

# Moral Understanding and Executive Function in the Resolution of Preschool Peer Conflict



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## Introduction

- Executive function (EF) — the conscious control of thought, action, and behavior needed for goal-oriented behavior (Zelazo & Carlson, 2012)— is associated with children’s abilities to resolve peer conflict competently (e.g., Denham et al., 2014).
  - EF may assist children in the inhibition of incompetent (e.g., aggressive) tendencies and the coordination of multiple pieces of information in response construction.
- Moral understanding (MU) of aggression— children’s beliefs about the appropriateness of aggression— is related to displays of aggression in general (Erdley & Asher, 1998), and is likely an important factor in children’s response to social conflict.
- The current study categorized participants as high or low EF and high or low MU to examine the joint contributions of EF and MU in children’s responses to peer conflict situations.
- We expected that both EF and MU would be important factors in children’s responses to peer conflict situations.
  - For example, a child with low EF-low MU will choose less competent responses than a child with low EF-high MU. However, the child with low EF-high MU will choose less competent responses than a child with high EF- high MU

## Method

### Participants

- Seventy-two 4- to 5-year-olds ( $M$  age = 59 months,  $SD$  = 6.83 ), 36 girls

### Materials and Procedure (Figures 1-3)

*Peer conflict measure:* Participant responses on the Challenging Situations Task (CST, Denham et al., 2013)

- Participants were presented with 3 emotional provocation and 3 physical provocation situations and asked how they would respond to each situation if it happened to them.
- Participants were given 4 response choices to choose from: 2 competent responses (prosocial or avoidance) and 2 incompetent responses (aggressive or crying).

*MU measure:* Response evaluation questions from the Social Information Processing Interview-Preschool (Ziv & Sorongon, 2011)

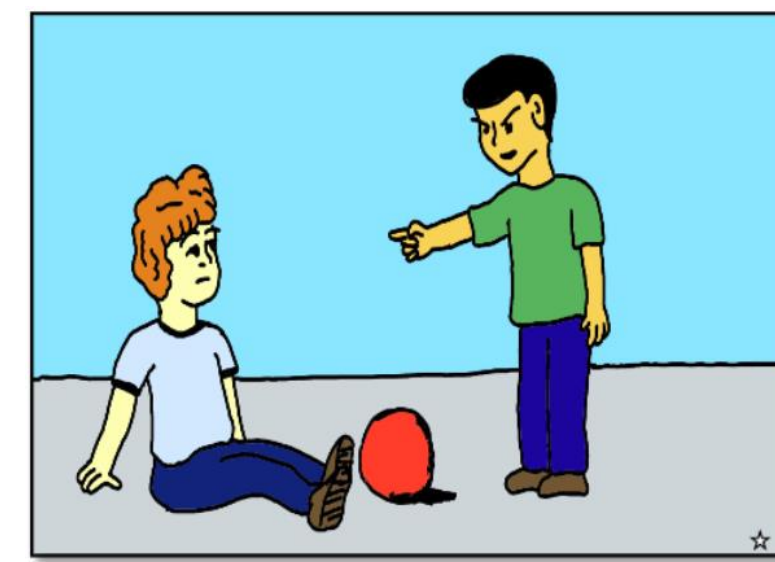
- Participants evaluated an aggressive response to 4 sex-matched conflict situations:
  - 1) Is this a good or bad response?
  - 2) Would other children like you if you did this?
  - 3) Would this response lead to a desired outcome?

## Method (cont.)

*EF measures:*

- Dimensional Change Card Sort- Borders (Zelazo, 2006)
  - Participants sorted 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 the border by the other dimension.
- Visual Counting Span (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 (Lagattuta, Sayfan, & 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.

