

## Marital Conflict, Parent-Child Relationships, and Child Adjustment: Does Gender Matter?

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Children's perceptions of interparental conflict, of parent-child relations, and measures of child adjustment were examined in a single theoretical model to explore the role of parent and child gender in these associations. The sample was comprised of 169 6th and 7th grade children. Marital conflict affected child adjustment both directly and indirectly through parent-child relationships. Marital conflict negatively impacted perceptions of father-child relationships after controlling for the effect of marital conflict on mother-child relationships. Perceptions of interparental conflict were more strongly associated with negative mother-son relationships compared to same-gender dyads. Results also indicated that when children are aware of marital conflict, negative interactions with their opposite-sex parent may be particularly harmful.

It is now well established that marital conflict is related to child adjustment (for reviews, see Cummings & Davies, 1994; Grych & Fincham, 1990). The documentation of this association raises the question of why it exists. Two major lines of research are addressed to this question. Guided by the view that mere exposure to interparental conflict is deleterious for children (Emery, Fincham, & Cummings, 1992), the first involves an investigation of direct effects of marital conflict on child adjustment (e.g., Cummings & Davies, 1994; Grych & Fincham, 1993). In contrast, the second line of research is concerned with the indirect effects of marital conflict on children (e.g., Fauber, Forehand, Thomas, & Wierson, 1990) and is most often guided by the view that marital conflict influences children because of its impact on parent-child relationships (Fauber & Long, 1991). More specifically, interparental conflict is seen as a stressor that either leaves spouses distracted and drained of the emotional resources needed to be effective parents (Goldberg & Easterbrooks, 1984) or arouses anger that spills over into the parent-child relationship (Kerig, Cowan, &

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Cowan, 1993; O'Leary, 1984). Few researchers, however, have attempted to integrate these two lines of inquiry. Despite the focus on the impact of marital conflict on parent-child relationships, little attention has been paid to the role of fathers, and hence to the role of parent and child gender. In the present study, therefore, these two lines of inquiry are integrated by simultaneously examining relations among marital conflict, parent-child relationships, and child adjustment. In doing so, the role of parent and child gender in these associations is examined.

### *The Role of Parent and Child Gender*

Most researchers of child adjustment examine the mother-child relationship only and those who gather information about both parents often average mother and father ratings into a single parent-child relationship score (Phares & Compas, 1992). Such approaches assume that father-child relationships are so similar to mother-child relationships that they do not require separate study. Moreover, the failure to examine parental gender in the marital conflict-child adjustment association implies that the conflict affects all parent-child dyads in a similar fashion, regardless of parent and child gender.

These assumptions have been challenged recently. Based on a review of available data, Phares and Compas (1992) concluded that variables related to fathers (e.g., father-child relationships) account for variance in child adjustment that is not captured by mother-related variables. Furthermore, omitting father data has been shown to produce misleading results regarding mothers' impact on child adjustment (Compas, Howell, Phares, Williams, & Giunta, 1989). In sum, there is compelling evidence that any investigation of the impact of parent-child relationships on child adjustment should include data on mother-child and father-child relationships.

The need to include analysis of fathers and mothers is particularly compelling for several reasons. First, father-child relationships may be more vulnerable to the effects of marital distress than mother-child relationships (e.g., Brody, Pellegrini, & Sigel, 1986; Peterson & Zill 1986). Father-child relationships might be more affected by marital conflict because men in unhappy marriages tend to withdraw from their wives and therefore also may withdraw from their children (Howes & Markman, 1989). In turn, paternal withdrawal may cause children to feel rejected and unloved.

Second, negative parental emotions in marital conflict may be more likely to influence that parent's relationship with the opposite-sexed child, because such a child is reminiscent of the spouse (O'Leary, 1984). Of note, in observations of mother, father, and infant interactions, McHale

(1994) found that marital conflict was associated with father withdrawal from parent-child interaction only in the case of daughters. Fathers of sons continued to engage their children. One implication of these findings is that it may be the combination of parent and child gender that moderates the impact of marital conflict on parent-child relationships. However, this possibility has not been systematically investigated; most researchers either do not analyze parent and child gender separately, or do not examine all possible gender dyads. This represents an important omission in the literature on the association between marital conflict and child adjustment. More complete investigation of the role of gender also requires study of children's perceptions of marital conflict because their perceptions have emerged as an important factor in understanding the impact of marital conflict.

