Emotional Expressiveness during Peer Conflicts: A Predictor of Social Maladjustment among High-Risk Preschoolers

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Preschool boys' emotional displays during conflicts with mixed-sex peers were related to individual differences in peer sociometric status and teacher ratings of disruptive behavior. Participants were 60 4- to 5-year old boys from low-income families who were videotaped with a small group of classmates in a Head Start preschool classroom. Conflicts were identified and emotional displays were coded from videotape. Results indicated that conflicts were more negative in emotional tone at the end than at the beginning of the year. Furthermore, children tended to mirror each others' emotional displays at the end but not the beginning of the preschool year. In addition, gleeful taunting, a form of emotional aggression, more strongly predicted negative peer nominations and teacher ratings than anger, suggesting that anger may be a more socially accepted form of emotional expression during conflicts among preschool-age children. Implications and directions for future research and interventions are discussed.

Learning to manage peer conflict effectively is an essential task of childhood (Shantz, 1987; Shantz & Hartup, 1992), particularly during the preschool years (Sroufe & Rutter, 1984). By negotiating with peers, a child refines perspective taking, verbal negotiation, and moral reasoning abilities, and further develops empathy, sympathy, and emotional understanding (Dunn, Brown, & Maguire, 1995; Harris, 1989; Killen, 1989). Because peer conflict serves these vital developmental functions, some researchers theorize that differences arising in the conflict context may influence children's future social adjustment (Putallaz & Sheppard, 1992). The current study is a short-term longitudinal investigation of how such differences, particularly differences in emotional processes, relate to children's social functioning during preschool. Specifically, we wished to examine whether intense displays of positive and negative emotions during peer conflicts could predict children's social adjustment (behavioral disruption and social status) as perceived by their peers and teachers.

Although peer conflict is nearly ubiquitous at preschool age (Shantz, 1987), some children experience more difficulties with conflict than others (Asher & Coie, 1990; Dodge, 1986). If peer conflicts do indeed serve such important developmental functions, it is essential to understand how differences arising during conflicts relate to children's eventual social adjustment. Many researchers have studied the causes, resolutions, and content of preschool children's conflicts, but less is known about the emotions displayed during such conflicts (Arsenio & Killen, 1996; Dunn & Brown, 1994; Laursen & Hartup, 1989). Examining children's displays of emotion during conflict interactions may reveal important differences between constructive conflict that can lead to the development of social and social–cognitive skills and harmful conflict that can lead to the destruction of social relationships (Arsenio & Killen, 1996; Arsenio & Lover, 1997; Laursen, Hartup, & Koplas, 1996; Maccoby, 1996; Murphy & Eisenberg, 1996). Emotional aspects of conflict interactions, such as the intensity of a child's anger when provoked, may determine how a conflict is resolved, which children participate in many conflicts, and whether

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a conflict escalates. In one study, for example (Arsenio & Killen, 1996), children's emotions were associated with their role in the conflict, with children who displayed more happiness initiating more conflicts, and those who were the recipients of conflict initiations showing more anger and sadness. That is, differences in the way children express themselves emotionally during conflicts related to how well they are able to handle other aspects of conflict situations effectively. Our goal was to study children's emotion displays during conflict interactions in order to uncover differences in children's abilities to function adaptively in such situations. Specifically, we wished to investigate the correlates of conflict emotions by examining how children's emotional displays during conflicts related to conflict initiation rates and to the types of emotions displayed by their peers.

Researchers have called for an examination of individual differences in the intensity, lability, and range of children's emotional expressions (e.g., Thompson, 1994; Thompson, Flood, & Lundquist, 1995) and in children's abilities to control such emotional displays (Calkins, 1994). An individual differences perspective is vital in order to understand fully the relation between a child's emotional expressiveness during conflicts and his or her social functioning, and preschool is a time of transition when such differences may become apparent (Cole, Michel, & Teti, 1994). Preschool-age children differ greatly in the amount and intensity of affect they express and in their abilities to adapt their emotional responses to suit various situations (Denham & Couchoud, 1990; Saarni, 1988). Preschool can be the first social context outside the home; thus, children of this age experience increased interaction with people other than parents or siblings—namely, unfamiliar peers and teachers (Killen, 1989; Shatz, 1994). Such changes may arouse strong feelings in young children, who must learn how to control these feelings and express them in a manner appropriate to the preschool setting (Eisenberg *et al.*, 1993). Children who adapt well during these transitions are able to meet the demands of preschool teachers and adjust to a new peer "culture" (Corsaro, 1985) by showing such behavioral control and flexibility. However, children who are less able to maintain control and instead show frequent emotional outbursts may be less able to function effectively in such settings, and thus be perceived as less well-adjusted socially (Cole *et al.*, 1994).

The regulation of emotions and behavior during peer interactions in general has been hypothesized to play an important role in determining children's social competence and peer acceptance over time (Denham, McKinley, Couchoud, & Holt, 1990; Hubbard & Coie, 1994). Looking specifically at conflict interactions may be particularly informative with regard to these issues, because although conflicts occur frequently, they are emotionally salient situations in the everyday life of a young child, and such situations may require increased emotional flexibility in order to maintain a calm, well- regulated state (Cole *et al.*, 1994; Shantz, 1987). Individual differences in children's capacities to regulate their affective expressions in the emotionally challenging peer conflict context may therefore relate to their social competence and carry implications for future adjustment (Eisenberg *et al.*, 1993, 1996; Rubin, Coplan, Fox, & Calkins, 1995). Thus it is important to learn whether individual differences in expressions of emotion during conflicts are associated with poor peer relations. Understanding whether a child's conflict emotions relate to negative peer perceptions could facilitate preventative efforts to avoid escalation of problems that tend to follow negative social status markers like peer rejection— for example, poor school outcomes, behavior problems, and psychosocial maladjustment (see Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987).