Figure 1: Example of a situation in the CST



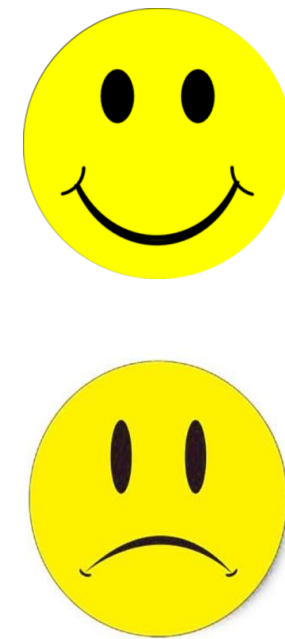
Emotional provocation- Bobby made fun of John for missing the ball and falling down

Figure 2: Example of an aggressive act from the Social Information Processing Interview

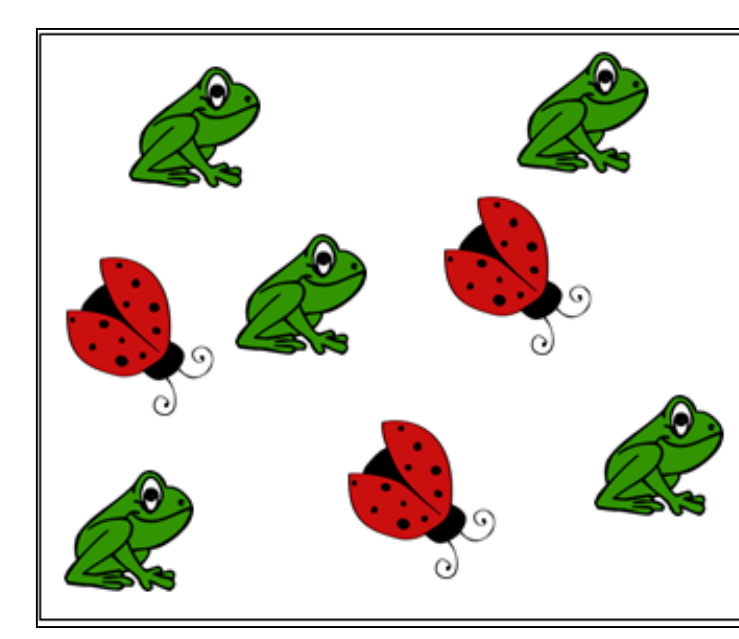


“Playdoh” social exclusion story: Lisa could say “let me play with you or I will hit you!”

