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Marital conflict, mother-son interaction, and sons' aggression with peers

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MARITAL CONFLICT, MOTHER-SON INTERACTION, AND SONS' AGGRESSION WITH PEERS

by

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The purpose of this research was to examine whether boys' aggression towards peers would be predicted by parental marital conflict and negative mother-son interaction. While previous investigations had linked marital conflict with mother-son negativity, and mother-son negativity with son's aggression towards peers, this project sought to extend earlier work by linking all three constructs simultaneously.

Subjects were 107 mother-son pairs recruited from a local school system. Sons ranged in age from 7-10. Mothers were both married (n=84) and divorced (n=23). Marital conflict was measured through mothers' responses to a marital conflict questionnaire, while mother-son negativity was measured through the observation and coding of mother-son interaction, during a structured interactional task. Sons' teachers responded to a questionnaire assessing the sons' aggression within the peer context.

A proposed path model and ANOVA were both tested, not only for the entire sample, but also separately for married and divorced subjects. While none of the path models or ANOVA's reached significance, it is noted that path model results were markedly different for the married vs. divorced subjects.

Results are discussed with respect to the differential implications which marital status, though not originally a major variable of interest, might have for family processes. Conceptual, statistical, and measurement issues pertaining to this (and similar) research are presented, as are suggestions for further research.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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CHAPTER I

STATEMENT OF THE PROBLEM

The establishment of positive peer relations is a critical psychosocial task for school-aged children (Cohn, Patterson, & Christopoulos, 1991). Poor peer relations, particularly when accompanied by aggressive behavior, have been shown to place a child at risk for delinquency and school drop-out, as well as numerous other difficulties in adolescence, early adulthood, and beyond (Coie, Dodge, & Kupersmidt, 1990; Kupersmidt, Dodge, & Coie, 1990; Parker & Asher, 1987).

One hypothesis regarding the linkage between poor peer relations and later child adjustment is that peers contribute directly to a child's development of negative outcomes; in other words, through negative interaction in the peer-group, virtually any child is at risk for being socialized into aggressive peer interaction (Kupersmidt et al., 1990). Conversely, a second hypothesis is that poor peer relations are manifestations of continuously present, underlying interactional patterns, which children bring with them to the peer context (Kupersmidt et al., 1990; Parker & Asher, 1987). It is this latter hypothesis upon which this particular research is based.

Interconnectedness of Family and Peer Systems

Where would such underlying patterns of interaction develop, if not in the peer context itself? Research shows that children's peer relations are strongly predicted by interpersonal processes within their families of origin; clearly, children learn and adopt many of their social interactional patterns from their relationships with parents and significant others (Parke, Cassidy, Burks, Carson, & Boyum, 1992; Pettit, Dodge, & Brown, 1988). Not surprisingly, then, the interconnectedness of the family and peer systems has recently become a major focus of child development research (Ladd, 1992). Since the turn of the century, the peer group and the family have each been acknowledged as important contexts within which children's social development occurs (Renshaw & Parke, 1992). Yet, these two contexts were studied largely by different groups of researchers; each group accumulated more detailed knowledge about its respective domain than about the linkages between the two. Currently, a growing body of research is beginning to illuminate those aspects of family functioning which appear to be key contributors to children's peer relationships.

Conceptualizing the Linkage Between Family Processes and Children's Peer Relations

Family researchers, in their efforts to specify exactly how family functioning affects children's peer

relationships, have hypothesized either "direct" or "indirect" pathways of influence (Ladd, 1992). "Direct" pathways of influence, while not a focus of the proposed study, are those by which parents actively control and manipulate children's peer relationships (Ladd, 1992).

"Indirect" pathways of influence, in contrast, are those by which family processes develop the child's behavioral and interactional tendencies, with the child subsequently carrying these tendencies into his/her interactions with peers (Hartup, 1979; Ladd, 1992). Such indirect influences, unlike the direct influences already described, do not involve parents' efforts to structure children's peer interactions. Representing a significant portion of recent family-peer research, these "indirect" effects include intra-family processes such as parent-child attachment, parent-child interactions, disciplinary practices, parental beliefs and attitudes, and family environments, which can be expected to influence children's peer relations through their effects on the children themselves (Ladd, 1992). Two indirect influences which have received considerable attention in the peer-relations literature are global parent-child attachment, and parent-child interaction.

Parent-child attachment. One major tradition is built upon Bowlby's (1969) work addressing mother-child attachment, and the implications of attachment quality for

child adjustment. Attachment theory postulates that the process of emotional bonding between mother and child underlies the formation and maintenance of children's "internal working models." These cognitive models are sets of relationship assumptions and expectations which a child generalizes into other relationships and settings. Hence, attachment literature refers primarily to emotional and cognitive processes in parent-child relationships.

Parent-child interaction. A second tradition of research on "indirect" effects concerns itself with more "molecular" aspects of parent-child behavioral interaction. Having received relatively little attention compared to the "attachment" tradition, such a "molecular" approach attempts to identify the specific qualities and aspects of parent-child interaction which impinge upon children's behavior in peer settings (Parke, MacDonald, Beitel, & Bhavnagri, 1988). The assumption behind this type of approach is that children are socialized through face-to-face interaction with family members, and that their socialization generalizes into the peer context (Asher, Renshaw, & Hymel, 1982). One strategy for molecular research employs direct observation of parents and children (either in laboratory or naturalistic settings), with observed interaction being broken down into discrete individual behaviors, including verbalizations and affective displays. This type of analytic process allows for the observation and recording of targeted behaviors

and/or interactional sequences, data which can then be analyzed in relation to other variables of interest. It has been argued that the molecular study of parent-child interaction needs increased attention, so that researchers will be more able to delineate those specific parent-child processes which most powerfully impinge upon children's peer competence (Parke et al., 1988; Putallaz & Heflin, 1990).

The Broader Family Context: Marital Conflict

While it is important to acknowledge the role of parent-child relationships in the ontology of children's social outcomes with peers, parent-child relationships do not develop in a vacuum. Much recent research is marked by the recognition that the parent-child relationship is embedded within a larger system of interrelated family relationships. This contextual approach to studying parent-child processes contrasts with traditional developmental approaches, which isolated the mother-child dyad as a primary predictor of child outcomes (Parke et al., 1988). Family researchers are acknowledging that dyadic family interactions (such as those between parent and child) are influenced by whomever else is present in the family system. "What appears to be a parental caretaking effect . . . may actually reflect a coordinated system of relationships among family members" (Bryant & DeMorris, 1992). Restated, portraying family life as comprised of isolated dyads is not only inaccurate, but also prone to overlooking the interplay

between particular dyads and other family members or relationships (Bryant & DeMorris, 1992).

The marital relationship is one specific aspect of the family context considered to be a salient factor which impacts upon other family relationships and individual outcomes. Virginia Satir (1964) described the marital relationship as "the axis around which all other family relationships are formed," and the marital partners as "the architects of the family". What, then, is the significance of marital conflict for parent-child relationships?

Effects of marital conflict on parent-child relationships. Since marital conflict and parent-child relationships were first studied as interdependent, there has been widespread agreement among family researchers that disturbance in the marital relationship is highly predictive of increased negative parent-child interaction and child adjustment problems (Cummings, Pellegrini, Notarius, & Cummings, 1989; Grych & Fincham, 1990; Reid & Crisafulli, 1990). Increasingly, though, systems-oriented investigations into this linkage indicate that the effects of marital conflict on parent-child functioning might not be quite so consistent as previously thought (Barnes, 1989; Bell & Bell, 1979, 1982; Engfer, 1988). Though parent-child functioning is often strained in the presence of interparental strife, the relationship between the child and at least one parent sometimes seems to increase in closeness and cohesion.

Instead of reducing the nature of this (marital to parent-child) linkage to a level of certainty, the growing body of empirical evidence has highlighted the complexity and variability of the family system, and of the interrelationships between its subsystems (Reid & Crisafulli, 1990). From a systems perspective, processes occurring in the marital subsystem inevitably exert effects on the parent-child subsystem; the nature of these effects, though, may be highly variable from family to family, even from child to child.

Beyond The Family: Linking Marital Conflict with Children's Peer Relations

Given the evidence that parent-child relationships affect children's peer relations, and that parental marital conflict affects parent-child relationships, family researchers are faced with subsequent questions which are as challenging as they are important. How, and under what circumstances, does marital conflict predict poor peer relations? What are the parent-child processes upon which the marriage-to-peer linkage is contingent?

By providing answers to these questions, researchers will be in a position to not only suggest interventions for enhancing children's peer relationships, but also to prevent or decrease the occurrence of negative adolescent and early-adulthood outcomes which tend to be predicted by poor earlier relationships with peers. Yet, these questions

remain virtually unaddressed in family research literature (Ladd, 1992).

CHAPTER II

REVIEW OF LITERATURE

The Developmental Significance of Poor Peer Relations

Among factors which have been shown to place children at risk for later negative outcomes, poor peer relations appear to have particularly negative implications. Tracing children's development either forward from childhood, or retrospectively from adulthood, research has shown poor peer relations to increase the likelihood of numerous negative outcomes in adolescence, early adulthood, and beyond (Kupersmidt et al., 1990).

Research on Peer Status

One vein of research concerned with children's peer relations examines children's "peer status." Typically assessed through peer nominations, peer status refers to the degree of acceptance or rejection which a given child experiences in his/her peer group. "Rejected" status has been shown to be not only quite stable during childhood, but also predictive of later negative outcomes, including delinquency and school withdrawal (Coie & Dodge, 1983; Kupersmidt & Coie, 1985).

What child characteristics appear to place children at risk for peer rejection? A particularly strong predictor of a given child being rejected by his/her peers is the

aggressiveness of that child's behavior with his/her peers (Coie, Dodge, & Coppotelli, 1982). Peer-rejected children have in fact been shown to be significantly more aggressive and overtly hostile than their schoolmates (Coie & Kupersmidt, 1983; Coie et al., 1990; Hymel & Rubin, 1985), suggesting that such behavior is highly aversive to peers, and likely to alienate those children who frequently employ it. Therefore, understanding the etiology of children's aggressive behavior in the peer context is becoming a highly important undertaking of family-peer research.

Children's Aggression in Peer Relations

Children's use of aggressive behavior in peer settings is indeed a particularly foreboding element of disturbed peer relations. Observed to a greater degree in boys than in girls, marked differences in childhood aggression have been observed in children as young as three years old (Olweus, 1979). Considerable research shows that childhood aggression tends to remain highly stable over time, and predictive of other negative outcomes. For example, boys' aggression with peers has been shown to predict greater incidences of general mental health problems (Cowen, Pederson, Babigan, Izzo, & Trost, 1972), school withdrawal (Kupersmidt et al., 1990), and delinquent/criminal behavior (Farrington, 1985; Huesmann, Eron, Lefkowitz & Walder, 1984; Kupersmidt, 1983). Parker and Asher (1987), likewise, found this link between childhood aggression and

subsequent criminality to be particularly strong. The stability of children's aggressive behavior has even been likened to the stability of children' scores on intelligence tests (Olweus, 1979), attesting to the fact that aggressive behavior is far more than a "phase" for many children.

Such findings clearly indicate that aggressive behavior with peers, and the disruption which it leads to in children's peer relations, is far more than a management problem for parents and teachers. These experiences represent, for many children, developmental trajectories which will detrimentally effect not only their educations, but also their future social/family relationships, and even their communities. Identifying the antecedents of peer aggression is one of the most important tasks facing family researchers, and one which has enormous implications for prevention and intervention. Family functioning, and more specifically the quality of parent-child relationships, has thus far become recognized as perhaps the most influential antecedent of aggressive peer relations.

"Indirect" Family Antecedents of Aggressive Peer Relations: Parent-Child Relationships

Children's aggression towards their peers has certainly generated much concern and interest on the part of researchers, who have sought to identify those factors which increase the likelihood of this troublesome phenomenon. A

significant body of research has begun to relate children's behavior with their peers to their family experiences, recognizing that families constitute the foundation of children's social development. Parent-child relationships, in particular, have received considerable attention as precursors of children's adjustment in the peer context, including the ongoing use of aggressive behavior.

Parent-Child Relationships and Child Adjustment

Dating back to Baumrind's (1967, 1973) landmark research on parenting styles and subsequent child behavior, parental hostility and lack of warmth have been linked with greater degrees of negative child adjustment. Based on teachers' reports and behavioral observations of nursery school children, Baumrind identified a balance of parental warmth and control as an essential precursor of children's positive interactional styles with adults and peers. Those parents whom she rated as balancing sufficiently high degrees of warmth and control were termed "Authoritative;" parents who were rated as high-warmth and low-control were classified "Permissive;" finally, parents displaying low levels of warmth and high levels of control were referred to as "Authoritarian." Specifically, children of "Authoritative" parents were found to exhibit greater degrees of non-disruptive, independent, and purposive behavior than were children of "Permissive" or "Authoritarian" parents (Baumrind, 1973). The primary

purpose of Baumrind's (1967, 1973) work was not to examine the linkages between family and peer contexts per se, but instead to determine the differential effects of parenting styles on children's adjustment (Renshaw & Parke, 1992). Yet, such work provided a clear indication that parents' behavior towards their children has strong implications for children's subsequent adjustment.

One of the most enduring legacies of Baumrind's research is indeed the isolation of specific parenting variables, warmth and control, as critical determinants of child outcomes. Complementing Baumrind's research, later studies have repeatedly associated the absence of parental warmth and affection with children's conduct problems, particularly when accompanied by the presence of parental negativity, hostility, and aggression directed towards the child. Just as Baumrind demonstrated this association for younger children, these same conditions have also been found to predict aggressive and acting-out behavior by pre-adolescent (Jouriles,, Barling, & O'Leary, 1987) and adolescent (Simons, Robertson, & Downs, 1989) children. Furthermore, parents of aggressive children have been shown to employ more physical punishment with these children (Eron, 1982), and to be more aggressive in general (Bandura & Walters, 1959; Becker, Peterson, Hellmer, Shoemaker, & Quay, 1959).

How can it be explained that children who display

appropriate social behavior usually have been parented with a balance of warmth and control, while socially aggressive children tend to have parents whose predominant parenting styles are marked by a lack of warmth, and ineffective or absent parental control (Maccoby & Martin, 1983)?

A social-learning perspective offers a plausible explanation, namely that balanced parental warmth and control provide for the child an effective model of positive social behavior, thereby giving him/her the skills to interact effectively with others (Brody & Shaffer, 1982; Putallaz & Heflin, 1990). Following this line of reasoning, parents who are rejecting and hostile model maladaptive social skills for their children, who then employ these negative skills themselves. The transmission process can also be interpreted through an affectively oriented perspective, in that positive (or negative) parent-child relationships instill general affective orientations in children, who then carry these positive (or negative) affective tendencies into their behavior and interactions (Putallaz & Heflin, 1990). Children who are on the receiving end of parental hostility, in this sense, carry negative emotions such as anger, resentment, and frustration into their behaviors and interactions.

Essentially combining these two perspectives in his "coercion" model, Patterson (1982) proposes that children develop aggressive interactional styles through parent-child

interaction, when the latter is marked by ineffective parenting strategies and repeated cycles of parent-child coercive interaction. This model has been especially important in research linking parent-child interaction with children's peer relations, and will be more fully described at a later point.