In order to study relations between emotional expressiveness during conflicts and social adjustment, it is vital to define what we mean by adaptive emotional functioning in conflict situations at this age. Conflicts require a child to control strong feelings, and although preschool-age children are rapidly developing their regulation of emotion and conflict-negotiation skills, not all children are yet able to do this effectively. A child's emotional *intensity* during a conflict may partially determine whether the interaction functions to promote problem-solving strategies and social skills, or whether it creates emotional havoc among the peers involved in the dispute (Arsenio & Lover, 1997; Killen & Nucci, 1995). A high level of emotional intensity during conflict situations may disorganize a child, leaving him or her unable to calm down and reengage in appropriate social interaction. Examining the intensity of children's emotional displays during conflict episodes in preschool, where there is a demand to maintain a well-regulated state, may help us understand the significance of such interactions for future outcomes. In the current investigation, therefore, we were particularly interested in understanding children's displays of high-intensity emotions during conflict interactions.

Research on the links between peer competence and emotional expressiveness across a variety of situations (not just conflicts) supports the idea that high emotional intensity is associated with negative peer relations. Eisenberg and colleagues (1993, 1994, 1996), for example, have studied connections between emotional intensity and children's social adaptation. They found that children who exhibited fewer anger reactions in conflict situations were better liked by peers and that children low in negative emotionality (i.e., showing low levels of anxiety and despair)

were more likely to use constructive coping techniques during conflicts (Eisenberg *et al.*, 1994; Fabes & Eisenberg, 1992). Other research also suggests that children who express high-intensity emotions (usually negative) are also lower in peer acceptance (Eisenberg *et al.*, 1993), and that highly intense emotional displays during conflicts are associated with poor coping strategies (Eisenberg, Fabes, Carlo, & Karbon, 1992) and aggression (Laursen & Hartup, 1989). Furthermore, coping styles during conflicts were related to social competence with peers (Cummings, 1987; Fabes & Eisenberg, 1992), and friendlier, cooperative, and less-aggressive preschoolers were rated as better liked than others by peers and teachers (Denham & Holt, 1993). In longitudinal studies, Cole and colleagues (1996) also found that high-intensity emotional displays were related to later externalizing behavior, and that male children who expressed high levels of negative emotion during laboratory tasks were more likely to develop behavior problems (Cole *et al.*, 1994; Cole *et al.*, 1996).

Although most research has examined the links between high-intensity negative affect and social competence, there is some evidence that displays of high-intensity positive affect in conflict situations may also be linked to inappropriate behavior. Specifically, Arsenio and Lover (1997) found that preschoolers' displays of happiness during aggressive encounters with peers were related to the initiation, but not to the receipt of aggression when interacting with peers. In other research, Cummings (1987) found that some children exposed to angry adult interactions reported feeling happy, and showed increased positive and negative arousal. Taken together, the research reviewed above suggests that both positive and negative high-intensity emotional displays in the context of peer conflicts are associated with concurrent poor social competence, negative peer relations, and may also have significance for future social functioning. Based on these findings, we considered high-intensity emotional displays of both positive and negative affect during conflicts between peers in preschool to represent less-adaptive emotional functioning. We also expected that children who displayed such behavior would be perceived more negatively with regard to their social adjustment by peers and teachers.

The role of context is often discussed in the emotion regulation literature (e.g., Campos, Campos, & Barrett, 1989; Thompson, 1994). Thompson and Calkins (1996), for example, note that a child's emotional style can function either as a buffer or a risk factor, depending on the social context. It is thus vital to consider the larger social context in which emotional behaviors are observed. A highly expressive child may need to assert him- or herself emotionally in order to have needs met—for example, in a disorganized home environment. If the same child encounters a preschool setting in which children are expected to dampen emotional reactions, however, he or she may be at a disadvantage if the emotional style developed in the familial context is not altered to fit expectations in preschool (see Corsaro & Rosier, 1992, for a discussion of this issue). This phenomenon may particularly affect children from low-income backgrounds (Garner, Jones, & Miner, 1994); however, such children are not often the focus of emotional regulation research.

Children, particularly boys, from low-income families are often found to be at risk for emotional and behavioral problems (Dodge, Pettit, & Bates, 1994; Garner *et al.*, 1994; McLoyd, Ceballo, & Mangelsdorf, 1997; Rutter & Garmezy, 1983); thus it is particularly essential to investigate how such children regulate their emotions in challenging situations such as conflicts. Preschool is the first of many settings in which children must develop and negotiate new relationships with peers and teachers, and learn to follow classroom rules while maintaining well-regulated emotional states in order to comply with expectations. Thus, examining emotional intensity during conflict situations in a sample of low-income preschool boys may reveal important early individual differences in emotional behavior within this context and illuminate why some of these children are at particular risk for future emotional regulation difficulties.

Current Investigation

Our main study goal was to extend previous research on the relation between children's conflict behavior and their social competence and adjustment by examining the role of emotional displays during conflicts. We wished to examine individual differences in emotional expression in the preschool peer group context and determine how emotional behavior during conflicts may be related to peers' and teachers' judgments of appropriate social functioning and adjustment (i.e., sociometric status and disruptive behavior). We used a short-term longitudinal design to investigate relations among children's emotional style during conflicts, peer nominations of negative social status, and teacher ratings of disruptive behavior. Unlike most previous work in this area that focused primarily on low-risk samples, we observed boys from low-income families in order to understand how these emotional processes relate to social functioning for children considered to be at increased risk to develop social and behavioral problems. We believe that examining emotional processes within such a group of children is an important step in moving away from a "social address" approach to the study of risk (Bronfenbrenner, 1986) toward a more process-focused

approach that can illuminate important variability within groups (Garner *et al.*, 1994).