### *The Role of Children's Perceptions*

In the studies outlined earlier, interparental conflict is usually hypothesized to influence the parent-child relationship by affecting parents' attitudes and behaviors. However, children's awareness of interparental conflict is also likely to have an impact on parent-child relationships. Children who perceive their parents engaging in angry, conflictual behavior may feel less secure in their own relationship with those parents (Davies & Cummings, 1994). Because children tend to identify with the same-sex parent, viewing interparental conflict might particularly threaten children's perceptions of their relationship with the opposite-sexed parent, thereby exacerbating any spillover effects of negative affect by the opposite-sexed parent. Thus, investigating the child's perceptions of marital conflict and of parent-child relationships may be especially important for understanding the association between marital conflict and child adjustment.

Grych and Fincham (1990) provide a conceptual framework for understanding the association between marital conflict and child adjustment in which children's perceptions of marital conflict play a central role. Noting that some degree of conflict exists in most marriages, these authors hypothesize that it is not interparental conflict per se, but rather children's interpretation of the conflict that determines whether it is harmful to them.<sup>1</sup>

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<sup>1</sup>It is important to note that for some forms of interparental conflict (e.g., physical abuse) we need not examine children's perceptions to document the deleterious effects. In such cases, the conflict most likely produces little or no variation in children's perceptions as it is uniformly experienced as negative.

Children's perceptions of interparental conflict can include perceived intensity and frequency, perceptions of whether the conflict was resolved, of whether the conflict was somehow the child's fault, and of whether the conflict was experienced as being threatening to the child. Indeed, it can be argued that such perceptions might be more strongly related to children's adjustment than other commonly used measures of marital conflict such as parental report.

Researchers using a measure derived from the Grych and Fincham (1990) framework have provided some empirical data to support these arguments (Cummings, Davies, & Simpson, 1994; Grych, Seid, & Fincham, 1992). Although encouraging, these findings leave open the possibility that such associations are a byproduct of the impact of marital conflict on parent-child relationships. To date, however, the relation between children's perceptions of marital conflict and parent-child relationships has not been examined. Such omissions emphasize the need for a more systems-oriented approach to investigating the association between marital conflict and child adjustment.

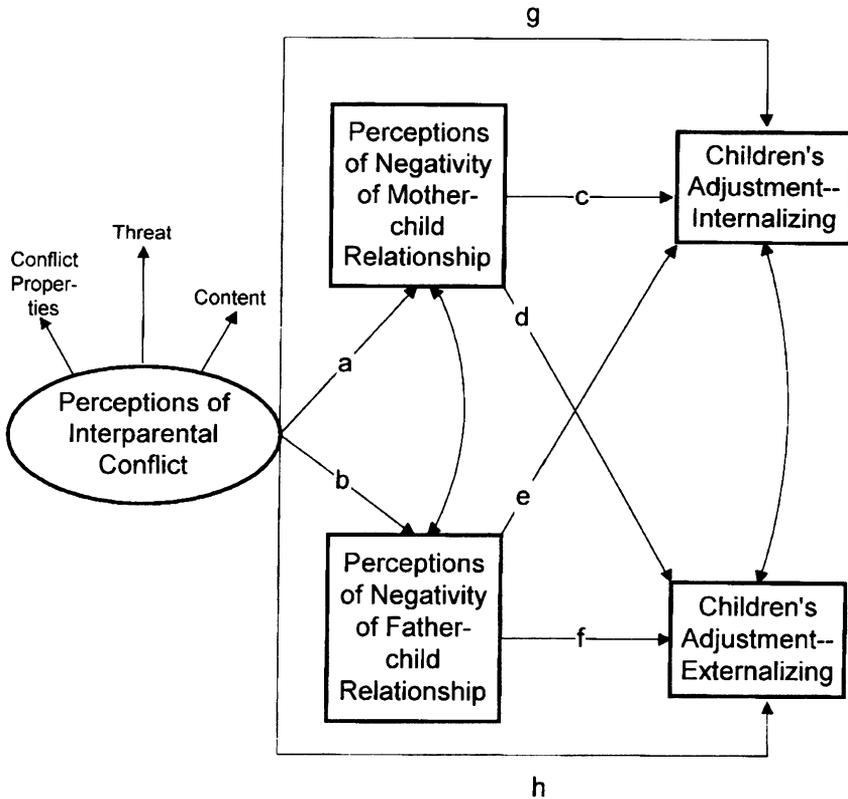
### *A Systems Approach*

The potential for both direct and indirect effects of marital conflict, along with the possibility of differential effects of mother-child and father-child relationships, can be seen to highlight the interdependent nature of marital and parent-child variables as they relate to child adjustment. Interparental relationships, mother-child relationships, and father-child relationships may be intertwined to such a degree that evaluating them in isolation prevents us from drawing valid inferences about their effects on child adjustment (Fincham, Grych, & Osborne, 1994). A more accurate approach might be to treat each of these factors as part of a system that includes child adjustment. Such a systems approach would allow the impact of a given factor (e.g., mother-child relationships) to be examined in the context of all other relevant variables (e.g., father-child relationships, perceptions of marital conflict).

