# Effect of Maltreatment on Preschoolers' Narrative Representations of Responses to Relieve Distress and of Role Reversal

Jenny Macfie, Sheree L. Toth, and Fred A. Rogosch University of Rochester

JoAnn Robinson and Robert N. Emde University of Colorado Health Sciences Center

Dante Cicchetti University of Rochester

A total of 80 low-socioeconomic status maltreated preschoolers were contrasted with 27 nonmaltreated preschoolers on their narrative representations. The children completed story stems, taken from the MacArthur Story-Stem Battery (MSSB; I. Bretherton, D. Oppenheim, H. Buchsbaum, R. N. Emde, & the MacArthur Narrative Group, 1990), that introduced stressful family situations. Using the MacArthur narrative coding manual (J. Robinson, L. Mantz-Simmons, J. Macfie, & the MacArthur Narrative Group, 1992), coders rated portrayals of parental and child character responses, as well as participant responses, to relieve children's distress. They also rated role reversal (children caretaking their parents) from the narrative emotion coding manual (S. L. Warren, L. Mantz-Simmons, & R. N. Emde, 1993). Maltreated preschoolers portrayed parents and children as responding less often—yet themselves as stepping into the story more often to relieve children's distress—than did nonmaltreated preschoolers. Abused children (sexually, physically, or both) portrayed the most participant responses, and neglected children (with no abuse) portrayed the fewest child responses. Role reversal was associated with physical abuse.

Maltreated children often exhibit deviation in many domains of development and fail to successfully negotiate stage-salient developmental issues such as attachment, autonomy, and peer relationships (Cicchetti, 1989; Cicchetti & Tucker, 1994; Perry, Pollard, Blakley, Baker, & Vigilante, 1995; Trickett & McBride-Chang, 1995). Key questions, however, remain unanswered. For example, what is the impact of being maltreated on a child's understanding and expectations of caregiving? Whom does a maltreated child represent as responding to relieve children's distress, and how does he or she represent the relationship with his or her parents? Representations of no response or an atypical response to children's distress, and representations of a role reversal in which the child acts as caretaker to his or her parent (Boszormenyi-Nagy & Spark, 1973; Morris & Gould, 1963), may reflect deficits for the child. The child may be unable to receive care when it is offered,

to soothe himself or herself when distressed, or to respond appropriately to relieve others' distress. This study examined maltreated and nonmaltreated preschoolers' representations of responses to relieve distress and of role reversal by examining the narratives they completed from open-ended story stems.

Children normatively develop appropriate responses to distress, such as helping and comforting, in their 2nd year (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman, 1992). However, physically abused toddlers (Main & George, 1985) and preschoolers (Klimes-Dougan & Kistner, 1990) are less likely than nonmaltreated children to act to relieve distress in peers and may even respond with aggression. Although physical abuse is associated with fewer responses to relieve distress than is seen in nonmaltreated children, the omission of care involved in neglect may lead neglected children to respond even less often to distress in age-mates than physically or sexually abused children, or both. Indeed, neglected 5- to 6-year-olds were less sensitive and empathic toward peers (Erickson, Egeland, & Pianta, 1989) and neglected 5- to 11-yearolds were more delayed in prosocial skills (Manly, Cicchetti, & Barnett, 1994) than were physically or sexually abused children, or both.

Parallel with maltreated children demonstrating fewer responses to relieve distress in children, maltreating parents displayed less sympathy and more anger in response to crying infants than did nonmaltreating parents (Frodi & Lamb, 1980). Paradoxically, however, while observing their mothers being berated by a confederate, 5-year-old physically abused boys intervened to comfort or to assist their mothers more often than did nonmaltreated boys, even though their mothers had been perpetrators of their abuse (Cummings, Hennessy, Rabideau, & Cicchetti, 1994). Physically

Jenny Macfie, Sheree L. Toth, Fred A. Rogosch, and Dante Cicchetti, Mt. Hope Family Center, University of Rochester; JoAnn Robinson, Department of Pediatrics, University of Colorado Health Sciences Center; Robert N. Emde, Department of Psychiatry, University of Colorado Health Sciences Center.