The current investigation thus had four goals: (1) to assess the extent to which high-intensity emotions were displayed during conflict situations in preschool and observe whether there was a change in such displays over the course of a school year; (2) to investigate the correlates of emotional displays during conflicts by examining the associations between rates of conflict initiation and conflict emotions, as well as the intercorrelations between focal child and peer emotion displays; (3) to analyze the link between children's emotional expressiveness and their social adjustment by examining concurrent and longitudinal associations between emotion displays, peer nominations of negative sociometric status, and disruptive behavior as rated by teachers; and (4) to investigate which types of emotional displays best predict peer and teacher assessments of inappropriate social behavior over time.

With respect to our first goal, we expected to find high to moderate levels of negative and high-intensity emotional displays because we were observing conflict interactions. Based on previous work that found that peer aggression increased and became increasingly transactional over the course of a preschool year (Olson, 1992), we expected that emotional displays might behave similarly and that high-intensity emotional displays might be more common at the end of the school year. With regard to the correlates of conflict, we expected that children who initiated more conflicts would also show more high-intensity emotional displays. We had no specific prediction regarding the emotions that peers would display. For our third goal, we hypothesized that high-intensity emotional displays would be associated with negative peer and teacher assessments. Specifically, we expected that children who displayed high-intensity emotions (i.e., intense negative affect or inappropriate intense positive affect) during conflicts would receive more negative social status nominations from peers and more teacher ratings of behavioral disruption than children who did not display high-intensity emotions. With regard to our fourth goal of longitudinal prediction, we expected that such high-intensity emotional displays would predict over time negative peer nominations and negative teacher ratings more strongly than other types of emotional displays.

METHOD

Participants

Sixty 4- to 5-year-old boys (mean age at time 1 = 4.5 years, range = 4.0–5.5 years) from eight Head Start preschool classrooms participated in a short-term longitu-dinal study (Olson, 1992). The racial composition of the sample was homogeneous (98% Caucasian), reflecting the demography of northern New England. All children were from low-income families. Written parental consent and verbal child agreement were obtained for all participants. No parent or child refused participation; thus, every boy in each classroom was targeted as a participant.

Procedure

Children who attended the same preschool class were videotaped in play groups of five (three boys and two girls) in a room in their preschool. Although all focal children were boys, the groups were mixed gender in order to provide a more realistic sampling of behavior. During each play session, one boy was selected as the focal child and was followed by the videocamera at all times. The four peers were chosen randomly from the classroom at each time point. The children were told to play as they normally would, and after several minutes of warm-up, a 10-min free play period and a 3-min structured play period were videotaped. During each play period, children were provided with age-appropriate toys (e.g., puppets, cars, dinosaurs in the free play; building blocks for the structured play). Verbal and nonverbal interactions between the focal child and the peers in both play contexts were transcribed from the videotapes (see Olson, 1992, for details). Emotional displays were coded directly from the videotapes for the purposes of the current study (see below). Children were videotaped in September (time 1) and May (time 2) of the preschool year, and different groups of children were observed together in the fall and spring.

Measures

Peer Social Status

Peer sociometric nominations were obtained from individual interviews with children. After identifying self and classmates from an array of pictures, each child was asked to nominate two classmates he or she most liked to play with and two classmates he or she least liked to play with. Only the negative nominations were used in the current study. In addition, in order to obtain more qualitative information about children's perceptions of their peers, children were asked to nominate peers on the basis of descriptors related to behavioral deviance (adapted from Milich, Landau, Kilby, & Whitten, 1982). To this end, children were asked questions that focused on aggression and hyperactivity (e.g., "Who fights a lot?" "Who runs around the room?") and were asked to nominate two

Table I. Descriptive Statistics for Peer Nominations and Teacher Ratings

	Time 1		Time 2	
	M (*SD*)	Alpha (no. of items)	*M* (*SD*)	Alpha (no. of items)
Overall peer	11.58 (6.98)	.74 (7)	12.75 (8.51)	.87 (7)
Negative nominations	1.74 (1.79)		1.90 (1.81)	
Disruptive behaviors	9.85 (5.80)		10.85 (7.17)	
Overall teacher	23.55 (8.54)	.94 (15)	25.65 (10.26)	.95 (15)
Conduct problems	11.74 (4.06)		12.72 (4.50)	
Hyperactivity	11.81 (5.06)		12.93 (6.11)	

peers who did this the most. Peer assessments were obtained from classmates for each focal child at times 1 and 2 (see Olson & Brodfeld, 1991). Negative nominations and behavioral deviance scores were highly intercorrelated (Pearson $r = .67$, $p < .001$) and showed similar patterns of correlation with the measures of interest (i.e., the emotional variables). Thus, in order to have a global measure of children's social adjustment and appropriate behavior as perceived by peers, the number of negative nominations and behavioral deviance scores were standardized within classroom and summed to create composite measures of negative peer social status. Table I presents means, standard deviations, and internal consistency scores for the peer variables. Peer assessments at times 1 and 2 were highly stable (Pearson $r = .74$, $p < .001$).