Until recently, the ability to examine simultaneously the effects of numerous variables has been limited by available statistical techniques, which may explain why a systems approach has not been routinely used. However, the development of structural equation modeling and the widespread availability of software for such modeling, for example, EQS (Bentler, 1989) and LISREL (Joreskog & Sorbom, 1984), have made such analyses possible and is therefore used in the present study.

### Overview and Hypotheses

The study had three broad goals. The first was to examine simultaneously the relations among interparental conflict, parent-child relationships, and child adjustment. Second, an attempt was made to determine whether there is an impact of interparental conflict on father-child relationships distinct from the effect of such conflict on mother-child relationships. Third, we investigated the role of parent and child gender in the relations between perceived interparental conflict and children's experience of parent-child relationships. These three aims were examined in the context of testing a model of the relations among interparental conflict, parent-child relationships, and child adjustment that includes direct and indirect effects of marital conflict on child adjustment (see Figure 1). For each goal, a specific hypothesis is tested.



**Figure 1.** Theoretical model. Paths are labeled for easy reference.

*Hypothesis 1.* Perceptions of interparental conflict have both direct effects on child adjustment, and indirect effects mediated through parent-child relationships. Therefore, the model in Figure 1 shows significant direct and indirect paths between perceptions of interparental conflict and measures of child adjustment.

*Hypothesis 2.* A negative association occurs between children's perceptions of interparental conflict and of father-child relationships, and this association is distinguishable from the effect of such conflict on perceptions of mother-child relationships. This is in contrast to the underlying assumption, found in the current literature, that perceptions of interparental conflict affect parent-child relationships generally and therefore can be adequately understood by examining only mother-child relationships. Thus, statistically significant paths will occur from the perceptions of interparental conflict construct to the father-child relationship construct despite there being a similar path from the perceptions of interparental conflict construct to the mother-child relationships construct in the model. Furthermore, a model with this path will explain the data better than a model without this path.

*Hypothesis 3.* The impact of children's perceptions of interparental conflict on children's perceptions of the parent-child relationship varies according to the gender of the parent and the gender of the child. Thus, a model in which the effects of interparental conflict on parent-child relationships is constrained to be equal for both parents provides a poorer fit than a model where the relations are allowed to differ. Furthermore, based on theoretical positions described earlier, two alternatives might emerge: (a) Consistent with research indicating that father-child relationships are more vulnerable to marital distress than mother-child relationships, the effect of perceptions of interparental conflict is significantly greater on perceptions of father-child than on perceptions of mother-child relationships regardless of child gender. (b) Consistent with an opposite-sex spillover theory, marital conflict has a greater effect on perceptions of parent-child relationships for opposite-gender dyads than for same-gender dyads. For example, perceptions of interparental conflict will have a greater impact on perceptions of mother-son relationships when compared to the impact of conflict on perceptions of mother-daughter relationships. A similar pattern will be seen for all opposite-gender pairs.

In addition to these three specific hypotheses, exploratory analyses were performed to determine if the pattern of relations among interparental conflict, parent-child relationships, and child adjustment differ when genders are compared. These analyses were performed to explore whether all the proposed associations are important for understanding

child adjustment and whether the same constructs are important for understanding boys' versus girls' adjustment.

## METHOD

### *Participants*

The children who participated were 6th and 7th graders ( $M$  age = 154 months;  $SD$  = 7 months) from four schools in primarily middle-class Midwestern communities. Although the study was focused on children living with both biological parents, data were collected from all students ( $N$  = 319) who received parental permission to complete the questionnaires. This sample was approximately 80% Caucasian and 20% African American. After applying the inclusion criterion regarding residence with both biological parents and adjusting for children with missing data, the sample consisted of 169 children, 85 of whom were girls.

Teachers ( $N$  = 14) also participated by completing rating scales on the children's behavior. They were paid a \$10 honorarium for completing the forms for all students in their class.

### *Procedure and Measures*

Children completed questionnaires either in their own classroom or in another room at the school. Children were told they were participating in a study of how children think and feel, and that there were no right or wrong answers. Afterwards, children were thanked for their participation and debriefed.

*Marital conflict.* The Children's Perception of Interparental Conflict Scale (CPIC; Grych et al., 1992) was used to assess marital conflict. This self-report measure contains three subscales: conflict properties (the extent to which conflict is frequent, intense, and unresolved); threat (how threatened they feel and perceived ability to cope with witnessing conflict); and content (the extent to which children perceive the conflict to be about themselves and blame themselves for it). The three CPIC subscales have been found to have good internal consistency (alphas range from .78 to .90) and reasonable test-retest reliability over 2 weeks. Internal consistency for the CPIC in this sample was also good ( $\alpha$  for scales 1, 2, and 3 were .89, .85, and .86, respectively). Scores have also been found to be related to parental reports of marital conflict (Cummings et al., 1994; Grych et al., 1992).