Parent-Child Interaction and Children's Peer Relations

As research has illuminated the factors linking parent-child interaction and child adjustment, the scope of child-adjustment studies has widened beyond children's outcomes in the home setting, to include children's behavior in the peer context. In fact, research specifically addressing parent-child interaction and children's peer relations began to consistently demonstrate a strong association, and to show that this association exists for children of varying ages and developmental levels (Rutter, 1980). Peer-status research, for example, has shown that rejected third and fourth-graders report lower levels of companionship with their parents (Patterson, 1990). Mothers of rejected children have been observed as more negative and controlling in parent-child interaction, compared to mothers of peer-accepted children (Putallaz, 1987). Conversely, parents of peer-accepted children have been observed as employing greater levels of positive discipline, compared to parents of rejected children (Dishion, 1990)

Studies examining parental behavior and peer competence

(vs. status) have yielded comparable results. MacDonald and Parke (1984), in their study of 3-4 year old children and their parents, identified specific parental behaviors which were associated with children's prosocial behavior with peers. Specifically, fathers' physical play and elicitation of positive affect, coupled with mothers' verbal engagement, were correlated with children's positive peer-directed behavior. Conversely, when parents were more directive, while simultaneously lacking warmth and engagement, greater degrees of negative peer interaction were observed. Putallaz (1987) essentially replicated these findings, in her study of mother-child play and children's peer interaction. Based on her sample of first-graders, more positive child-peer interaction was associated with greater degrees of maternal "agreeable" behavior (less demanding, more expression of positive affect). Negative interaction with peers was associated with "disagreeable" maternal behavior (more demanding, less expression of positive affect). Adolescents who have been rejected by their peers have been found to be engaged in parent-child relationships lacking warmth and concern (Simons, Robertson, & Downs, 1989).

Parent-Child Interaction and Children's Aggressive behavior with Peers

With the linkage between parent-child relationships and children's peer relations having been quite well

established, additional studies focused more specifically on the linkage between parent-child interaction and children's use of aggression with peers. Some of this research focused on fairly young children, suggesting that parent-child interaction and children's aggressive behavior towards peers are associated quite early in children's social development. For example, mothers' increased use of restrictive and punitive discipline, coupled with their endorsement of aggressive problem-solving strategies, were found to be correlated with teachers' ratings of 4-5 year-old children's classroom aggression (Pettit et al., 1988). Similarly, Gottman and Katz (1990) found that parental behavior rated as "cold" and "angry" predicted higher levels of 4-5 year old children's angry and non-compliant behavior with peers. The association between parent-child conflict and child aggression in the peer context has been shown to apply for older children as well. Forehand, Long, Brody, and Fauber (1986) found that increased levels of mother-adolescent and father-adolescent conflict predicted greater degrees of teacher-reported conduct problems for 11-14 year old children.

Coercion theory (Dishion, 1990; Patterson, 1982) has played an increasingly prominent role in explaining the linkage between parent-child interaction and children's aggressive behavior with peers. Adapted from Behavioral and Social Learning approaches, Coercion theory posits that

through certain repetitive cycles of parent-child interaction, children learn aversive interactional styles which they generalize into other settings. Almost exclusively studied in mother-son dyads, which are believed to be at particular risk for aggressive interaction, coercive cycles develop when a child's demanding behavior is met by an aversive parental response, which the child then follows with escalated levels of demanding behavior, met by an even more aversive parental response, and so on. At some point in this process, the parent abandons his/her attempts to rebuff the child, instead giving in to the child's demands. The parent is negatively reinforced by withdrawing from the cycle, in the sense that the child's demanding behavior (which was aversive to the parent) ceases at least temporarily; simultaneously, the child's aversive behavior is positively reinforced, having been granted the attention or other satisfying outcome that he/she was seeking from the parent. The fact that both participants are reinforced, though for different reasons, increases the likelihood of similar cycles occurring again and again. As coercive cycles are repeated over and over, the child not only learns that his/her aversive and aggressive behavior is reliably effective in securing desirable outcomes, but also becomes highly practiced in the use of such strategies. Almost inevitably, the child generalizes this inclination towards forceful and aggressive behavior into his/her relationships

in the peer context.

The "coercion" perspective has received considerable empirical support, particularly when linked to children's peer relations. Greater degrees of observed coercive parent-child interactions have been found to predict correspondingly higher levels of children's peer-directed aggressive behavior (Pettit, Harrist, Bates, & Dodge, 1991). Providing especially strong support for the model proposed in this study, Dishion (1990) found that higher levels of parent-child coerciveness were associated with a greater likelihood of children's "rejected" peer status, but that this linkage was mediated by children's aggression towards peers. Importantly, this finding served as evidence that aggression and peer rejection might not simply be correlates; instead, children's peer-rejected status appeared to be an artifact of their aggressive behavior in the peer context, thus underscoring the developmental significance of aggression for children's social outcomes.

The evidence linking parent-child relations and child aggression with peers, then, is impressive. Logically complementing this documented association, though, was an inquiry into the antecedents of parenting behavior. Through the mid-1980's, <u>why</u> parents behave the way they do had been researched far less, in fact, than the consequences of their parenting behavior (Belsky, 1984). Therefore, it behooved family researchers to examine the family context with an

additional question in mind: what contextual factors increase the likelihood of negative parent-child interaction?

Marital Conflict as a Predictor of Negative Family Outcomes

The parental marital relationship has been identified as a particularly important source of contextual stress and/or support for parents, one which must be addressed in order to understand parenting and its influence on child development (Belsky, 1984). In particular, research examining the implications of marital conflict for other family outcomes provides significant insight into how marital functioning sets the stage for parent-child relationships and subsequent child adjustment. Marital conflict, in this sense, is being distinguished from the more global construct of marital dissatisfaction (Grych & Fincham, 1990); overtly expressed marital conflict is more strongly predictive of negative parent-child relationships and child adjustment than is marital dissatisfaction (Hetherington, Cox & Cox, 1982; Long, Forehand, Fauber, & Brody, 1987; Porter & O'Leary, 1980).

Marital Conflict and Child Adjustment

The predictive significance of marital processes to child adjustment was made evident through much of the 1970's research involving children of divorce. Initial studies documented the association between parental divorce and

increased incidences of child adjustment problems (Hetherington, 1972; Hetherington, Cox, & Cox, 1978). Also becoming apparent, though, was that parental divorce is often preceded, accompanied, and followed by interparental conflict. Thus, research questions began to address ongoing interparental processes rather than marital status per se. Results confirmed that continued interparental conflict was indeed a better predictor of child adjustment than was intact vs. divorced family structure. For example, the quality of post-divorce family relationships was found to mediate the effects of parental divorce on children (Hess & Camara, 1979). Similarly, children from fairly non-conflictual divorces adjusted better than children from divorces involving continued parental conflict, and even better than children from conflict-ridden married homes (Hetherington, Cox, & Cox, 1976; Kelly & Wallerstein, 1979). Therefore, family researchers have increasingly begun to consider ongoing <u>conflict</u> (a family process) as a more significant predictor of negative family outcomes than family form (Emery, 1982; Kelly & Wallerstein, 1976). Indeed, parental marital conflict has been demonstrated to increase the likelihood of both negative parent-child interaction and child adjustment problems (Belsky, 1981; Goldberg & Easterbrooks, 1984).

Accompanying this conceptual shift from marital status to ongoing processes was another important realization:

children living in intact families may be equally troubled by marital conflict, relative to children in divorced families. Illustrating this point, Rutter (1980) compared the adjustment of children raised in, and those removed from, their highly conflictual nuclear families. He found that children from highly conflictual homes adjusted better, when relocated to harmonious surrogate families, than did children who continued to live in their high-conflict families of origin. The association between marital conflict and child behavior problems, within intact families, has been indicated for toddlers (Jouriles, Pfiffner, & O'Leary, 1988), children aged 3-7 (Bond & McMahon, 1984), pre-teens (Christensen, Phillips, Glasgow, & Johnson, 1983), and teenagers (Peterson & Zill, 1986).

Summarizing the findings of thirty-three studies (published through 1988) relating marital conflict to child behavior problems, Reid and Crisafulli (1990) posed four general hypotheses concerning the relation between these two constructs. First, the relationship between marital conflict and child adjustment problems is positive: greater degrees of marital conflict are associated with greater levels of negative child behavior. Second, this relationship is stronger for boys than for girls. Third, this relationship is stronger when based on parental reports of child behavior (vs. independent reports by teachers, researchers, etc.). Fourth, this linkage is stronger for

clinic (vs. non-clinic) samples. Clearly, with the exception of organic disorders which might predispose a child towards inappropriate behavior, parental marital conflict is a factor which must be considered when attempting to explain children's behavior at all ages.

Marital Conflict and Parent-Child Relationships

Given the parallel findings that marital conflict and parent-child relationships are each closely intertwined with children's behavioral outcomes, a closer examination of the linkage between parental marital conflict and parent-child relationships is warranted. Research on the contextual antecedents of parent-child relationships is grounded in the assumption that parental behavior towards children is not simply the result of deliberate day-to-day parenting decisions, but instead affected by processes operating elsewhere in the family system. Marital conflict has been identified as a major source of contextual stress for parents, and thus as a primary determinant of the parent-child relationship (Belsky, 1984).

"Direct" and "Indirect" hypotheses have been proposed to account for this linkage. The "indirect" hypothesis assumes that marital conflict impacts upon parents' individual characteristics (i.e., self-efficacy, emotionality, etc.), which in turn affect a parent's interaction with a child (Stevenson-Hinde, 1988). According to the "direct" hypothesis, though, the marital relationship impinges directly on the parent-child relationship

(Easterbrooks & Emde, 1988); such a conceptualization is consistent with a "systems" approach, which views family relationships as interdependent, and individual characteristics as essentially relational in origin (Stevenson-Hinde, 1988). Research suggests, in fact, that parental marital conflict alters parenting behavior in three ways (Fauber, Forehand, Thomas, & Wierson, 1990). First, marital conflict sometimes contributes to less effective and consistent parenting, possibly as a manifestation of more general interparental disagreement. Second, marital conflict sometimes leads to increased parental control, especially for the parent who is attempting to secure and solidify an alliance with one or more children. Third and conversely, a maritally-conflicted parent may withdraw from or even reject a child, particularly if that child has aligned him/herself with the other parent.

Considering the findings which link both marital conflict and negative parent-child interaction with greater levels of negative child adjustment, then, an association between marital conflict and negativity in parent-child relationships would be expected. Indeed, higher levels of marital conflict have been linked with greater negativity in parent-child interaction (Brody, Pellegrini, & Sigel, 1986; Hess & Camera, 1979; O'Leary & Emery, 1984). Conversely, parents observed as behaving more harmoniously with each other have also been observed to express more affection and

approval to their children (Easterbrooks & Emde, 1988).

Marital Conflict, Parent-Child Relationships, and Child Adjustment: Defining Alternative Pathways

The relationship between marital conflict and parent-child relationships is far more complex, though, than these studies suggest; marital conflict cannot be assumed to exert consistently direct and negative effects on parent-child relationships, from family to family (Reid & Crisafulli, 1990). Almost a fourth of the fathers and half of the mothers sampled by Hetherington et al. (1978) reported that parent-child relationships had actually improved during and after the divorce process.

A number of investigations illustrate how marital conflict might impact differentially upon parent-child relationships, from family to family. Engfer (1988), for example, found empirical support for her "spill-over" and "compensatory" hypotheses. In the "spill-over" process, the mother directly carries the negativity of her marriage to her relationship with her child. The "compensatory" process, in contrast, predicts greater mother-child closeness as a result of marital conflict; Engfer's (1988) interpretation of this latter finding is that some mothers in conflictual marriages may seek greater closeness with a child, to compensate for the closeness and affection missing in the marriage. Marital conflict, then, sometimes leads to

more conflictual parent-child interaction, and sometimes to more harmonious parent-child interaction as well.

Researchers espousing a "family systems" orientation have essentially replicated these findings, using different terminology. The family systems concept of "triangulation" has been used to illustrate the very same processes elucidated in Engfer's work (Barnes, 1988; Bell & Bell, 1979, 1982). When applied to the marital conflict and parent-child linkage, triangulation implies that one or both parents focus their energies on a child, as a way of diverting stress from their marriage, and avoiding direct interspousal conflict. Triangulation, in some cases, has been shown to closely parallel Engfer's (1988) "spill-over" hypothesis; faced with marital discord, both parents sometimes focus their negative attention on a child, thus creating conflictual parent-child interaction (Barnes, 1988; Bell & Bell, 1979, 1982). At other times, triangulation involves a more "compensatory" process between at least one parent and a child; instead of focusing negative attention on the child, the parent(s) might invest additional warmth and positivity into the parent-child relationship. Such closeness with at least one parent can provide a protective "buffering" effect (Hetherington, 1979; Rutter, 1971, 1980) which shields a child from the detrimental effects of interparental strife.

Even in this latter scenario, though, the child can

easily become a "pawn" in the parents' struggle, caught in a double approach-avoidance dilemma; accepting a closer relationship with either parent may risk, at least from the child's perspective, rejection by the other parent (Schwarz, 1979; Snyder, 1979). Finally, when ongoing parental marital conflict is accompanied by poor relationships between the child and both parents, child adjustment is predicted to be especially disrupted (Amato, 1986; Peterson & Zill, 1986; Rutter, 1980).

What these findings suggest is that interparental marital conflict does not necessarily impact upon child outcomes directly, but instead indirectly through its effect on parent-child relationships. A number of studies have more explicitly addressed the possible mediating effects of parent-child relationships, and have supported this notion. For example, marital conflict has been found to contribute little unique variance, beyond the parent-child relationship, in predicting child adjustment (Burman, John, & Margolin, 1987). In a study of children's adjustment during divorce, marital conflict was found to have a direct effect on children's adjustment, and also an indirect effect through disrupted mother-child relationships (Tschann, Johnston, & Kline, 1990). Another investigation involving intact and divorced homes found that marital conflict had a direct effect only on intact-home children's externalizing problems (Fauber et al., 1990); furthermore, the authors'

mediational model predicted more variance in adjustment problems for those children from intact (vs. divorced) homes. This finding supports the notion that interparental conflict is equally, if not more, salient and detrimental for children in two-parent homes (Belsky, 1984). Interspousal aggression in particular has been related to parental aggression towards children (Jouriles, Barling, & O'Leary, 1987; Stewart & duBlois, 1981; Straus, Gelles, & Steinmetz, 1980); parent-child aggression has (in turn) been associated with higher levels of children's conduct problems (Friedrich & Einbender, 1983; Jouriles, Barling, & O'Leary, 1987; Lamphear, 1985; Patterson, 1982).

Marital Conflict and Children's Behavior Towards Peers

Although it has been demonstrated that marital conflict is predictive of negative parent-child interaction, and that negative parent-child interaction is predictive of children's aggression with peers, there is a paucity of literature addressing the contingencies which link these constructs together (Ladd, 1992). The few writings specifically relating marital conflict to children's peer relations have, though, suggested a positive relationship between these two constructs. Children from maritally-conflicted homes, for instance, are more likely to have been identified as having behavior problems at school, when experiencing a disrupted relationship with one or especially both parents (Peterson & Zill, 1986). Parental marital

conflict was associated with higher levels of teacher-reported externalizing behavior for 10-15 year-old adolescents (Wierson, Forehand, & McCombs, 1988). Furthermore, marital dissatisfaction (not to be confused with marital conflict) has been linked with negative parenting and disturbed peer interactions within a single model (Gottman & Katz, 1989), though the primary mediating variables between marital conflict and children's peer aggression were physiological responses and functioning. Yet, none of these studies have integrated overt marital conflict, parent-child interaction, and children's aggression towards peers into a coherent predictive model.