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Correspondence concerning this article should be addressed to Jenny Macfie or Dante Cicchetti, Mt. Hope Family Center, University of Rochester, 187 Edinburgh Street, Rochester, New York 14608.

abused children may strive to meet their parents' needs in an attempt to avoid further abuse (Crittenden & DiLalla, 1988; Steele, 1980), and thus, role reversal may be associated more with physical than with sexual abuse or neglect.

The extant research on maltreated children's story representations is largely consistent with the behavioral literature reviewed above. For example, there was less behavior suggestive of empathy in the stories of maltreated sixth graders than in those of nonmaltreated children (McCrone, Egeland, Kalkoske, & Carlson, 1994). Moreover, when asked to tell stories about reciprocity of kindness, maltreated 6- to 8-year-olds represented children as reciprocating the kindness of other children less often than did nonmaltreated children; maltreated children also represented a role reversal in which children reciprocated the kindness of parents more often than the converse (Dean, Malik, Richards, & Stringer, 1986).

In normative middle-socioeconomic status (SES) samples, research suggests that while a child tells a story, the maintenance of boundaries between reality and what is imagined is a developmental achievement. Strong negative emotions may cause the child to abandon the role of narrator and to step into the story himself or herself as an actor (Scarlett & Wolf, 1979). The strength of maltreated children's negative emotions may interfere with these boundaries. Furthermore, physically and sexually abused children, who often experience pain caused (rather than relieved) by caregivers, may empathically step in to relieve the child doll's distress in their stories more than would neglected children because they are less able to maintain the boundary between reality and what is imagined in these personally salient situations.

Gender differences in preschoolers' story representations have been found in normative middle-SES samples. There are more expectations for a girl to respond to relieve distress than for a boy (Zahn-Waxler, Cole, & Barrett, 1991). Preschool girls evidenced more prosocial themes in their story representations (Oppenheim, Nir, Warren, & Emde, 1997; Zahn-Waxler et al., 1994; Zahn-Waxler, Schmitz, Fulker, Robinson, & Emde, 1996) than did boys. These gender differences would also be expected in low-SES preschoolers.

Validity for a story-stem battery of play narratives used with preschoolers (MacArthur Story-Stem Battery [MSSB; Bretherton, Oppenheim, Buchsbaum, Emde, & the MacArthur Narrative Group, 1990) has been demonstrated for variables related to those in this study. External validity has been established with middle-SES preschoolers. Prosocial themes reflected concurrent absence of externalizing problems at home and at school (Oppenheim, Nir, et al., 1997; Warren, Oppenheim, & Emde, 1996), affiliative themes predicted low ratings of hostility by teachers (Zahn-Waxler et al., 1996), and representations of mother were correlated with mothers' self-reported symptoms of psychological distress (Oppenheim, Emde, & Warren, 1997). Moreover, low-SES maltreated preschoolers' maternal and self-representations were more negative than those of nonmaltreated children (Toth, Cicchetti, Macfie, & Emde, 1997).

The present study was designed to increase understanding of the effect of maltreatment on representations of responses to distress and of parent-child role reversal in preschoolers, including differential effects for gender and subtype of maltreatment. This study is part of a larger project, a cross-sectional study designed to extend our understanding of representational disturbances in maltreated

preschoolers (see Toth et al., 1997). By coding semiprojective narrative completions with valid and reliable coding systems, maltreated children's representations may be accurately contrasted with nonmaltreated children's representations in a variety of domains. We expected that, compared with nonmaltreated children, maltreated children would portray (a) parents responding less often to relieve distress in their children, (b) children responding less often to relieve distress in other children, and (c) themselves (the participants) stepping in more often to relieve distress in children. We also predicted that (a) girls would portray more responses to relieve distress than would boys; (b) children who had suffered neglect (without sexual or physical abuse) would represent the fewest child responses to relieve distress; (c) sexually or physically abused children, or both, would put themselves into their stories to relieve distress of child characters the most; and (d) the experience of abuse, especially physical, would be associated with depicting role reversal in which the child acted as caretaker to his or her parent.