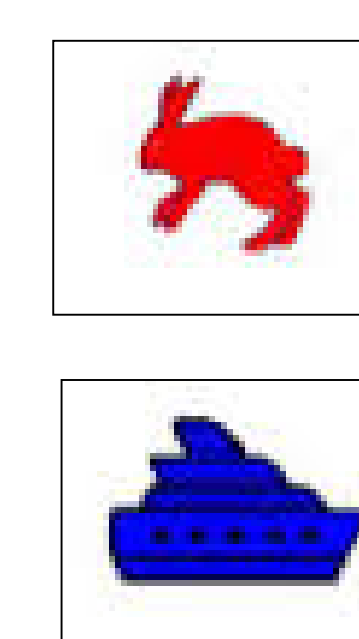
Figure 3. EF measure stimuli



Happy/Sad Stroop Cards



Visual Counting Span Card



DCCS Cards

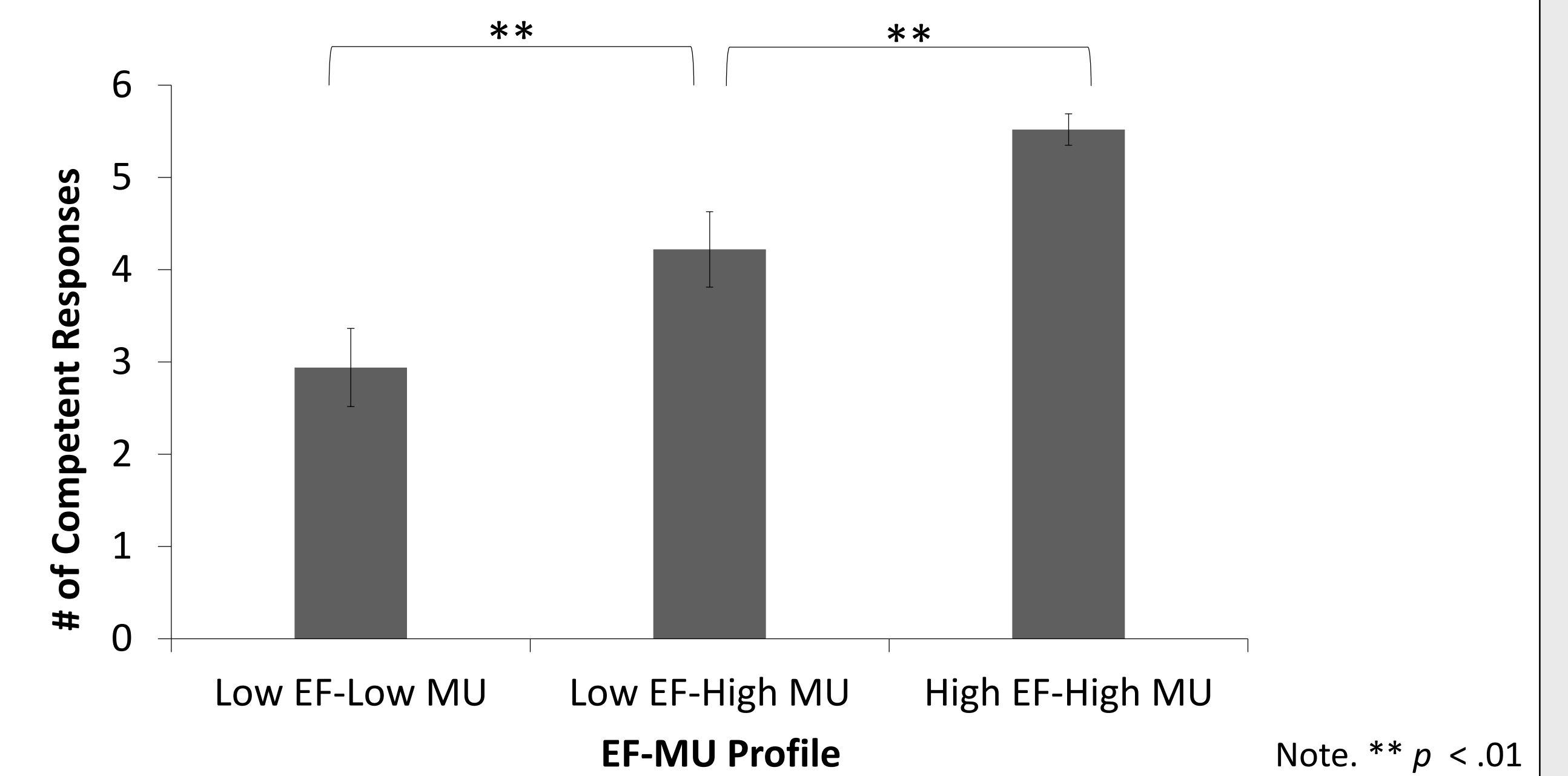
## Results

- The EF measures were aggregated to form one composite EF score.
- Profile construction:
  - For both the EF and MU measures, participants who scored below the mean were designated as “low”, while those who scored above the mean were designated as “high” for each variable.
  - Three distinct profiles were created:
    - Low EF-Low MU ( $n$  = 18)
    - Low EF-High MU ( $n$  = 18)
    - High EF-High MU ( $n$  = 31)
  - There was a High EF-Low MU profile, but it was not included in analyses due to the small number of participants in this group ( $n$  = 5).

## Results (cont.)

- A one-way ANOVA revealed that the three profiles significantly differed in the number of competent responses chosen on the CST,  $F(2, 66)=18.40$ ,  $p < .001$ ,  $\eta^2_p = .37$  (Figure 4).
  - Post hoc tests ( $p < .05$ ) revealed that the low EF-low MU group ( $M=2.94$ ,  $SE=0.42$ ) scored lower than the low EF-high MU group ( $M=4.22$ ,  $SE=0.41$ ), while the high EF-high MU group ( $M=5.52$ ,  $SE=0.17$ ) scored the highest.

Figure 4: Means and standard errors of the number of competent responses on the CST by EF-MU profile



## Discussion

- The current study is the first step in exploring the contributions of both MU and EF to preschooler’s responses to peer conflict.
- The results suggest that both MU and EF are important in the competent resolution of peer conflict.
  - MU appears to be critical for resolving peer conflict when children have low EF. Perhaps having an understanding that aggression is unacceptable lessens the amount of reliance on EF to control the display or endorsement of aggressive behavior.
  - Children with high EF-high MU chose the highest number of competent responses, which suggests that high MU alone does not guarantee that children will be fully competent.
- Future research should focus on the nature of the association between EF and MU in the development of social competence.

## References

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