

ADHD CHILDREN'S PERCEPTIONS OF SELF AND OTHER

Ohio University
Department of Psychology

Julie S. Owens, PhD

Nicole M. Evangelista, MS

Approximately three to five percent of children suffer from attention-deficit/hyperactivity disorder (ADHD; American Psychiatric Association, 2000), a disorder characterized by a persistent pattern of inattentive and/or hyperactive/impulsive behaviors that are developmentally inappropriate. Children with ADHD demonstrate impairments in multiple settings. ADHD is a chronic disorder as the majority of children continue to struggle with inattention and hyperactivity/impulsivity into adolescence and adulthood (Faraone, Biederman, & Mick, 2006).

Clinical behavior therapy is one of three evidence-based, short-term treatments for ADHD (MTA Cooperative Group, 1999). Behavioral interventions rely heavily on contingency management techniques in which rewards or consequences are presented depending on choices the child makes (e.g., to follow rules or to break them). In order to learn to make appropriate choices about behavior, children likely need to be aware of the behavior that is in need of change. It has been suggested that awareness of one's own deficits serves a motivating function in behavioral therapy (Hoza & Pelham, 1995), whereas inaccurate self-evaluations seem to interfere with treatment progress. That is, children who are aware of their deficits may be more willing to strive toward improvement than children who are unaware of their deficits.

Given the severity and chronicity of ADHD, it would seem that the self-perceptions of children with ADHD would be negatively impacted. Interestingly, multiple studies have found that children with ADHD demonstrate overly positive self-perceptions of competence across multiple domains despite their actual deficits (e.g., Hoza et al., 2004; Owens & Hoza, 2003). This concept is termed the "positive illusory bias" (PIB) and is defined as the disparity between self-report of competence and actual competence (e.g., teacher report) such that self-reported competence is higher than actual competence. It is possible that the biased perceptions of children with ADHD interfere with a positive response to behavioral interventions. Therefore, in order to design the most beneficial treatment interventions for ADHD, it is necessary to understand the perceptions of children with ADHD.

Theoretical Framework

According to Harter's model of motivation (1981), children's self-perceptions of competence and perceptions of control contribute to their motivational orientation. Specifically, children who experience success develop a sense of perceived competence and an internal locus of control, which increases the child's motivation to participate in future novel or challenging tasks. In contrast, children who experience failure develop a sense of low perceived competence and an external locus of control, which decreases the child's motivation to participate in future novel or challenging tasks.

Harter's model (1981) would suggest that children with ADHD are at risk for developing low competency beliefs that would likely lead to decreased motivation for future novel or challenging tasks due to the fact that many children with ADHD experience persistent challenges and negative feedback.

Some studies support Harter's model, as they have found that children with ADHD have *lower* self-perceptions of competence as compared to children without ADHD (e.g., Ialongo, Lopez, Horn, Pascoe, & Greenberg, 1994; Treuting & Hinshaw, 2001). More recent studies that have compared the self-perceptions of children with ADHD against a criterion (e.g., teacher ratings, actual performance) have concluded that children with ADHD demonstrate *inflated* self-perceptions compared to non-ADHD children, despite having difficulties in multiple domains (e.g., see Owens et al., 2007 for a review). To date, only one study (Owens & Hoza, 2003) has examined the role of ADHD subtype characteristics (inattention, hyperactivity/impulsivity) in positive illusory self-perceptions. Regression analyses revealed a positive relationship between hyperactivity/impulsivity and the PIB, such that as hyperactivity/impulsivity increased, overestimation of competence increased. Conversely, the analyses did not indicate a positive relationship between inattention and the PIB.

Taken together, recent literature supports the presence of the PIB in the self-perceptions of children with ADHD. It is unclear whether the PIB is restricted to the self-perceptions of children with ADHD or whether it applies to their perceptions in general (i.e., perceptions of self and others). In order to better understand the nature of positive illusory self-perceptions in children with ADHD, it is important to understand their perceptions of others' competence as well; however, studies examining the perceptions of others' competence in children with ADHD are quite limited.

The most relevant studies evaluated how children with ADHD judge others' emotional states and behavior; and results are equivocal. For example, Whalen, Henker, and Granger (1990) found that children with ADHD accurately perceived (i.e., did not differ from non-ADHD children) positive and negative behaviors in video-taped vignettes with clearly depicted successful and unsuccessful interactions. Similarly, Milch-Reich et al. (1999) found that children with ADHD did not differ from non-ADHD children in the amount of social cues encoded during the presentation of a story vignette or in their perceptions of others' emotional and cognitive state; yet, children with ADHD were less able to integrate multiple components from the story.