Teacher Ratings

Teachers completed the Conners Teacher Questionnaire (Goyette, Conners, & Ulrich, 1978) in the fall (time 1) and spring (time 2) of the preschool year. Teacher ratings were obtained for each focal child (see Olson & Brodfeld, 1991, for a detailed description of procedures). The Conners Teacher Questionnaire required teachers to rate the presence of a list of 33 disruptive behavior problems on 4-point scales ranging from 1 ("not at all a problem") to 4 ("very much a problem"). The two major subscales were Conduct Problems (e.g., acts impudent, temper outbursts, is sensitive to criticism, uncooperative with teacher) and Hyperactivity (e.g., restless, makes inappropriate noises, constantly on the go). For the current analyses, these subscales were combined because they were highly intercorrelated at both time points ($r = .75$, $p < .001$ at time 1; $r = .83$, $p < .001$ at time 2). Estimates of internal consistency for these scales using Cronbach's alpha were .94 at time 1 and .93 at time 2. Means, standard deviations, and overall internal consistency for the composite scale are presented in Table I. Teacher ratings were also highly stable across time (Pearson r between times 1 and 2 = .82, $p < .001$).

Peer nominations and teacher ratings were moderately intercorrelated (time 2 Pearson $r = .59$, $p < .001$). For the purposes of the final regression analyses, therefore, peer and teacher assessments were combined in order to form an aggregate "inappropriate social behavior" score. To examine whether they had distinct correlates, peer and teacher assessments were kept separate for the correlational analyses (goal 3).

Conflict Sequences

All conflict sequences (see following definition) at times 1 and 2 were identified on the transcripts (see McElwain, Olson, & Volling, 1999, for further description of conflict coding) and emotional displays were then coded from the videotapes. The initiator of each conflict was also coded from the videotapes (98% agreement; disagreements decided by first author). Conflict sequences were defined as beginning with an initiating event (e.g., pulling a toy away) or a protest (e.g., "No, that's my truck!") and terminating when the children resolved the conflict or left to pursue a new activity and did not mention the topic of conflict for at least two speech turns (see Eisenberg & Garvey, 1981; Shantz, 1987). Most of the conflicts observed were over toy possession, which has been cited as the most common topic of conflict at this age (Killen, 1989; Shantz, 1987). A total of 236 conflicts were coded overall, and there were on average five speech turns or behavioral responses per conflict. The average number of conflicts observed did not differ between time 1 ($M = 6.21$, $SD = 4.53$) and time 2 ($M = 6.79$, $SD = 3.96$; $t(51) = -.87$, n.s.).

Emotional Displays

Emotional displays within each conflict sequence were coded directly from videotape. Every speech turn and behavioral response (e.g., moving toy, hitting peer without speaking) by each participant during the conflict

interaction was coded for emotional displays, starting with the initial protest or initiating event and terminating with the last statement or action during a given conflict sequence. Emotional displays were coded in mutual (both children protesting) and unilateral conflicts (only one child protesting). It was possible for one speech turn or behavioral response to receive more than one emotional display code, but this occurred infrequently.

The coding scheme was adapted from Cole, Barrett, and Zahn-Waxler (1992), and was designed to rate emotional expressiveness (i.e., type and intensity of emotion). Emotional displays were assessed from the videotapes using facial, tonal, and verbal cues, as well as behavioral indices (e.g., crying, yelling, laughing) that have been used in previous work (viz., Cole *et al.*, 1992; Denham, 1986; Eisenberg & Fabes, 1994). Because we were particularly interested in children's displays of intense negative and intense positive emotions, we incorporated both valence and intensity into our emotion display codes. Emotion display codes included: *mild positive*, *gleeful taunting* (intense inappropriate positive affect), *anger* (intense negative affect), *mild negative*, *neutral*, *sadness*, *surprise*, and *sorry* (see Table II for description of codes and reliability statistics).

An undergraduate research assistant was trained on the coding system. The first author and the research assistant recoded 25% of the videotapes in order to assess reliability. Certain emotion displays (*sadness*, *sorry*, *surprise*) occurred very infrequently and thus were dropped from further consideration. Average percentage agreement for the remaining emotion display codes was 97.5% (range: 93–100%). Cohen's Kappa, a statistic that corrects for chance agreement, ranged from .81 to 1.0 (see Table II for percentage agreement and Kappa statistics for each code).

Emotional display codes (*anger*, *mild positive*, *gleeful taunting*, *mild negative*, *neutral*) were converted to proportion scores for use in subsequent analyses. These scores were created by dividing the number of times a child displayed a given emotion by the total number of speech turns or behavioral responses in which the child was engaged. The proportion scores controlled for the number and length of the conflicts in which each child was involved.

RESULTS

Data Analytic Strategy

In order to address our first aim, repeated measures MANOVAs were used to test whether children's emotion displays differed from time 1 to time 2. To address our second goal, we used correlational analyses to examine associations between conflict initiations and emotional displays. Correlations were also conducted in order distinguish patterns of covariation in emotion displays among focal boys and their peers across time. Correlations were transformed to z scores and paired t-tests were used to test whether the intercorrelations of like emotions (e.g., peer and focal child anger) differed over time. To address our third goal, we examined correlations among child emotion

Table II. Emotional Display Codes

Emotion code	Description	Percent agreement (Cohen's kappa)
Anger	High intensity *negative* affect; aroused and upset, often reacting to another child (e.g., statements of anger; loudly ordering others to give toys; threatening; protesting)	.98 (.91)
Mild positive	Excited, happy tone in context of toy play or prosocial interaction (e.g., child approaches to initiate interaction; touches another child in a friendly way; asks friendly questions; smiles; laughs appropriately)	1.0 (1.0)
Gleeful taunting	High intensity, inappropriate *positive* affect in the context of teasing; sing-song tone; no negative affect on the part of taunting child (e.g., child laughs when knocking down a block tower; claps and laughs to imitate others)	.99 (.94)
Mild negative	Milder in intensity than anger/distress; argumentative, pouting, or confrontational tone (e.g., says "no" quietly; frowns; whines)	.93 (.81)
Neutral	A neutral response to a peer, often during an ongoing conversation	.95 (.83)
Sad	Low vocal tone; resigned; quiet; can be whiny or crying	1.0 (1.0)
Surprise[a]	Loud vocal tone; sharp intake of breath	
Sorry[a]	Low, quiet tone; child may or may not say "sorry"	

[a]Not observed in any reliability sessions.

displays and outcome measures of focal children's social status with peers and disruptive behavior as assessed by teachers at time 1 and time 2. Finally, regression analyses were used to determine how well children's emotion displays at time 1 predicted an aggregate measure of inappropriate social behavior (using peer and teacher assessments) at time 2.