### Method

# **Participants**

Participants were 107 low-SES preschoolers (mean age = 5 years 0 months, range = 3 years 10 months to 5 years 10 months, SD = 5 months). There were 66 boys and 41 girls; 53% were Caucasian, 47% were of minority status (30% African American and 17% Hispanic). To test for sequelae associated with maltreatment subtypes (sexual abuse, physical abuse, and neglect), we sampled more maltreated children (n = 80) than nonmaltreated children (n = 27). Maltreated children were recruited from families identified by the Department of Social Services (DSS) as being in need of intervention for issues related to child maltreatment.

Subtypes of maltreatment were assessed through the coding of clinical records, as well as medical and DSS records. The presence of each subtype and perpetrator (mother or not mother) was determined by using a modified Barnett, Manly, and Cicchetti (1993) maltreatment nosology. Codings from the maltreated children's clinical records were completed by researchers who had not had contact with the children or families and who were unaware of the study's hypotheses. A total of 20% of the sample was coded for reliability by using kappa ( $\kappa$ ) to correct for chance agreement (Cohen, 1960): for sexual abuse,  $\kappa = .64$  (89% agreement), for physical abuse,  $\kappa = .84$  (93% agreement), and for neglect,  $\kappa = .48$  (81% agreement).

Consistent with prior findings (Manly et al., 1994), 66% of the children had experienced more than one subtype (29% were sexually abused, 64% were physically abused, and 91% were neglected). Thus, because three distinct groups of sexually abused, physically abused, and neglected children could not be identified, subtype differences were analyzed from two perspectives. First, an effort was made to establish groups that were mutually exclusive to make distinct between-groups comparisons between children who had experienced the presence of abuse and children who had experienced the absence of care (neglect). Sexually or physically abused children, or both, made up the abused subgroup (n = 59). The remaining maltreated children, neglected without physical or sexual abuse, made up the neglect subgroup (n = 21). In all, 88% of the abused group had also experienced neglect. Each maltreated child was thus assigned to either the abused or the neglected group. Second, the following four variables were used to assess naturally existing overlapping dimensions of maltreatment to better capture each child's total experience: (a) presence of sexual abuse, (b) presence of physical abuse, (c) presence of neglect, and (d) mother as perpetrator (total number of subtypes perpetrated by the child's mother: 9% of the sexual abuse, 75% of the physical abuse, and 97% of the neglect). Each maltreated child was defined by between one and four of these overlapping variables.

Because most maltreating families were receiving Aid to Families With Dependent Children (AFDC), nonmaltreating families collecting AFDC also were recruited as comparisons. With written consent, the comparison group's nonmaltreatment status was verified through the state child abuse registry. The samples were comparable on most demographics: child's age, gender, and race; number of adults in the home; family income; and family education level. However, the maltreated sample had significantly more children per family, more years on AFDC, and more mothers with partners. Because these variables did not correlate with the dependent variables, they were not controlled for. The samples also were comparable on receptive vocabulary (Peabody Picture Vocabulary Test—revised; Dunn & Dunn, 1981).

#### Procedure

Each child was individually told the beginning of 10 stories, 1 at a time, with the examiner speaking in different voices for each character, moving the dolls and the props around as though in a play, and presenting each challenging family situation with dramatic inflections. The child was then asked to complete the stories. An initial story about a birthday party, not included in coding or analyses, was used to establish rapport and to familiarize the child with the procedure. The race of the doll family and the gender of the child dolls were matched to the race and gender of each participant. The 10 narrative story stems were always administered in the same order by one of two female examiners in a session lasting approximately 45 min. All of the sessions were videotaped through a one-way mirror. The narrative story stems were taken from the MSSB (Bretherton et al., 1990). The MSSB story stems used, including themes of injured children and parents fighting, were Nap, New Horse, Moral Dilemma (Bathroom Shelf), Exclusion, Cooking (Hot Gravy), Parent Argument (Lost Keys), Grocery Store (Stealing), Family Outing, Bicycle, and Prohibition (Cookies). For scripts, see Buchsbaum, Toth, Clyman, Cicchetti, and Emde (1992).