In contrast, other studies found that children with ADHD demonstrated less accurate perceptions of others' nonverbal social cues compared to control children (Cadesky, Meta, & Schachar, 2000; Sprouse, Hall, Webster, & Bolen, 1998). Researchers speculated that this inaccuracy may have been the result of lack of attention to details or self-control deficits, rather than an inability to perceive the social cues. Consistent with these findings, Lorch et al., (2004) found that children with ADHD had the *ability* to engage in deep processing, yet had difficulty with deep processing when distracted by external stimuli. Taken together, these results suggest that when social situations are clearly depicted and distracters are limited, the perceptions of social situations in children with ADHD may not differ from those of non-ADHD children.

Research Objectives and Hypotheses

Several studies have demonstrated the presence of the PIB in the self-perceptions of children with ADHD in a variety of domains (Owens et al., 2007); however, research has not indicated *why* children with ADHD overestimate their self-perceptions. Before investigating possible hypotheses for the PIB in self-perceptions, it is important to understand how children with ADHD interpret competency in general and how children with ADHD perceive others' competency. Most research examining the relative accuracy of the perceptions of others in children with ADHD has focused children's perceptions of social situations in which the performance is consistently positive or negative. To date, no studies have examined the perceptions of others in children with ADHD within academic situations, or in situations

that present inconsistent cues of success and failure. Further, no studies have examined the role of inattention and hyperactivity/impulsivity in the perceptions of others in children with ADHD.

The purpose of this study was (a) to explore the role of ADHD subtypes in children's perceptions of others in academic and social situations in which inconsistent cues of success and failure are presented and (b) to replicate a recent study (Owens & Hoza, 2003) by examining the role of ADHD subtypes in self-perceptions. As this is the first study to examine the perceptions of others' competence in children with ADHD where competence is displayed inconsistently rather than consistently, past research does not lend support for a specific directional hypothesis. Based on Owens and Hoza's (2003) findings, it was expected that children who demonstrate a combination of hyperactivity/impulsivity and inattention would overestimate their academic competence significantly more than control children and children who demonstrate predominantly inattentive symptoms. In addition, it was expected that children with predominantly inattentive symptoms would not significantly differ from control children.

Research Design and Methodology

Screening for the full study protocol occurred with 191 children (108 boys; 83 girls), aged seven to 13 years, in grades 3 to 6. Participants were recruited across four contexts, including (a) a children's intensive summer treatment program (STP), (b) ten elementary schools in two rural communities, (c) a community sponsored activities fair for children, and (d) advertisements via a university faculty/staff list-serv and a local newspaper. Of note, the STP was in an urban New England community, whereas all other recruitment activities were conducted in rural Midwestern communities.

The parent and teacher versions of the Disruptive Behavior Disorders Rating Scale (DBD; Pelham, Gnagy, Greenslade, & Milich, 1992) and the Impairment Rating Scale (IRS; Fabiano et al., 2006) served as screening measures and were used to classify children into one of three groups: (a) children who demonstrate either hyperactivity/impulsivity only or a combination of hyperactivity/impulsivity and inattention (HICB), (b) children who demonstrate inattention only (IA), or (c) non-ADHD control children (CTL). Based on the DSM-IV-TR (American Psychiatric Association, 2000), to meet criteria for IA or HICB, six or more symptoms of either inattention or hyperactivity/impulsivity had to be endorsed as *pretty much* present or *very much* present on either the parent or teacher DBD Rating Scale, or a combination of both. The same symptom was not counted twice if indicated by both reporters. At least one score on either the parent or teacher IRS had to be three or greater. Children in the CTL group had to demonstrate three or fewer symptoms of hyperactivity, impulsivity, and inattention, and all scores on both the parent and teacher IRS had to be below two. These procedures resulted in 21 IA children (10 boys, 11 girls), 46 HICB children (36 boys, 10 girls), and 40 CTL children (14 boys, 26 girls).

Procedures

After parental consent was obtained, parents and teachers completed the screening surveys listed above. In addition, parents completed a demographics questionnaire and teachers completed the Teacher Rating Scale of Child's Actual Behavior (Harter, 1985), which assessed teachers' perceptions of children's competencies in multiple domains and was used as a criterion against which to judge the accuracy of children's self-perceptions. After child assent was obtained, children participated in an individual session in which they completed the Self-Perception Profile for Children (SPPC; Harter, 1985), the Wechsler Individual Achievement Test, 2nd edition, Abbreviated (WIAT-II-A), and a video task. (The order of the three tasks was randomized to control for effects of fatigue and inattention.)

