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Children's Sympathy for Peers Who Are the Targets of Peer Aggression

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Abstract

Although a goal of many aggression intervention programs is to increase children's concern (often termed sympathy or empathy) for their peers as a means of ultimately reducing aggressive behavior, there are no measures specifically of children's concern for peers who are the targets of peer aggression. A participatory action research (PAR) model was used to create a culturally-sensitive measure of urban African American children's sympathy for peers who are the targets of physical aggression, relational or social aggression, verbal aggression, and property damage. In Study 1, 40 children ($M_{\text{age}}=9.71$ years; 47.5 % female) were interviewed about the types of incidents that lead them to feel sympathy for a peer. Based upon these findings, the 15-item Peer Sympathy Scale (PSS) was developed. In Study 2, the PSS was administered to 517 children ($M_{\text{age}}=9.82$ years; 47.4 % female) to examine the psychometric properties of the measure and to explore the association between children's sympathy for their peers and their social behavior. Greater sympathy was associated with less overt and relational aggression according to both peer and teacher reports as well as with less oppositional-defiant behavior according to teacher reports. The clinical utility of the PSS as an outcome assessment tool for social skills intervention programs is discussed.

Keywords

Sympathy; Empathy; Aggression; Peer relations; Intervention; Participatory action research

Attempts to understand why some children behave prosocially toward their peers while others behave aggressively have focused upon a variety of possible factors, including children's pursuit of maladaptive social goals (Erdley and Asher 1996; Lansford et al. 2006; Ojanen et al. 2005), children's interpretations of their peers' behavior (Dodge 1980; Orobio

de Castro et al. 2002), their feelings of self-efficacy (Erdley and Asher 1996), and their emotion regulation skills (see Hubbard and Dearing 2004). Of particular interest has been the association between children's concern for others and their social behavior (e.g., Malti et al. 2009; Schultz et al. 2004; Strayer and Roberts 2004; Warden and Mackinnon 2003; see also, Eisenberg et al. 2006; Lovett and Sheffield 2007). Indeed, a main focus of many intervention programs designed to reduce aggression is increasing children's perspective-taking skills, with the idea that if children are better able to take the perspective of their peers, they will feel more concern for their peers, and thus will not aggress against them (e.g., Frey et al. 2000; Leff et al. 2009; Lochman and Lenhart 1993).

Although an ultimate goal of many aggression intervention programs is to increase children's concern for their peers, to date there exists no psychometrically strong measure of children's concern specifically for peers who experience peer aggression. To adequately examine whether interventions actually lead to changes in children's concern for peers who are the targets of peer aggression, such a measure is needed. The goal of the current research was to use a participatory action research (PAR) paradigm to develop a measure of children's concern specifically for peers who are the targets of peer aggression and then to use this new measure to examine whether children's concern for peers who are the targets of peer aggression is associated with their actual social behavior.

Definitional Issues Related to Children's Concern for Others: Empathy Versus Sympathy

Within the literature on aggressive and prosocial behavior, the terms "empathy" and "sympathy" are often used interchangeably (see Barnett 1987; Jolliffe and Farrington 2006; Wispe 1986). However, there is an important conceptual distinction between them. Scholars have defined "empathy" as involving "emotional matching...and the vicarious experiencing of emotions consistent with those of others" (Miller and Eisenberg 1988, p. 325). Thus, empathy involves feeling the same, or a very similar, emotion as another person. In contrast, sympathy has been defined as "an emotional response, elicited by the emotional state or situation of the other person, that is not identical to the other's emotion and involves feelings of concern or sorrow for the other person" (Miller and Eisenberg 1988, p. 325). Therefore, a sympathetic response does not necessarily involve feeling the same emotion as another person, but rather experiencing any type of emotional response indicative of concern for another person given the situation they are in (e.g., feeling sad when a peer is bullied). Supporting the conceptual distinction between empathy and sympathy, recent research from the field of moral neuroscience suggests that there are somewhat different neural mechanisms underlying empathy versus sympathy (Decety and Michalska 2010). Importantly, to our knowledge, there appears to be no evidence that children's tendency to behave in prosocial versus aggressive ways is dependent upon whether they experience the exact same emotion as another person. We believe, therefore, that what may be particularly predictive of children's behavior is simply whether they feel concerned about a peer, not whether they feel the same emotion as the peer. Thus, we employ the term "sympathy" in the present research.

Existing Measures of Children's Concern for Others

The ways in which children's concern for others has typically been assessed presents some key methodological challenges to understanding the connection between children's sympathy and their social behavior. One particularly problematic aspect of existing measures involves diverse item content in which concern for a combination of peers, adults, and even animals is assessed (see Zhou et al. 2003). For example, the Bryant Empathy Index (Bryant 1982), one of the most widely-used measures of children's concern for others, includes items such as, "Seeing a boy/girl who is crying makes me feel like crying" and "It's silly to treat dogs and cats as though they have feelings like people." Perhaps because of the diverse item content, the Bryant Empathy Index has rather low internal consistency ($\alpha=0.68$ among fourth-grade children). Peer relations researchers have come to increasingly recognize the importance of examining the situation-specificity of children's social competence (see Asher et al. 2008). This perspective cautions against assuming that children who are socially competent in one context will be socially competent in all contexts. For example, it is possible that a child could be good at one social task, such as helping a peer, but not be good at another social task, such as managing conflict. By extension of this, there is little reason to assume that children's concern for adults or animals would predict their concern for peers specifically. Therefore, in examining the association between children's sympathy and their actual aggressive behavior in the peer group, it is critical to assess children's concern for peers in isolation.