*Parent-child relationships.* Aspects of parent-child relationships thought to be most vulnerable to the effects of interparental conflict were

examined. Because interparental conflict may cause parents to withdraw emotionally from the parent-child relationship, perceptions of rejection and lack of child centeredness were the focus. At the same time, anger aroused by marital conflict may spill over into the parent-child relationship, producing not only perceptions of rejection, but also of conflictual parent-child relationships. Thus, children's perceptions of parent-child conflict were examined.

Children rated separately mother-child and father-child relationships on three scales. The Child Report of Parental Behavior (CRPB; Margolies & Weintraub, 1977) is a 56-item measure in which children rate hypothetical instances of parental behavior as *very true*, *somewhat true*, or *not at all true*. Of the two subscales of the CRPB used, the first is focused on children's perceptions of parental rejection versus parental acceptance (e.g., "seems to see my good points more than my faults"). The second subscale includes indices of whether or not children perceive themselves to be central to their parents' life (e.g., parent "spends almost all of his/her free time with the children"). The CRPB has been shown to have good test-retest reliability for ratings of both parents over 1 week,  $r = .91 - .93$ , and 5 weeks,  $r = .79$  (Margolies & Weintraub, 1977). Internal consistency in this sample was good (for the acceptance-rejection scale, alpha was .94 for both mothers and fathers; for the child-centeredness scale, alpha was .86 and .82 for mothers and fathers, respectively).

The Conflict Behavior Questionnaire (CBQ; Prinz, Foster, Kent, & O'Leary, 1979; Robin & Foster, 1984) measures conflict and negative communication in parent-child relationships (e.g., "In general, I don't think we get along very well"). The 73-item version has been shown to have good internal consistency ( $\alpha = .90$ ; Prinz et al., 1979) and reasonable test-retest reliability ( $r = .37 - .85$ ), as well as discriminate and construct validity (Robin & Foster, 1984). The shortened 20-item version used in this study has been shown to correlate highly ( $r = .96$ ) with scores from the longer version (Robin & Foster, 1989). Internal consistency for the sample in this study was good ( $\alpha = .91$  for both mothers and fathers).

The third measure of parent-child relationships consisted of the verbal aggression subscale of the Conflict Tactics Scale (CTS parent-child version; Schumm & Bagarozzi, 1989; Strauss, 1979). Children rate the level of verbal aggression exhibited by each of their parents during parent-child conflict. Verbal aggression encompasses both verbal and nonverbal acts that symbolically hurt or threaten to hurt the other person (e.g., "swears at me; puts me down or insults me"). The CTS, one of the most widely used measures of family violence, has well-documented reliability and validity. In this study, the subscale was modified to expand the number of items (from 6 to 9) and to make the wording more comprehensible to this

age group. One item was discarded because of low item-total correlation, leaving an 8-item scale with good internal reliability,  $\alpha = .85$  for ratings of mothers and  $.83$  for fathers.

*Child adjustment.* Two broad indices of child adjustment, externalizing and internalizing problems, were assessed. To measure externalizing problems, data were gathered from peers, teachers, and the students themselves. The peer data for externalizing problems were comprised of responses to two questions: "Who starts fights?" and "Who is bossy?" A list of each student in the class was provided and children nominated classmates by circling all applicable names. A participant's peer nomination raw score for each of these behaviors consisted of the number of classmates who nominated that child for a particular behavior. To control for class size, a z-score was calculated separately for each classroom, and calculated separately for boys and for girls because the typical level of externalizing behavior varies by gender (Achenbach, 1991a).

Teachers' ratings of externalizing problems were obtained using the aggression subscale of the Teacher's Report Form (Achenbach, 1991a) of the Child Behavior Check List (CBCL; Achenbach, 1991b). The empirically derived 24-item aggression subscale includes such items as "argues a lot," "demands a lot of attention," and "temper tantrums or hot temper." Each item is rated as 0 (*not true of child*), 1 (*somewhat or sometimes true*), or 2 (*very true or often true of child*). The aggression subscale shows good 15-day test-retest ( $r = .91$ ) reliability. Achenbach (1991a) provides extensive information on both construct and criterion validity. Internal consistency in this sample was also good ( $\alpha = .94$ ).

