



Attention in Preschoolers: Associations With Temperament and Motivation

FPG Snapshot

#23 February, 2005

This study examined how individual differences in children's temperament and motivation relate to attention skills in children from economically disadvantaged families.

A total of 73 mother-child pairs participated in this study. Children were between the ages of 3 and 5 and all attended a Head Start program. Using multiple hierarchical regression analyses, the hypotheses that effortful control (an aspect of temperament) and motivation would individually and collectively relate to attention skills were supported.

The current study supports the importance of understanding attention as a multifaceted concept (Posner & Petersen, 1990) that relates to cognitive, socio-emotional, and motivational systems.

The utility of applying a systems approach to school readiness issues in children of poverty is discussed.

Results showed that temperament, motivation, and attention are interrelated. Children who preferred challenge showed better attention skills than the performance-oriented children. Furthermore, temperament, specifically effortful control, was a protective factor for children who were performance-oriented. That is, for the performance-oriented children, the higher the level of effortful control the better they performed on the attention tasks.

An understanding of temperament and motivation development in relation to attention and cognition may be critical to understanding how children from low-income backgrounds can overcome their stressors.

EFFECT ON READINESS ASSESSMENTS

Because early academic trajectories are so important, school readiness assessments during preschool have become increasingly important in identifying children who may be at-risk for school adjustment problems.

Current screening tests for school readiness are aimed at identifying children who may not be ready for school and have focused primarily on cognitive ability or developmental maturity as the measure of school readiness. In turn, the test have ignored the importance of other factors like motivation, emotionality, reactivity, and the ability to adapt to new situations and challenges.

This study demonstrated that even at 3 and 4 years old, children exhibit wide variations in non-cognitive characteristics that may be important in understanding how children will adjust to school.

Although this study examined children from low-income backgrounds, these findings are not believed to be specific to this population.

EXPANSION OF RESEARCH SUGGESTED

Future work should look at this issue with other populations and should examine other aspects of temperament, such as extraversion and negative affect.

Findings from this study suggest that problems that arise from attention difficulties are not limited to difficulty with concentration and sitting still, but are related to how children approach challenging or new situations.

Clearly, it is the case that much more needs to be understood about the nature and implications of having an attention problem.

This *Snapshot* is based on "Attention in Preschoolers: Associations With Effortful Control and Motivation" by Florence Chang of the FPG Child Development Institute at the University of North Carolina at Chapel Hill and Barbara M. Burns of the University of Louisville. The article was published in *Child Development*, (2005) Vol. 76, No. 1, 1-17.

Summary and Discussion

The strong association established between attention skills and school performance has led to increased research in understanding the development of children's attentional processes. The current study finds that children who have trouble paying attention exhibit different motivation patterns and temperament characteristics suggesting attention is more complicated than previously thought.

Previous studies examining attention in preschoolers have been primarily isolated studies of attention (or attention and cognition) and links between attention and socio-emotional characteristics have remained relatively unexplored, particularly in children from low-income backgrounds. It is especially important to understand these processes in children from low-income backgrounds as they have shown to have poorer self-regulation skills than other children.

In the current study, the connections between what are often categorized as social and emotional domains (temperament and motivation) and attention were examined.

A total of 73 mother-child pairs participated in the study. Children were between the ages of 3 and 5 and all attended a Head Start program.

Children's temperament was measured by having mothers complete the Children's Behavior Questionnaire (Rothbart, 1996). The temperament questionnaire measured characteristics such as activity level, impulsivity, and frustration.

We looked at the temperament characteristic, effortful control, which assessed how children regulate their reactivity to the environment.

Children's motivation was measured by whether children preferred a challenging task or an easier puzzle task.

Previous research has shown that children who prefer challenge (mastery-oriented) have more positive outcomes in school than children who avoid challenge and prefer easier tasks (performance-oriented) (Cain & Dweck, 1995).

Attention was assessed through a series of three computer games where children had to respond to information presented on the screen (Berger, Jones, Rothbart, & Posner, 2000). ■

If you want to know more

Berger, A., Jones, L., Rothbart, M. K., & Posner, M. I. (2000). Computerized games to study the development of attention in childhood. *Behavior, Research Methods, Instruments, & Computers*, 32(2), 297-303.

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