Preschool Children's Temperament and Peer Interactions



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Outline

- Literature Review
- Research Questions & Hypotheses
- Methods
- Results
- Discussion
- Implications of the Study
- Limitations & Future Directions

Peer Interactions

- Positive peer interaction
  - school readiness, social competence, emotional regulation (Bulotsky-Shearer et al., 2012; Justice et al., 2011; Ladd, 2005; Ladd et al., 1997).
- Negative peer interactions
  - aggressiveness, shyness, negative self-perception, and compliance problems (Ladd et al., 1997)

Temperament and Peer Interactions

Inhibitory control

- Inhibiting disruptive and aggressive behaviors in peer interactions helps children have more positive and friendly interactions with peers (Fabes et al., 1999).
- Children who were able to inhibit their inappropriate behaviors towards peers were more likely to be nominated as playmates by peers (Valiente et al., 2003)

Attentional Focusing

- Attentional focusing is ability to manage attention according to the demands of the situation (Posner & Rothbart, 2000; Rueda et al., 2004).
- Preschool children with poor attentional focusing were less socially competent with peers (Hughes et al.,1998), and sustaining attentional focus and social competence, including positive peer interactions (e.g., engaging peer group activities) (Cole, Usher, & Cargo, 1993; NICHD ECCRN, 2003; Speltz, DeKylen, Calderon, Greenberg, & Fisher, 1999).

Shyness

- Shyness refers to withdrawal in response to novel situations and/or engagement with peer activities (Rothbart, 2011)
- Young children who are high in shyness are more likely to be unpopular and rejected by peers due to their fear of approaching new situations and people (Dunn & Cutting, 1999; Rubin et al., 2009).
- Reluctant to verbally respond to peers Dunn & Cutting, 1999

Purpose of the study

- To examine children's attentional focusing, inhibitory control, and shyness as predictors of children's peer interactions (peer sociability, communication, assertiveness, and conflict) assessed via observations during class time.

Research Questions

1. To what extent are children's inhibitory control and peer interactions associated?
2. To what extent are children's attentional focusing and peer interactions associated?
3. To what extent are children's shyness and peer interactions associated?
4. Do inhibitory control and attentional focusing moderate the association between shyness and peer interactions?

Participants

- 40 children (19 boys, 21 girls) enrolled in thirteen classrooms from eight different preschools in a Mid-western city in the United States.
- 85% of participating children were White, 5% were Latino, and 7.5% were multi-race.
- Children's mean age was 45.67 months (*SD*= 5.19 months) at Time 1.

Assessment of Peer Interactions

•Individual Classroom Assessment Scoring System (inCLASS; Downer et al., 2010; Vitiello et al., 2012) was used to measure children's conflict, sociability, communication, & assertiveness in peer interactions (α= .75)

- Each child was observed for four 15-minute cycles during one typical morning in the fall
- Inter-rater reliability was high across cycles (ICC= .96) and children (ICC= .98).

Temperament

- Children's temperament was measured via parent report on the Children's Behavior Questionnaire (CBQ: Putnam & Rothbart, 2006; Rothbart et al., 1994).
  - Attentional focusing (α= .74)
  - Inhibitory control (α= .75)
  - Shyness (α= .84)

Data Analysis

- Hierarchical regression analyses were used to test models predicting Peer Interactions in separate models.
- Dummy codes were created for each teacher to control for classroom effects (Stockburger, 1998).
- Example:

  DV: Peer Conflict

  IV: Dummy codes

  Inhibitory control

  Attentional focusing

  Shyness

  Inhibitory control x shyness

  Attentional focusing x shyness

Results

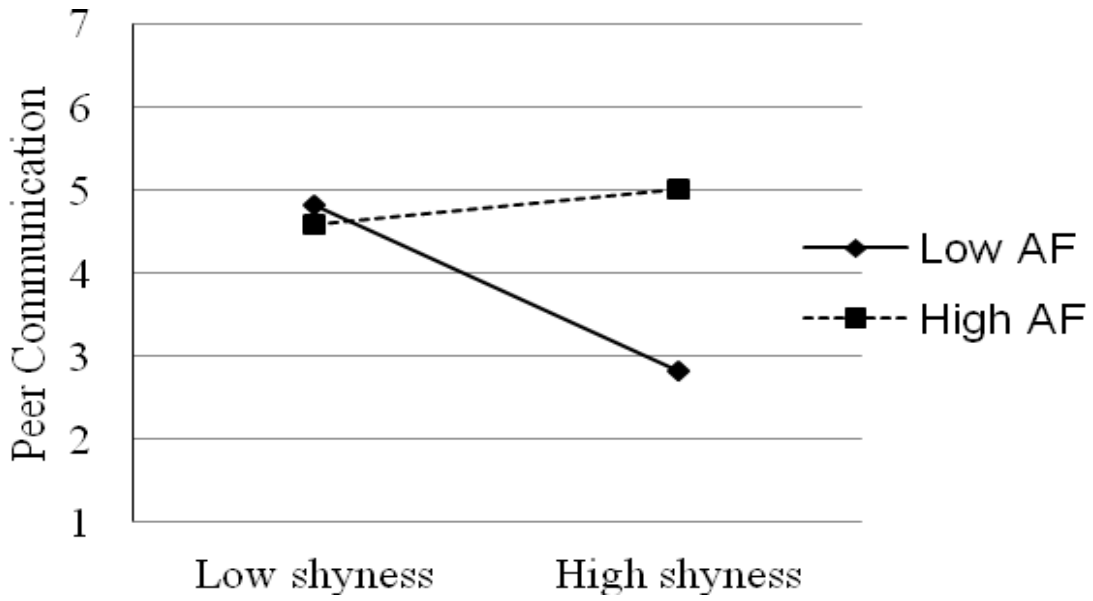
Table 2. Descriptive statistics, means, standard deviations, and correlations matrix