#### Measures

Coding manuals. The MacArthur narrative coding manual (Robinson, Mantz-Simmons, Macfie, & the MacArthur Narrative Group, 1992) was used to code portrayals of parental, child, and participant responses to relieve distress using the empathy/helping category, which is defined as acting to relieve children's distress. The narrative emotion coding manual (Warren, Mantz-Simmons, & Emde, 1993) was used to code role reversal using the inappropriate parental role, which is defined as a child acting in a parental way toward his or her parent by acting to relieve distress or by controlling or disciplining the parent. Examples include: (a) parental response to relieve distress: Mother character gets ice for a child character who has burned her finger, (b) child response to relieve distress: Child character gets a Band-Aid for sibling, (c) participant response to relieve distress: Participant insists that he or she give a child character a Band-Aid rather than have one of the story characters do it, and (d) role reversal: Child character tells father to stop yelling at mother.

Scoring. Presence or absence of parental, child, and participant responses to relieve distress and role reversal were scored for each narrative and then summed across narratives, giving a maximum score of 10 for each code. Codings were completed by two authors of the MacArthur narrative coding manual (Robinson et al., 1992), one of whom was also an author of the narrative emotion coding manual (Warren et al., 1993). Both coders were unaware of maltreatment status and of hypotheses to be tested. One coded 20% of the sample for reliability purposes, and the other coded the entire sample. Reliabilities were assessed using kappas (Cohen, 1960). For empathy/helping,  $\kappa = .83$  (93% agreement), and for role reversal,  $\kappa = .73$  (97% agreement).

## Results

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The analyses were designed to move from maltreated versus nonmaltreated group differences to successively closer examinations of the differential impact of maltreatment subtypes. A multivariate analysis of variance (MANOVA) was conducted to assess the effect of maltreatment status and gender on parental, child, and participant responses to relieve distress and role reversal in the full sample (N = 107). As predicted, the MANOVA revealed an overall significant effect for maltreatment, Wilks's approximate F(4, 100) = 4.18, p < .01. Moreover, univariate F tests were significant in the direction hypothesized: Maltreated children depicted significantly fewer parental responses to relieve distress than did nonmaltreated children, F(1, 103) = 5.97, p < .05(maltreated M = 0.74, SD = 0.87; nonmaltreated M = 1.26, SD = 1.20); maltreated children portrayed significantly fewer child responses to relieve distress than did nonmaltreated children. F(1, 103) = 5.69, p < .05 (maltreated M = 0.96, SD = 0.66) nonmaltreated M = 1.30, SD = 0.67); and maltreated children portrayed significantly more participant responses to relieve distress than did nonmaltreated children, F(1, 103) = 3.73, p = .05(maltreated M = 0.21, SD = 0.52; nonmaltreated M = 0.04, SD = 0.19). Maltreated children as a whole did not depict more role reversal than did nonmaltreated children, F(1, 103) = 2.09, p = .15 (maltreated M = 0.58, SD = 0.71; nonmaltreated M = 0.37, SD = 0.49). Hypotheses concerning gender were not confirmed. Girls did not represent significantly more responses to relieve distress than did boys.