In other attempts to assess children's sympathy or empathy, teachers or peers have been asked to rate how much a target child feels upset or concerned when negative events happen to other children (Eisenberg et al. 1998; Kaukiainen et al. 1999; Strayer and Roberts 2004). A possible drawback of this approach, though, is that it is assumed that a person can reliably judge another's emotional or cognitive state. Furthermore, at times, other-report measures of children's sympathy/empathy have included potentially confounding items that assess prosocial behavior along with children's concern. For example, in a study by Kaukiainen et al. (1999), empathy was assessed by having children nominate peers for items such as "comforts others when they are sad." Feelings of concern for a peer, though, might not always predict behavior. It is possible that a child could feel sympathy for a peer but not attempt to help the peer for a variety of reasons, such as not knowing how to help, not having the time to help, or being afraid that helping will lead to their becoming the next victim of peer bullying (Gini et al. 2008a; Hawkins et al. 2001; Salmivalli 2010).

Some researchers have attempted to gauge children's empathic and sympathetic responses by coding their facial expressions while watching videotapes depicting negative events happening to other people (Eisenberg et al. 1989; Strayer and Roberts 1997). However, this approach is based on the presumption that there are always observable indicators when children feel concerned. In other studies, psycho-physiological indicators of sympathy have been assessed, such as heart rate and galvanic skin response, which may be harder to mask than facial expressions (Liew et al. 2003). Although these approaches have led to significant advances in our understanding of children's concern for others, such methodologies can be difficult to employ in nonlaboratory-based research settings, like schools.

Associations with Aggressive Behavior

Research on the association between children's concern for others and their aggressive behavior has led to inconsistent findings. Some studies have found that the more concern children have for others, the less aggressive they are (Schultz et al. 2004; Strayer and Roberts 2004). Other work suggests that whether or not this association emerges depends upon how children's concern for others is assessed. In their meta-analysis, Miller and Eisenberg (1988) found a significant negative association between empathy and aggression when empathy is assessed using questionnaires, but found no significant association when empathy is measured using other techniques, such as pictures or stories. These authors also found that the relationship between empathy and aggression tends to be less consistent among younger children than older youth and adults. Importantly, as Lovett and Sheffield (2007) note, though, it is difficult to draw firm conclusions about the association between children's concern for others and their aggressive behavior because the measures used in many of these studies tend to be psychometrically weak.

In designing a psychometrically strong measure of children's concern for peers who are the targets of aggression, we wanted to assess children's concern across various types of aggression. In addition to using direct, overtly aggressive behaviors, such as hitting and name calling, some children engage in less direct, relationally or socially aggressive behaviors, such as gossip, social exclusion, and friendship manipulation (Crick and Grotpeter 1995; Underwood et al. 2001). Although children engage in different types of aggression, it is unclear whether children actually feel different degrees of sympathy for their peers depending upon the type of aggression experienced. On the one hand, previous research suggests that children may feel more sympathy for victims of indirect than direct forms of aggression. For example, Gini et al. (2008b) found that children report placing more blame on victims of direct forms of bullying, such as threats and verbal aggression, than on victims of indirect forms of bullying, such as gossip and social exclusion. On the other hand, though, there is considerable overlap in the display of different forms of aggression. In a meta-analysis of almost 100 studies, Card et al. (2008) found the association between perpetration of indirect and direct forms of aggression to be 0.76. This finding suggests that children may feel similar levels of sympathy for victimized peers regardless of the type of aggression experienced. In the current study, we examined whether children's sympathy for their peers differs by type of aggression or is similar across types of aggression.

In addition, we were interested in exploring whether children's concern for their peers is uniquely associated with their own levels of overt versus social/relational aggression within the peer group. Results from existing research on this topic have been mixed. Some research has found that children's concern for others is negatively related to both direct and indirect aggression (Kaukiainen et al. 1999). However, other research has found that children's concern is negatively related to only direct forms of aggression (Nesdale et al. 2009). Importantly, it is difficult to reconcile the discrepancy between these two studies because of potential limitations in the measures of children's concern used in both studies (e.g., one study used the Bryant Empathy Index, which, as discussed earlier, is methodologically limited due to diverse item content and low internal consistency, and the other used peer

reports of children's empathy, which assumes that others can reliably assess one's emotions). Our goal, therefore, was to use our new measure of children's concern for their peers to more closely examine the relationship between sympathy and various types of aggressive behavior.