Setting Conditions

Despite the demonstrated interrelatedness of marital conflict, parent-child relationships, and child aggression with peers, it is important to consider broader contextual factors which possibly set the stage for disrupted family functioning. Such factors have aptly been termed "setting conditions," "contextual variables within which relationships are formed, maintained, and generalized" (Rubin & Lollis, 1986, p 269). Parental divorce, financial stress and low parental education, in particular, have been linked with greater degrees of marital conflict (Elder, 1974; Komarovsky, 1962) and impairment in parent-child relationships (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Elder, Liker, & Cross, 1984).

Though one premise of this study is that family processes play a more critical role than does family structure (as indicated by married vs. divorced marital status) in the etiology of disrupted child adjustment, there is nevertheless a strong rationale for considering marital status, because divorced families might be different from married families in some fundamental ways. It has been argued that the event of divorce exposes children to unique stressors not experienced by children in intact households (Grych & Fincham, 1990). Furthermore, the fact that marital breakup occurs in some families but not others suggests that divorced families might be somehow different from those which stay together (Grych & Fincham, 1990). Such differences might include their tendency to engage in conflict, how they perceive and process conflict, parental commitment to marriage and family, or numerous other characteristics which could impact on family relationships and child outcomes.

Purpose of the Proposed Study

How do marital conflict and mother-son interaction jointly contribute to sons' aggressive behavior in the peer context? When marital conflict is higher, are sons engaged in negative interaction with their mothers more aggressive than sons whose interaction is less negative? More importantly, how do marital conflict and negative mother-son relations come together to predict son's aggressive behavior

with their peers? This study addressed these questions by first testing a hypothesized path model linking marital conflict with children's aggressive behavior in the peer context (see Figure 1). In order to examine the interactive effects of marital conflict and mother-son negativity on son's aggression with peers, marital conflict and mother-son negativity were converted into two-level (high/low) categorical variables (see Figure 2).

Figure 1. Proposed path model linking marital conflict, mother-son negativity, and son's aggression with peers.

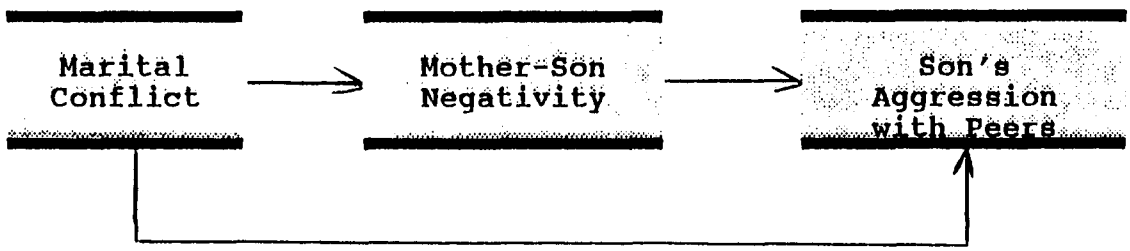
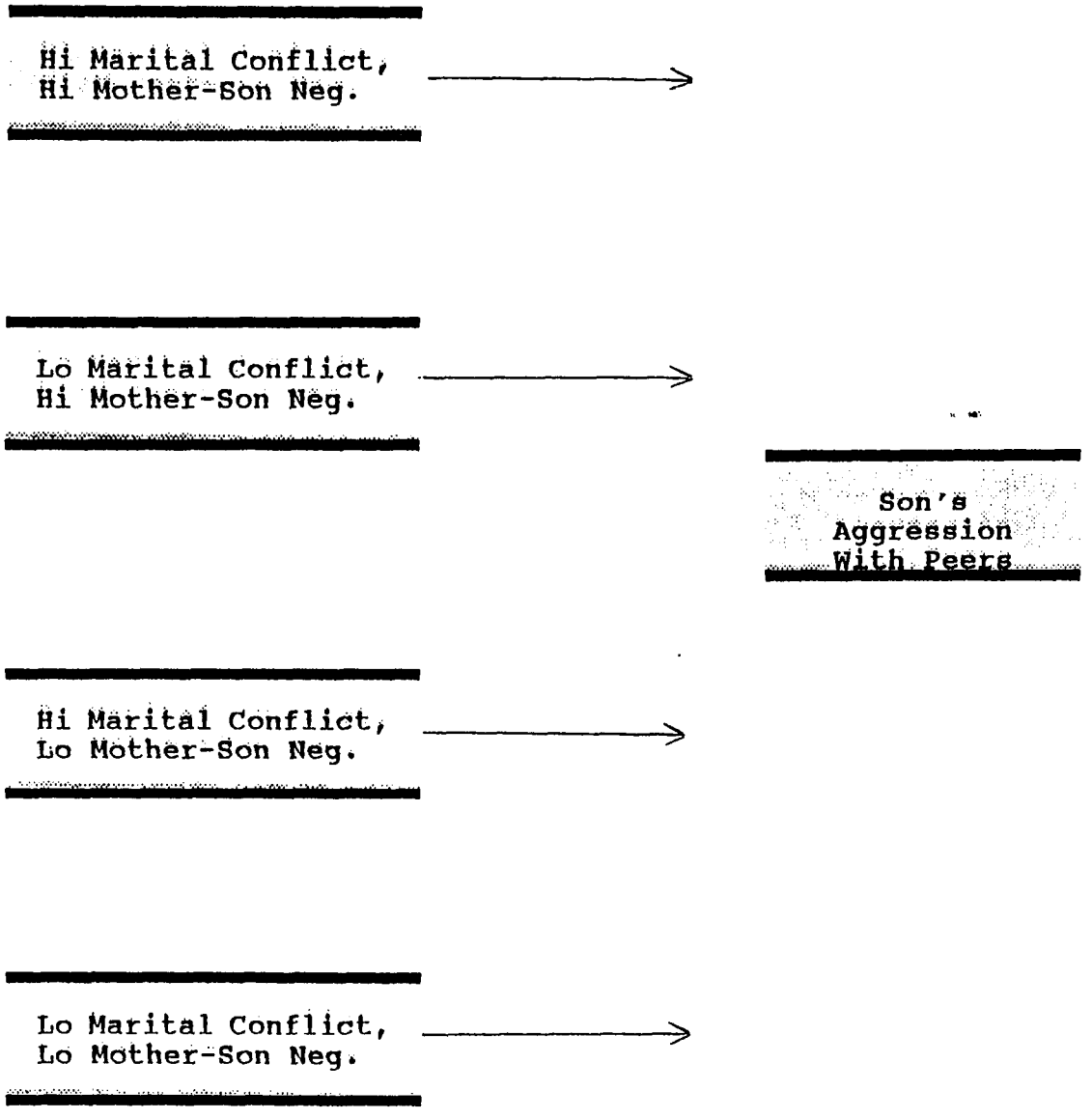


Figure 2. Proposed ANOVA linking marital conflict, mother-son negativity, and son's aggression with peers.



Hypotheses. The first hypothesis is based on the model specified in Figure 1:

H_1: Negative mother-son interaction will mediate the relationship between marital conflict and son's aggression with peers.

Two additional hypotheses are based on the relationships illustrated in Figure 2:

H_2: Given comparable levels of marital conflict (high or low), sons engaged in more negative mother-son interaction (e.g., those in the high marital conflict, high mother-son negativity group) will be more aggressive with their peers, relative to sons engaged in less negative mother-son interaction (e.g., those in the high marital conflict, low mother-son negativity group).

H_3: Sons from those families with lower levels of marital conflict and mother-son negativity will be least aggressive with their peers, relative to sons from the other three groups (i.e., those from families with higher marital conflict and/or higher mother-son negativity).

CHAPTER III

METHODS

Research Design

This research project examined proposed models linking parental marital conflict with parent-child interaction, and with sons' aggression in the peer context. The investigation was conducted through secondary data analysis, using data from a larger ongoing longitudinal study on parent-child relations in general, and the etiology of children's aggression in particular (MacKinnon, Lamb, Belsky, & Baum, 1990; MacKinnon-Lewis, Volling, Lamb, Dechman, Rabiner, & Curtner, 1992). This larger study was under the direction of Dr. Carol MacKinnon-Lewis, Associate Professor of Human Development and Family Studies, with funding provided by the National Science Foundation, the National Institute of Mental Health, and the William T. Grant Foundation. The author of this particular document was actively involved in subject recruitment, data collection, and other aspects of the research process, over a period of three years.

The design was cross-sectional, following a two-step paradigm commonly employed in studies linking parent-child interaction to other constructs (Parke et al., 1992). One step involved collecting independent measures on marital

conflict (mother-reported) and children's peer-directed aggressive behavior (teacher-reported), through the use of survey (questionnaire) methodology. The other step consisted of observing parent-child interaction in a play context, and subsequently coding this interaction. The relationship between marital conflict, parent-child interaction, and children's aggression with peers was then examined. An important strength of this design was the usage of independent reports for the three major constructs under study.

Sample

All subjects were recruited from rosters provided by the Guilford County School System. Demographics are provided at a later point, under "Measurement of Variables."

Gender and Age of Child Subjects

Because peer-directed aggressive behavior has been shown to be particularly characteristic of boys (and less so of girls), a boys-only sample was appropriate for the focus of the proposed research (Olweus, 1979). The age-range of the boys was considered appropriate for three reasons. First, observable differences in childhood aggression have been observed in children as young as three years old (Olweus, 1979). Therefore, it could have reasonably been expected that boys in the 7-10 age-range were of sufficient age to exhibit this type of behavior consistently and to a noticeable degree. Second, children in the 7-9 age range

were cognitively capable of performing the mother-son interaction tasks which will be used to generate observational data. Third, boys older than 10 years of age could have begun to progress into adolescence, with its accompanying shifts in individual development and interpersonal family functioning; capping boys' ages at 10 years-old reduced the likelihood of sharp, systematic differences in children's developmental levels, and in developmentally-based interactional differences (Alessandri & Wozniak, 1989; Newman, 1989).

Recruitment Procedures

Subjects were recruited from elementary school rosters provided by the Guilford County School System. When rosters were obtained, a graduate student recruiter performed an initial screening of prospective subjects, by identifying the names of those students who were male, aged 7-10, and enrolled in grades 2-4.

After developing a preliminary list of prospective subjects from a given roster, the student recruiter contacted each pre-identified boy's mother by phone, to inform her of the study's purpose, perform additional screening, and solicit her participation in the study. This initial phone call was made to the student's home, whenever a home phone number was listed. If a home number was not provided, or was incorrect, the particular school's secretary was asked to provide a current number. Further

efforts, if needed, included using directory assistance, and finally using a work number (if listed on the roster). In this sense, the sample was limited to those boys whose mothers are accessible by phone, either at home or work. Whether any systematic differences in family processes existed between phone-accessible and non-accessible families is impossible to ascertain, but would not logically be expected.

The recruiter followed a prepared telephone script (see Appendix A) during the initial recruiting call, first asking the mother if she was available for a few minutes, to discuss a UNCG research study on parent-child interaction. If she was not free at that moment, she was asked to suggest a more convenient time to be called.

Once she agreed to talk for a few minutes, the mother was informed that the study was being carried out with the cooperation of the Guilford County School System, and that her name was selected solely on the basis of her son's apparent age and grade (information gleaned from school-provided rosters). She was then informed of the study's purpose, design, and directorship. She was also told that she would be compensated $20.00 for completing the research protocol, plus an additional $10.00 for keeping her first scheduled appointment.

If still interested, the mother was screened for marital status. Only those mothers who were still married

to their sons' biological fathers, or separated and acting as single parents, were considered eligible for inclusion in the sample. Mothers who do not fit study criteria were thanked for their time and interest, and informed that they could not be included due to constraints of the study's design. A willing mother-son dyad which did fit the criteria was scheduled to visit the UNCG Family Research Center for a research interview, at a weekday or weekend time that was convenient for them. The mother was told that she would be sent a confirmation letter and map, and that she would also receive a confirmation call 1-2 days prior to the scheduled interview date.

Interview Procedures

Upon arriving at the Family Research Center, subjects were met by two trained student interviewers, graduate and/or undergraduate majors in human development departments. The interviewers ushered the mother and son to an upstairs interviewing room; there, following a brief "ice-breaking" discussion, the interviewers again explained the study, reviewed a consent form (see Appendix B), and asked both to sign the form.

Measurement of Variables

Demographic Characteristics of Subjects

Mothers completed the Family History Inventory (MacKinnon, 1988), which asked for information regarding family composition, length of marriage, parental education and income, and other family characteristics (see Appendix

C). The sample consisted of 107 boys aged 7-10, enrolled in grades 2-4, and their biological mothers. Based on mothers' responses, mothers were either still married to their son's biological father (n=84), or separated/divorced (n=23). Participating families were White (n=66) and Black (n=41). Mean and median household income were located in the $30,000-40,000 category, and were quite evenly distributed across income ranges (from under $10,000, to above $90,000). Mean and median maternal education levels were in the "Some college, no degree" category, with the distribution ranging from grade school to doctoral degree.

Marital Conflict

Each participating mother also completed the O'Leary-Porter Scale (Porter & O'Leary, 1980), a ten-item instrument which assessed the frequency with which certain overt manifestations of marital conflict had been occurring within the child's sight or earshot. Responses were arrayed on a five-point Likert-scale, from "Never" to "Very Often." The total raw score for each family could have ranged from 0-40, with higher scores indicating higher degrees of conflict. The authors report test-retest reliability as .96, and construct validity of .63.

Mother-Son Interaction

Each mother-son dyad engaged in a competitive game-playing situation for 15 minutes. The game, "Trouble" (Gilbert Industries), had previously been found to elicit a

wide range of positive, neutral, and negative behaviors from game-playing participants (Arbuckle, 1989; Curtner, 1990; MacKinnon, 1988).

Before the game began, a student interviewer clearly described the game's rules to the mother and son, who were seated next to each other at a table, facing a one-way mirror. Following instructions, each dyad was told to play for 15 minutes, and to start a new game if they finished the first. The entire game-playing phase was videotaped from behind the mirror, with the videotape later being coded by a research assistant trained in the microanalysis of observed behavior.

Microanalytic or "molecular" coding strategies are aimed at identifying specific and discrete behaviors which comprise interaction, so that the presence and/or absence of certain behaviors can be related to other predictor and/or criterion variables. Employing this approach to studying parent-child processes has been identified as a critical undertaking, particularly in researchers' efforts to relate parent-child relations to children's relationships with peers (Parke et al., 1988; Putallaz & Heflin, 1990).

Specific behaviors recorded for this study by the trained coder(s) were either negative (verbal, physical, and affective), positive (verbal, physical, and affective), or neutral (verbal and physical). Observational categories are more fully described in Appendix E (MacKinnon, 1989).

Dyadic "negativity" scores were created to reflect the proportion of each dyad's total observed behaviors (verbal, affective displays, and physical) which were coded as negative. To derive this score for a particular dyad, the total number of mother-emitted and son-emitted negative behaviors were divided by the total of all observed behaviors (negative, positive, and neutral). Thus, the Negativity score represents the proportion of all observed behaviors which were coded as negative.

Sons' Aggression with Peers

Each boy's primary teacher completed the Taxonomy of Problematic Social Situations for Children (Appendix F) (Dodge, McClaskey, & Feldman, 1985). This instrument asked teachers to report how often the target child responds problematically to common in-class situations, on a 1-5 Likert-scale. The Taxonomy was delivered to teachers at their schools, enclosed in a brown manila envelope to ensure confidentiality. After completing the instrument, teachers sealed it within the envelope, and left the envelope at the school office, where it was picked up by a research assistant.