To determine whether being abused (physically, sexually, or both, inflicted, in most cases, in conjunction with neglect) versus neglected (deficits in care with no abuse) influenced depictions of parental, child, and participant responses to relieve distress and role reversal, a second MANOVA was carried out in the full sample (N = 107). This analysis revealed an overall significant difference for abused, neglected, and nonmaltreated subgroups, Wilks's approximate F(8, 204) = 3.21, p < .01. Separate univariate F tests showed significant effects for the abused, neglected, and nonmaltreated subgroups on parental responses to relieve distress, F(2, 104) = 3.04, p = .05; child responses to relieve distress, F(2, 104) = 4.65, p = .01; participant responses to relieve distress, F(2, 104) = 3.36, p < .05; and role reversal, F(2, 104)= 2.95, p = .05. Individual t tests were used to test hypothesized abused versus neglected group differences. As predicted (a) the neglected group portrayed fewer child responses to relieve distress (M = 0.71, SD = 0.56) than did the nonmaltreated children (M = 1.30, SD = 0.67), t(46) = 3.21, p < .01, and than did theabused group (M = 1.05, SD = 0.68), t(78) = 2.03, p < .05; (b) the abused group depicted more participant responses to relieve distress (M = 0.27, SD = 0.58), than did the nonmaltreated children (M = 0.04, SD = 0.19), t(78.96) = -2.78, p < .01, and than did the neglected group (M = 0.05, SD = 0.22), t(77.71)= 2.50, p = .01; and (c) the abused group portrayed more role reversal (M = 0.66, SD = 0.73) than did the nonmaltreated children (M = 0.37, SD = 0.49), t(72.27) = -2.16, p < .05. Because hypotheses had not been advanced for differences between the abused and neglected groups on parent responses to relieve distress, Duncan post hoc tests (p < .05) were conducted. They revealed that both the abused (M = 0.76, SD = 0.84) and the neglected (M = 0.67, SD = 0.97) groups depicted significantly

fewer parental responses to distress than did nonmaltreated children (M = 1.26, SD = 1.20).

The impact of the overlapping dimensions of presence or absence of each subtype on parental, child, and participant responses to distress and role reversal in the full sample (N = 107) was tested using t tests. As predicted, children who had experienced physical abuse portrayed more role reversal (M = 0.69, SD = 0.76) than did those who had not (M = 0.38, SD = 0.52), t(87.67) = -2.44, p = 0.58.01. Although abused children as a whole portrayed more participant responses to relieve distress (reported above), as predicted, it was found that it was those who had experienced physical abuse (M = 0.25, SD = 0.56) who depicted marginally more participant responses than did those who had not (M = 0.08, SD = 0.35), t(81.69) = -1.82, p = .07, rather than those who had experienced sexual abuse (M = 0.30, SD = 0.64), compared with those who had not (M = 0.13, SD = 0.40), t(27.06) = -1.24, p = .22. Although the following was not hypothesized, children who represented both role reversal and participant responses to relieve distress (n = 9) were all sexually (n = 4) or physically (n = 7)abused, or both,  $\chi^{2}(2, N = 107) = 7.99, p = .01$ . In post hoc findings within the maltreated sample (n = 80), child responses to relieve distress were correlated with two of the overlapping dimensions of maltreatment: the presence of physical abuse, r = .27, p < .05, and mother as perpetrator, r = .28, p < .05.

#### Discussion

In their story completions, as hypothesized, maltreated children represented both parents and children as responding less often to relieve distress in children, compared with nonmaltreated children. However, also as anticipated, maltreated children broke the narrative frame and stepped in more often to relieve distress in child characters themselves. Contrary to expectations, girls did not depict more responses to relieve distress than did boys. The effects of low SES plus maltreatment may have lowered the number of such responses compared with middle-SES samples, so that normative gender differences were attenuated.

However, the maltreatment subgroups showed different patterns. Both abused children (sexually or physically, or both; most also neglected) and neglected children (without sexual or physical abuse) depicted parents as responding less often to relieve distress in children than did nonmaltreated children. Furthermore, neglected children, as hypothesized, portrayed children responding less often to relieve distress in other children than did the abused or the nonmaltreated children. Also as predicted, it was the abused children who interjected themselves more often to relieve distress in child characters than did the nonmaltreated children or the neglected children. Moreover, as anticipated, it was the abused children who portrayed more role reversal than did the nonmaltreated children.

Four overlapping maltreatment variables were examined in the full sample, and, as hypothesized, physical abuse was associated with role reversal and with children interjecting themselves into the story to relieve children's distress. Within the maltreated sample alone, in a post hoc finding, child responses to relieve distress were associated with being a victim of physical abuse or being a victim of a mother who perpetrated more kinds of maltreatment. Future research on child relationships within maltreating families is needed to elucidate why this might be the case. It

would also be interesting to compare narrative representations of responses to distress and of role reversal with structured observations of the children with peers and parents.