Self-reports of externalizing problems were obtained using the aggression subscale of the Youth Self Report (YSR; Achenbach, 1991c) of the CBCL. The YSR contains parallel items to those on the teacher checklist (e.g., "I argue a lot," "I try to get a lot of attention," etc.). The aggression subscale has been shown to have reasonable ( $r = .79$ ) 7-day test-retest reliability. Internal consistency in this sample was good ( $\alpha = .91$ ).

Because children tend to be the most reliable reporters of their own internalizing disorders (Achenbach, 1991b), two self-report scales were used to assess internalizing problems. The first, the Children's Depression Inventory (CDI; Kovacs, 1981), is a widely used measure of depressive symptoms. For each of the 27 questions, children endorse one of three statements regarding depressive symptoms. The statements are rated from 0 to 2, representing increasing levels of depressive symptoms. One item regarding suicidal thoughts was omitted. Because in normal samples the CDI correlates highly with other measures of internalizing problems (e.g., anxiety), it may be best considered a broad index of dysphoria, rather

than of depression per se. Internal consistency in this sample was good ( $\alpha = .93$ ).

The second measure, the Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1982) is a 37-item measure to assess children's trait anxiety. Children answer either yes (*describes me*) or no (*does not describe me*) to questions indicative of anxiety (e.g., "I worry a lot of the time"). The RCMAS has demonstrated concurrent and construct validity (Reynolds, 1980; Reynolds & Richmond, 1979) as well as adequate internal reliability ( $\alpha = .83$ ; Reynolds & Richmond, 1978). Internal consistency in this sample was similar ( $\alpha = .89$ ).

## RESULTS

Preliminary analyses showed that none of the variables of interest differed significantly by age. Therefore, age was not used in any of the following analyses.

### *Data Reduction*

Multiple measures of each construct were obtained, and for indices of adjustment, information was gathered from multiple sources. Owing to the number of parameters that would need to be estimated relative to the sample size (see Bollen, 1989), it was not possible to derive latent variables for all of the constructs investigated. Where appropriate, principal components analyses were conducted to derive indices for use in model testing. This step was taken to ensure that measures that hypothetically constituted a factor would do so in practice (Bentler, 1989). In forming indices from multiple measures, scores were summed and used as observed variables in the structural equation model. The summed scales were tested to ensure that they demonstrated adequate internal reliability. Sums were chosen rather than factor scores because sums are not sample specific, and thus produce more generalizable results. The measures used to form the variables used in structural equation modeling are summarized in Table 1.

*Children's perceptions of interparental conflict.* Three factors were identified using principal components analysis, conforming to the subscales found by Grych et al. (1992), namely, Conflict Properties, Threat, and Content. Total scores for each of the three subscales were used as separate indicators of a latent variable of children's perceptions of interparental conflict. Each subscale was coded so that higher scores represented greater or more distressing perceptions.

**Table 1.** Structural Equation Modeling Variables and Measures

<i>Variables</i>	<i>Measures</i>
Children's perceptions of interparental conflict	Children's Perceptions of Interparental Conflict Scale (each subscale, Conflict Properties, Threat, and Content, used as an indicator on a latent variable)
Perceptions of negativity of parent-child relationships	Conflict Tactics Scale (modified) Child Report of Parental Behavior (acceptance/rejection and child centeredness subscales) Conflict Behavior Questionnaire
Children's internalizing behavior	Revised Children's Manifest Anxiety Scale Children's Depression Inventory
Children's externalizing behavior	Child Behavior Checklist (aggression subscale, completed by teachers) Youth Self Report (aggression subscale, completed by child) Peer ratings of externalizing behavior

*Perceptions of parent-child relationships.* For each measure, items were coded so that high scores indicated negative parent-child interactions. The Child Behavior Questionnaire is on a somewhat different scale from the other two measures. Therefore, a linear transformation was performed on the CBQ total to equalize the three scales.

Two factors were expected to emerge, one for acceptance/rejection and one for parent-child conflict. However, principal components analysis performed separately for mother and father ratings revealed only one principal component with an eigenvalue over one (eigenvalue for mother-child relationship measures = 3.04; eigenvalue for father-child measures = 2.74). This suggested that all the parent-child measures tap into one underlying construct, negativity of mother-child or father-child relationships. An index was therefore formed comprising the average of the four subscales (acceptance and rejection subscales of the CRPB; modified verbal aggression subscale of the CTS; and CBQ). Internal consistency for this 4-item measure was acceptable ( $\alpha = .88$  for mothers and  $.84$  for fathers).