While the entire Taxonomy included 60 items, only those 16 items comprising the proactive and reactive aggression subscales were used for the proposed study. Items assessing proactive aggression (53-60) referred to aggressive behaviors which appeared to have been initiated by the given

student, without apparent provocation. Conversely, items assessing reactive aggression (45-52) referred to aggressive behaviors which appeared to have been responses to other children's provocations. These two types of aggression have been found to be highly correlated in previous research (Dodge & Coie, 1987), and these two subscales are indeed highly correlated (r=.84) within this study.

Given the 1-5 point Likert-scale upon which teachers' responses were based, and that the subscale consisted of 16 items, the proactive aggression score potentially ranged from 16 (lowest possible level of teacher-reported aggression) to 80 (highest possible level of teacher-reported aggression). The Taxonomy's authors report the internal consistency of the subscales to range from .89 to .87, using Cronbach's alpha (Dodge et al., 1985).

Data Analysis

Once all data were collected, coded, and entered, analyses were conducted using SAS statistical software, on UNCG's VAX system.

CHAPTER IV

RESULTS

Results are presented in two major sections. First, preliminary analyses are described. Second, primary analyses testing specific hypotheses are detailed.

Preliminary Statistical Analyses and Procedures

Descriptive Statistics for Major Variables, Whole Sample

Descriptive statistics were calculated for the primary variables of interest. The ranges, means, and standard deviations for marital conflict, mother-son negativity, and son's aggression may be found in Table 1.

Marital conflict. Parental marital conflict was assessed through mothers' completion of the O'Leary-Porter Scale (Porter & O'Leary, 1980). Higher scores indicate greater degrees of reported conflict. For this sample, the Marital conflict scores ranged from 1.00-33.00, with a mean of 10.16, and a standard deviation of 6.40.

An assumption underlying the use of a composite score is that all items comprising the composite tap into the same latent construct, which would be reflected in fairly high intercorrelations. Given that this marital conflict variable is a ten-item composite, then, the intercorrelation structure of these items was checked, to determine whether

Table 1

Ranges, Means, and Standard Deviations for Marital Conflict, Mother-Son Negativity, and Son's Aggression, Whole Sample

	Range	Mean	SD
Marital Conflict (unweighted)	1.00 - 33.00	10.16	6.40
Marital Conflict (weighted)	1.77 - 11.88	4.54	2.04
Mother-Son Negativity	0.00 - 0.27	.04	.03
Son's Aggression	16.00 - 75.00	33.35	15.17

an unweighted or weighted composite would be more appropriate. Table 2 illustrates that intercorrelations of the O'Leary-Porter items were actually quite variable (and in some cases, small) for this sample. As a result, it was decided to create a weighted composite, using principal components analysis on the raw-score correlation matrix. Such a weighting procedure weights more heavily those items which statistically "hang together," and deemphasizes any items which actually weaken the composite score's assessment of the latent construct (in this case, marital conflict).

Table 3 presents the value of the largest characteristic root (eigenvalue) derived from the principle components analysis, and the ten item-weights associated

Table 2

Intercorrelations of Individual Items on the O'Leary-Porter Scale

	1	2	3	4	5	6	7	8	9	10
1	1.0	.28	.53	.59	.52	.57	.55	.51	.52	-.06
2		1.0	.39	.25	.24	.38	.23	.34	.31	-.06
3			1.0	.53	.43	.47	.49	.52	.55	-.02
4				1.0	.60	.51	.55	.49	.62	.03
5					1.0	.69	.66	.47	.63	.02
6						1.0	.59	.45	.66	.03
7							1.0	.57	.60	.12
8								1.0	.53	.16
9									1.0	-.01
10										1.0

with this root. By examining these weights, it is clear that items 2 and 10 are thus statistically deemphasized in the weighted composite, because the weights for these two items are noticeably smaller than the weights for the other eight items (which are essentially equivalent). In other words, items 2 and 10 did not assess the latent construct (marital conflict) to the degree which the other eight items did. This is reflected in the inter-item correlation structure on the previous page, where it can be seen that items 2 and 10 are virtually uncorrelated with any of the other eight items.

Table 3

Weights Derived from Principal Components Analysis, for O'Leary-Porter Scale Items

Eigenvalue= 5.04

Item	Weight
1	.339
2	.206
3	.323
4	.346
5	.355
6	.357
7	.355
8	.324
9	.365
10	.020

To statistically compensate for the non-relevance of items 2 and 10, a weighted composite was formed, by multiplying each subject's item-scores by their respective weights, with the products subsequently summed to form each subject's weighted marital conflict composite. For this weighted composite, scores ranged from 1.77 - 11.88, with a mean of 4.54, and a standard deviation of 2.04.

Mother-son negativity. The mother-son negativity score represents the proportion of negative behaviors (verbal, affective, and physical) emitted during the 15 minute session, relative to all behaviors emitted. Descriptive statistics for mother-son negativity are provided in Table 1. Negativity proportions ranged from .00 to .27, with a mean of .04, and standard deviation of .03.

Son's aggression with peers. Son's aggression was measured by summing the Proactive and Reactive Aggression subscales of the Taxonomy of Problematic Social Situations for Children (Dodge, McClaskey, & Feldman, 1985). Given the 1-5 point Likert-scale upon which teachers' responses were based, son's aggression scores potentially ranged from 16 (lowest level of teacher-reported aggression) to 80 (highest level of teacher-reported aggression). Descriptive statistics for Son's Aggression are in Table 1. Scores ranged from 16.00-75.00, with a mean of 33.35, and a standard deviation of 15.17.

Intercorrelations between the 16 Aggression items were consistently high, with correspondingly small p-values. All were above the r=.60 level, with most falling between r=.70 and r=.90. Given such an intercorrelation structure, which indicated that all sixteen items strongly represented the same latent construct, using principal components analysis to form a weighted composite was not warranted.

Primary Analyses

Assessing Marital Status, Household Income, and Maternal Education as Setting Conditions

It was suggested in Chapter II that marital status, maternal education, and household income have previously been considered as having important implications for family functioning. Consequently, it was expected that the primary variables of interest in this study (marital conflict,

mother-son negativity, and son's aggression) might be influenced by these factors. In order to examine differences in the primary variables of interest as a function of marital status (married, divorced), maternal education (high, low), and household income (high, low), median splits were first calculated for maternal education and household income. Second, three sets of t-tests were conducted; each set compared means of the three major variables of interest (marital conflict, mother-son negativity, and son's aggression) across married and divorced subjects, high/low levels of household income, and across high/low maternal education. For example, differences in marital conflict, mother-son negativity, and son's aggression were examined as a function of marital status. This was done by conducting a t-test on the mean levels of these three major variables, for subjects from married vs. divorced families. Results indicated that mean levels of mother-son negativity and son's aggression for subjects from married vs. divorced families were not significantly different. Marital conflict means, though, were indeed found to differ significantly ($t=2.03$, $p=.05$), with divorced mothers reporting a lower mean level of marital conflict than married mothers.

Through the same process, differences in marital conflict, mother-son negativity, and son's aggression were also examined as a function of household income (high vs.

low). None of these three t-tests were statistically significant, so income was dropped as a potential control.

The process was conducted a third time, examining differences in marital conflict, mother-son negativity, and son's aggression as a function of maternal education (high vs. low). Again, results of all three t-tests were non-significant, and maternal education was dropped as a potential control.

With statistically significant differences occurring only for the married/divorced marital conflict means , it was decided that primary analyses would be conducted not only for the whole sample as originally planned, but also separately for subjects from married and divorced families. This decision was based partly on concern over the "restricted range" of the marital status variable, which had only two values (coded "1" for married, "2" for divorced). This restricted range of values would attenuate the statistical relationship between marital status and any of the other variables of interest (Baron & Kenny, 1986). An additional factor in the decision to analyze married and divorced data separately is the argument that there might be fundamental differences between these two types of families, in terms of individual characteristics and/or interactional patterns (Grych & Fincham, 1990).

Intercorrelations of Major Variables

In order to examine the relations among the primary variables of interest (marital conflict, mother-son negativity, and son's aggression with peers) for the whole sample, Pearson Product-moment correlations were calculated. Results revealed that these intercorrelations were all close to zero, and none were close to statistical significance (see Table 4).

Table 4

Intercorrelations of Marital Conflict, Mother-Son Negativity, and Son's Aggression (p-values in parentheses)

	Marital Conflict (weighted)	Mother-Son Negativity	Son's Aggression
Marital Conflict (weighted)	1.00	.01 (89)	.08 (.41)
Mother-Son Negativity		1.00	.01 (.93)
Son's Aggression			1.00

Path Model Linking Marital Conflict, Mother-Son Negativity, and Son's Aggression

In order to determine whether mother-son negativity mediated the predictive effect of marital conflict on son's aggression with peers, a path analysis was conducted. Before reporting the results of this procedure, the concept

of mediation will be clarified.

A variable functions as a mediator within a path model if "it accounts for the relations between the predictor and the criterion" (Baron & Kenny, 1986, p. 1176). The model in Figure 1 includes three variables, such that there are three paths: one links marital conflict (independent) to son's aggression with peers (dependent or criterion), one links marital conflict to mother-son negativity (mediator), and the third links mother-son negativity (mediator) with son's aggression with peers. The first can be called the "direct" path from marital conflict to son's aggression with peers, while the second and third constitute the "indirect" or mediated path from marital conflict to son's aggression with peers.

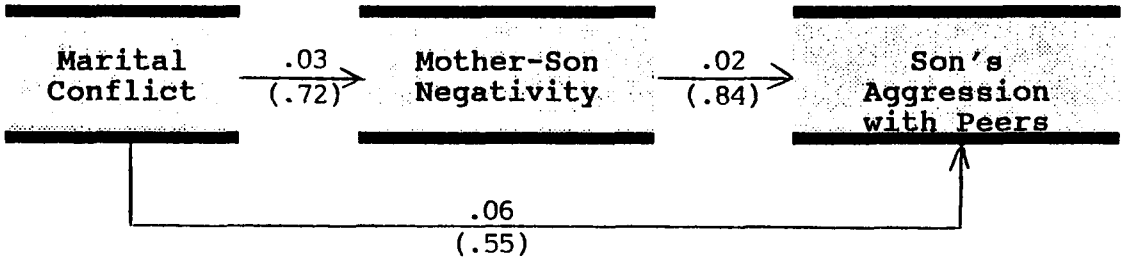
Three statistical conditions would support a mediation hypothesis for such a model (Baron & Kenny, 1986). First, variation in marital conflict would have to significantly account for variation in mother-son negativity. Second, variation in mother-son negativity would have to significantly account for variation in son's aggression with peers. Third, the significance and magnitude of marital conflict's effect on son's aggression with peers would decrease in significance, relative to this same relationship without the first two paths in the model.

Given these conditions, three corresponding regression equations were needed to test the model in Figure 1. Each

regression produced a standardized regression coefficient (Beta) which served as a path coefficient within the model. The first equation regressed mother-son negativity on marital conflict, the second regressed son's aggression on mother-son negativity and marital conflict, and the third regressed son's aggression on marital conflict (with this last regression being necessary to test for a mediational effect).

Neither the model nor the mediation effect was supported by the results. First, variation in marital conflict did not significantly predict variation in mother-son negativity ($F=.13$, $p=.72$, $R^2=.00$). Second, variation in marital conflict and mother-son negativity did not significantly account for variation in son's aggression with peers ($F=.20$, $p=.82$, $R^2=.00$). Third, the magnitude of the coefficient linking marital conflict and son's aggression ($B=.06$ within the model) was identical to that produced by the third equation regressing son's aggression on marital conflict. This latter result refuted the mediational hypothesis for whole-sample data, since a decrease in the coefficient linking marital conflict and son's aggression was not observed. Finally, all three path coefficients were close to zero (see Figure 3), indicating a general lack of support for the model.

Figure 3. Results of path analysis linking marital conflict, mother-son negativity, and son's aggression with peers (p-values in parentheses).



ANOVA Predicting Son's Aggression from Marital Conflict, and Mother-Son Negativity

A 2 (marital conflict: high, low) x 2 (mother-son negativity: high, low) ANOVA was conducted to examine differences in sons' aggression (as assessed by teachers' reports) as a function of marital conflict and mother-son negativity. Top-third, bottom-third splits were performed on each of these two major variables, to create a new categorical two-level (high, low) variable for each. Top-third, bottom-third splits were chosen (instead of median splits) to increase the contrast between subjects classified as "high" and "low" on marital conflict and mother-son negativity. Therefore, results reflect data for only those subjects who fell into these high and low categories, and not those who fell between the cutoff points. For marital conflict, scores above the 66.7th percentile of the marital conflict score distribution (>4.94) were considered "high", while those below the 33.3rd percentile (<2.49) were considered "low". For mother-son negativity, scores above the 66.7th percentile of the mother-son negativity score distribution (>.045) were considered "high", while those below the 33.3rd percentile (<.019) were considered "low".

The ANOVA predicting son's aggression was not statistically significant ($F=1.23$, $p=.29$, $R^2=.09$). The mean, range, and standard deviation of son's aggression for each cell are presented in Figure 4.

Figure 4. Means, ranges, and standard deviations for son's aggression, by cell.

	Mean	Range	SD
Hi Marital Conflict, Hi Mother-Son Neg.	32.88	16-60	13.93
Lo Marital Conflict, Hi Mother-Son Neg.	33.55	16-63	15.91
Hi Marital Conflict, Lo Mother-Son Neg.	36.90	16-75	18.80
Lo Marital Conflict, Lo Mother-Son Neg.	28.77	16-55	12.09

Analyses Repeated for Married vs. Divorced Subjects

Descriptive Statistics for Major Variables, Married vs. Divorced Subjects

Descriptive statistics were calculated separately for married and divorced subjects, on the primary variables of interest (see Tables 5 and 6). Following are abbreviated narratives highlighting each table.

Marital conflict. For married mothers, the weighted marital conflict scores ranged from 1.83-11.88, with a mean of 4.61, and a standard deviation of 2.01. Divorced mothers' weighted scores ranged from 1.77-8.13, with a mean of 4.28, and a standard deviation of 1.67.

Mother-son negativity. For married subjects, negativity percentages ranged from .00 to .16, with a mean of .04, and standard deviation of .03. Negativity for divorced subjects ranged from .00 to .27, with a mean of .05, and a standard deviation of .05.

Son's aggression with peers. For sons of married mothers, scores ranged from 16.00-75.00, with a mean of 32.77, and a standard deviation of 15.21. Sons of divorced mothers, on the other hand, had aggression scores which ranged from 16.00-60.00, with a mean of 36.17, and a standard deviation of 13.56.

Table 5

Ranges, Means, and Standard Deviations for Marital Conflict, Mother-Son Negativity, and Son's Aggression, Married Subjects

	Range	Mean	SD
Marital Conflict (weighted)	1.83 - 11.88	4.61	2.01
Mother-Son Negativity	0.00 - 0.16	.04	.03
Son's Aggression	16.00 - 75.00	32.77	15.21

Table 6

Ranges, Means, and Standard Deviations for Marital Conflict, Mother-Son Negativity, and Son's Aggression, Divorced Subjects

	Range	Mean	SD
Marital Conflict (weighted)	1.77-8.13	4.28	1.67
Mother-Son Negativity	0.00-0.27	.05	.05
Son's Aggression	16.00-60.00	36.17	13.56

Intercorrelations of Major Variables, by Marital Status

Pearson Product-moment correlations were recalculated separately for married and divorced subjects. Results revealed different intercorrelation structures for married and divorced subjects. As was the case for correlations conducted on the entire sample, the relationships between marital conflict, mother-son negativity, and son's aggression were close to zero for married subjects (see Table 7). For divorced subjects, correlations were still non-significant, but considerably stronger. This is especially true for the relationship between marital conflict and mother-son negativity, and between marital conflict and son's aggression with peers (see Table 8).

