



# Temperament and Teacher-Child Relationship Quality in Preschool: The Moderating Roles of Classroom Environmental Support and Family Income

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## BACKGROUND

- High quality teacher-child relationships in preschool are critical to later academic and social adjustment (Peisner-Feinberg et al., 2001).
- Children's temperament (e.g., attention) predicts teacher-child relationship quality (Rudasill & Rimm-Kaufman, 2010).
- Environmental factors, such as higher classroom support (Hamre & Pianta, 2001) and lower poverty (Gershoff et al., 2007) are also protective factors for children's outcomes, and may ameliorate links between temperament and teacher-child relationship quality.

## PRESENT STUDY

- The present study is designed to examine the association between child temperament and teacher-child relationship quality, focusing on the moderating role of income and classroom emotional support in preschool.

## METHODS

### Participants:

- 103 children (55 females) in 23 classrooms, located in 9 child care centers in a Midwestern city

### Measures:

- Child temperament:** teachers rated 7 dimensions (activity, anger, approach, fear, shyness, attentional focusing, inhibitory control) of children's temperament using the Children's Behavior Questionnaire (Rothbart et al., 2001)
- Teacher-Child Relationship Quality:** teachers reported conflict, closeness, and dependency in relationships with children using the Student Teacher Relationship Scale (Pianta et al., 2001)
- Income:** Parents reported annual income
- Classroom Quality:** trained observers assessed classroom emotional support, instructional support, and organization using the Classroom Assessment Scoring System (CLASS; Pianta, LaParo & Hamre, 2008)

## ANALYSIS

- Predictors were grand mean centered, and Hierarchical Linear Modeling was used to account for children nested in classrooms.

Table 1. Summary Statistics for Hierarchical Linear Models Predicting Conflict and Closeness.

	Predictors (Grand Mean Centered)	Dependent Variable			
		Conflict		Closeness	
		Estimate	p value	Coefficient	p value
Model 1	Intercept	22.617	<.001***	46.541	<.001***
	Income	.152	.883	-.513	.540
	IC	-4.662	<.001***	2.669	<.001***
	Income x IC	2.538	.004**	-.500	.485
Model 2	Intercept	22.810	<.001***	46.279	<.001***
	Income	-2.013	.096	.199	.811
	Shyness	-1.405	.122	-.858	.180
	Income x Shyness	.062	.946	-1.784	.008**
Model 3	Intercept	22.595	<.001***	45.567	<.001***
	Income	-.494	.642	.449	.619
	Anger	4.403	<.001***	-.238	.730
	Income x Anger	-.485	.485	.709	.238
Model 4	Intercept	22.148	<.001***	46.805	<.001***
	Income	-.256	.835	.152	.873
	Activity	3.167	<.001***	-.225	.739
	Income x Activity	-1.05	.225	1.376	.048*
Model 5	Intercept	23.385	<.001***	46.431	<.001***
	Income	-1.082	.383	-.091	.920
	AF	-2.578	.030*	1.944	.018*
	Income x AF	1.051	.776	-.489	.609
	ES	2.635	.150		
	ES x AF	2.610	.022*		
	ES x Income	-2.639	.043*		
	ES x Income x AF	-1.290	.257		

Note: IC= Inhibitory Control, AF = Attentional Focusing, ES = Emotional Support  
\*\*\*p <.001, \*\*p <.01, \*p <.05

## RESULTS

### Main Effects

- Higher inhibitory control and higher attentional focusing predicted lower teacher-child conflict, and higher teacher-child closeness.
- Higher anger and higher activity predicted higher teacher-child conflict.

### Interactions

- Family income moderated the association between child activity and teacher-child closeness, and between child shyness and teacher-child closeness (see Figures 1 & 2).
- Family income moderated the association between child inhibitory control and teacher-child conflict (see Figure 3).
- Classroom emotional support moderated the association between child attentional focusing and teacher-child conflict (see Figure 4).

Figure 1.