Using Participatory Action Research to Develop a Measure of Peer Sympathy for Use with Urban African American Youth

We were particularly interested in developing a measure to examine the association between sympathy and aggression among urban African American youth. These youth are frequently exposed to factors that put them at risk for engaging in aggressive behavior, such as exposure to violence, lack of resources, and poverty (for a relevant discussion, see Leff et al. 2011). Despite recognition that aggression is a significant problem among urban African American youth, measures of children's concern have been developed using predominantly Caucasian samples (e.g., Holmgren et al. 1998) or using samples in which ethnicity and race are not specified, thus making it impossible to know if minority youth are represented (e.g., Bryant 1982; Davis 1983; Jolliffe and Farrington 2006). Many studies assessing African American youths' concern for others have therefore employed measures that may not be culturally sensitive (e.g., Jagers et al. 2007; Magnus et al. 1999).

Several researchers have begun to advocate for the use of a participatory action-based approach to design culturally-sensitive measurement tools (e.g., Leff et al. 2006; Leff et al. 2010a; Nastasi et al. 2000). Participatory action research (PAR) combines feedback from key stakeholders with theory and empirical findings to create measures that are both psychometrically sound and culturally sensitive. In the current study, we used PAR to develop a measure of children's sympathy for their peers that would be appropriate for use with urban African American youth. We first reviewed existing measures of children's concern for others as well as the literature on children's aggressive behavior to determine the initial content of our measure. We then sought feedback from community partners, namely urban African American youth, to ensure that the items would be both understandable and applicable to this population. Lastly, we incorporated feedback from these youth to create the final version of our measure of children's sympathy for their peers.

Overview of Current Study

To summarize, there is currently a need for a psychometrically strong measure of children's sympathy for peers who are the targets of peer aggression that lends itself to research in nonlaboratory-based settings and with urban African American youth. Using a participatory action-based model, measurement development took place through two separate studies. Study 1 was conducted to determine an age-appropriate and culturally-appropriate synonym for the word "sympathy" to ultimately use in the measure as we did not anticipate that children would understand the words "sympathy" or "sympathetic." A review of the literature on conceptual definitions of sympathy narrowed down our potential choices to either "feel bad for" or "feel sorry for" (Eisenberg 2000; Eisenberg and Strayer 1987). To determine which of these to ultimately use, we asked children to define each term. The second goal of Study 1 was to learn about the types of aggressive incidents that actually lead

children to feel sympathetic for their peers. Based upon the results of Study 1, a 15-item measure of children's sympathy for peers who experience peer aggression was developed. Then, in Study 2, the psychometric properties of the newly developed measure were examined and the measure was used to explore the association between children's sympathy for their peers and their actual aggressive behavior.

Study 1: Initial Measurement Development

Participants

A convenience sample of 40 third- and fourth-grade children was recruited from an urban public elementary school. The sample was comprised of 19 girls and 21 boys who were predominantly African American (92.5 %) and who ranged in age from 8- to 12-years old ($M_{\text{age}}=9.71$, $SD=1.09$). The vast majority of students at this school received free or reduced price lunches. The study was approved by the Institutional Review Boards of both the academic affiliation of the authors and of the school district within which the study took place. Written parental permission and child assent were obtained.

Procedure

Participants were individually interviewed by a trained research assistant. Children were asked the following three open-ended questions: (1) What does it mean to feel bad for someone?; (2) What does it mean to feel sorry for someone?; and (3) What kinds of things would make you feel bad or feel sorry for another kid? Children's responses to these three questions were recorded verbatim by the interviewer. These responses were then coded by two trained research assistants. Interrater reliability for each question was calculated using Kappa statistics. For the questions about what it means to feel bad for someone and what it means to feel sorry for someone, raters coded whether the child understood that each term means to experience some form of negative affect when something aversive happens to someone else (Kappa=94.87 % for "feel bad for someone" and Kappa=97.44 % for "feel sorry for someone"). Children's answers to the question of what kinds of things would make them feel bad or sorry for another kid were coded into one of seven categories: Physical Aggression, Verbal Aggression, Social/Relational Aggression, Property Damage, General Bullying, Accidents or Health-Related Incidents, and Other (overall Kappa=95.69 % for the seven categories combined).

Results

When asked what it means to feel bad for someone, 77.78 % of children were able to articulate that it involves experiencing some form of negative affect because of something aversive that happened to another person. Examples of children's responses to the question of what it means to feel bad for someone were "Like when someone gets hurt I feel bad. You get mad and feel like you want to hit someone. Sometimes you cry." and "You are feeling sorry for them. You may feel they are in trouble and you want to help them." Of the remaining participants, all children except for one understood that "feeling bad for someone" involves experiencing some type of negative affect, although they did not articulate that this would be in response to something negative happening to another person. Only one child was unable to offer any kind of definition of what it means to "feel bad for

someone.” When asked what it means to feel sorry for someone, only 45.95 % of children reported that this involves experiencing some form of negative affect because of something aversive that happened to another person. Examples of children’s responses to this question included “Feel very bad because someone else feels very bad.” and “Kind of feel their pain.” A total of 15 % of children thought that “feeling sorry for someone” means to “say sorry” and another 10 % stated that they did not know what it means to “feel sorry for someone.”