Table 7

Intercorrelations of Marital Conflict, Mother-Son Negativity, and Son's Aggression, Married Subjects (p-values in parentheses)

	Marital Conflict (weighted)	Mother-Son Negativity	Son's Aggression
Marital Conflict (weighted)	1.00	.11 (.34)	.05 (.66)
Mother-Son Negativity		1.00	.04 (.72)
Son's Aggression			1.00

Table 8

Intercorrelations of Marital Conflict, Mother-Son Negativity, and Son's Aggression, Divorced Subjects (p-values in parentheses)

	Marital Conflict (weighted)	Mother-Son Negativity	Son's Aggression
Marital Conflict (weighted)	1.00	.25 (.25)	.28 (.19)
Mother-Son Negativity		1.00	.11 (.63)
Son's Aggression			1.00

Path Model Linking Marital Conflict, Mother-Son Negativity, and Son's Aggression, by Marital Status

A separate path analysis was conducted for the married and divorced sub-samples, through the same process already described for the whole sample. As was the case for the whole sample, neither the model nor the mediation hypothesis was supported for the married or divorced sub-sample.

Married subjects. For the "married" model, variation in marital conflict did not significantly predict variation in mother-son negativity ($F=.19$, $p=.66$, $R^2=.00$). Second, variation in marital conflict and mother-son negativity did not significantly account for variation in son's aggression with peers ($F=.14$, $p=.87$, $R^2=.00$). Third, the coefficient

linking marital conflict and son's aggression (B=.05 within the model) was identical to that produced by the third equation regressing son's aggression on marital conflict, refuting the mediational hypothesis for "married" subjects. Again, all three path coefficients were small (see Figure 5).

Divorced subjects. The "divorced" model produced results which were noticeably different. Variation in marital conflict did not significantly predict variation in mother-son negativity, but was much closer to statistical significance ($F=1.80$, $p=.19$, $R^2=.08$). Variation in marital conflict and mother-son negativity did not significantly account for variation in son's aggression with peers ($F=.87$, $p=.43$, $R^2=.08$). Third, the magnitude of the coefficient linking marital conflict and son's aggression (B=.27 within the model) was essentially identical to that produced by the third equation regressing son's aggression on marital conflict (B=.28), refuting the mediational hypothesis for "divorced" subjects. Compared to the whole-sample and married subject results, the most obvious difference in the "divorced" path analysis is the increased strength of relationship between marital conflict and mother-son negativity, and marital conflict and son's aggression (see Figure 6).

Figure 5. Results of path analysis linking marital conflict, mother-son negativity, and son's aggression with peers, married subjects (p-values in parentheses).

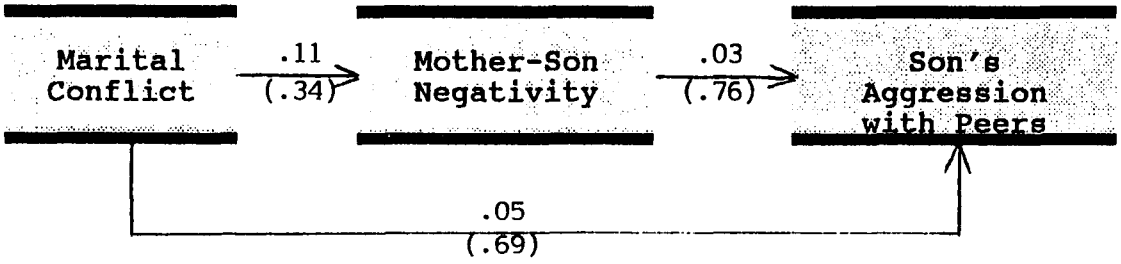
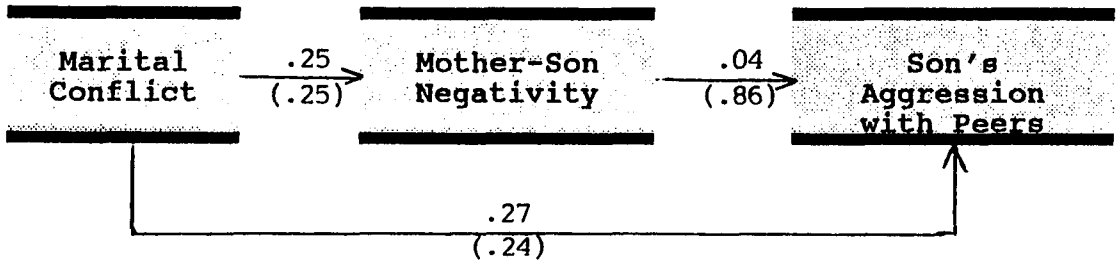


Figure 6. Results of path analysis linking marital conflict, mother-son negativity, and son's aggression with peers, divorced subjects (p-values in parentheses).



ANOVA Predicting Son's Aggression from Marital Conflict, and Mother-Son Negativity, by Marital Status

Separate 2 (marital conflict: high, low) x 2 (mother-son negativity: high, low) ANOVA's were also conducted for married and divorced subjects, to examine differences in sons' aggression (as assessed by teachers' reports) as a function of marital conflict (high, low) and mother-son negativity (high,low).

Married subjects. Top-third, bottom-third splits were recalculated on marital conflict and mother-son negativity, for married subjects. For marital conflict, scores above the 66.7th percentile of the marital conflict score distribution (>5.11) were considered "high", while those below the 33.3rd percentile (<3.46) were considered "low". For mother-son negativity, scores above the 66.7th percentile of the mother-son negativity score distribution (>.044) were considered "high", while those below the 33.3rd percentile (<.018) were considered "low".

For married subjects, the ANOVA predicting son's aggression was not statistically significant ($F=.79$, $p=.61$, $R^2=.01$). The mean, range, and standard deviation of son's aggression for each cell are reported in Figure 7, for married subjects.

Figure 7. Means, ranges, and standard deviations for son's aggression, by cell, married subjects.

	Mean	Range	SD
Hi Marital Conflict, Hi Mother-Son Neg.	30.69	16-56	16.09
Lo Marital Conflict, Hi Mother-Son Neg.	25.40	16-62	20.46
Hi Marital Conflict, Lo Mother-Son Neg.	33.43	16-64	18.69
Lo Marital Conflict, Lo Mother-Son Neg.	26.86	16-55	11.09

Divorced subjects. Top-third, bottom third splits were also recalculated on marital conflict and son's aggression, for divorced subjects. For marital conflict, scores above the 66.7th percentile of the marital conflict score distribution (>4.39) were considered "high", while those below the 33.3rd percentile (<2.89) were considered "low". For mother-son negativity, scores above the 66.7th percentile of the mother-son negativity score distribution (>.050) were considered "high", while those below the 33.3rd percentile (<.022) were considered "low".

For divorced subjects, the ANOVA predicting son's aggression was not statistically significant ($F=1.41$, $p=.27$, $R^2=.35$). The mean, range, and standard deviation of son's aggression for each cell are reported in Figure 8, for divorced subjects.

Figure 8. Means, ranges, and standard deviations for son's aggression, by cell, divorced subjects.

	Mean	Range	SD
Hi Marital Conflict, Hi Mother-Son Neg.	31.00	--	--
Lo Marital Conflict, Hi Mother-Son Neg.	29.50	25-34	6.36
Hi Marital Conflict, Lo Mother-Son Neg.	46.50	43-50	4.95
Lo Marital Conflict, Lo Mother-Son Neg.	29.33	16-54	21.39

CHAPTER V

DISCUSSION

The primary purpose of this research was to examine whether sons' aggression with peers would be predicted by parental marital conflict and the quality of mother-son interaction. This research is important and unique because it simultaneously incorporated marital conflict and mother-son interaction as predictors of sons' aggression with peers. Thus, two critical family processes which have largely been studied in isolation from each other (as predictors of children's aggression) were considered simultaneously.

Two distinct approaches to analyzing the data were reflected in the three stated research hypotheses. The first used a path analysis to assess whether the data supported a proposed predictive model linking marital conflict, mother-son negativity, and son's aggression. The second approach employed an ANOVA and comparison of group means to examine whether variation in son's aggression with peers would be predicted by the confluence of marital conflict (high, low) and mother-son negativity (high, low). Each of these two approaches was based on different underlying assumptions about the nature of

interrelationships between the variables. What follows is a discussion of the study's results, and of other important conceptual, methodological and statistical considerations.

Summary of Findings

Proposed Mediational Model Linking Marital Conflict, Mother-Son Negativity, and Son's Aggression

Using pooled data from married and divorced families, the three major variables of interest were virtually uncorrelated with each other. Given that regression analysis is based upon the intercorrelation structure between variables, it was not surprising that analyses provided no support for the proposed path model, with mother-son negativity mediating the effect of marital conflict on son's aggression with peers. The ANOVA model was similarly unsupported; the interaction of marital conflict (high,low) and mother-son negativity (high,low) did not significantly predict variations in son's aggression with peers.

Married vs. divorced families. Primary analyses were repeated separately for married and divorced subjects, because preliminary analyses had revealed that marital conflict means differed significantly for married vs. divorced subjects. Though the proposed path model specified in Figure 1 was not statistically significant for either married or divorced subjects, there were some interesting differences which merit discussion. Most noticeably, path

coefficients for the "married" model were quite small, and nearly identical to those derived for the entire sample. Two of the coefficients in the "divorced" model were considerably higher, those linking marital conflict with mother-son negativity, and marital conflict with son's aggression. Comparing married vs. divorced results for this model suggests that marital conflict was more strongly related to mother-son negativity and son's aggression in the divorced (vs. married) families. Of course, any generalizations or inferences beyond the sample itself are tenuous at best, given that results were not statistically significant (which is at least partially attributable to the small number of divorced subjects on which the analysis was based).

A similar trend was observed when the ANOVA was tested separately for married and divorced subjects. Though marital conflict (high,low) and mother-son negativity (high,low) did not significantly predict son's aggression for either sub-sample, the "divorced" ANOVA was considerably closer to significance. Again, a larger sub-sample of divorced families would have made significant results more likely. An interesting observation results from reexamining son's aggression means for married and divorced subjects. In each case, it can be seen that sons with comparable levels of mother-son negativity were more aggressive under conditions of higher marital conflict, versus under

conditions of lower marital conflict. Though it was predicted that mother-son negativity (not marital conflict) would be the variable which distinguished more aggressive from less aggressive boys, the data suggest the converse: participating boys who were exposed to higher levels of marital conflict were more aggressive than those exposed to lower marital conflict levels, given comparable degrees of mother-son negativity.

Conceptual Considerations

The lack of significant correlations between marital conflict, mother-son negativity, and son's aggression does not necessarily signify a lack of any relationship between these variables. When interpreted through the concepts of "triangulation" (Barnes, 1988; Bell & Bell, 1979, 1982) or "spill-over" and "compensatory" processes (Engfer, 1988), the overall lack of strong linear relationship in fact makes sense. If marital conflict is sometimes accompanied by greater hostility between a parent and child, and sometimes accompanied by increased cohesion between parent and child, strong relationships could be washed out in linear analyses.

If it is the case that marital conflict is sometimes detoured through increased child-focused attention (positive or negative), it is also conceivable that marital conflict could actually be less apparent or noticeable for the reporting spouse. This would lead to an under-reporting of marital conflict, and a subsequently decreased statistical

relationship between marital conflict and other variables of interest (Reid & Crisafulli, 1990).

Whether married and divorced families should be considered at all alike is another conceptual issue to consider. First, the very event of divorce might constitute a unique stressor not experienced by children in intact homes, despite the possible presence of marital conflict in both settings. Second, the fact that breakup occurs in some families and not others suggests that there might be important differences between them, either in terms of individual characteristics of family members, and/or in terms of interactional patterns. The stronger observed statistical relationships between marital conflict, mother-son negativity, and son's aggression for the divorced subsample would support this possibility. An example of such a difference is that the presence of a second parent facilitates the "buffering" effect that a nurturing parent can provide for a child, in the presence of marital conflict. Single-parent households may lack the flexibility to provide such a buffering effect; a frustrated single parent engaged in interparental conflict does not have the option of relying on the other parent to nurture a child, and thus could be more likely to channel negativity towards the child. This could also explain why marital conflict more strongly predicted son's aggression for divorced (vs. married) families.

Statistical Considerations

As noted at different points throughout this paper, researchers have argued that the relationship between marital conflict and parent-child negativity is not consistent. Increased marital conflict sometimes contributes to greater parent-child negativity, and sometimes to greater parent-child cohesion (Barnes, 1988; Bell & Bell, 1979, 1982; Engfer, 1988). Therefore, the underlying assumptions of the statistical approaches used in this study are important factors to consider. On one hand, regression assumes not only a linear relationship between variables of interest, but also that this relationship remains constant across the full range of variable scores (D. Herr, personal communication, March 22, 1993). While regression enables the researcher to specify a linear model for prediction (e.g., path model), results of such an approach may mask other meaningful relationships which exist within the data. The notion that increased marital conflict can affect mother-son interaction positively or negatively, then, partially explains the lack of observed linear relationship between these variables.

ANOVA may partially ameliorate this dilemma. Though ANOVA does not allow the researcher to specify a predictive path model, it also does not depend on the assumption of a consistent linear relationship between variables, across the full range of their scores distributions. Classifying

mother-son pairs into cells was conceptually consistent with findings presented in Chapter II, given that marital conflict contributes to improved parent-child interaction in some families, and impaired parent-child interaction in others, with each scenario having very different implications for child outcomes. While a regression (or correlation) might fail to find a relationship between these variables, an ANOVA and group-mean comparison can shed additional light on how marital conflict and mother-son negativity jointly predict son's aggression.

Measurement Issues

How the major variables were measured, in addition to which variables were selected, undoubtedly influenced the research results. This particular study utilized survey (self-report) and observational measures, each widely used but with limitations as well.

Marital conflict. Researchers have argued for years that ongoing marital conflict is far more detrimental to children's adjustment than separation or divorce, especially when this conflict occurs in front of children (Emery, 1982; Long, Forehand, Fauber, & Brody, 1987). The O'Leary-Porter Scale was selected for this study largely because it does specifically measure (through parental report) marital conflict which is witnessed by the child. Yet, this very strength of the instrument could potentially pose certain

limitations. First, not all marital conflict between parents is witnessed by their child(ren) (Wierson, Forehend, & McCombs, 1988). Using an instrument without this restriction could result in markedly different findings, regarding the associations between marital conflict, mother-son interaction, and son's aggression with peers. For example, the Conflict Tactics Scale (Straus, 1979) measures interspousal conflict without the child-witnessed contingency, along three subscales (physical aggression, verbal aggression, discussion). Analyses conducted for another investigation, subsequent to the completion of this study, revealed that physical aggression in particular, as measured by the Conflict Tactics Scale, is predictive of mother-son negativity and son's aggression with peers. Second, single mothers could have fewer opportunities to engage in overt marital conflict than mothers living in intact families, a notion supported by the fact that single mothers reported a lower mean level of marital conflict than married mothers. Results did not suggest, though, that the instrument was any more approptiate or valid for use with married vs. divorced mothers. In fact, the strongest relationships between marital conflict and other major variables were found for the divorced subsample.