Preliminary Analyses

Paired t-tests were used to test whether emotional displays differed across the free play and structured play sessions. With the exception of neutral affect, which was more prevalent in free play than structured play sessions, $t(50) = -3.76$, $p < .001$, emotional displays did not differ between free play and structured play at either time point. Thus, the free play and structured play sessions were combined for the purposes of the current study.

Goal 1: Emotion Displays Across Time

Repeated measures MANOVAs revealed that displays of anger and mild negative affect increased, and displays of mild positive affect decreased from time 1 to time 2 (Table III). There were no differences in the amount of gleeful taunting or neutral affect expressed during conflicts at the beginning or end of the year.

Goal 2: Correlates of Children's Conflict Emotions

Initiation of Conflicts

With regard to associations between the initiation of conflicts and focal children's emotion displays during conflicts, Pearson correlation analyses revealed that focal children's conflict initiations at time 1 were positively correlated with their displays of gleeful taunting

Table III. Repeated Measures ANOVAs: Means and Standard Deviations for Emotion Displays at Time 1 and Time 2 ($n = 52$)

	Time 1	Time 2	
	M (SD)	M (SD)	$F(1, 51)$
Anger	.09 (.11)	.15 (.16)	5.85*
Mild positive	.16 (.18)	.08 (.11)	11.65***
Gleeful taunting	.09 (.12)	.07 (.11)	1.08
Mild negative	.21 (.15)	.31 (.20)	9.24**
Neutral	.38 (.21)	.35 (.22)	.57

Note. Values represent proportion scores (emotions expressed per total speech turns). Values may not sum to 100% due to missing data.
*$p < .05$; **$p < .01$; ***$p < .001$.

($r = .30$, $p < .05$) and mild negative affect ($r = .34$, $p < .05$). Focal children's conflict initiations at time 2 were also positively correlated with their displays of gleeful taunting ($r = .32$, $p < .05$). Peer conflict initiations, however, were positively associated with focal child anger (time 1, $r = .43$, $p < .01$; time 2, $r = .41$, $p < .01$) and focal child mild negative affect (time 1, $r = .59$, $p < .001$; time 2, $r = .35$, $p < .01$) at both time points.

Focal Child and Peer Emotional Displays

Next, correlational analyses were used to investigate whether focal boys and their peers engaged in reciprocal emotion displays (e.g., when the focal child showed anger, did peers also show anger?), and whether these associations changed from time 1 to time 2.

As shown in Table IV, for time 1 conflicts, there was a positive correlation between gleeful taunting by focal boys and peer displays of anger. In addition, focal children's neutral displays during time 1 conflicts were positively associated with peer displays of mild negative affect. In contrast, at time 2 there were moderate associations between peers' and focal children's expressions of like emotions (anger, positive affect, gleeful taunting, mild negative affect, and neutral affect; see Table IV). In addition, gleeful taunting behavior by peers was negatively related to displays of neutral affect by focal children.

Differences between time 1 and time 2 correlations of like emotions were tested by conducting paired t-tests on correlations that had been transformed to z-scores. These analyses revealed that the associations between like focal child and peer emotion displays (i.e., focal child and peer displays of anger across time) differed between times 1 and 2 ($t(4) = -7.84$, $p < .001$), with more significant associations among like emotion displays at time 2 than at time 1.

Goal 3: Associations between Emotion Displays and Peer and Teacher Assessments

Associations between focal child emotion displays, peer social status nominations, and teacher ratings of disruptive behavior were examined within and across time using correlational analyses. These findings are illustrated in Table V.

First, we examined associations between focal boys' emotion displays, peer nominations, and teacher ratings at time 1. Correlations revealed that within time 1, gleeful taunting behavior by focal children was related to peer nominations of negative social status and to teacher ratings of disruptive behavior. Focal children's displays

Table IV. Correlations between Peer and Focal Child Emotional Displays at Time 1 and Time 2 ($n = 53$)

	Time 1 focal child emotion				
	Anger	Mild positive	Gleeful taunting	Mild negative	Neutral
Time 1 peer emotion					
Anger	−.05	−.11	.75***	.04	−.20
Mild positive	−.08	.16	−.20	−.04	.10
Gleeful taunting	.10	−.05	.09	.26[a]	−.07
Mild negative	−.05	−.07	−.01	−.02	.34**
Neutral	−.03	.06	−.22	.13	−.04
	Time 2 focal child emotion				
	Anger	Mild positive	Gleeful taunting	Mild negative	Neutral
Time 2 peer emotion					
Anger	.35**	−.09	.20	−.10	−.08
Mild positive	−.15	.45**	−.03	−.05	.05
Gleeful taunting	.06	−.14	.30*	.23[a]	−.29*
Mild negative	.02	−.05	.02	.45**	−.22
Neutral	−.08	.08	−.19	−.06	.38**

[a] $p < .10$;   * $p < .05$;   ** $p < .01$;   *** $p < .001$.