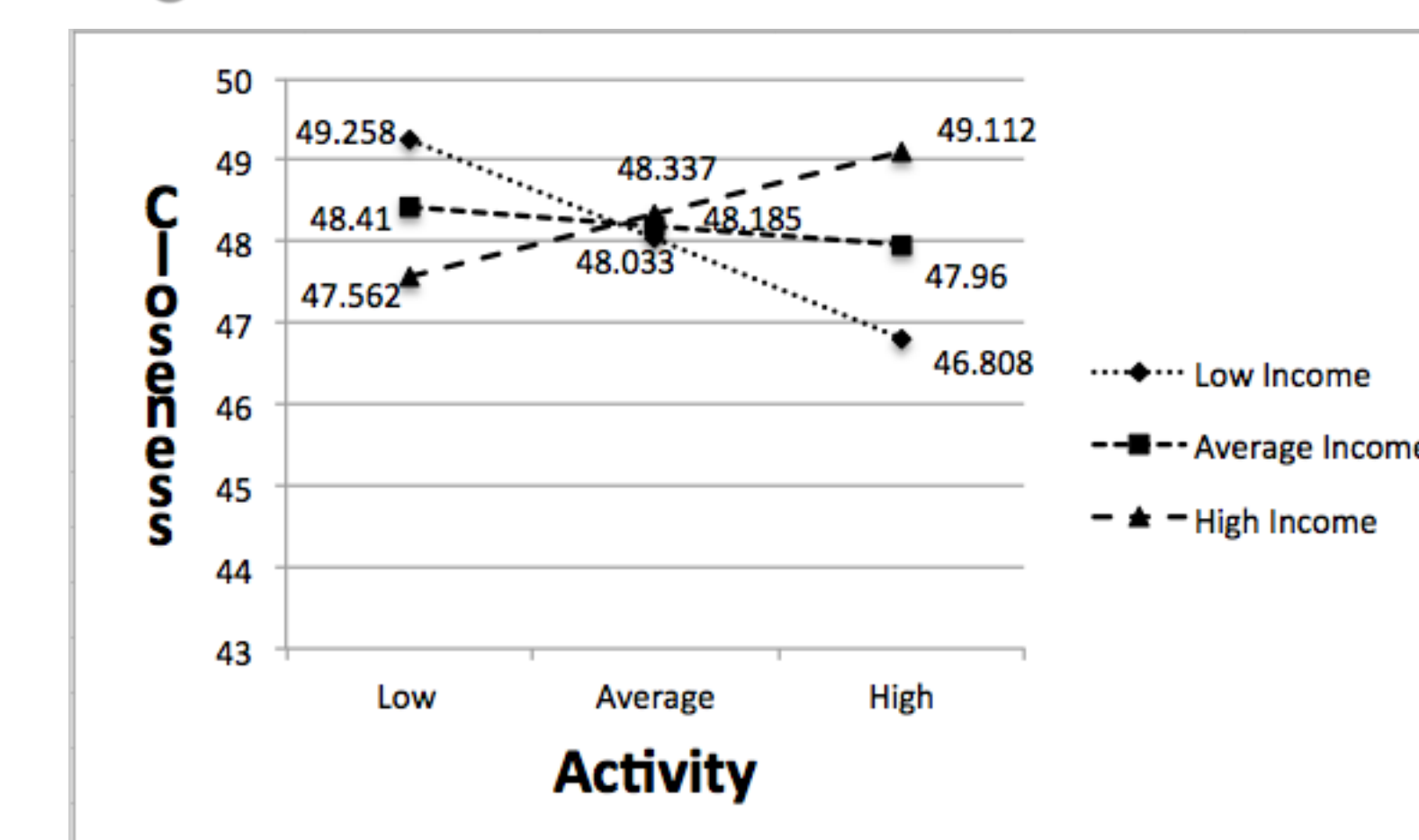


Figure 2.