Another dilemma in the measurement of marital conflict is the imprecision and inconsistency with which it has traditionally been defined (Margolin, 1988). Contrary to

popular assumptions, not all conflict is destructive, not all distressed marriages are overtly or highly conflictual, and some degree of conflict in such a close relationship is virtually inevitable (Margolin, 1988). Overtly expressed marital conflict is therefore only one aspect of marital functioning; other elements of marital distress might be just as effective in predicting sons' aggression in the peer context, or other negative child outcomes.

Evidence of such imprecision was detailed in Chapter IV. There it was pointed out that the ten items comprising the Scale's total score did not intercorrelate in a consistently high fashion, indicating that the items represented (at least to this sample of respondents) more than a unidimensional "marital conflict" construct. Interestingly, the only item addressing interspousal affection (Item 10) was virtually uncorrelated with the other nine items, suggesting that marital conflict and marital affection may not necessarily be mututally exclusive processes.

A similar concern not addressed by the instrument's authors is that the scale's response categories could be interpreted differently by different respondents, given the absence of specific frequencies linked to each response (e.g., "1-2 times per week", etc.). Yet it can also be argued that mothers more subjective perceptions of marital conflict frequency (e.g., "almost never", "very often") are

just as important to parent-child relations as the actual frequencies of such conflict. Mothers (and children as well) carry different expectations and tolerances regarding interpersonal conflict, and relying on actual frequencies could therefore be based on a faulty assumption that a given frequency of marital conflict is similarly interpreted and acted on by all respondents. The reader is directed to Grych and Fincham's (1990) excellent cognitive-contextual piece on marital conflict for a more detailed discussion on the complexity of the marital conflict variable, especially in terms of how family members' subjective interpretations of such conflict determine their reactions to it.

Mother-son negativity. The observational mother-son variable poses a different question, namely whether there was sufficient variability in the dyadic scores to support meaningful statistical results. Particularly in terms of the proportional Dyadic Negativity variable, scores were clumped quite tightly at the lower end of the possible range, with a mean negativity proportion of .04, and a range of .00-.27; in other words, participating dyads displayed predominantly low proportional levels of negative interaction. It is possible that negative parent-child interaction was truly uncharacteristic of most participants, and therefore not observed in greater proportions. Another possibility is that subjects were cognizant of being observed from behind the one-way mirror, and made efforts to

create the most positive impression possible during the interactional portion of the study. Regardless, the tightly compacted range of most mother-son negativity scores would tend to depress indices of correlation and linear statistical prediction between it and the other major variables of interest (Schumm, 1982).

Son's aggression. Also mentioned in Chapter IV was that teachers' responses to the aggression items did intercorrelate strongly and consistently, and therefore appeared to be representing a more coherent latent construct. It is important to note the similarity between marital conflict and proactive aggression response categories, the latter of which also lacked specific frequency guidelines. At least with respect to this particular group of respondents, response options of this type did not appear to hinder the collection of meaningful aggression data.

Using independent (teacher-provided) reports of son's aggression can be considered a strength of this study. Had maternal reports been relied upon, it could have been argued that marital and child data had been colored by underlying maternal perceptual tendencies or "expectation biases," skewing data either positively or negatively (Emery, 1982). An interesting alternative to teachers' reports would be to use peer nominations of aggression, within the context of the same model. Teacher ratings reflect a limited sample of

children's behavior with peers, behavior which is often quite distinct from that observed by peers (Dodge & Coie, 1987; Kupersmidt, Coie, & Dodge, 1990; MacDonald & Parke, 1984). Data analyses conducted after the completion of this study, using the same data set, did indeed reveal that marital conflict and mother-son negativity significantly predicted sons' aggression, when such aggression was measured through peer nominations. Granted, a potential statistical implication is that independently reported data will tend to be less strongly related than data collected from one respondent (Emery, 1982; O'Leary & Porter, 1984; Peterson & Zill, 1986; Reid & Crisafulli, 1990).

Sample composition. Finally, the composition of the sample deserves mentioning. The 107 mother-son pairs in this study were part of a larger sample (approximately 240 mohter-son pairs) participating in an ongoing longitudinal investigation. However, complete data on the major variables of interest (marital conflict, mother-son negativity, and son's aggression with peers) was available on only these 107 mother-son pairs. This subsample was relatively well-educated and financially secure, and skewed towards low levels of reported and observed overt relationship conflict. Indicative of this bias is the mean proportion of mother-son negativity; an average of only 4% of all observed bahaviors emitted by each dyad were negative. Subjects not included in the subsample were

precisely those of lower socioeconomic status, whose self-described and observed family interactions were more negative in general. Had complete data been available on the more heterogeneous full sample participating in the ongoing longitudinal study, it is possible that the relationships between marital conflict, mother-son negativity, and son's aggression with peers would have been more strongly indicated in the research findings. In fact, significant relationships between these variables have subsequently been found, using data from the larger sample.

Suggestions for Future Research

" . . . family systems operate in ways far more complex than producing strong and consistent associations between marital discord and the behavior problems of children . . ." (Reid & Crisafulli, 1990, p. 113). This statement is a succinct reminder of the enormous challenges facing researchers who examine the linkage between marital processes and child adjustment. Critical dilemmas needing to be addressed include not only what constructs and variables to study, but also how and when to study them. Importantly, the comments that follow are made with regard to future research similar in scope to the present study, and are only a sampling of the virtually countless issues deserving increased attention. It is also acknowledged that broader factors (culture and ethnicity, political and economic climate, neighborhood, extended family, etc.) also

play a part in family functioning, though such factors are beyond the scope of this investigation.

Marital conflict, in and of itself, deserves much research attention. Far from being a simple or unidimensional construct, marital conflict involves behavior, affect, and cognitions, and can be further characterized along numerous other dimensions such as content, duration, frequency, intensity, and resolution (Grych & Fincham, 1990; Margolin, 1990). Instruments which purport to globally assess marital conflict, though, seldom differentiate between these dimensions. For example, the O'Leary-Porter scale focuses only on the frequency with which certain behavioral manifestations of marital conflict occur. Therefore, one challenge for family researchers is to examine marital conflict multidimensionally, identifying which characteristics and dimensions of marital conflict (behavioral vs. affective vs. cognitive; intensity vs. frequency vs. resolution, etc.) are actually being measured, and defining the relative importance of these characteristics and dimensions to other family processes and outcomes.

A related issue for future research is the importance of cognitive information-processing processes in the etiology and maintenance of marital and parent-child conflict, and in the effects which parents' and children's cognitions have on individual behaviors and on relationship

outcomes. This particular study was grounded in an essentially behavioral perspective, in the sense that the major variables were measured as reported or observed behaviors. One could argue, of course, that any retrospective questionnaire addressing behavior actually assesses respondents' attitudes towards or perceptions of behavior, not the behavior itself. However, the point is that cognitions and perceptions were not targeted as major variables in this study. How interpersonal conflict is perceived and interpreted, not only by spouses but also by children, may be just as critical to child adjustment as the presence of conflictual behaviors (Aquilino, 1986; Grych & Fincham, 1990; Parke, 1992).

The marital conflict - child adjustment linkage is faced with another relatively unexamined issue, namely whether boys and girls tend to adjust differently to family conflict. Much research on the marriage-to-child linkage has indicated a lack of relationship between marital and child variables when studying girls (Reid & Crisafulli, 1990). This trend may actually be a manifestation, though, of incorrectly specifying those adjustment variables which are most germane to girls (Parke, 1992). If it is indeed the case that boys' adjustment problems tend to take the form of undercontrolled behavior (aggression, acting out, etc.), while girls tend towards overcontrol (internalization, depression, eating disorders, etc.),

researchers will need to conceptualize girls' adjustment with a more flexible perspective on what impaired adjustment looks like, and on the seriousness of those maladjustments which don't attract as much attention as aggression and other troublesome acting-out behaviors, but which can be equally devastating.

Longitudinal research will shed additional light on the antecedents and longer-term consequences (for children) of marital and family conflict. Retrospective research examining parents' own family histories would illustrate how patterns of marital and parent-child functioning are repeated intergenerationally within families (Grossmann, Fremmer-Bobbik, Rudolph, & Grossmann, 1988; Meyer, 1988). The differential impact of marital status (married vs. divorced vs. remarried) on parent-child relationships and child adjustment is a particularly fertile area for further study (Hetherington, 1988). Much work needs to continue on the developmental significance of not only child aggression, but also other forms of maladjustment which stem from ongoing participation in conflictual family systems. Research focused on alcoholic families has been particularly illuminating, for example, by demonstrating that even well-behaved and successful children may be far more troubled than they appear to observers (such as peers, teachers, and others), by virtue of continued adaptation to a rigid and threatening family system (Woititz, 1983).

Finally, additional broad methodological questions beckon researchers examining the interplay between marital conflict, parent-child relations, and child adjustment (Reid & Crisafulli, 1990). What role do the age and developmental level of child subjects play in research outcomes? Are children at particular ages more or less vulnerable to family conflict, and why? An interesting alternative approach to the data used in this study would be to separately examine the proposed relationships not only by marital status, but also by sons' grade level, to address the little researched question of whether boys are more prone to aggression as they get older (Grych & Fincham, 1990; Parke, MacDonald, Beitel, & Bhavnagri, 1988).

How critical is the type of sample selected? Would stronger empirical relationships be expected in clinic vs. non-clinic samples? Likewise, what can researchers expect in terms of empirical findings, based on which respondents provide data? Are parents', teachers' and even peers' perceptions so different that findings will consistently differ accordingly? Assessing family processes at appropriate levels-of-analysis is another major task which needs to be addressed. Is studying dyads sufficient? Can additional critical information be gleaned by studying triadic (i.e., mother-father-child) patterns of interaction, instead of continuing the predominant trend of leaving fathers out of the research process? What methodologies will be most suitable for answering these questions?

In summary, the present study produced inconclusive results regarding the linkage between marital conflict, parent-child relationships, and son's aggression with peers. Yet, these results are not seen as disappointing, but instead as indicative of the enormous challenges which lie ahead. "The task of describing the family's relationship to other social domains of the developing child has just begun" (Parke et al., 1988, p. 42).

BIBLIOGRAPHY

Alessandri, S. M., & Wozniak, R. H. (1989). Continuity and change in intrafamilial agreement in beliefs concerning the adolescent: A follow-up study. Child Development, 60, 335-339.

Amato, P. R. (1986). Marital conflict, the parent-child relationship, and child self-esteem. Family Relations, 35(3), 403-410.

Aquilino, W. S. (1986). Children's perceptions of marital interaction. Child Study Journal, 16(3), 159-171.

Arbuckle, B. S. (1989). An investigation of the interactions of attributional bias, life stress, and social support in predicting coercive mother-son interactions. Unpublished doctoral dissertation, University of North Carolina at Greensboro, Greensboro, NC.

Asher, S. R., Renshaw, P. D., & Hymel, S. (1982). Peer relations and the development of social skills. In S. G. Moore & C. R. Cooper (Eds.), The young child: Volume 3 (pp.). Washington, DC: National Association for Education of Young Children.

Bandura, A., & Walters, R. H. (1959). Adolescent aggression. New York: Ronald.

Barnes, H. L. (1989). Cross-generational coalitions, discrepant perceptions and family functioning. Journal of Psychotherapy and the Family, 4(1-2), 175-198.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182.

Baumrind, D. (1967). Child-care practices anteceding three patterns of preschool behavior. Genetic Psychology Monographs, 4(1).

Baumrind, D. (1973). The development of instrumental competence through socialization. In A. D. Pick (Ed.), Minnesota Symposium on Child Psychology, Volume 7 (pp. 3-46). Minneapolis: University of Minnesota Press.

Becker, W. C., Peterson, D. R., Hellmer, L. A., Shoemaker, D. J., & Quay, H. C. (1959). Factors in parental behavior and personality as related to problem behavior in children. Journal of Consulting Psychology, 23, 107-118.

Bell, L., & Bell, D. (1979). Triangulation: Pitfall for the developing child. Journal of Group Psychotherapy, Psychodrama, and Sociometry, 32, 150-155.

Bell, L., & Bell, D. (1982). Family climate and the role of the female adolescent. Family Relations, 31, 519-527.

Belsky, J. (1981). Early human experience: A family perspective. Developmental Psychology, 17, 3-23.

Belsky, J. (1984). The determinants of parenting: a process model. Child Development, 55, 83-96.

Bond, C. R., & McMahon, R. J. (1984). Relationships between marital distress and child behavior problems, maternal personality, and maternal parenting behavior. Journal of Abnormal Psychology, 93, 348-351.

Bowlby, J. (1969). Attachment and loss (Vol. 1). New York: Basic Books.

Brody, G. H., Pillegrini, A. D., & Siegal, I. E. (1986). Marital quality and mother-child and father-child interaction with schol-aged children. Developmental Psychology, 22, 291-296.

Brody, G. H., & Shaffer, D. R. (1982). Contributions of parents and peers to children's moral socialization. Developmental Review, 2, 31-75.

Brody, G. H., Stoneman, Z., & MacKinnon, C. E. (1982). Role asymmetries in interactions among school-aged children, their younger siblings, and their friends. Child Development, 53, 1364-1370.

Bryant, B. K., & DeMorris, K. A. (1992). Beyond parent-child relationships: Potential links between family environments and peer relations. In P. D. Renshaw & R. D. Parke (Eds.), Family-peer relationships: modes of linkage (pp. 159-189). Hillsdale, NJ: Lawrence Erlbaum Associates.

Burman, B., John, R. S., & Margolin, G. (1987). Effects of marital and parent-child relations on children's adjustment. Journal of Family Psychology, 1(1), 91-108.

Carver, R. P. (1978). The case against statistical significance testing. Harvard Educational Review, 48(3), 378-399.

Christensen, A., Phillips, S., Glasgow, R. E., & Johnson, S. M. (1983). Parental characteristics and interactional dysfunction in families with child behavior problems: A preliminary investigation. Journal of Abnormal Child Psychology, 11(1), 153-166.

Cohn, D. A., Patterson, C. J., & Christopoulos, C. (1991). The family and children's peer relations. Journal of Social and Personal Relationships, 8, 315-346.

Coie, J. D., & Dodge, K. A. (1983). Continuities and changes in children's social status: A five year longitudinal study. Merrill-Palmer Quarterly, 29, 261-282.

Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions of social status: A cross age perspective. Developmental Psychology, 17, 557-570.

Coie, J. D., Dodge, K. A., & Kupersmidt, J. (1990). Peer group behavior and social status. In S. R. Asher and J. D. Coie (Eds.), Children's status in the peer group (pp. 17-59). New York: Cambridge University Press.

Coie, J. D., & Kupersmidt, J. B. (1983). A behavioral analysis of emerging social status in boys' groups. Child Development, 54, 1400-1416.

Conger, R. D., McCarty, J. A., Yang, R. K., Lahey, B. B., & Kropp, J. P. (1984). Perception of child, child-rearing values, and emotional distress as mediating links between environmental stressors and observed maternal behavior. Child Development, 55, 2234-2247.

Cowen, E. L., Pederson, A., Babigan, H., Izzo, L., & Trost, M. A. (1972). Long-term follow-up of early detected vulnerable children. Journal of Consulting and Clinical Psychology, 41, 438-446.