Children provided a total of 116 examples of the types of incidents that would lead them to feel bad for or feel sorry for another child. Specific examples of the types of incidents children reported are presented in Table 1 along with the percentage of incidents in each category. As can be seen, children were more likely to spontaneously report feeling bad for or sorry for a peer due to physical aggression than due to verbal aggression, social/relational aggression, or property damage.

Study 1 Conclusions and Implications

Results from Study 1 clearly supported the use of the terminology “feel bad for” as opposed to “feel sorry for” as the stem of the questions in the new measure. Furthermore, these results helped to ensure that urban predominantly African American youth understand that feeling bad for someone involves experiencing negative affect in response to an aversive event happening to another individual. It is particularly interesting that when asked about the types of incidents that lead them to feel sympathy for their peers, children’s responses most often involved physical aggression, accidents or health-related incidents, or other types of events and less frequently involved verbal or social/relational aggression. This pattern of findings is somewhat surprising given that several recent studies have shown that social/relational aggression is quite salient and hurtful for urban youth (Farrell et al. 2006; also see Leff et al. 2010b). Perhaps this finding emerged in Study 1 because only spontaneous responses were recorded. If youth had been further prompted for additional types of incidents that lead them to feel sympathy for their peers, more examples of social/relational aggression may have been offered.

Based on the findings and feedback we received from participants in Study 1, we created the Peer Sympathy Scale (PSS), a 15-item measure of children’s sympathy for peers who are the targets of peer aggression. Although children reported feeling sympathy for peers for reasons other than aggression, our specific interest was in creating a measure of children’s sympathy for peers who are the targets of aggression. Thus, we only included items in the PSS to assess children’s sympathy for peers who are the targets of specific types of peer aggression, namely Physical Aggression, Verbal Aggression, Social/Relational Aggression, and Property Damage. Study 2 was conducted to examine the psychometric properties of the PSS and to investigate whether children’s sympathy for their peers, as reported on the PSS, is associated with their actual social behavior.

Study 2: Psychometric Properties and Associations with Social Behavior

Participants

For Study 2, 729 third-, fourth-, and fifth-grade children were invited to participate prior to taking part in a larger intervention study (see Leff et al. 2010b). Participants were recruited

from 28 classrooms at 3 urban public elementary schools in a large city in the Northeastern United States. The school district from which participants were drawn is similar to many other urban, predominantly African American school districts across the United States. In accordance with regulations of the Institutional Review Boards of the affiliated academic institution and the school district, written parental permission was required for participation. Of the 729 children who were invited to participate, 560 (76.8 %) returned their permission slips indicating whether or not they had received parental permission to participate. Of these 560 children, parental permission to participate was obtained for 536 youth (95.7 %). Data was missing for 19 children (due to absences on the day of data collection), resulting in a final sample size of 517 participants. Of these 517 children, 208 were in the third grade, 214 were in the fourth grade, and 95 were in the fifth grade. Children ranged in age from 7- to 12-years old ($M_{\text{age}} = 9.82$, $SD = .98$). The sample consisted of 272 boys and 245 girls and most children identified as African American (75.2 %) or biracial including African American (15.1 %). The remainder of the sample identified as Caucasian (2.1 %), Latino (1.9 %), Native American (1.9 %), or Other (3.8 %). A majority of children at these schools received free or reduced price lunches.

Procedure

The PSS and a peer nomination measure of aggressive behavior were group-administered to children in their classrooms. All items were read out loud by a research assistant as children recorded their own responses. In addition to the two measures completed by the participants, ratings of children's oppositional-defiant behavior and aggression were collected from their teachers. Data was complete for all participating children.

Measures

The Peer Sympathy Scale (PSS) The PSS consists of 12 test items and 3 filler items. The 12 test items, which are presented in Table 2, ask children how bad they would feel for a peer who is the target of one of the four types of aggression of interest. Two additional practice items are included to orient children to the response scale. In response to each item, children are asked how bad they would feel for the peer on a Likert scale ranging from "Not Bad at All" (1) to "Really Bad" (5). Because of previous research demonstrating gender differences in feelings of concern toward same-versus opposite-sex peers (Bryant 1982), participants were instructed to imagine the child in each item was a same-gender peer.

Peer Nominations of Aggressive Behavior Peer nominations of children's overt and relational aggression were collected. Children were given a roster of all the children in their class and were told to circle the names of all of their classmates who met certain behavioral descriptors. The peer nomination items included in the current study were based upon similar peer nomination measures used widely in other research (Crick and Grotpeter 1995; Leff et al. 2009; Leff et al. 2010a). Three items were used to assess overt aggression (hits or pushes others, starts fights, and yells and calls others mean names). An additional three items were used to assess relational aggression (tries to make other kids not like a certain person by spreading rumors about them or talking behind their backs, tries to keep certain people from being in their group when it's time to play or do an activity, and gets even with others by leaving them out when they are mad at them).