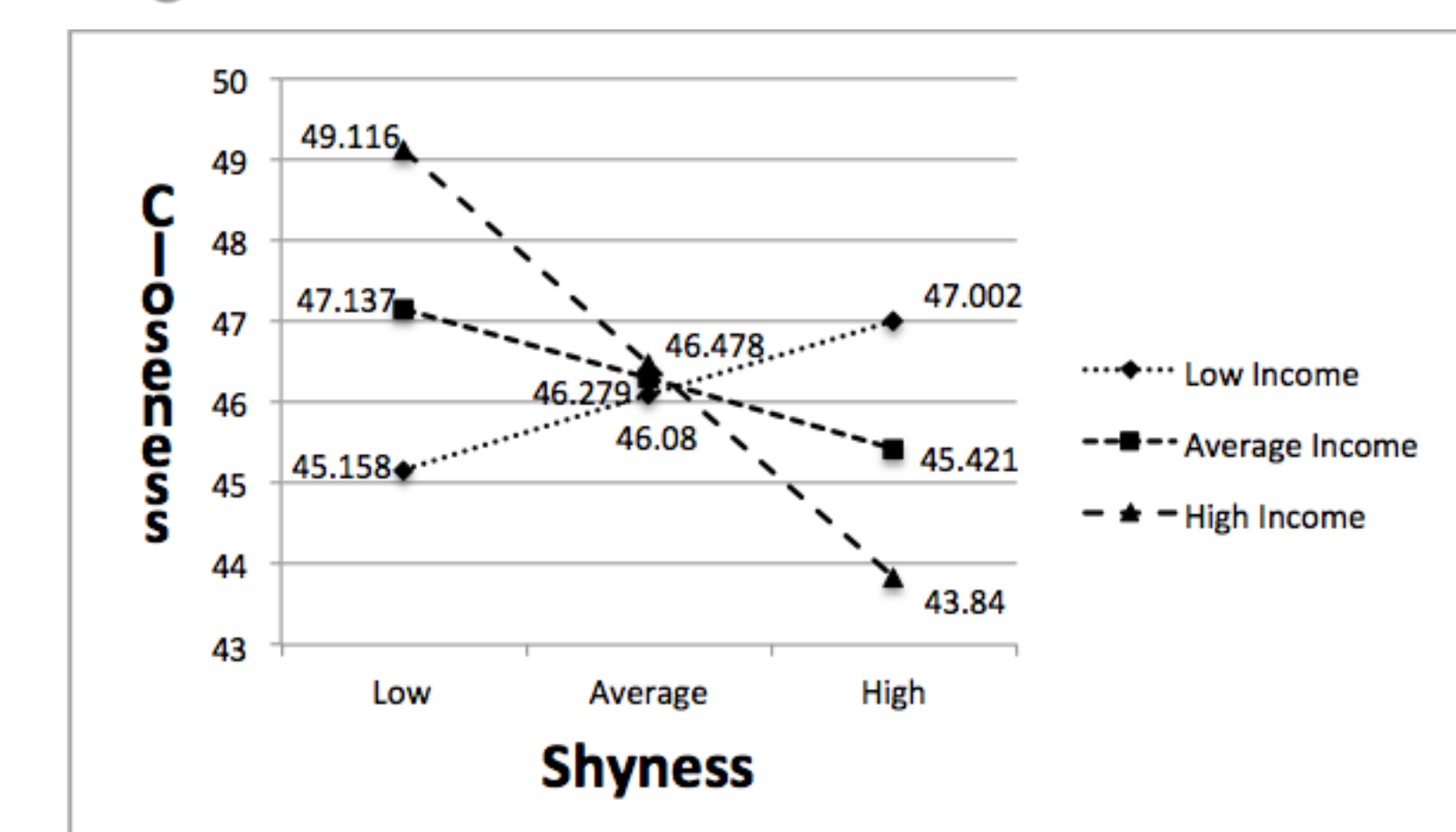


Figure 3.