Cummings, J. S., Pellegrini, D. S., Notarius, C. I., & Cummings, E. M. (1989). Children's responses to angry adult behavior as a function of marital distress and history of interparent hostility. Child Development, 60, 1035-1043.

Curtner, M. L. (1990). A cross-contextual analysis of boys' aggressiveness. Unpublished doctoral dissertation, University of North Carolina at Greensboro, Greensboro, NC.

Dishion, T. J. (1990). The family ecology of boys' peer relations in middle childhood. Child Development, 61, 874-892.

Dodge, K. A., & Coie, J. D. (1987). Social-information processing factors in reactive and proactive aggression in children's peer groups. Journal of Personality and Social Psychology, 53(6), 1146-1158.

Dodge, K. A., McClaskey, C. L., & Feldman, E. (1985). Situational approach to the assessment of social competence in children. Journal of Consulting and Clinical Psychology, 53(3), 344-353.

Easterbrooks, M. A., & Emde, R. N. (1988). Marital and parent-child relationships: The role of affect in the family system. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: mutual influences (pp. 83-103). Oxford: Clarendon Press.

Elder, G. H., Jr. (1974). Children of the great depression: Social change in life experience. Chicago: University of Chicago Press.

Elder, G. H., Jr., Liker, J. K., & Cross, C. E. (1984). Parent-child behavior in the Great Depression: Life course and intergenerational influences. In P.B. Baltes & O. G. Brim, Jr. (Eds.), Life span development and behavior, 6 (pp. 108-158). New York: Academic Press.

Emery, R. E. (1982). Interparental conflict and the children of discord and divorce. Psycholigical Bulletin, 92(2), 310-330.

Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: Mutual influences (pp. 104-118). Oxford: Clarendon Press.

Eron, L. D. (1982). Parent-child interaction, television violence, and aggression of children. American Psychologist, 37, 197-211.

Farrington, D. (1985). Stepping stones to adult criminal careers. In D. Olweus, J. Block, & M. Radke-Yarrow (Eds.), Development of antisocial and prosocial behavior (pp. 359-384). New York: Academic Press.

Fauber, R., Forehand, R., Thomas, A. M., & Wierson, M. (1990). A mediational model of the impact of marital conflict on adolescent adjustment in intact and divorced families: The role of disrupted parenting. Child Development, 61(4), 1112-1123.

Forehand, R., Long, N., Brody, G. H., & Rauber, R. (1986). Home predictors of young adolescents' school behavior and academic performance. Child Development, 57, 1528-1533.

Friedrich, W. N., & Einbender, A. J. (1983). The abused child: A psychological review. Journal of Clinical Child Psychology, 12, 244-256.

Goldberg, W. A., & Easterbrooks, M. A. (1984). Role of marital quality in toddler development. Developmental Psychology, 20, 504-514.

Gottman, J. M., & Katz, L. F. (1989). Effects of marital discord on young children's peer interaction and health. Developmental Psychology, 25(3), 373-381.

Grossman, K., Fremmer-Bombik, E., Rudolph, J., & Grossmann, K. E. (1988). Maternal attachment representations as related to patterns of infant-mother attachment and maternal care during the first year. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: Mutual influences (pp. 104-118). Oxford: Clarendon Press.

Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. Psychological Bulletin, 108(2), 267-290.

Hartup, W. (1979). The social worlds of childhood. American Psychologist, 34, 944-950.

Hess, R. D., & Camara, K. A. (1979). Postdivorce family relationships as mediating factors in the consequences of divorce for children. Journal of Social Issues, 35, 79-98.

Hetherington, E. M. (1972). Effects of father absence on personality development in adolescent daughters. Developmental Psychology, 7, 313-326.

Hetherington, E. M. (1979). Divorce: A child's perspective. American Psychologist, 34, 851-858.

Hetherington, E. M. (1988). Parents, children, and siblings: six years after divorce. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: Mutual influences (pp. 104-118). Oxford: Clarendon Press.

Hetherington, E. M., Cox, M., & Cox, R. (1976). Divorced fathers. Family Coordinator, 25, 417-428.

Hetherington, E. M., Cox, M., & Cox, R. (1978). The aftermath of divorce. In J. H. Stevens, Jr., & M. Mathews (Eds.), Mother-child, father-child relationships (pp. 398-439). Washington, DC: National Association for the Education of Young Children.

Hetherington, E. M., Cox, M., & Cox, R. (1982). Effects of divorce on parents and children. In M. Lamb (Ed.), Nontraditional families (pp. 233-288). Hillsdale, NJ: Erlbaum.

Huesmann, L. R., Eron, L. D., Lefkowitz, M. M., & Walder, L. O. (1984). The stability of aggression over time and generations. Developmental Psychology, 20, 1120-1134.

Hymel, S., & Rubin, K. H. (1985). Children with peer relationships and social skills problems: Conceptual, methodological, and developmental issues. In G. T. Whitehurst (Ed.), Annals of child development, Vol. 2 (pp. 1-93). Greenwich, CT: JAI Press.

Jouriles, E. N., Barling, J., & O'Leary, K. D. (1987). Predicting child behavior problems in maritally violent families. Journal of Abnormal Child Psychology, 15(2), 165-173.

Jouriles, E. N., Pfiffner, L. J., & O'Leary, S. G. (1988). Marital conflict, parenting, and toddler conduct problems. Journal of Abnormal Child Psychology, 16(2), 197-206.

Kelly, J. B., & Wallerstein, J. S. (1976). The effects of parental divorce: Experiences of the child in early latency. American Journal of Orthopsychiatry, 46, 20-32.

Komarovsky, M. (1962). Blue-collar marriage. New York: Random House.

Kupersmidt, J. (1983). Predicting delinquency and academic problems from childhood peer status. Paper presented at the biennial of the Society for Research in Child Development, Detroit, MI.

Kupersmidt, J., & Coie, J. D. (1985). The prediction of delinquency and school-related problems from childhood peer status. Unpublished manuscript, Duke University, Durham, NC.

Kupersmidt, J., Coie, J. D., & Dodge, K. A. (1990). The role of poor peer relationships in the development of disorder. In S. R. Asher & J. D. Coie (Eds.), Peer rejection in childhood (pp. 274-305). New York: Cambridge University Press.

Ladd, G. W. (1992). Themes and theories: Perspectives on processes in family-peer relationships. In P. D. Renshaw & R. D. Parke (Eds.), Family-peer relationships: modes of linkage (pp. 3-34). Hillsdale, NJ: Lawrence Erlbaum Associates.

Lamphear, V. S. (1985). The impact of maltreatment on children's psychosocial adjustment: A review of the research. Child Abuse and Neglect, 9, 251-263.

Long, N., & Forehand, R., Fauber, R., & Brody, G. (1987). Self-perceived and independently observed competence of young adolescents as a function of parental marital conflict and recent divorce. Journal of Abnormal Child Psychology, 15, 15-27.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In P. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), Handbook of child psychology: Vol. 4. Socialization, personality, and social development (pp. 1-102). New York: Wiley.

MacDonald, K., & Parke, R. D. (1984). Bridging the gap: Parent-child play interaction and peer interactive competence. Child Development, 55, 1265-1277.

MacKinnon, C. E. (1988). The Family History Inventory. The University of North Carolina at Greensboro.

MacKinnon, C. E. (1989). An observational investigation of sibling interactions in married and divorced families. Developmental Psychology, 25, 36-44.

MacKinnon, C. E., Lamb, M. E., Belsky, J., & Baum, C. (1990). An affective-cognitive model of mother-child aggression. Development and Psychopathology, 2, 1-13.

Margolin, G. (1988). Marital conflict is not marital conflict is not marital conflict. In R. D. Peters & R. J. McMahon (Eds.), Social learning and systems approaches to marriage and the family (pp. 193-216). New York: Brunner/Mazel, Inc.).

Meyer, H. M. (1988). Marital and mother-child relationships: Developmental history, parent personality, and child difficultness. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: Mutual influences (pp. 119-139). Oxford: Clarendon Press.

Newman, B. M. (1989). The changing nature of the parent-adolescent relationship from early to late adolescence. Adolescence, 24(96), 915-924.

O'Leary, K. D., & Emery, R. E. (1984). Marital discord and child behavior problems. In M. D. Levine & P. Satz (Eds.), Developmental variation and dysfunction (pp. 345-364). New York: Academic Press.

Olweus, D. (1979). Stability of aggression reaction patterns in males: A review. Psychological Bulletin, 86, 852-875.

Parke, R. D., Cassidy, J., Burks, V. M., Carson, J. L., & Boyum, L. (1992). Familial contribution to peer competence among young children: The role of interactive and affective processes. In P. D. Renshaw & R. D. Parke (Eds.), Family-peer relationships: Modes of linkage (pp. 107-134). Hillsdale, NJ: Lawrence Erlbaum Associates.

Parke, R. D., MacDonald, K. B., Beitel, A., & Bhavnagri, N. (1988). The role of the family in the development of peer relationships. In R. Peters & R. J. McMahon (Eds.), Social learning and systems approaches to marriage and the family (pp. 17-44). New York: Brunner Mazel.

Parker, J. G., & Asher, S. R. (1987). Peer acceptance and later interpersonal adjustment: Are low-accepted children "at risk"? Psychological Bulletin, 102, 357-389.

Patterson, G. R. (1982). The coercive family process. Eugene, OR: Castalia Press.

Patterson, C. J., Kupersmidt, J. B., & Griesler, P. C. (1990). Children's perceptions of self and of relationships with others as a function of sociometric status. Child Development, 61, 1335-1349.

Peterson, J. L., & Zill, N. (1986). Marital disruption, parent-child relationships, and behavior problems in children. Journal of Marriage and the Family, 48, 295-307.

Pettit, G. S., Dodge, K. A., & Brown, M. M. (1988). Early family experience, social problem solving patterns, and children's social competence. Child Development, 59, 107-120.

Pettit, G. S., Harrist, A. W., Bates, J. E., & Dodge, K. A. (1991). Family interaction, social cognition, and children's subsequent relatoins with peers at kindergarten. Journal of Social and Personal Relationships, 8(3), 383-402.

Porter, B., & O'Leary, K. D. (1980). Marital discord and childhood behavior problems. Journal of Abnormal Child Psychology, 8, 287-295.

Putallaz, M. (1987). Maternal behavior and children's sociometric status. Child Development, 58, 324-340.

Putallaz, M., & Heflin, A. H. (1990). Parent-child interaction. In S. R. Asher & J. D. Coie (Eds.), Peer rejection in childhood (pp. 189-216). New York: Cambridge University Press.

Reid, W. J., & Crisafulli, A. (1990). Marital discord and child behavior problems: A meta-analysis. Journal of Abnormal Child Psychology, 18(1), 105-117.

Renshaw, P. D., & Parke, R. D. (1992). Family and peer relationships in historical perspective. In P. D. Renshaw & R. D. Parke (Eds.), Family-peer relationships: Modes of linkage (pp. 35-74). Hillsdale, NJ: Lawrence Erlbaum Associates.

Rubin, K. H., & Lollis, S. P. (1988). Origins and consequences of social withdrawal in childhood. In J. Belsky & T. Nezworski (Eds.), Clinical implications of attachment. Hillsdale, NJ: Lawrence Erlbaum Associates.

Rutter, M. R. (1971). Parent-child separation: Psychological effects on the children. Journal of Child Psychology and Psychiatry and Allied Disciplines, 12, 233-260.

Rutter, M. R. (1980). Protective factors in children's responses to stress and disadvantage. In M. W. Kent & J. E. Rolf (Eds.), Primary prevention of psychopathology: III. Promoting social competence and coping in children. Hanover, NH: Univeristy Press of New England.

Rutter, M. R. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 317-330.

Satir, V. (1964). Conjoint family therapy. Palo Alto, CA: Science and Behavior Books, Inc.

Schumm, W. R. (1982). Integrating theory, measurement, and data analysis in family studies survey research. Journal of Marriage and the Family, 44(4), 983-998.

Schwarz, J. C. (1979). Childhood origins of psychopathology. American Psychologist, 34, 879-883.

Simons, R. L., Robertson, J. F., & Downs, W. R. (1989). The nature of the association between parental rejection and delinquent behavior. Journal of Youth and Adolescence, 18(3), 297-310.

Skipper, J. K., Guenther, A. L., & Nass, G. (1967). The sacredness of .05: a note concerning the uses of statistical levels of significance in social science. The American Sociologist, , 15-18.

Snyder, J. J. (1989). The family's role in early peer relationships. Paper presented at the NIMH Family Research Consortium Fourth Annual Summer Institute, Cape Cod, MA.

Stevenson-Hinde, J. (1988). Individuals in relationships. In R. A. Hinde & J. S. Stevenson-Hinde (Eds.), Relationships within families: Mutual influences (pp. 119-139). Oxford: Clarendon Press.

Stewart, M. A., & duBlois, C. S. (1981). Wife abuse among families attending a child psychiatry clinic. Journal of the American Academy of Child Psychiatry, 20, 845-862.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: the Conflict Tactics (CT) Scales. Journal of Marriage and the Family, 41, 75-88.

Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). Behind closed doors: Violence in the American family. New York: Anchor Books.

Tschann, J. M., Johnston, J. R., & Kline, M. (1990). Conflict, loss, change, and parent-child relationships: Predicting children's adjustment during divorce. Journal of Divorce, 13(4), 1-22.

Wierson, M., Forehand, R., & McCombs, A. (1988). The relationship of early adolescent functioning to parent-reported and adolescent-perceived interparental conflict. Journal of Abnormal Child Psychology, 16(6), 707-718.

Woititz, J. G. (1983). Adult children of alcoholics. Pompano Beach, FL: Health Communications, Inc.

APPENDIX A

Phone Script for Subject Recruitment

PHONE TRACK FOR SETTING 1ST APPOINTMENTS
(1/28/92)

Hi Ms. _____, this is (your name) with the Family Relations Department at UNCG. I'm calling to tell you about a study we're doing for the Guilford County and Greensboro City School Systems. Do you have a minute to talk?

First, I'd like to tell you why I'm calling you: all boys age 7-10 are eligible, and I'm using a (name of school) roster to call parents who appear to have a son in that age range.

Here's why we're doing the study: Along with the schools, we're hearing from a lot of parents that they're really concerned about their children's behavior, or that parenting just seems to be tougher than ever. We're trying to learn about how some parents and kids have such a tough time, while other parents and kids feel really good about their relationships.

If you're eligible to participate, we'll ask you and your son to visit the UNCG Family Research Center, to go through some questionnaires, and to play a couple of games together. We build-in a break with snacks, and the whole interview takes about 2 1/4 hours. Everything is fully confidential, and you will receive $20 when you return a few additional questionnaires that you'll complete at home (plus a $10 bonus for keeping your first scheduled appointment).

If your family fits into our categories, we'd like to have you participate. How does that sound so far?

CATEGORIES:

Married Moms: Moms who *are still married to, and living with, son's biol. dad

Single Moms: Moms who *are legally divorced from son's biol. dad and *have not remarried, or lived with another man since the divorce.

(If separated, ask if she has *been separated at least 6 months, and *made it through the transition to single-parenting.)

"Do you fit into either one of these categories?"
(If "yes", continue)
(If "no", thank her for her time, and explain that we can't work with her a this point.)

"We set appointments at almost any time that's convenient for you, past 3:00 in the afternoon. What day and time is best?"