A child's score for each peer nomination item was computed as the proportion of nominations for that item that the child received divided by the total number of classmates. The scores for the three overt aggression items were averaged to create an overt aggression score, and a similar procedure was used to derive a relational aggression score. Consistent with previous research (see Card et al. 2008), peer reports of overt and relational aggression were found to be significantly correlated ($r=0.84$).

Teacher Ratings of Behavior Teachers completed two measures of children's social behavior. Teachers rated children on two items designed to assess overt and relational aggression. For overt aggression, teachers rated the degree to which each child "hits or pushes others." For relational aggression, teachers rated the extent to which each child "gossips or leaves others out." Both items were rated on a 4-point scale ranging from "Not at All" to "Very Much." Teacher reports of overt and relational aggression were found to be moderately correlated ($r=0.39$). To assess children's oppositional-defiant behavior, teachers completed the five-item oppositional-defiant subscale of the Iowa Conners Ratings Scale (Loney and Milich 1982). The Iowa Conners Rating Scale is a widely-used measure that has been shown to have strong psychometric properties (Loney and Milich 1982; Pelham et al. 1989).

Results

Psychometric Properties of the PSS—A series of analyses were conducted to examine the psychometric properties of the PSS. First, to explore the factor structure of the PSS, principal axis factoring was conducted. This analysis revealed a one-factor structure with all 12 items loading on one factor (see Table 2 for loadings; Eigenvalue=6.27; 52.27 % of variance accounted for; Eigenvalue of second factor=0.80). Next, Cronbach's alpha was calculated to examine the internal consistency of the 12-item measure. Internal consistency for the complete 12-item measure was found to be high ($\alpha=0.92$). Following recent recommendations by Sijtsma (2009), we also calculated Guttman's lambda-2 as a measure of internal consistency and found it to be equally high (0.92).

Given that analyses suggested a one-factor solution, total sympathy scores were computed by summing participants' responses to all twelve items. Total scores on the PSS could range from 12 to 60. Next, the distribution of total sympathy scores was examined. Scores were found to be negatively skewed and, thus, square root transformation of the scores was conducted. These transformed scores were used in all analyses described below in which the association between children's sympathy and their behavior was examined.

Finally, two-week test-retest reliability of the PSS was examined using a separate sample of 122 children between the ages of 8- to 12-years old (52.5 % female; 88.6 % African American and 5.7 % biracial including African American). Test-retest reliability was found to be good ($r=0.80$).

Descriptive Analyses—Descriptive analyses were conducted to examine whether there were gender- or grade-level differences in children's responses on the PSS. In these analyses, raw total scores on the PSS (rather than transformed scores) were utilized. A *t*-test revealed no significant differences in boys' ($M=47.45$, $SD=11.55$) versus girls' sympathy

scores ($M=47.52$, $SD=10.44$). However, an analysis of variance (ANOVA) revealed significant grade-level differences in children's sympathy, $F(2, 514)=12.62$, $p<0.001$. Post-hoc Tukey comparisons revealed that third-grade children ($M=49.66$, $SD=9.33$) reported significantly more sympathy for their peers than did fifth-grade children ($M=42.96$, $SD=11.95$, $p<0.001$, $d=0.62$). In addition, there was a trend ($p=0.08$, $d=0.22$) for third-grade children to endorse more sympathy than fourth-grade children ($M=47.37$, $SD=11.54$). Fourth-grade children also endorsed significantly more sympathy for their peers than did fifth-grade children ($p<0.01$, $d=0.38$).

Associations Between Sympathy and Behavior—Next, analyses were conducted to examine whether children's sympathy for their peers is associated with their engagement in aggressive or oppositional-defiant behavior. Due to the nested structure of the data (i.e., students nested within classrooms), multilevel modeling was conducted using SPSS MIXED and following procedures outlined by Raudenbush and Bryk (2002). First, intraclass correlation coefficients were computed to determine the amount of variance in each of the outcome variables that could be accounted for by differences in classrooms. These intraclass correlations ranged from small to large: 0.01 for peer-reported overt aggression, 0.01 for peer-reported relational aggression, 0.20 for teacher-reported overt aggression, 0.17 for teacher-reported relational aggression, and 0.26 for teacher-reported oppositional-defiant behavior. A series of two-level hierarchical linear model analyses were conducted to examine whether children's sympathy is related to peer ratings of their overt aggression, peer ratings of their relational aggression, teacher ratings of their overt aggression, teacher ratings of their relational aggression, and teacher ratings of their oppositional-defiant behavior. For each of the five outcome variables, two hierarchical linear model analyses were conducted. In Model 1, the effects of grade, gender, and peer sympathy were examined. In Model 2, only those effects found to be significant in Model 1 were included. Possible interactions between gender and peer sympathy were also examined. However, none of these interactions were found to be significant and, thus, were not included in any of the models. All results are presented in Table 3.