Variables	*M*	*SD*	1	2	3	4	5	6	7
1. Inhibitory Control	4.94	.78	_						
2. Shyness	3.66	1.29	-.01	-					
3. Attentional Focusing	4.65	.91	.51**	-.21	-				
4. Peer sociability	3.97	.99	.18	-.12	.34*	-			
5. Peer communication	3.80	1.26	.19	-.23	.37*	.73**	-		
6. Peer assertiveness	2.84	1.09	.13	-.19	.36*	.85**	.61**	-	
7. Peer conflict †	7.64 †	1.99 †	-.31*	-.37**	-.29*	.07	.12	.15	-

Note. *p< .05, one-tailed. **p< .01,one tailed. † Non-reversed peer interaction-conflict score was used for correlation. † Reversed scores were used for descriptive statistics

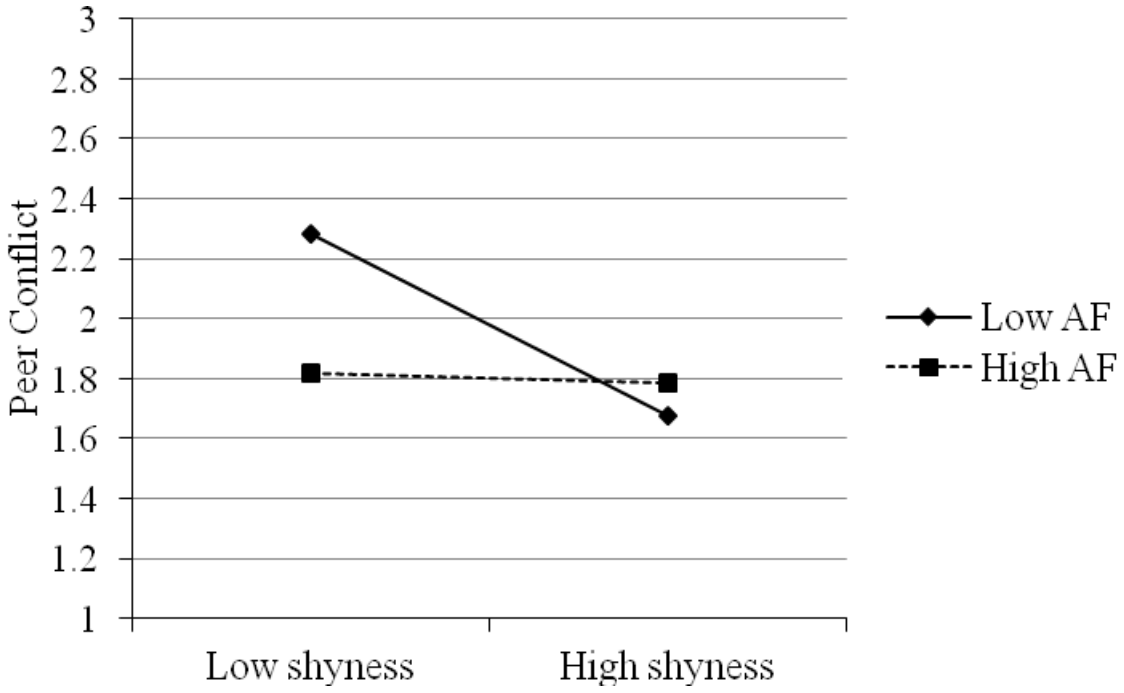
Results: Peer communication

The interaction between attentional focusing and shyness was significantly related to children's **peer communication** ($\beta = .50, t = 2.45, p = .02$).



Results: Peer conflict

- The interaction between attentional focusing and shyness predicted children's peer conflict ($\beta = .37, t = 2.34, p = .03$).



Discussion

- Attentional focusing
  - appeared to buffer children's risk of poor peer interactions due to high and low levels of shyness (NICHD ECCRN, 2003; NICHD ECCRN, 2008)
  - was related to more sociability and assertiveness in peer interactions (Rueda et al., 2004; Ruff & Rothbart, 1996; Speltz et al., 1999)
- Inhibitory control was related to less observed peer conflict (Fabes et al., 1999; Sterry et al., 2010)
- Teacher identifiers (dummy codes) explained the most variance in children's peer interactions.
  - Teacher creates social milieu of the classroom (wielding an "invisible hand"; Farmer et al., 2011).

Implications

- Teacher training programs should include instruction regarding individual differences in children's temperament.
- Structured tool (inCLASS; Downer et al., 2010) can help researchers investigate children's peer interactions more objectively.

Limitations and future directions

- The sample size was small and somewhat homogeneous in terms of ethnicity and family socio-economic characteristics
- All observations of peer interactions occurred in a single day
- Only parent-rated temperament was used in the current study

Thank you for your attention!

Any Questions?

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