In the video task, children watched 16 video clips (20 to 30 seconds each) of child actors engaged in eight academic vignettes and eight social vignettes to assess their perceptions of others' competence. The order of presentation of the video clips was randomized to control for inattention and fatigue effects. Two video clips (1 academic, 1 social) displayed consistent cues of a highly competent child experiencing success and two video clips (1 academic, 1 social) displayed consistent cues of a highly incompetent child experiencing failure. These clips, named *consistent performance* video clips, served as a manipulation check; thus, it was expected that all participants would rate these child actors as highly competent or highly incompetent. The remaining 12 video clips displayed inconsistent cues of success (3 academic, 3 social) and failure (3 academic, 3 social) in which the child actor's experiences of success and failure varied. These video clips, named *variable performance* video clips, were intended to be more challenging for the participants to identify success and failure and the competence of the child actor. Data from our pilot study that included 22 non-ADHD children (12 girls, 10 boys) in grades 3, 4, or 5 and data from this study demonstrated that the variable performance video clips provided less salient depictions of competence compared to the consistent performance video clips.

Following each video vignette, child participants completed a four-item questionnaire. Participants rated actors on a five-point rating scale (i.e., *very poor*, *poor*, *okay*, *good*, *very good*) with regard to (1) others' competency (e.g., How well did the child do on the handwriting exercise?), (2) others' effort (e.g., How hard did the child try at the task?), (3) importance of task (e.g., How important is good handwriting?), and (4) self-perception of competency (e.g., How do you think you would do on this handwriting exercise?). Higher ratings indicate higher perceived competence.

Results

Main Statistical Analyses

Responses to the four questions on the video questionnaire were averaged across the three variable performance success vignettes and the three variable performance failure vignettes within each domain (i.e., social and academic). These four scores were the dependent variables. The independent variables were group (IA, HICB, CTL), a between-subjects factor, and domain (academic, social), a within-subjects factor. To assess the effects of domain and characteristics related to ADHD subtype on children's perceptions related to the video clips, four 2 (social, academic) by 3 (IA, HICB, CTL) repeated measures multivariate analyses of variance (MANOVA) were performed on each of the dependent variables. For each dependent variable, one MANOVA was conducted for the success situations and a second MANOVA was conducted for the failure situations. Univariate analyses of variance (ANOVAs) and post-hoc tests were conducted only for significant multivariate effects ($p < .05$).

Results revealed a main effect of domain for both variable performance *success* situations, $F(1, 103) = 10.05$, $p < .01$, and variable performance *failure* situations, $F(1, 103) = 12.06$, $p < .01$ (See Table 1 for means and standard deviations). With regard to the success vignettes, children rated the competence of the actors higher in the social situations than in the academic situations. Within the failure vignettes, children rated the actors as less competent in the social situations than in the academic situations. In other words, children rated the competence of the actors in a more extreme direction in the social domain compared to the academic domain. No main effects of group, or domain by group interactions were significant. Similar analyses were conducted on the other three items on the video questionnaire (i.e., effort, importance, self-perception) and all findings were nonsignificant.

To compare children's ratings of others' competence (video question #1) to their own expected competence for a given task (video question #4), several 3 (Group) by 2 (Locus) repeated measures MANOVAs were performed. In these analyses, group (IA, HICB, CTL) was a between-subjects factor and locus (self, other) was a within-subjects factor. For all analyses, there was a significant main effect of locus [variable academic success: $F(1, 103) = 93.81, p < .001$; variable academic failure: $F(1, 103) = 281.29, p < .001$; variable social success: $F(1, 103) = 50.83, p < .001$; variable social failure: $F(1, 103) = 366.43, p < .001$]. The pattern of results indicates that all children rated their expected self-competence higher than they rated the actors' competence, across all analyses. None of the main effects of group or group x locus interactions were significant.