First, it was examined whether children's sympathy is related to peer ratings of their overtly aggressive behavior. As can be seen in Table 3, there was no effect of grade, but there were significant effects for gender and sympathy. Specifically, being male was positively associated with being rated by peers as overtly aggressive. In addition, children's sympathy for their peers was negatively associated with peer ratings of overt aggression, indicating that the more sympathy children reported having for their peers, the less overtly aggressive they were viewed to be by peers. The final model, including both gender and sympathy, explained 4.9 % of the variance in peer ratings of children's overtly aggressive behavior.

Next, the association between children's sympathy and peer ratings of their relationally aggressive behavior was examined. There were no effects for grade or gender. However, there was a significant effect for sympathy. As shown in Table 3, the more sympathy children reported feeling for peers who are targets of aggression, the less relationally aggressive they were perceived to be by peers. The final model, which contained only the effect of sympathy, explained 2.6 % of the variance in peer ratings of children's relationally aggressive behavior.

Examination of the association between children's sympathy and teacher reports of their overtly aggressive behavior revealed no effect for grade. However, there were significant effects for gender and sympathy (see Table 3). Being male was positively associated with being rated by teachers as overtly aggressive. In addition, the more sympathy children reported feeling for their peers, the less overtly aggressive they were perceived to be by their teachers. The final model, containing the effects of both gender and sympathy, explained 4.1 % of variance in teacher ratings of children's overtly aggressive behavior.

The relationship between children's sympathy and teacher ratings of their relationally aggressive behavior was then explored. Again, there was no effect for grade, but there was a significant effect for gender as well as a trend for an effect of sympathy. The final model, which only included effects of gender and sympathy, explained 5.7 % of the variance in teacher ratings of children's relationally aggressive behavior. As can be seen in Table 3, males were less likely than females to be perceived by teachers as being relationally aggressive. Furthermore, the more peer sympathy children reported, the less they were rated by teachers as being relationally aggressive.

Lastly, the association between children's sympathy and teacher ratings of their oppositional-defiant behavior was examined. Significant effects for being in the third grade as well as for sympathy emerged. There was no effect for gender or for being in the fourth grade. The final model, which accounted for 6.4 % of the variance in oppositional-defiant behavior, indicated that third-grade children were rated by teachers as engaging in more oppositional-defiant behavior than fourth-grade and fifth-grade children. In addition, the more sympathy children reported feeling for their peers, the less they were perceived by teachers as exhibiting oppositionally-defiant behavior.

Study 2 Conclusions and Implications

Study 2 demonstrated that the PSS is a psychometrically strong measure of urban African American children's sympathy for their peers. Of note, the internal consistency of the PSS was found to be considerably higher than the internal consistency of the Bryant Empathy Index, which has an internal consistency score of only 0.68 with fourth-grade children (Bryant 1982). In addition, responses on the PSS were found to be reliable across a two-week time period.

It is particularly interesting that although items were included to assess four different types of aggressive behavior, the PSS only resulted in one factor. Children's sympathy for their peers did not vary by the type of aggression aimed at the peer. It appears, therefore, that children (at least urban African American children) feel the same degree of sympathy for their peers regardless of whether the peer experiences physical aggression, social/relational aggression, verbal aggression, or acts of property damage. This fits with previous research that has found considerable overlap in perpetration of direct and indirect forms of aggression among youth (see Card et al. 2008). The present findings suggest that children feel equally bad for peers regardless of the type of aggression experienced.

The results of Study 2 also provide evidence of the validity of the PSS in examining associations between sympathy and children's aggressive behavior. The more sympathy

children reported feeling for their peers, the less overtly and relationally aggressive they were perceived to be by peers. In addition, children's sympathy for their peers was associated with teachers' perceptions of their social behavior. The more sympathy children reported feeling for peers who are the targets of peer aggression, the less they were perceived by teachers as engaging in overt or relational aggression or in oppositional-defiant behavior. It should be noted that teacher ratings of overt and relational aggression were assessed using only single-item scales and future research using multiple items should be conducted. Overall, however, the findings of Study 2 highlight the need for aggression intervention programs to try to increase children's feelings of sympathy for peers who are the targets of peer aggression. Getting children to understand the negative emotional impact that aggression has on their peers may be an important step in preventing them from engaging in aggressive behavior. Furthermore, it is interesting to note that children's sympathy was associated with their engagement in both overt and relational forms of aggression, suggesting that increasing children's sympathy for their peers is an essential component in reducing both of these types of aggression. Given the positive association typically found between overtly and relationally aggressive forms of behavior (e.g., Crick and Grotpeter 1995; Kaukiainen et al. 1999; Smith et al. 2010; Xie et al. 2003; see also Card et al. 2008), it is not surprising that sympathy was found to be associated with both types of aggression in the current research. Our findings suggest that some of the same processes, such as peer sympathy, help to explain children's engagement in both types of aggression. However, future work is needed to explore the factors that may lead children to engage in one type of aggression versus the other and to examine whether these two forms of aggression really are distinct constructs.