Table V. Correlations between Focal Child Emotional Displays and Peer and Teacher Assessments at Time 1 and Time 2 ($n = 53$)

	Time 1 focal child emotion				
	Anger	Mild positive	Gleeful taunting	Mild negative	Neutral
Teacher ratings					
Time 1	−.06	.16	.39**	.14	−.27*
Time 2	.04	.10	.33**	.14	−.25[a]
Peer nominations					
Time 1	−.04	.28*	.38**	.27*	−.27*
Time 2	−.09	.20	.39**	.18	−.23[a]
	Time 2 focal child emotion				
	Anger	Mild positive	Gleeful taunting	Mild negative	Neutral
Teacher ratings					
Time 2	.09	−.17	.34*	−.13	.06
Peer nominations					
Time 2	.23	.07	.13	−.03	−.08

[a] $p < .10$;   * $p < .05$;   ** $p < .01$.

of neutral affect, however, were negatively related to peer and teacher assessments.

Next, focal child displays of emotion at time 1 were correlated with peer and teacher assessments at time 2 (see Table V). These analyses revealed that gleeful taunting by focal boys at time 1 was associated with negative assessments by both peers and teachers at time 2. Surprisingly, displays of anger at time 1 were unrelated to peer social status nominations or to teacher ratings of disruptive behavior at time 2. Focal children's displays of neutral affect were negatively related to peer social status nominations and to teacher assessments of disruptive behavior.

Finally, we examined correlations between focal children's emotion displays and peer and teacher assessments at time 2 (see Table V). Gleeful taunting by focal boys at time 2 was related to teacher ratings, but not to peer nominations. Once again, anger was unrelated to either peer sociometric nominations or teacher assessments of disruptive behavior.

Goal 4: Longitudinal Prediction of Overall Functioning

Regression analyses were conducted in order to test the hypothesis that children who displayed the most anger

Table VI. Regression: Time 1 Focal Child Emotion Displays Predicting Time 2 Averaged Peer and Teacher Assessments ($n = 51$)

Averaged outcomes	B	SEB	β	sr^2	F	Unadjusted R^2	ΔR^2
Anger	−.13	1.01	−.02	−.02	.03	.00	
Mild positive	1.11	.60	.28	.18	.80	.03	.03
Gleeful taunting	2.19	.71	.45**	.45***	4.82**	.23	.20
Mild negative	1.02	.77	.19	.18	4.18**	.27	.03
Neutral affect	.05	.46	.02	.01	3.27*	.27	.00

Note: Adjusted R^2 for final model = .19.
*$p < .05$; **$p < .01$; ***$p < .001$.

and gleeful taunting behavior (i.e., the high-intensity emotional displays) would be rated as least liked by their peers and as most disruptive by their teachers.

First, regression analyses were used to examine associations between focal children's emotion displays (anger, mild positive, mild negative, neutral, and gleeful taunting) and peer and teacher assessments concurrently (i.e., at time 1). Analyses revealed that anger, mild positive, mild negative, neutral affect, and gleeful taunting together predicted teacher ratings of disruptive behavior, $F(5, 47) = 2.85$, $p < .05$, accounting for 15% of the variance in the ratings. Gleeful taunting alone was a significant predictor of teacher ratings, $\beta = .41$, $p < .01$. For peers, anger, mild positive, mild negative, neutral affect, and gleeful taunting together also predicted negative social status nominations, $F(5, 45) = 5.30$, $p < .01$, accounting for 30% of the variance in peer nominations. This time, gleeful taunting ($\beta = .47$, $p < .001$), mild positive affect ($\beta = .46$, $p < .01$), and mild negative affect ($\beta = .36$, $p < .01$) were all significant predictors.

The next set of regressions was used to examine concurrent relations between focal children's displays of emotion, peer negative social status nominations, and teacher ratings of disruptive behavior at time 2. Children's displays of emotion during conflicts at time 2 did not predict either teacher ratings of disruptive behavior, $F(5, 46) = 2.02$, n.s., or peer ratings of negative social status, $F(5, 44) = 1.09$, n.s.

For the purposes of the final regression analyses, the overall "inappropriate social behavior" aggregate was used as the outcome variable. The final regression analysis was used to determine whether the emotions expressed by focal children at time 1 could predict an aggregate of inappropriate social behavior (the average of standardized peer nominations of negative social status and teacher ratings of disruptive behavior) at time 2. Time 2 emotion displays were not included in this analysis because with the exception of gleeful taunting, they were unrelated to and did not predict at time 2 peer or teacher assessments. Focal boys' anger, mild positive, mild negative, neutral affect, and gleeful taunting at time 1 together predicted an aggregate of inappropriate social behavior at time 2,

accounting for 19% of the variance in the aggregate measure, and gleeful taunting alone was a significant predictor of this outcome (Table VI).

DISCUSSION

The goals of this study were to examine emotional displays during conflicts in a sample of high-risk preschool boys and their peers and to determine how well individual differences in such displays predicted peer nominations of negative social status and teacher ratings of disruptive behavior. We found that children's conflicts were more negative in emotional tone at the end than at the beginning of the school year, that emotional displays during conflicts were related to who had initiated the conflict, and that children mirrored each others' emotional displays during conflicts at the end of the school year. Furthermore, gleeful taunting, an intense display of inappropriate positive affect, was a robust predictor of peer and teacher ratings of inappropriate social behavior over time. Major findings are discussed in more detail below.