That role reversal was associated with abuse-particularly with being a victim of physical abuse, and not with neglect—is consistent with the extant literature. Physically abused preschoolers may try to meet their parents' needs and stifle their own in a strategy aimed at avoiding further abuse. Indeed, maltreated toddlers, 35% of whom were physically abused, tended to inhibit verbal expression of negative affect and their physiological needs (Beeghly & Cicchetti, 1994). Furthermore, physically abused toddlers tried to meet their parents' needs by being more compulsively compliant and more insincerely cheerful than did neglected or nonmaltreated children (Crittenden & DiLalla, 1988). An alternative pathway to role reversal may stem from the atypical development of empathy. In their investigations of children of affectively ill parents, Zahn-Waxler and her colleagues hypothesized that when faced with a parent's pain along with the expectation that he or she should alleviate it, a child becomes overwhelmed by feelings of empathy and guilt. Empathy may then develop such that a child behaves as though parents' problems were his or her own, as has been found in high-conflict families (Zahn-Waxler et al., 1991; Zahn-Waxler & Kochanska, 1990). Further research is needed to clarify whether representations of role reversal are more likely to reflect empathic overinvolvement rather than a pragmatic strategy to avoid abuse.

The maltreated children showed an increased tendency to blur or to go outside of the narrative story frame (i.e., acting themselves as agents rather than using characters within the narrative). Inserting themselves into their stories to relieve distress of a child doll was associated with being maltreated generally and with being victims of sexual or physical abuse, or both (particularly physical), specifically. In addition to having difficulty maintaining boundaries between reality and what is imagined when fearful (Scarlett & Wolf, 1979), sexually and physically abused children are prone to dissociation (Putnam, Helmers, Horowitz, & Trickett, 1995), which may also be associated with impairment in distinguishing between reality and what is imagined (Putnam, 1995). Furthermore, sexually or physically abused children, or both, tend to be more impulsive than neglected children (Erickson et al., 1989). Additional research on evidence of dissociation in abused preschoolers' narratives, together with prospective longitudinal studies on the development of externalizing and internalizing disorders, including problems with impulsivity, would help to elucidate

It is interesting that in a post hoc finding, children who represented role reversal and who also stepped into their stories to relieve distress were all physically or sexually abused, or both, underscoring the atypical nature of these responses. By and large, neglect (without abuse) was associated with relative omission of acts to relieve distress, whereas abuse, especially physical abuse, was characterized by anomalous acts of commission. This differential style of response is consistent with differences in each group's experience of maltreatment and may reflect different pathways of development.

These different pathways of development might profitably be traced to quality of attachment with the caregiver in future prospective longitudinal research with maltreated infants, toddlers, and preschoolers. In normative samples, secure attachment in infancy relates to heightened sympathy to peers' distress in pre-

schoolers (Waters, Wippman, & Sroufe, 1979); avoidant attachment in infancy, by contrast, is associated with low levels of concern and helping and comforting behaviors in preschoolers (Kestenbaum, Farber, & Sroufe, 1989). Furthermore, disorganized attachment in infancy is associated with controlling behaviors, including role reversal in 6-year-olds (Main, Kaplan, & Cassidy, 1985).

If for neglected children who have not been sexually or physically abused, neither parents nor other children are represented as likely to respond to children in distress, then these neglected children may grow up relatively passive in the face of others' distress. If, however, for abused (particularly physically abused) children, parents are portrayed as unlikely to respond to children's distress, yet children may take on a role reversal with their parents, then the abused children may develop internal working models (Bowlby, 1973), associating relationships with the need to give care rather than to receive it (Cicchetti, 1989; West & Keller, 1991). Normative development appears to depend on the internalization of responsive parents without children being expected to assume the role of excessive responding to parents' needs. Role reversal may superficially simulate maturity; however, while feeling compelled to understand and care for others, maltreated children may not learn to meet their own needs. What is adaptive in the maltreating environment may prove to be maladaptive in the wider world (Cicchetti, 1991).