Table 1. Means and Standard Deviations for Children's Responses to the Video Questionnaire

Video Questionnaire Ratings	Control <i>n</i> = 39 <i>M</i> (<i>SD</i>)	ADHD, IA <i>n</i> = 21 <i>M</i> (<i>SD</i>)	ADHD, HICB <i>n</i> = 46 <i>M</i> (<i>SD</i>)
Perceptions of Other's Competency			
Variable Academic Success	2.27 (0.60)	2.48 (0.85)	2.22 (0.92)
Variable Academic Failure	1.34 (0.62)	1.60 (0.80)	1.61 (0.76)
Variable Social Success	2.59 (0.62)	2.65 (0.87)	2.64 (0.85)
Variable Social Failure	1.18 (0.70)	1.25 (0.94)	1.16 (0.74)
Consistent Success	3.51 (0.58)	3.36 (0.71)	3.58 (0.55)
Consistent Failure	0.45 (0.47)	.86 (1.14)	.51 (0.60)
Other's Effort			
Variable Academic Success	2.57 (0.86)	2.41 (1.04)	2.83 (0.98)
Variable Academic Failure	1.62 (0.85)	1.73 (1.21)	2.09 (1.07)
Variable Social Success	1.97 (0.75)	1.89 (1.16)	2.33 (0.92)
Variable Social Failure	0.97 (0.74)	1.17 (0.87)	1.30 (0.89)
Consistent Success	2.69 (1.01)	2.23 (1.13)	2.78 (1.11)
Consistent Failure	1.08 (0.83)	1.02 (1.27)	1.11 (1.19)
Importance of the Task			
Variable Academic Success	3.46 (0.48)	3.59 (0.60)	3.50 (0.80)
Variable Academic Failure	3.54 (0.40)	3.41 (0.96)	3.37 (0.84)
Variable Social Success	3.32 (0.64)	3.19 (0.89)	3.33 (0.75)
Variable Social Failure	3.32 (0.56)	3.33 (0.89)	3.22 (0.96)
Consistent Success	3.37 (0.67)	3.33 (0.71)	3.40 (0.79)
Consistent Failure	3.63 (0.53)	3.57 (0.90)	3.29 (1.02)
Perception of Self- Competency			
Variable Academic Success	3.29 (0.54)	3.35 (0.65)	3.16 (0.87)
Variable Academic Failure	3.23 (0.74)	3.32 (0.68)	3.20 (0.82)
Variable Social Success	3.19 (0.49)	3.44 (0.40)	3.24 (0.72)
Variable Social Failure	3.15 (0.61)	3.32 (0.58)	3.18 (0.85)
Consistent Success	3.00 (0.73)	3.33 (0.60)	3.14 (0.80)
Consistent Failure	3.46 (0.53)	3.55 (0.57)	3.22 (0.85)

Note. *N* = 106. Higher scores indicate higher perceived competence.

Replication Statistical Analyses

In order to compare children's self-perceptions to teachers' perceptions, Z-scores (standardized by grade level) were created for children's scores on the SPPC and teachers' scores on the teacher version of the SPPC. Difference scores were calculated by subtracting the standardized teacher scores from the standardized child scores for each subscale (e.g., scholastic, behavioral) with higher difference scores suggesting the child reported greater overestimation. A one-way MANOVA was performed on the difference scores to assess the effect of ADHD subtype characteristics on children's self-perceptions relative to teacher perceptions.

Results indicated significant main effects of group, $F(8, 162) = 2.19, p < .05$. Unexpectedly, post-hoc tests revealed that IA children overestimated their scholastic and athletic competence relative to teachers' perceptions significantly more than CTL children. HICB children overestimated their athletic competence significantly more than CTL children. HICB and IA children did not differ significantly on any subscales. Self-perception discrepancy scores by group can be found in Table 2.

Table 2. Self-Perceptions Discrepancy Scores by Group

	Control	ADHD, IA	ADHD, HICB
SCALE	<i>n</i> = 40	<i>n</i> = 20	<i>n</i> = 46
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
SPPC ACAD*	-0.44	0.47	0.01
SPPC SOC	-0.19	0.21	0.05
SPPC ATH*	-0.50	0.49	0.24
SPPC BEH	-0.21	0.01	0.30

Note. *N* = 106. SPPC ACAD = child and teacher SPPC scholastic competence discrepancy; SPPC SOC = child and teacher SPPC social acceptance discrepancy; SPPC ATH = child and teacher SPPC athletic competence discrepancy; SPPC BEH = child and teacher SPPC behavioral conduct discrepancy. For all discrepancies, teacher scores were subtracted from child scores to create difference score. Groups with different subscripts are significantly different.

* $p < .01$.

Discussion

The study advances the literature by examining the perceptions of others' competence in variable performance social and academic situations in children with ADHD, and the role of ADHD subtypes in perceptions of others. In addition, the study attempted to replicate Owens and Hoza's (2003) study by investigating the role of inattention and hyperactivity/impulsivity in positive illusory self-perceptions.