*Child adjustment.* As child adjustment is widely accepted to reflect externalizing and internalizing problems, indices were computed to reflect these problems without first conducting principal components analyses to confirm that internalizing and externalizing scores represented separate factors. However, because estimates of externalizing behavior from different raters (peers, teachers, and self) have not been found to be

highly correlated, a factor analysis was performed for all the measures of externalizing behavior to ensure that these all fell on a single factor. Because peer ratings were transformed into z-scores, the other variables were standardized as well. Standardization was performed separately for boys and girls. Factor analysis of the standardized scores of peer, teacher, and self-report ratings of externalizing behavior resulted in only one factor with an eigenvalue over one (eigenvalue = 2.25). Thus, the z-transformed scores for these measures were summed to form a single index of externalizing behavior. The internal consistency of this 4-item measure was acceptable ( $\alpha = .73$ ).

For internalizing disorders, an index was computed that was the sum of the standardized scores (calculated separately for boys and girls) of the RCMAS and the CDI. The internal consistency of this 2-item measure was also acceptable ( $\alpha = .82$ ).

### *Structural Equation Modeling and Model Testing*

Several questions articulated earlier are best addressed by structural equation modeling (SEM). First, as discussed, one of the central goals of this study was to examine the relations among perceptions of interparental conflict, of parent-child relationships, and child adjustment as part of a system. Because in SEM all associations are estimated simultaneously, the researcher can conceptualize systems of variables and their relations, rather than looking at each aspect of the system in a piecemeal fashion (Connell, 1987). In contrast, a piecemeal approach ignores shared variance among variables examined across different sets of analyses. Second, by using SEM, it is possible to compare the strengths of associations both within and between boy and girl samples (Bentler, 1989), and to explore the impact of both direct and intervening variables on dependent variables (Bentler, 1989; Biddle & Marlin, 1987). Finally, patterns of relations can be examined to assess whether the same constructs are central to adjustment in the boy as compared to the girl samples (Connell, 1987).

Because there are limitations of all the criteria used to assess overall model fit in SEM, several indices were examined (Biddle & Marlin, 1987; Loehlin, 1992). In regard to the most commonly used criterion, the chi-squared goodness of fit, the Satorra-Bentler scaled chi-squared test statistic, is used because none of the individual measures were normally distributed and most were positively skewed. This statistic rescales the standard goodness of fit test so that its distribution more closely approximates chi-squared distribution for nonnormal, asymmetrical data (Satorra & Bentler, 1988a; 1988b). Because chi-squared tests have been criticized as a measure of fit (Tanaka, 1987), the Bentler-Bonnet Normed

and Nonnormed Fit Indices, the Comparative Fit Index, the Bollen Fit Index, and the McDonald Fit Index were included also.

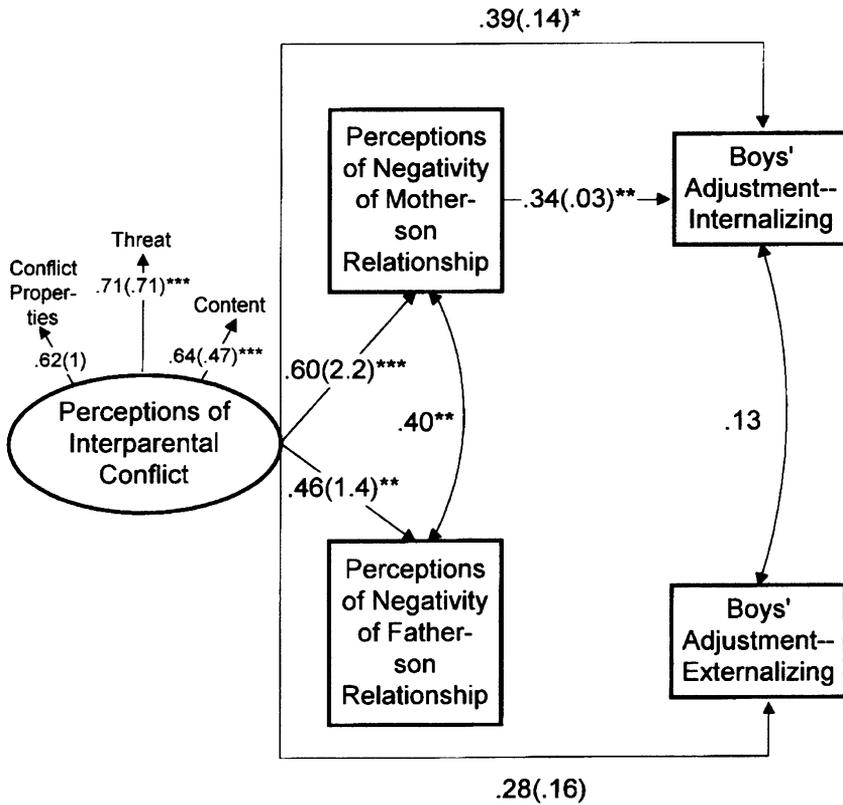
More important than the question of overall fit of the model is the question of whether competing models might explain the data better. In this study, two sorts of comparisons were done. In order to test the hypotheses described earlier, models representing these hypotheses were compared to the full model. (The models representing each hypothesis were nested within the full model.) In addition, exploratory analyses were done to examine gender differences in the relations among variables. These exploratory analyses, which also involved comparing nested models to the full model, were done for purposes of hypothesis generation.