General Discussion

Through two studies, a psychometrically strong measure of children's sympathy for peers who are the targets of peer aggression was developed. The Peer Sympathy Scale was found to be internally consistent, to be reliable across a two-week time period, and to demonstrate associations with children's actual aggressive behavior. A particular strength of the PSS is that it was developed using a participatory action approach so that it would be appropriate for use with urban African American youth. Although urban African American youth are at elevated risk for engaging in aggression and violence (see Leff et al. 2011), relevant assessment tools have rarely been designed to be culturally sensitive to this population (see Leff et al. 2010a). Incorporating feedback from urban African American boys and girls into the development of the PSS resulted in a measure that was easily understood by and relevant to these youth.

An additional strength of the PSS is that it assesses children's sympathy for their peers across a variety of types of aggression. In examining the types of aggressive incidents that lead youth to feel sympathy for their peers, Study 1 found that youth more frequently cited incidents of physical aggression than any other type of aggression. However, they also did report that they would feel sympathy for a peer who was the target of other types of aggression, such as social/relational aggression, verbal aggression, and property damage. Thus, to accurately reflect the experiences of urban African American youth, it was important for the PSS to assess the range of aggressive behaviors that can lead these children

to feel concerned for one another. Despite the fact, though, that the PSS measured children's sympathy across four types of aggression, it was found to consist of only one factor. It appears, therefore, that children's concern for one another does not differ by type of aggression. An important next step in this line of research will be to examine whether the same single-factor structure is found with other populations, such as youth of other ethnic/racial groups or youth in suburban or rural settings.

When asked about the types of incidents that lead them to feel sympathy for a peer, it is interesting to note that youth frequently cited incidents that did not involve peer aggression, such as accidents and parental neglect. For example, one child reported feeling sympathy when "a kid was left at home and there was a fire at his house" while another child reported feeling sympathy for a peer who had "to go into a foster family." Other children reported experiencing sympathy for peers who were the targets of severe violence, such as being shot by a gang or being abused. The types of incidents that children spontaneously reported highlight the unique experiences and needs of urban African American youth (Teitelman et al. 2010). It seems unlikely that children in higher SES or less urban settings would as frequently report being exposed to these same kinds of incidents. Perhaps because of the hardships that urban African American youth more frequently face (see Leff et al. 2011), they may not feel as much sympathy for peers who experience less extreme forms of aggression, such as name-calling and social exclusion. One important avenue for future research would be to compare the degree of sympathy that urban African American youth feel for peers who are the targets of peer aggression with the sympathy that youth who are not exposed to the same types of stressors feel for their peers.

It is also worth noting that although there were grade-level differences in children's sympathy for their peers, there were no gender differences in how badly children reported that they would feel for peers who are the targets of peer aggression. The lack of gender differences is somewhat surprising given previous research suggesting that, from a young age, girls show more concern for others than do boys (Bryant 1982; Hoffman and Levine 1976; Strayer and Roberts 1997). However, as has been recently discussed (MacEvoy and Asher 2012), it is important to not only examine whether there are mean-level gender differences in variables, but also whether there are gender differences in how variables are associated with one another. For example, is sympathy associated with aggression for one gender but not for the other? In the present study, there were no gender differences in the association between sympathy and children's social behavior, suggesting that sympathy functions similarly in predicting to aggressive behavior for boys and girls.

The present findings help to resolve ambiguity regarding the extent to which children's concern for other is related to their social behavior (see Kaukiainen et al. 1999; Miller and Eisenberg 1988; Nesdale et al. 2009). It is clear from the current study that, for both boys and girls, peer aggression is associated with deficits in sympathy. However, although sympathy was found to be significantly and negatively associated with peer and teacher ratings of urban African American children's overt and relational aggression, a lack of sympathy is not the only factor that leads children to behave aggressively toward their peers. Other factors clearly play a significant role as well, such as children's social goals (Erdley and Asher 1996; Lansford et al. 2006), their attributions (see Orobio de Castro et al. 2002),

their feelings of self-efficacy to enact aggressive strategies (Erdley and Asher 1996), and the degree to which they can control their emotions (see Hubbard and Dearing 2004). Each of these factors is oftentimes studied in isolation, but to get a complete picture of why some children behave aggressively, research is needed in which a variety of possible factors are examined in the same study. The newly created PSS provides a means of examining one piece of this puzzle.

Another application of the PSS would be to use it to examine differences between children who engage in different forms of aggressive behavior beyond overt and relational aggression. For example, recent work has focused upon the association between reactive versus proactive aggression and children's concern for others. Findings from this research have been mixed, however. Fanti et al. (2009) found that callousness is somewhat more strongly related to pro-active aggression than reactive aggression. In contrast, Mayberry and Espelage (2007) found no differences in empathy between proactively-aggressive youth and reactively-aggressive youth. A psychometrically-strong measure, such as the PSS, that assesses children's sympathy specifically within the peer context could help to resolve these discrepant findings. Furthermore, it may be that youth who engage in aggressive behavior and who lack sympathy for others may be at particular risk for future psychopathology or participation in antisocial activities (for a relevant discussion, see Fanti et al. 2009). The PSS could serve as a screener in clinical settings for determining which aggressive youth may be most at risk for poor outcomes.