In the main analyses, there were no significant group differences (IA, HICB, CTL) with regard to perceptions of others in variable performance academic and social domains. This is consistent with previous research that found that children with ADHD do not differ significantly from non-ADHD children in the judging the social competence of others (Sprouse et al., 1998; Whalen et al., 1990). The findings advance the literature by demonstrating that children with ADHD may be able to perceive subtle

social cues in more ambiguous social and academic situations. Most importantly, the findings suggest that the PIB previously found in the self-perceptions of children with ADHD does not seem to apply to perceptions of others' competence.

Interestingly, when children were asked to rate their own competence for the same task in which they observed the child actor to be engaged, all children rated their expected self-competence higher than they rated the actor's competence, across all domains and situations. This effect is consistent with the "better-than-average" effect that has been well documented in the social psychology literature (e.g., Alicke & Olesva, 2005) in which people rate themselves more favorably than average peers on a behavioral characteristic. Most relevant to this study was that children with ADHD did not demonstrate this self-inflating bias to a greater extent than did the CTL children. This finding could be interpreted such that children with ADHD did not demonstrate positive illusory self-perceptions, as compared to control children. However, in past studies (e.g., Hoza et al., 1993), similar results have been interpreted as evidence *for* the PIB. Specifically, children with ADHD reported levels of competence that were not significantly different from control children despite the presence of significant impairments in social and academic functioning. For example, both IA and HICB children had higher parent impairment ratings on the IRS in the academic (IA: $M = 3.75$, $SD = 1.71$; HICB: $M = 4.20$, $SD = 1.62$) and social (IA: $M = 1.22$; $SD = 1.43$; HICB: $M = 3.88$, $SD = 1.62$) domains as compared to CTL children (academic: $M = .015$, $SD = 0.53$; social: $M = 0.21$, $SD = 0.62$). Teacher ratings of impairment revealed a similar pattern.

To examine the extent to which children overestimate their competence, children's self-perceptions were compared to teachers' perceptions. Contrary to our hypothesis, the replication analyses indicated that IA children overestimated their academic competence and athletic competence relative to teachers' perceptions significantly more than CTL children. In addition, HICB children overestimated their athletic competence in relation to teachers' perceptions significantly more than CTL children. (Findings with regard to athletic competence should be interpreted with caution, as several teachers [$n = 19$] chose not to rate the children's athletic competence, reporting that they were unaware of the student's athletic abilities.) Contrary to the predictions, HICB children did not overestimate their competence relative to teachers' perceptions significantly more than IA children. Further, HICB children did not overestimate their competence relative to teachers' perceptions significantly more than CTL children in most domains. These findings are inconsistent with Owens and Hoza's (2003) study in which HICB children demonstrated positive illusory self-perceptions in the academic domain, whereas IA children did not.

There are several possible explanations for the discrepancies between the present study and Owens and Hoza (2003). First, ADHD children represent a heterogeneous group of children, even within subtypes (Gaub & Carlson, 1997). Because both this study and Owens and Hoza's (2003) study included community-recruited samples of ADHD children, there may have been even more heterogeneity within subgroup (as compared to a clinic-recruited sample), making it more difficult to detect consistent between-subgroup differences. Second, both studies have relatively small numbers of children with ADHD within each subtype. Because of inconsistencies across studies, additional research with larger samples of each subtype of ADHD is warranted. Third, it is possible that ADHD subtype is not the strongest predictor of the PIB in ADHD children as suggested by Owens and Hoza. Instead, domain of impairment, or comorbid disorders may better account for ADHD children's self-perceptions.

The study's findings are consistent with Hoza and colleagues' (Hoza et al., 2004; Hoza et al., 2002) conclusions that children with ADHD overestimate their self-perceptions most in the domain in which they demonstrate the most impairment. Specifically, IA children ($M = 88.76$, $SD = 14.39$) obtained

a significantly lower composite score on the WIAT-II-A compared to both CTL ($M=109.55$, $SD = 13.81$) and HICB children ($M = 97.39$, $SD = 15.48$). Results indicated that IA children overestimated their academic competence relative to teachers' perceptions. Thus, perhaps IA children overestimated their self-perceptions in the domain in which they demonstrated the most impairment.