### *Boys' Data*

*Theoretical model.* For boys, the Satorra-Bentler scaled chi-square was nonsignificant ( $\chi^2(8, N = 84) = 14.36, p = .07$ ), indicating that the theoretical model shown in Figure 1 marginally fits the data. The Bentler-Bonnet Normed Fit Index was .89, the Bentler-Bonnet Nonnormed Fit Index was .82, the Comparative Fit Index .93, the Bollen Fit Index was .93, and the McDonald Fit Index was .94, overall indicating an acceptable level of model fit.

*Direct and indirect effects.* The first hypothesis states that the model demonstrates both significant direct and indirect effects. The results of fitting the model are shown in Figure 2, and the covariance matrix on which these analyses were based is shown in Appendix A. As seen in Figure 2, there are significant direct paths to boys' adjustment (e.g., a direct path from perceptions of interparental conflict to boys' internalizing) as well as indirect paths (e.g., perceptions of mother-son relationships to boys' internalizing). Because all associations are estimated simultaneously, the presence of significant effects indicates that the significant parameters explain variation above and beyond that explained by other associations in the model. Therefore, the association between perceptions of interparental conflict and boys' adjustment explains variance in boys' adjustment beyond that explained by the impact of interparental conflict on parent-son relationships.

*Perceptions of conflict and of father-son relationships.* Two analyses were done to test the second hypothesis, that perceptions of interparental conflict affect perceptions of father-child relationships above and beyond the impact of interparental conflict on mother-child relationships. First, the path from the perceptions of interparental conflict to father-child relationships (path b in the theoretical model) was examined in the full model, in which an analogous path from interparental conflict to mother-child



**Figure 2.** Theoretical model fit to boys' data. Only those paths found to be significantly different from zero or to contribute to the fit of the model in multivariate analyses are shown. Straight lines can be interpreted similarly to regression paths. Curved lines represent the correlation between unexplained variance of the measures. Standardized coefficients and unstandardized coefficients (in parentheses) are included. Unstandardized coefficients are provided for comparisons across boy and girl samples. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

relationships was included. A significant path indicates that the association between perceptions of marital conflict and father-child relationships accounts for variance above and beyond the variance explained by the association between marital conflict and mother-child relationships. The path was significant,  $z = 3.06$ ,  $p < .01$ .

Second, a reduced model, in which the path from perceptions of interparental conflict to father-child relationships was omitted (by constraining

it to be zero), was compared to the full model. If this reduced model were to fit the data as well as the full model, this would be consistent with children reacting to interparental conflict by perceiving general negativity in parent-child relationships; in that case this negativity could be explained equally well by examining mother-child relationships only. Chi-squared difference tests were significant),  $\chi^2(1, N = 84) = 12.64, p < .00$ , indicating that this path contributes significantly to the fit of the model. Both of these analyses suggest that the impact of perceptions of interparental conflict is not on perceptions of parent-child relationships generally, but rather that perceptions of interparental conflict are associated with changes in perceptions of the father-child relationship that cannot be accounted for by their correlations with changes in the mother-child relationship.

*Comparisons of opposite-gender dyads.* The full model indicates that high interparental conflict is significantly associated with more negative parent-child relationships for both mother-son and father-son relationships ( $p < .01$  for both), demonstrating that witnessing parental conflict is associated with more negative perceptions of both mother-child and father-child relationships. To test Hypothesis 3, that one relationship might be affected more than the other, the association between interparental conflict and negativity of parent-child relationships was constrained to be equal for mother-son and father-son relationships. Thus, paths a and b of the theoretical model were constrained to be equal. This reduced model thus represents the hypothesis that there is no significant difference between the impact of perceptions of interparental conflict on perceptions of mother-son when compared to perceptions of father-son relationships. A trend toward a significant difference was found,  $\chi^2(1, N = 84) = 3.45, p < .1$ . Because the parameter estimate for this path is greater for mother-son relationships, this indicates a tendency for perceptions of interparental conflict to be more strongly associated with perceptions of negativity of mother-son relationships when compared to father-son relationships.

*Exploratory analyses.* For purposes of hypothesis generation, analyses were performed to determine if some associations among variables were not important to model fit. The goal here was not to find a better-fitting model per se, but rather to test if all hypothesized associations were important for boys. This pattern of important associations could then be compared to the pattern for girls.