(FILL OUT CARD **COMPLETELY**; ***SON'S NAME, AGE, GRADE.**
***MOM'S 1ST NAME, MAR. STATUS, WORK #.**
***APPOINTMENT DATE & TIME.**)

Once we set an appointment, we will arrange for interviewers to meet you here at the Research Center. Of course, if there's an emergency or change in your schedule, we'll expect you to call us, so that we can adjust our schedules as well. Are you sure that (date & time) is convenient?

Thanks very much. We'll be sending you a confirmation letter, which will include the appointment date & time, our phone number, and a map to help you find us, so please hang on to it. Also, we'll call you a day or two before the appointment, to make sure the directions make sense.

Thanks again for your help.

APPENDIX B

Consent Form

ID#_____

CONSENT FORM

As you recall from our telephone conversation, we are interested in mother-son interactions and what mothers and their sons think about each other. The purpose of our study is to determine why some parent-child relationships are positive, while others are negative even within the same family. We have designed a study to investigate how mothers and their sons view situations. This research has been approved by the Department of Child Development and Family Relations; however, we must have written permission to include you and your son in this study.

Briefly, this study consists of two phases, each separated by one year. In the first phase, you and your son will be interviewed about your views concerning hypothetical (make - believe) interactions with each other and about your feelings regarding an actual recent interaction with each other. You will also be asked to engage in two game-playing situations and fill out some questionnaires. You will be videotaped during your interview and, again, when you are engaging in the game-playing situations. We will give you a packet of questionnaires to complete at home and return. The procedures in the second phase will be identical to the first. You will be compensated $20.00 during the first phase of the study and $10.00 bonus if you make your first appointment without rescheduling. You will be paid $35.00 during the second phase of the study to compensate you for participation in the entire study.

In the past, children and their parents have enjoyed participating in projects such as this one. However, if at any time you or your child indicate that you no longer wish to continue, we will honor that wish. All portions of the study will be kept strictly confidential. Neither your name nor your son's will appear on any of the recording sheets or surveys that we use.

ID#_____ _____ Consent Form - Page 2

Please indicate in the portion below whether or not you and your child wish to participate.

I, _____, am familiar with the purpose and methods of this research, and understand that my and my child's responses will be kept strictly confidential. Further, I have been informed that I or my son may choose to stop the research at any time or refuse to respond to any question, and the researcher will support that wish. Understanding the above conditions, I

_____ AM WILLING _____ AM NOT WILLING

for my child and I to participate in this research.

_____
mother's signature

I have also been told about this study and understand that I don't have to answer if I don't want to and may quit anytime I want.

_____ _____ _____ _____
child's signature Age School Grade

Regardless of your willingness to participate, if you would like a group-summary report of the overall findings of the project sent to you, please print your name and address below.

Name_____

Address_____

_____

Thank you very much.

REV 2/91

APPENDIX C

Family History Inventory

ID#_____ DATE_____ Page 1

Family History Inventory

This questionnaire is designed to collect information about you and your family. Please circle the number beside the most appropriate response or fill in the blank. In recognition of the personal nature of the following questions, we would like to emphasize our commitment to preserving total confidentiality in this study. Thank you for your participation.

Family background

1. Please write the name and age of each of your children.

_____ Male child(ren) Age _____ Female child(ren) Age

_____

_____

_____

2. How would you describe your ethnic background or race?
   1. White American, Caucasian
   2. Afro-American, Negro
   3. Native American, American Indian
   4. Spanish Surnamed American, Chicano, Puerto Rican
   5. Oriental American, Asian
   6. Other (please specify)

3. What is your religious affiliation?
   1. Protestant
   2. Catholic
   3. Jewish
   4. Mormon
   5. None
   6. Other (please specify)

4. What is the highest level of education you have completed?
   1. Grade school
   2. High school or G.E.D.
   3. Vocational, technical, or certificate program
   4. Some college work, but no degree
   5. Two-year college degree
   6. Bachelor's degree or equivalent
   7. One or two years of graduate or professional school study, but no degree
   8. Master's degree
   9. M.D., Ph.D., Ed.D.

ID#_____ DATE_____ Page 2

5. What is your occupation? _____

6. Where do you work? _____

7. What is your present marital status?
   1. Married to your son's biological father
   2. Divorced from your son's biological father

8. How long have you been in your present marital status? ____

9. If currently married, what is the highest level of education of your son's biological father?
   1. Grade school
   2. High school or G.E.D.
   3. Vocational, technical, or certificate program
   4. Some college work, but no degree
   5. Two-year college degree
   6. Bachelor's degree or equivalent
   7. One or two years of graduate or professional school study, but no degree
   8. Master's degree
   9. M.D., Ph.D., Ed.D.

10. If divorced, what is the highest level of education the biological father of your son completed?
   1. Grade school
   2. High school or G.E.D.
   3. Vocational, technical, or certificate program
   4. Some college work, but no degree
   5. Two-year college degree
   6. Bachelor's degree or equivalent
   7. One or two years of graduate or professional school study, but no degree
   8. Master's degree
   9. M.D., Ph.D., Ed.D.

11. If currently married, what is your spouse's occupation?

_____

12. If you are divorced, what is the occupation of your son's father?

_____

ID#_____ DATE_____ Page 3

13. What is your current yearly household income?

_____Under 10,000
_____10,000 to 19,999
_____20,000 to 29,999
_____30,000 to 39,999
_____40,000 to 49,999
_____50,000 to 59,999
_____60,000 to 69,999
_____70,000 to 79,999
_____80,000 to 89,999
_____90,000 and above

14. What is your son's relationship with his biological father? (Even if his father does not live in your home) (Please describe in detail)

15. My relationship with my son is? (please describe in detail)

16. My relationship with my son's biological father is?

ID#_____ DATE_____ PAGE 4

17. Please describe in detail the amount of support and kind of support you receive from your son's biological father and children.

_____

_____

_____

_____

18. Please describe in detail the amount of support and kind of support you receive from extended family (parents, other relatives) and friends.

_____

_____

_____

_____

19. Please describe in detail the amount of support and kind of support you receive from the community (church, social service agencies, doctor, etc.)

_____

_____

_____

_____

APPENDIX D

O'Leary - Porter Scale

2LN ID#_____ Date_____ Page 1

OP

Please answer all of the following questions to the best of your ability. If you are separated or divorced, please complete this questionnaire in reference to you and your child's other biological parent at the present time (NOT when you were living together).

1. It is difficult in these days of tight budgets to confine financial discussions to specific times and places. How often would you say you and your spouse/ex-spouse argue over money matters in front of this child?
Never Rarely Occasionally Often Very Often

2. Children often go to one parent for money or permission to do something after having been refused by the other parent. How often would you say this child approaches you or your spouse/ex-spouse in this manner with rewarding results?
Never Rarely Occasionally Often Very Often

3. Husbands and wives often disagree on the subject of discipline. How often do you and your spouse/ex-spouse argue over disciplinary problems in this child's presence?
Never Rarely Occasionally Often Very Often

4. How often has this child heard you and your spouse/ex-spouse argue about the wife's role in the family? (Housewife, working wife, etc.)
Never Rarely Occasionally Often Very Often

5. How often does your spouse/ex-spouse complain to you about your personal habits (drinking, nagging, sloppiness, etc.) in front of this child?
Never Rarely Occasionally Often Very Often

2LN ID#_____ Date_____ Page 2

6. How often do you complain to your spouse/ex-spouse about his/her personal habits in front of this child?
Never Rarely Occasionally Often Very Often

7. In every normal marriage there are arguments. What percentage of the arguments between you and your spouse/ex-spouse would you say take place in front of this child?
Less than 10% 10-25% 26-50% 51-75% More than 75%

8. To varying degrees, we all experience almost irresistible impulses in times of great stress. How often is there physical expression of hostility between you and your spouse/ex-spouse in front of this child?
Never Rarely Occasionally Often Very Often

9. How often do you and/or your spouse/ex-spouse display verbal hostility in front of this child?
Never Rarely Occasionally Often Very Often

10. How often do you and your spouse/ex-spouse display affection for each other in front of this child?
Never Rarely Occasionally Often Very Often

APPENDIX E

Categories for Observational Coding

Definition of Variables Coded in Interaction Tasks

Variable	Definition
Altruistic Behaviors	
Positive Verbal	Any positive verbal expression that displays praise, reinforcement, or excitement.
Positive Physical	Any positive physical contact extended toward the other person such as touching affectively.
Positive Affect	Any facial expression denoting positive emotions such as smiling, laughing, giggling, or nodding in approval.
Agonistic Behaviors	
Negative Verbal	Any verbal expression such as quarreling, sarcasm, threatening, teasing, insulting, whining, name-calling, demanding, or responding in a demeaning tone.
Negative Physical	Any negative physical contact such as grabbing, hitting, slapping, pushing, or attacking.
Negative Affect	Any facial expression that denotes negative emotions such as frowning, crying, anger, upset, disgust, or making faces (other than positive).
Neutral Behaviors	
Neutral Verbal	Any verbalization that does not by definition fit into one of the above categories.
Neutral Physical	Any physical contact that is not positive or negative in nature.

APPENDIX F

Taxonomy of Problematic Social Situations for Children

TAXONOMY OF PROBLEM SITUATIONS

Child's Name:_____ ID#:(

Grade:_____ Teacher:_____

Instructions: For each situation, please tell us how likely this child is to respond in an inappropriate manner (by hitting peers, aggressing verbally, crying, disrupting the group, withdrawing, appealing to the teacher for help, or behaving in some other immature, unacceptable, and unsuccessful way). In other words, how much of a problem is this situation for this child?

Use the following scale to answer:

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

For example: When this child is teased by peers

If you feel that when this child is teased by peers, he or she almost always responds inappropriately or ineffectively (such as by crying), you would agree that this is a problem situation for this child and would circle 5. If you feel that when this situation occurs, this child almost always responds in an effective and appropriate manner (such as by ignoring the teasing), you would agree that this is not a problem situation for this child and would circle 1. We are less interested in how frequently this situation occurs and more interested in this child's response when it does occur.

1.	When this child is working on a class project that requires sharing or cooperation	1	2	3	4	5
2.	When peers notice that this child is somehow different (for example, wearing peculiar clothes, or walking funny).	1	2	3	4	5
3.	When this child has won a game against a peer.	1	2	3	4	5
4.	When a peer takes this child's turn during a game.	1	2	3	4	5
5.	When this child is playing a game with a peer and realizes that the peer is about to win.	1	2	3	4	5
6.	When peers call this child a bad name.	1	2	3	4	5
7.	When a peer is allowed a privilege (such as winning a prize or standing first in line) that this child cannot enjoy.	1	2	3	4	5
8.	When a peer performs better than this child in a game.	1	2	3	4	5
9.	When this child asks a peer to play and the peer chooses to play with a third child instead.	1	2	3	4	5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

10.	When a peer performs better than this child in school work.	1	2	3	4	5
11.	When peers laugh at this child for having difficulty in a game or play activity.	1	2	3	4	5

12.	When this child performs better than a peer in a game.	1	2	3	4	5
13.	When peers laugh at this child for having difficulty with a school work problem.	1	2	3	4	5
14.	When this child performs better than a peer in school work.	1	2	3	4	5
15.	When this child is having difficulty with a particular school work problem.	1	2	3	4	5
16.	When a peer has something belonging to this child, and this child wants it back.	1	2	3	4	5
17.	When this child finds out that he or she has been left out of a group, game, or activity of peers.	1	2	3	4	5
18.	When this child has something belonging to a peer and the peer wants it back before this child is through with it.	1	2	3	4	5
19.	When this child is playing with a peer, and the peer accidently breaks this child's toy.	1	2	3	4	5
20.	When this child is teased by peers.	1	2	3	4	5
21.	When a group of peers have started a club or a group and have not included this child.	1	2	3	4	5
22.	When this child wants to play with a group of peers who are already playing a game.	1	2	3	4	5
23.	When this child tries to join in with a group of peers who are playing a game, and they tell him to wait until they are ready.	1	2	3	4	5
24.	When this child is accidently provoked by a peer (such as a peer who accidentally bumps into this child in line).	1	2	3	4	5
25.	When this child is asked by a peer to share his toy or game (or pencil or some other object).	1	2	3	4	5
26.	When the teacher asks this child to work on a class assignment that will take a long time and will be difficult.	1	2	3	4	5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

27.	When the teacher is trying to speak to the entire class.	1	2	3	4	5
28.	When this child is standing in line with peers and must wait a long time.	1	2	3	4	5
29.	When this child is on the playground and a teacher is not near by.	1	2	3	4	5
30.	When this child is in the classroom with peers and the teacher must leave the room for a short period of time.	1	2	3	4	5
31.	When this child is seated at lunch with a group of peers and a teacher is not near by.	1	2	3	4	5

32. When a peer tries to start a conversation with this child. 1 2 3 4 5

33. When this child is sad, and a peer asks him how he is feeling. 1 2 3 4 5

34. When a peer has a toy, game or object that this child wants. 1 2 3 4 5

35. When this child has an extra toy and a peer asks him to share it. 1 2 3 4 5

36. When a peer expresses anger at this child. 1 2 3 4 5

37. When a peer has performed quite well at a task and is deserving of a compliment from this child. 1 2 3 4 5

38. When a peer is troubled, worried, or upset and needs comfort from this child. 1 2 3 4 5

39. When a peer has been helpful to this child, and this child should thank him or her. 1 2 3 4 5

40. When a peer cuts into line in front of this child. 1 2 3 4 5

41. When a peer tries to talk with this child. 1 2 3 4 5

42. When this child has accidentally hurt a peer and should apologize. 1 2 3 4 5

43. When this child needs help from a peer and should ask for help. 1 2 3 4 5

44. When this child loses a game with peers. 1 2 3 4 5

45. When this child has been teased or threatened, he gets angry easily and strikes back. 1 2 3 4 5

Circle 1 if this situation is never a problem for this child.
Circle 2 if this situation is rarely a problem for this child.
Circle 3 if this situation is sometimes a problem for this child.
Circle 4 if this situation is usually a problem for this child.
Circle 5 if this situation is almost always a problem for this child.

46. This child always claims that other children are to blame in a fight and feels that they started the trouble. 1 2 3 4 5

47. When A peer Accidentally hurts this child (such as by bumping into him), he overreacts with anger and fighting. 1 2 3 4 5

48. When A peer refuses to play with this child, he gets angry and threatens the peer. 1 2 3 4 5

49. When A peer takes an object from this child, he gets angry And will use force to retrieve the object. 1 2 3 4 5

50. When this child makes A request of A peer and the peer refuses, this child gets angry and either threatens the peer or strikes out At the peer. 1 2 3 4 5

51. When A peer ignores this child, he or she gets angry and either threatens the peer or strikes out at the peer. 1 2 3 4 5

52. When A peer refuses to play with this child, he gets angry and either threatens the peer or strikes out At the peer. 1 2 3 4 5

53.	This child gets other kids to gang up on a peer that he does not like.	1	2	3	4	5
54.	This child uses physical force (or threatens to use force) in order to dominate the other kids.	1	2	3	4	5
55.	This child threatens or bullies others in order to get his own way.	1	2	3	4	5
56.	This child initiates taunting and making fun of other children.	1	2	3	4	5
57.	This child belittles peers in an attempt to look good.	1	2	3	4	5
58.	This child takes the possessions of others and uses force (or threatens to use force) if the peer attempts to retrieve the possessions.	1	2	3	4	5
59.	This child coerces other children into doing things for him.	1	2	3	4	5
60.	This child will perform mean tricks on other children and then laugh afterwards.	1	2	3	4	5