Emotion Displays among Preschool Boys

With regard to the emotional tone of conflicts in this population, we found that displays of anger and mild negative affect both increased from time 1 to time 2, whereas displays of mild positive affect decreased over time. It is possible that children did not engage in as many negative conflict interactions at the beginning of the year because they may have been intimidated by the new preschool context and new peers. By the end of the year, however, due to increased familiarity with the other children in their class, children may have felt more free to express negative emotions. It may also be that the conflicts in which children were engaged became more aggressive or more personally directed by the end of the school year (Olson, 1992). Such conflicts may evoke high levels of negative emotion because children may grow increasingly tired of each other's gleeful taunting behavior, for example, and react with anger. Evidence from Eisenberg and colleagues

(1992, 1994) supports this interpretation, indicating that children's coping responses can vary depending on the nature of the conflict. For example, children vented more frequently under circumstances of social rejection than in other situations (Fabes & Eisenberg, 1992). Thus, the causes of conflict in the current study may have been more interpersonally oriented at the end of the year than at the beginning of the year, creating concurrent changes in the emotions expressed during the conflict episodes. Although we are unable to test this hypothesis using these data, this idea is worth further exploration, and research on connections between the causes of conflicts and the emotions displayed during conflicts is warranted.

In addition to describing the overall emotional tone of conflicts in the preschool context, we wished to examine other aspects of such conflicts by investigating the correlates of children's conflict emotions. We found that the nature of the emotions expressed during conflict episodes was related to who had initiated the conflict: Children who initiated more conflicts showed more gleeful taunting, whereas children involved in conflicts they did not initiate showed more anger and mild negative affect. These results support previous findings that children who showed happiness in the context of aggression were more likely to initiate aggression toward others, but that children who showed anger were more likely to be the recipients of aggression (Arsenio & Lover, 1997). In contrast to Arsenio and Lover's work, however, we found that children who showed high levels of anger were not the children who initiated more conflicts. Our results suggest that gleeful taunting may function to instigate conflict among preschool children (e.g., by taking toys and laughing, or teasing and other forms of relational aggression), whereas anger and mild negative affect may appear primarily as emotional reactions to another child's actions. Although the intense affective displays of anger and gleeful taunting both seem to play a role during conflict situations, as we had predicted, the latter may be more salient with regard to the initiation of conflict, as well as child and teacher ratings of inappropriate social behavior (see below).

We also assessed the associations between focal child and peer displays of like emotions at times 1 and 2. Although focal child and peer emotional displays during conflict episodes were unrelated at time 1, children showed many of the same emotions reciprocally by time 2, with like emotions (e.g., peer anger and focal child anger) co-occurring during conflicts. That is, children who were angry during conflict situations tended to have partners who were angry. The increase in the reciprocal nature of emotional expression during conflicts indicates that there may be a dynamic, transactional element to emotional displays in preschool peer groups. By the end of the school year, children's shared experience may give rise to conflicts that evoke emotions similar in tone and intensity. For example, with regard to intense displays such as gleeful taunting, it may be that over the course of the year, children have learned to "push each other's buttons" and thereby elicit equally strong emotional reactions during conflict situations.

Emotion Displays Predicting Social Status and Disruptive Behavior

With regard to the longitudinal prediction of peer and teacher assessments of appropriate and inappropriate social behavior and adjustment, we found, as expected, that gleeful taunting was a powerful predictor of negative peer nominations and teacher ratings. Contrary to our expectations, however, children's displays of anger were unrelated to such assessments. These findings partially support the hypothesis that intense emotional displays are related to problematic social functioning. Our data indicate that intense positive but not intense negative affect displays during conflicts were associated with negative outcomes. Displays of less intense emotions, however, regardless of valence (i.e., mild negative affect, mild positive affect, neutral affect), were generally not associated with negative nominations or ratings. An unusual finding was that at time 1, displays of mild positive affect were related to negative social status nominations by peers. It may be that any display of positive affect, not just intense positive affect or gleeful taunting, in the *conflict* context may be perceived as inappropriate, at least by preschool children. There may also be a discrepancy between child and teacher reports if such behavior is perceived as inappropriate or interpersonally hurtful by children but may be too subtle to be noticed by teachers and taken into account in their judgments of a child's disruptive behavior. Positive affect displays did not predict the aggregate assessment of inappropriate social behavior, however, so this result should be interpreted with some caution. Overall, our results indicate that intense displays of positive, but not negative affect, in the conflict context may be the most detrimental to peer relationships and teacher perceptions of adjustment during preschool.

The strength of gleeful taunting as a predictor of peer and teacher assessments in the current investigation supports and extends Arsenio and colleagues' (Arsenio & Killen, 1996; Arsenio & Lover, 1997) work on the role of happiness in the context of aggression. Anger may or may not include an aggressive component, whereas gleeful taunting, an intense display of positive yet taunting affect, may be seen as a form of emotional aggression. Perhaps this is why anger may be considered (by both peers and

teachers) a socially acceptable emotion to display when reacting to conflict, whereas gleeful taunting may not be. An example of a typical interaction involving both anger and gleeful taunting behavior is as follows:

> Focal child (J.) begins to bang blocks near another child (A.). A. says "Don't!" and J. continues to bang blocks together, laughing and approaching A. A. starts to get angry and enlists T. to help get J. to stop banging ("make him stop, make him stop!"), but J. starts saying "hee hee" over and over, banging the blocks more loudly, and running around the room. T. gets angry and yells "J., don't DO that!" and J., still laughing, throws a block near T. T. throws the block back at J., and J. stops laughing, gets angry and throws another block at T. A. and T. then both yell "Don't!" in an angry tone, turn away and play alone, trying to ignore J.