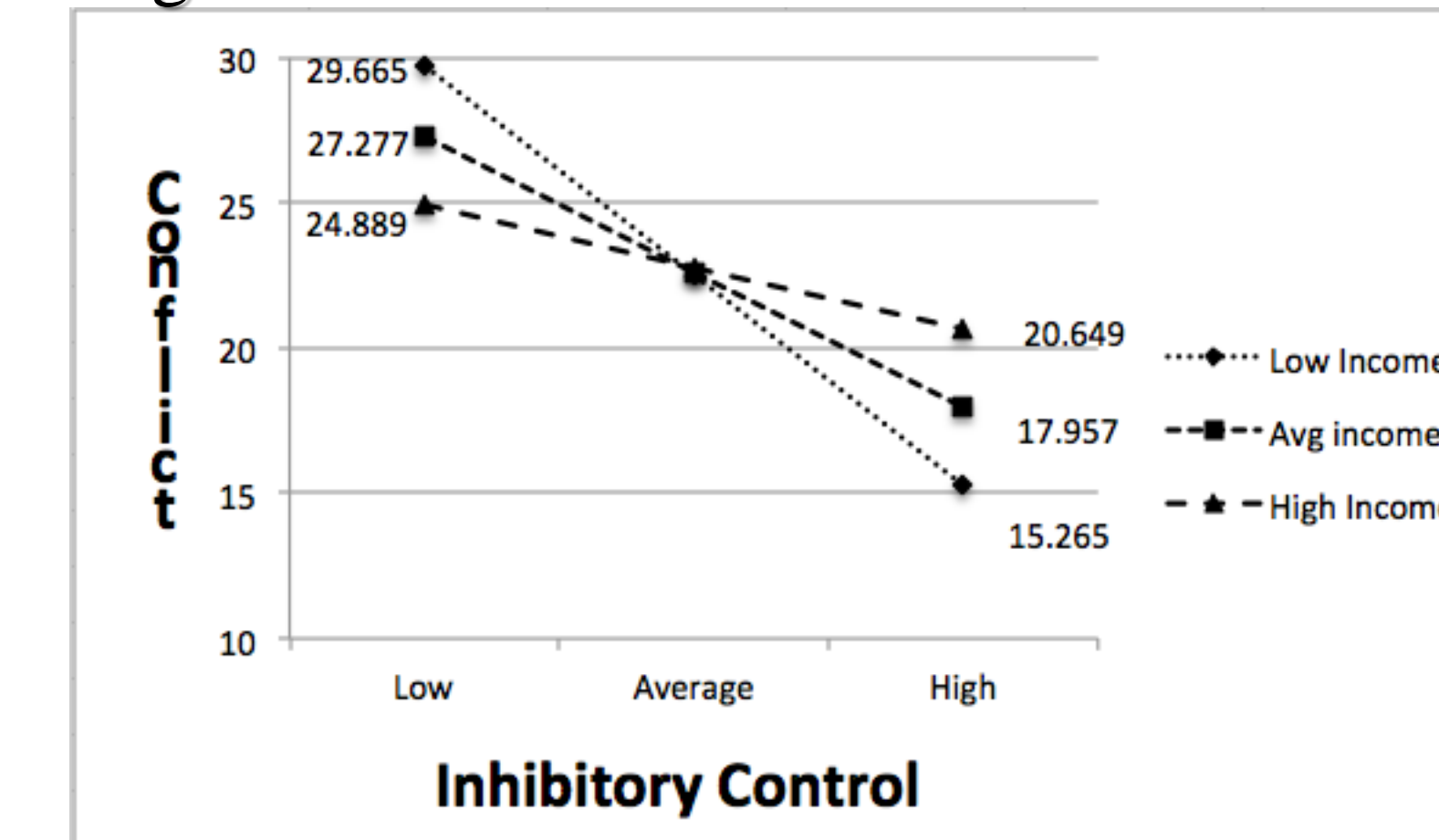
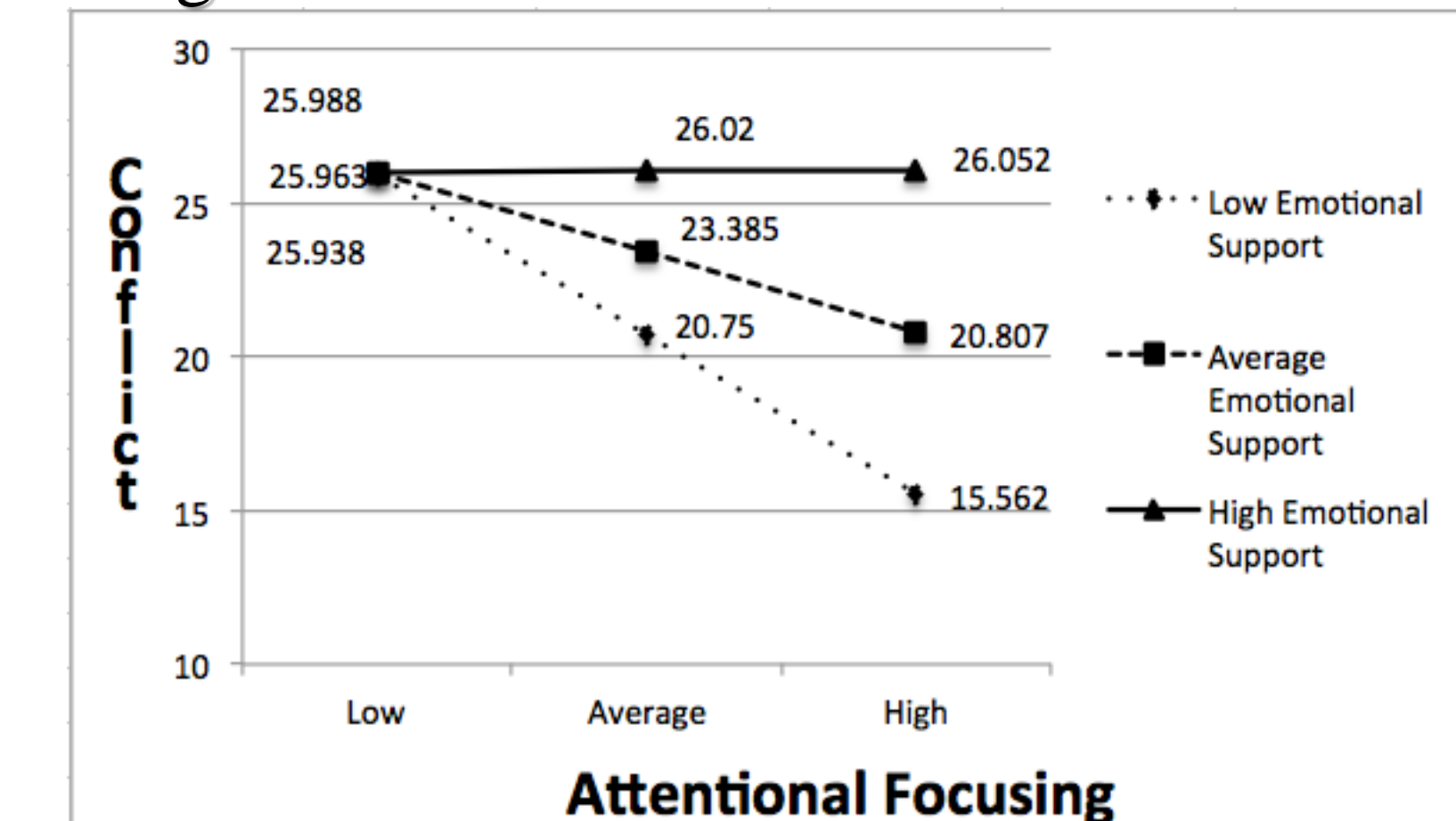


Figure 4.



## DISCUSSION

- Findings are consistent with other research linking children's temperament and teacher-child relationships, and highlight the importance of considering the role of children's temperament in the development of relationships with teachers in early childhood.
- Teacher training and professional development programs could be strengthened by emphasizing individual differences in temperament, and the way that these individual differences impact a child's development.
- Results also point to the contributions of environmental influences, namely classroom emotional support and family income, to the development of children's relationships with their teachers.