# References

- Barnett, D., Manly, J. T., & Cicchetti, D. (1993). Defining child maltreatment: The interface between policy and research. In D. Cicchetti & S. L. Toth (Eds.), Child abuse, child development, and social policy: Vol. & Advances in applied developmental psychology (pp. 7-73). Norward, NJ: Ablex.
- Beeghly, M., & Cicchetti, D. (1994). Child maltreatment, attachment, and the self system: Emergence of an internal state lexicon in toddlers at high social risk. *Development and Psychopathology*, 6, 5-30.
- Boszormenyi-Nagy, I., & Spark, G. M. (1973). Invisible loyalties: Reciprocity in intergenerational family therapy. Hagerstown, MD: Harper & Row.
- Bowlby, J. (1973). Attachment and loss: Vol. 2. Separation. New York: Basic Books.
- Bretherton, I., Oppenheim, D., Buchsbaum, H., Emde, R. N., & the MacArthur Narrative Group. (1990). MacArthur Story-Stem Battery. Unpublished manuscript.
- Buchsbaum, H. K., Toth, S. L., Clyman, R. B., Cicchetti, D., & Emde, R. N. (1992). The use of a narrative story stem technique with maltreated children: Implications for theory and practice. *Development and Psychopathology*, 4, 603-625.
- Cicchetti, D. (1989). How research on child maltreatment has informed the study of child development: Perspectives from developmental psychopathology. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 377-431). New York: Cambridge University Press.
- Cicchetti, D. (1991). Fractures in the crystal: Developmental psychopathology and the emergence of self. Developmental Review, 11, 271-287.
- Cicchetti, D., & Tucker, D. (1994). Development and self-regulatory structures of the mind. Development and Psychopathology, 6, 533-549.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. Education and Psychological Measurement, 20, 37-46.
- Crittenden, P. M., & DiLalla, D. L. (1988). Compulsive compliance: The development of an inhibitory coping strategy in infancy. *Journal of Abnormal Child Psychology*, 16, 585-599.

- Cummings, E. M., Hennessy, K. D., Rabideau, G. J., & Cicchetti, D. (1994). Responses of physically abused boys to interadult anger involving their mothers. *Development and Psychopathology*, 6, 31-41.
- Dean, A. L., Malik, M. M., Richards, W., & Stringer, S. A. (1986). Effects of parental maltreatment on children's conceptions of interpersonal relationships. *Developmental Psychology*, 22, 617-626.
- Dunn, L. M., & Dunn, L. (1981). The Peabody Picture Vocabulary Test—revised manual. Circle Pines, MN: American Guidance Service.
- Erickson, M. F., Egeland, B., & Pianta, R. (1989). The effects of maltreatment on the development of young children. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 647-684). New York: Cambridge University Press.
- Frodi, A. M., & Lamb, M. E. (1980). Child abusers' responses to infant smiles and cries. Child Development, 51, 238-241.
- Kestenbaum, R., Farber, E. A., & Sroufe, A. (1989). Individual differences in empathy among preschoolers: Relation to attachment history. *New Directions for Child Development*, 44, 51-64.
- Klimes-Dougan, B., & Kistner, J. (1990). Physically abused preschoolers' responses to peers' distress. *Developmental Psychology*, 26, 599-602.
- Main, M., & George, C. (1985). Responses of abused and disadvantaged toddlers to distress in agemates: A study in the day care setting. Developmental Psychology, 21, 407-412.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. Monographs of the Society for Research in Child Development, 50(1-2, Serial No. 209), 66-104.
- Manly, J. T., Cicchetti, D., & Barnett, D. (1994). The impact of subtype, frequency, chronicity and severity of child maltreatment on social competence and behavior problems. Development and Psychopathology, 6, 121-143.
- McCrone, E. R., Egeland, B., Kalkoske, M., & Carlson, E. A. (1994). Relations between early maltreatment and mental representations of relationships assessed with projective storytelling in middle childhood. *Development and Psychopathology*, 6, 99-120.
- Morris, M. G., & Gould, R. W. (1963). Role-reversal: A necessary concept in dealing with the "battered child syndrome." American Journal of Orthopsychiatry, 33, 298-299.
- Oppenheim, D., Emde, R. N., & Warren, S. (1997). Children's narrative representations of mothers: Their development and associations with child and mother adaptation. *Child Development*, 68, 127-138.
- Oppenheim, D., Nir, A., Warren, S., & Emde, R. N. (1997). Emotion regulation in mother-child narrative co-construction: Associations with children's narratives and adaptation. *Developmental Psychology*, 33, 284-294.
- Perry, B., Pollard, R., Blakley, T., Baker, W., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and "use-dependent" development of the brain: How "states" become "traits." *Infant Mental Health Journal*, 16, 271-291.
- Putnam, F. W. (1995). Development of dissociative disorders. In D. Cicchetti & D. J. Cohen (Eds.), Developmental psychopathology: Vol. 2. Risk, disorder, and adaptation (pp. 581-608). New York: Wiley.
- Putnam, F. W., Helmers, K., Horowitz, L. A., & Trickett, P. K. (1995).
  Hypnotizability and dissociativity in sexually abused girls. *Child Abuse and Neglect*, 19, 645-655.
- Robinson, J., Mantz-Simmons, L., Macfie, J., & the MacArthur Narrative Group. (1992). Narrative coding manual. Unpublished manuscript.
- Scarlett, W. G., & Wolf, D. (1979). When it's only make-believe: The construction of a boundary between fantasy and reality in storytelling. New Directions for Child Development, 6, 29-40.
- Steele, B. (1980). Psychodynamic factors in child abuse. In C. H. Kempe & R. E. Helfer (Eds.), *The battered child* (3rd ed., pp. 49-85). Chicago: University of Chicago Press.
- Toth, S. L., Cicchetti, D., Macfie, J., & Emde, R. N. (1997). Representa-

