



Temperament and Aggression in Early Childhood



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Abstract

Temperament has been associated with aggressive behaviors (Rothbart, Ahadi, & Evans, 2000); however, the nature of this relationship would benefit from more specificity. This project focused on the temperament dimensions of shyness and inhibitory control. Shyness is marked by slow, avoidant, or inhibited approaches to novel social situations or uncertainty, whereas inhibitory control is the ability to “suppress inappropriate approach responses under instructions or in novel or uncertain situations” (Rothbart, Ahadi, & Hershey, 1994, p. 29). We tested two types of aggression evident in early childhood. Proactive aggression is characterized by expecting positive outcomes from aggression and involves many aspects of social interaction, whereas reactive aggression is more automatic and less verbal. We focused on age 4 years when children are beginning to prepare for the transition to kindergarten, which could present challenges for children who are shy or who have low inhibitory control, especially if these aspects are linked to aggression. We predicted that inhibitory control would be negatively correlated with aggression, whereas shyness might be positively correlated with aggression. 124 parents of 4-year-old children reported their child’s temperament using the Short Version of the Children’s Behavior Questionnaire Shyness and Inhibitory Control subscales (Rothbart, Ahadi, Hershey, & Fisher, 2001). Additionally, parents completed the Reactive Proactive Aggression Questionnaire (Dodge & Coie, 1987). Participants were recruited from area preschools and organizations serving children and families. As predicted, inhibitory control significantly predicted reactive aggression, $\beta = -2.249, t(122) = -5.567, p < .001$. The multiple regression model for reactive aggression with all five predictors explained a significant amount of variance, $R^2 = .310, p < .001$. Furthermore, inhibitory control significantly predicted proactive aggression, $\beta = -.949, t(122) = -4.087, p < .001$. The multiple regression model for proactive aggression with all five predictors explained a significant amount of variance, $R^2 = .229, p < .001$. These findings provide a pivotal link between a child’s temperament and their displays of aggression.

Introduction

Temperament

- Individual differences in reactivity and self-regulation (Rothbart & Derryberry, 1981)
 - Shyness* = Slow or inhibited approach in situations involving novelty or uncertainty
 - Inhibitory Control* = The capacity to plan or suppress inappropriate approach responses under instructions or in novel or uncertain situations

Aggression

- Behavior intended to physically or emotionally harm others (Eisner & Malti, 2015)
 - Proactive Aggression* = deliberate acts of aggression towards obtaining goals (Dodge et al., 1997)
 - Reactive Aggression* = angry responses to perceived offenses or frustrations (Dodge et al., 1997)

Temperament and Aggression

- 72% of toddlers display some form of aggression and learn how to regulate in the preschool years (Tremblay et al., 2004)
- Low levels of inhibitory control have been linked with higher aggression (Kochanska, 2000)
- Many victims of aggressive acts are shy. Being a frequent victim of aggression may lead shy children to interpret ambiguous stimuli as aggressive, which may lead to reactive aggression (Pellegrini, Bartini, & Brooks, 1999).

Method

Participants: 124 parents of 4-year-old children (47% boys, 53% girls)

Measures:

- Demographic Questionnaire
- Child Behavior Questionnaire (Rothbart et al., 2001)
 - Used to assess children 3-8 years old. Likert-like scale, 1-7 (1= quite untrue of your child, 7= extremely true of your child)
 - Shyness* = 6 items such as: “Sometimes seems nervous when talking to adults s/he had just met”
 - Inhibitory Control* = 6 items such as “can wait before entering into new activities if s/he is asked to”
- Reactive-Proactive Aggression Questionnaire (Dodge & Coie, 1987)
 - Parents rated how often their child exhibits the behavior on a 0 (never), 1 (sometimes), or 2 scale (often)
 - 19 items, 11 Reactive such as “Had temper tantrum” and 8 Proactive such as “Hurt others to win a game”

Objective

The goal of this study was to examine the links between inhibitory control, shyness, and reactive and proactive aggression.

Conclusion

- Inhibitory control is crucial for the transition from preschool to elementary school** (Jaekel, Eryigit-Madzwamuse, & Wolke, 2016). Children need to learn how to act in a classroom and inhibit actions that are not appropriate for school.
 - Children with low inhibitory control (55% in our sample) might have a harder time adhering to classroom rules and regulating inappropriate behaviors, which could result in aggression
- Inhibitory Control and Reactive Aggression**
 - Children with low inhibitory control may have a hard time inhibiting aggressive behaviors resulting in those reactive, automatic aggressive behaviors.
- Inhibitory Control and Proactive Aggression**
 - Children with low inhibitory control may give in to proactive aggression more than children with high inhibitory control due to the rewards that come from the aggressive act (ex. obtaining a toy, increased social status)

Results

Table 1.
Multiple Regression Analysis for Reactive Aggression (N=124)

	B	SE	β
Shyness Scores	.353	.334	.119
Inhibitory Control Scores	-2.249	.404	-.576***
Gender (male=1)	-.465	3.513	-.064
Gender X Shy	-.403	.396	-.237
Gender X Inhibitory Control	.305	.621	.224

Note. $p < .000$ ***

Table 2.
Multiple Regression Analysis for Proactive Aggression (N=124)

	B	SE	β
Shyness Scores	-.018	.192	-.011
Inhibitory Control Scores	-.949	.232	-.447***
Gender (male=1)	.883	2.019	.225
Gender X Shy	.032	.227	.034
Gender X Inhibitory Control	-.164	.357	-.222

Note. $p < .000$ ***

Table 1 shows the multiple regression model with all five predictors explained a significant amount of variance, $R^2 = .310, p < .000$. Inhibitory control was a significant predictor.

Table 2 shows the multiple regression model with all five predictors explained a significant amount of variance, $R^2 = .229, p < .000$. Again, inhibitory control was a significant predictor.

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