In addition to being useful for understanding why some children behave aggressively, the PSS has significant clinical utility as an outcome measure for aggression prevention and intervention programs. The fact that children's sympathy for their peers was found to be associated with their aggressive behavior emphasizes the need for such programs to focus on increasing children's concern for others. Although several programs include this as a goal already (e.g., Second Step, Frey et al. 2000; Friend to Friend, Leff et al. 2009; Coping Power Program, Lochman and Lenhart 1993), until now there has not been a psychometrically strong measure for these interventions to use to assess whether they do result in increases in children's sympathy for their peers. The PSS provides a means for assessing children's sympathy for peers who are the targets of peer aggression, particularly among the urban African American youth who may be most at risk for aggression.

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Table 1

Types of incidents that lead children to feel bad for or feel sorry for a peer

Category and Verbatim Examples	% of Total Responses
Physical Aggression	26.7 %
“If someone hit them.”	
“When somebody else pushes another kid on the ground.”	
Verbal Aggression	3.4 %
“Calling names for no reason.”	
“If he gets called mean names.”	
Property Damage	3.4 %
“If somebody brought their lunch to school and someone stole it.”	
“If someone’s doing an art project and someone drew all over it and ripped it up.”	
Social/Relational Aggression	1.7 %
“When somebody doesn’t want another kid to play with them.”	
“If nobody wants to play with the other kid.”	
General Bullying	5.3 %
“Seeing another kid get teased.”	
“I feel unhappy if I see another kid getting picked on.”	
Accidents/Health-Related Incidents	39.7 %
“If they had to get surgery.”	
“When someone fell down the stairs.”	
Other	20.7 %
“If their mom didn’t have breakfast for them.”	
“If someone got kidnapped.”	

Table 2**The Peer Sympathy Scale (PSS)**

Items	Single factor loading
1. How bad would you feel for another kid if he/she got teased or picked on by some other kids?	0.65
2. How bad would you feel for another kid if some other kids tore up his/her coat?	0.64
3. How bad would you feel for another kid if he/she got beat up by some other kids?	0.71
4. How bad would you feel for another kid if he/she got called mean names by some other kids?	0.80
5. How bad would you feel for another kid if he/she got hit by another kid?	0.72
6. How bad would you feel for another kid if some other kids told him/her that he/she could not play with them?	0.68
7. How bad would you feel for another kid if some other kids gossiped or said something mean about him/her behind his/her back?	0.75
8. How bad would you feel for another kid if some other kids rolled their eyes or made mean faces at them?	0.65
9. How bad would you feel for another kid if he/she got pushed or shoved by some other kids?	0.74
10. How bad would you feel for another kid if some other kids stole his/her lunch?	0.69
11. How bad would you feel for another kid if some other kids ruined a school project he/she had been working on?	0.54
12. How bad would you feel for another kid if some other kids cursed at or said bad words to him/her?	0.73

Table 3
Hierarchical linear model analyses examining the association between children’s peer sympathy and their social behavior

	<u>Peer-reported overt aggression</u>		<u>Peer-reported relational aggression</u>		<u>Teacher-reported overt aggression</u>		<u>Teacher-reported relational aggression</u>		<u>Teacher-reported oppositional defiant behavior</u>	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Fixed Effects										
Third Grade	−0.26 (0.37)		−0.25 (0.32)		0.03 (0.25)		0.03 (0.21)		2.15 (1.02)*	1.44 (0.78)~
Fourth Grade	−0.25 (0.36)		−0.22 (0.32)		−0.12 (0.24)		−0.13 (0.21)		1.07 (1.00)	
Male	0.99 (0.23)***	0.99 (0.23)***	0.04 (0.22)		0.20 (0.07)**	0.20 (0.07)**	−0.27 (0.07)***	−0.27 (0.07)***	0.55 (0.30)~	0.55 (0.30)~
Peer Sympathy	−0.24 (0.08)**	−0.23 (0.08)**	−0.29 (0.08)***	−0.28 (0.08)***	−0.05 (0.03)*	−0.05 (0.02)*	−0.04 (0.03)~	−0.04 (0.03)~	−0.26 (0.10)*	−0.27 (0.10)*
Model Fit Statistics										
Deviance (=−2 log-likelihood)	2472.80	2472.29	2436.56	2434.50	629.89	627.86	640.24	637.93	2638.06	2641.03
AIC	2476.80	2476.29	2440.56	2438.50	633.89	631.86	644.24	641.93	2642.06	2645.03
BIC	2485.28	2484.77	2449.03	2446.99	641.41	639.39	651.77	649.48	2650.46	2653.44

Grade was dummy coded as Third Grade versus Fourth and Fifth Grade and also as Fourth Grade versus Third and Fifth Grade.

* $p<0.05$.
** $p<0.01$.
*** $p<0.001$.
~ $p<0.10$.