- tions of self and other in the narratives of neglected, physically abused, and sexually abused preschoolers. *Development and Psychopathology*, 9, 781-796.
- Trickett, P. K., & McBride-Chang, C. (1995). The developmental impact of different forms of child abuse and neglect. *Developmental Review*, 15, 311-337.
- Warren, S. L., Mantz-Simmons, L., & Emde, R. N. (1993). Narrative emotion coding. Unpublished manuscript.
- Warren, S. L., Oppenheim, D., & Emde, R. N. (1996). Can emotions and themes in children's play predict behavior problems? *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 1331-1337.
- Waters, E., Wippman, J., & Sroufe, L. A. (1979). Attachment, positive affect and competence in the peer group: Two studies in construct validation. Child Development, 50, 821-829.
- West, M. L., & Keller, A. E. R. (1991). Parentification of the child: A case study of Bowlby's compulsive care-giving attachment pattern. American Journal of Psychotherapy, 45, 425-431.
- Zahn-Waxler, C., Cole, P. M., & Barrett, K. C. (1991). Guilt and empathy: Sex differences and implications for the development of depression. In J. Garber & K. A. Dodge (Eds.), The development of emotion regulation and dysregulation (pp. 243-272). New York: Cambridge University Press.

- Zahn-Waxler, C., Cole, P. M., Richardson, D. T., Friedman, R. J., Michel, M. K., & Belouad, F. (1994). Social problem solving in disruptive preschool children: Reactions to hypothetical situations of conflict and distress. Merrill-Palmer Quarterly, 40, 98-119.
- Zahn-Waxler, C., & Kochanska, G. (1990). The origins of guilt. In R. A. Thompson (Ed.), Nebraska Symposium on Motivation: Vol. 36. Socioemotional development (pp. 183-258). Lincoln: University of Nebraska Press.
- Zahn-Waxler, C., Radke-Yarrow, M., Wagner, E., & Chapman, M. (1992).
  Development of concern for others. *Developmental Psychology*, 28, 126-136.
- Zahn-Waxler, C., Schmitz, S., Fulker, D., Robinson, J., & Emde, R. N. (1996). Behavior problems in 5-year-old monozygotic and dizygotic twins: Genetic and environmental influences, patterns of regulation, and internalization of control. *Development and Psychopathology*, 8, 103-122.

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