If the results from this study can be replicated, it would suggest that the PIB is present in ADHD children's self-perceptions, but not in their perceptions of others. Why might ADHD children overestimate their self-perceptions, but not perceptions of other? This may be best explained by the self-protection hypothesis. This hypothesis states that children attempt to hide their incompetence by bolstering reports of self-competence in order to protect against feelings of failure or inadequacy (Diener & Milich, 1997; Ohan & Johnston, 2002). Lab-based research that attempts to experimentally manipulate conditions to induce this self-protective bias has provided evidence for the self-protection hypothesis in the social domain (e.g., Diener & Milich, 1997; Ohan & Johnston, 2002) but not the academic domain (Ohan & Johnston, 2002).

In this study, it is possible that IA children overestimated their scholastic competence due to the fact that this was their domain of greatest impairment relative to their peers (i.e., their achievement scores were lower than those of the other children). That is, IA children may have felt the need to bolster their academic self-perceptions in order to present themselves in a positive light. Because IA children did not overestimate others' competence, these findings further suggest that their inaccurate self-perceptions are a function of bias rather than a global misunderstanding or misinterpretation of competence. Nonetheless this interpretation is made with caution, as the self-protection hypothesis was not directly tested.

Implications of the Findings and Future Directions

The present study's findings have implications for the behavioral treatment of ADHD. In order to learn to make appropriate choices about behavior, children likely need to be aware of the behavior that is in need of change. Hoza and Pelham (1995) suggested that awareness of one's own deficits serves a motivating function in behavioral treatment, thus, inaccurate self-perceptions may interfere with treatment progress. This study found that children with ADHD do not differ in their perception of others' competence. Thus, clinicians may be able to use the relatively accurate perceptions of others in children with ADHD in a therapeutic manner. For example, in the context of behavioral interventions, children with ADHD may learn new skills by observing successful models in peers (or in story format) as well as the positive consequences associated with appropriate behavior.

The results of this study, in conjunction with other studies, suggest that future behavioral treatments for ADHD must address the PIB and the child's need for self-protection in the face of functional deficits. There are several possibilities for addressing their need for self-protection. First, in line with several state and national initiatives (e.g., President's New Freedom Commission), clinicians should adopt a strengths-based approach. If clinicians, children with ADHD, and their families can focus on the child's assets and talents, the child's need for protection may be reduced. Experiencing success in some domains may help them compensate for challenges in other domains. Second, the children with ADHD who demonstrate the PIB may benefit from receiving individual cognitive therapy in conjunction with behavioral and/or pharmacological interventions. Indeed, some studies have demonstrated clinical benefits from the use of cognitive therapy in conjunction with an evidence-based treatment (e.g., Pelham, 2002). However, the explicit strategies for reducing the PIB in the context of cognitive therapy have yet to be identified. Third, it will be important for behavior therapists and parents to consider the interaction between the PIB and the provision of feedback in the context of behavioral interventions. Providing

positive reinforcement is a hallmark of behavior therapy, yet providing sufficient positive feedback to children with positive self-illusions may be particularly important. Specifically, research on self-protection in ADHD (Diener & Milich, 1997) demonstrates that when children with ADHD are given neutral to positive feedback, the self-protective bias is not triggered. Clearly, in order to change behavior in a child with ADHD, corrective feedback is warranted. However, children's need for self-protection may be reduced if corrective feedback can be presented in a neutral manner and can be coupled with positive feedback (e.g., "I like how you're sitting in your seat; however, you must raise your hand before you are allowed to speak in class").

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- Evangelista, N. M. (2005). *ADHD children's perceptions of self and other*. Unpublished master's thesis, Ohio University, Athens, OH.
- Evangelista, N. M., Owens, J. S., Golden, C. M., & Pelham, W. E. (in press). The PIB in children with ADHD: Do positive illusory perceptions generalize to perceptions of others? *Journal of Abnormal Child Psychology*.

Presentations of the Research

- Evangelista, N. M., Owens, J. S., Golden, C. M., Gnagy, E. M., Townsend, A. N., & Pelham, W. E. (2004, October). *Examining the PIB in ADHD children's perceptions of others' competence*. Poster session presented at the biannual meeting of The Kansas Conference of Clinical Child and Adolescent Psychology, Lawrence, KS.
- Evangelista, N. M., Owens, J. S., Golden, C. M., Gnagy, E. M., Townsend, A. N., & Pelham, W. E. (2004, November). *The PIB in ADHD children: Replication of the effects of ADHD subtype characteristics*. Poster session presented at the annual meeting of the Association of Behavior and Cognitive Therapy, New Orleans, LA.
- Evangelista, N. M. (2005, May). *ADHD children's perceptions of self and other*. Paper presented for experimental and clinical psychology faculty and students at Every Area Talks, Ohio University, Athens, OH.