < .001).
- Aggressive responding on the Challenging Situations Task was negatively correlated with the DCCS (r = -.328, p = .02), the Visual Counting Span (r = -.507, p < .001), and the Happy/Sad Stroop (r = -.285, p < .05).
- Children were considered incompetent responders (n = 15) when they endorsed an aggressive or low response 3 or more times on the CST (see Figure 3).
  - Incompetent responders (M = 3.12, s = .88) recalled significantly fewer cards than competent responders (M = 5.35, s = 1.71) on the Visual Counting Span, t = .476, p < .001.
  - Incompetent responders (M = 1.47, s = .52) passed significantly fewer levels than the competent responders (M = 1.97, s = .53) on the DCCS-Borders, t = .307, p < .004.
  - There was no performance difference on the Happy/Sad Stroop task between the incompetent (M = 1.27, s = .396) and competent (M = 1.63, s = .319) responders, t = 1.28, p < .21.

Discussion

- Working memory and cognitive flexibility are related to competent responding, but response inhibition is not.
  - This could indicate the importance of dual processing in responding to provocation.
- Both the working memory and cognitive flexibility tasks require children to do two things at once (for example, count the frogs while remembering the amount of frogs on previous cards), while the response inhibition task only requires children to do one thing (preventing a habitual response).
- Working memory, cognitive flexibility, and response inhibition are related to aggressive responding.
  - Response inhibition is related to aggressive responding, but not competent responding.
  - This may indicate that response inhibition is only important in social responding when an aggressive response is present.
  - The results point to a potential common mechanism between EF and social competence. This common mechanism could be conscious reflection, which leads to success in EF tasks (Zelazo, 2004), and could be related to response evaluation, an important component of competent responding in social cognition models (Crick & Dodge, 1994).

References