Gleeful taunting behavior, which can be seen in the above example as an aggressive or instigating type of emotional display, may have long-lasting consequences for a child's social status in preschool and possibly for long-term social adjustment (Arsenio & Lover, 1997; Dodge, Coie, Pettit, & Price, 1990; Hubbard & Coie, 1994; Shantz, 1986). Anger, however, may not always be related to such outcomes. Although Eisenberg and colleagues (e.g., Eisenberg *et al.*, 1994; Fabes & Eisenberg, 1992) also found relations between children's intense negative affect and poor coping strategies, as discussed earlier, we did not find associations between our outcomes and children's anger displays in the current study. This discrepancy may be explained by the fact that we measured peer social status nominations and teacher disruptive behavior ratings rather than coping strategies. Anger in the conflict context may relate to child coping strategies as seen in nonconflict contexts, but we did not examine nonconflict interactions here because we were primarily interested in looking at emotional processes within conflicts in order to focus on situations that challenge a child to maintain a well-regulated emotional state. The current findings suggest that high-intensity displays of negative emotion during conflicts may not always be associated with negative ratings of social behavior over time.

Our findings have useful implications with regard to the construct of emotion regulation. Context plays an essential role when interpreting whether certain behaviors should be considered maladaptive or poorly regulated (Thompson & Calkins, 1996). If an intense negative emotion such as anger is expressed in an appropriate context, there may not be lasting or even concurrent negative consequences. Anger, although an intense negative emotion, may be seen as reacting to a conflict situation and, as a result, may be considered appropriate during conflicts. In other words, expressing an intense negative emotion—in the context of conflict—may not be a form of emotional

dysregulation, but instead a relatively adaptive response to the situation. From a functionalist perspective, anger displays send a message to the interactional partner to stop or change the situation, whereas gleeful taunting implies that the actor is taking pleasure in another's misfortune. Anger thus may not constitute a form of emotional maladaptation or poor regulation at this age and in the conflict setting. Gleeful taunting, however, a more belligerent type of emotional display, may be interpreted as a form of emotionally aggressive and inappropriate behavior, and has more negative consequences when it appears during conflicts.

In sum, our findings indicate that intense emotional displays can indeed predict social status, but that such displays must be interpreted with regard to the valence of the emotion and the context of children's social interactions. It is worth considering whether displays of anger would have more negative consequences for a child's social status ratings if they were to occur outside the conflict context, and whether gleeful taunting behavior would be associated with negative social status assessments in other contexts. It is quite possible that frequent displays of anger in nonconflict situations (e.g., a child who gets angry if he cannot get his way during a routine classroom activity such as snacktime) might be associated with more negative peer and teacher assessments. The finding that focal children's displays of anger within the context of conflict were unrelated to negative assessments suggests that preschool-age peers and their teachers are both sensitive to which emotions are appropriate to display in different situations. The finding that gleeful taunting behavior, even at the beginning of the school year, is already associated with negative peer and teacher assessments illustrates that this type of behavior is unacceptable to both adults and preschool children within the conflict context.

Limitations

A limitation of the current study is that our sample consisted of low-income males, and emotional displays may differ by gender, particularly in terms of what is considered acceptable by peers and teachers in preschool (Denham *et al.*, 1990; Garner, Robertson, & Smith, 1997; Karbon, Fabes, Carlo, & Martin, 1992; Thompson & Calkins, 1996; Zahn-Waxler, 1993). For example, the frequency of and the reasons for using gleeful taunting during conflicts may differ in a female sample (Crick, Casas, & Mosher, 1997; Fabes & Eisenberg, 1992). Thus, although boys have been found to be at increased risk for behavior problems (Prior, Smart, Sanson, & Oberklaid, 1993), it would be important to replicate this study using a more representative sample before generalizing findings. In addition, because this is a correlational study, it

is important to note that it is not possible to determine the causal direction of effects from these results. Because these data are longitudinal, however, the problem may be somewhat less severe than in other cases.

CONCLUSION

The preschool context poses important challenges for young children, particularly children who are living in adverse circumstances such as poverty. Examining children from this population allows an investigation of individual differences within a group often treated as homogeneous. We studied children's emotional expressions during conflicts in an effort to elucidate some of the processes by which such children, particularly boys, may develop problems in their peer relationships, with their teachers, and in their behavioral regulation later in development. We found that certain emotional displays (specifically, gleeful taunting) were associated with negative social status nominations by peers and ratings of disruptive behavior by teachers. These findings illustrate the importance of examining the emotional aspects of conflicts in order to clarify the relation between children's conflict behavior, their social status, and adjustment to preschool.

In addition to informing basic research on children's emotional expression and emotional regulation, findings from the current study may have implications for intervention. Intervention researchers have found that children can be taught to modify their cognitive and behavioral responses to a conflict situation and thereby change their problem-solving skills by generating many solutions to a challenging social situation (e.g., Dodge, 1986; Mize & Pettit, 1997). Focusing on emotional displays during actual conflict episodes has also been suggested as a way to modify children's conflict behavior (Greenberg, Kusche, Cook, & Quamma, 1995). Although we found an increase in negative emotional displays during conflicts over time, the frequency of negative emotional displays was not linked to conflict initiations or to peer and teacher assessments of inappropriate social behavior. However, emotionally aggressive behaviors like gleeful taunting that were related to negative outcomes may provide an ideal target for interventions that focus on effective conflict resolution strategies in preschool. Developmental research on preschool-age children's understanding of others' psychological and emotional states (e.g., Wellman & Banerjee, 1991) may be particularly relevant here; enhancing gleeful taunters' understanding of how such behavior makes other children feel may eventually decrease the incidence of gleeful taunting. In sum, modeling constructive ways to display strong feelings during conflicts and ways to understand the ramifications of such displays may help to avoid negative outcomes for children who show signs of emotionally aggressive behavior in preschool.

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