A reduced model was created in which all paths found not be significantly different from zero were omitted. The fit of this model was compared to the fit of the full model to examine whether omitting these paths would significantly reduce fit in multivariate analyses (Bentler, 1989). When this model was compared to the full model, there was a significant reduction in fit,  $\chi^2(4, N = 84) = 12.17, p < .05$ . A model that retained

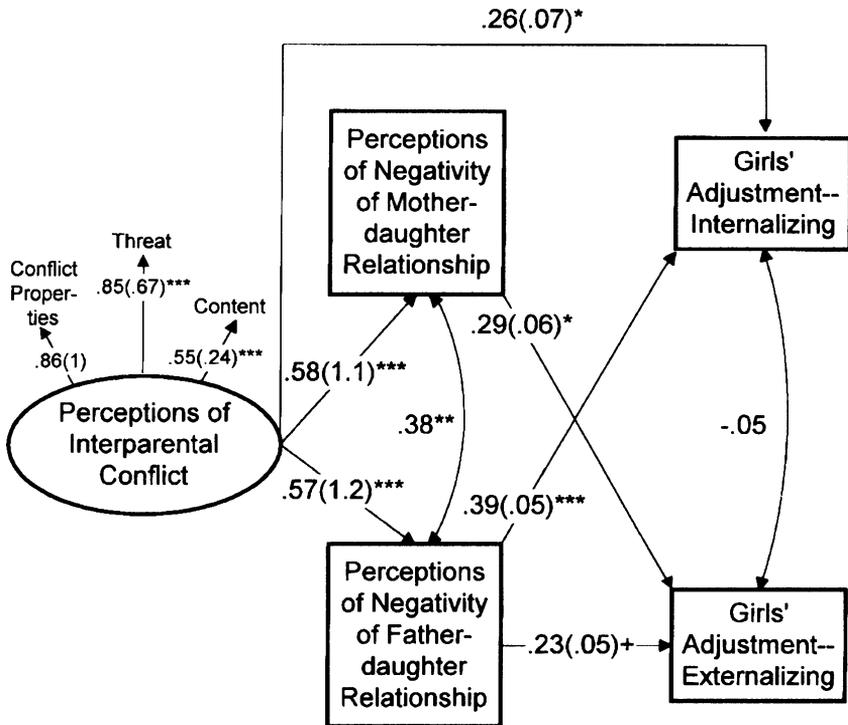
the path from interparental conflict to externalizing problems provided an explanation of the data that was equal to the full model,  $\chi^2(3, N = 84) = 1.19, p > .1$ . Thus, boys' perceptions of interparental conflict, which was not estimated to be significantly different from zero, could not be omitted without significantly decreasing the fit of the model, whereas other nonsignificant parameters could be omitted. Of note, there are no direct paths from perceptions of father-son relationships to child adjustment, indicating that in the context of the variables considered, such perceptions are less important to boys' adjustment than the other associations in the model.

### Girls' Data

*Theoretical model.* The fit of the girls' data to the theoretical model was not as consistent as with the boys' data. The Satorra-Bentler scaled chi-square was significant,  $\chi^2(8, N = 85) = 17.119; p = .03$ , indicating less than optimal model fit. Other indices of fit were acceptable: Bentler-Bonnet Normed Fit Index = .92; Bentler-Bonnet Nonnormed Fit Index = .866; Comparative Fit Index = .949; Bollen Fit Index = .952; McDonald Fit Index = .936.

*Direct and indirect effects.* The model for girls is shown in Figure 3. The covariance matrix on which these analyses were based is provided in Appendix B. Consistent with the first hypothesis, there were significant paths, both direct and indirect, from children's perceptions of interparental conflict to child adjustment. As stated earlier, because all associations are estimated simultaneously, the presence of significant effects indicates that the significant parameters explain variation beyond that explained by other associations in the model. Therefore perceptions of interparental conflict explain variance in girls' adjustment beyond that explained by the impact of perceptions of interparental conflict on perceptions of parent-daughter relationships.

*Perceptions of conflict and of father-daughter relationships.* In order to test whether perceptions of interparental conflict affect perceptions of father-child relationships beyond this conflict's impact on mother-child relationships, a procedure analogous to the one described earlier for boys was used. The path from perceptions of interparental conflict to father-daughter relationships was significantly different from zero,  $z = 4.23, p < .001$ . The fit of a reduced model in which this path was omitted was significantly different from the full model,  $\chi^2(1, N = 85) = 27.12, p < .00$ . Thus, as with boys, the association of the impact of interparental conflict on father-daughter relationships was found to be distinct from general perceptions of parent-child relationships.



**Figure 3.** Theoretical model fit to girls' data. Only those paths found to be significantly different from zero or to contribute to the fit of the model in multivariate analyses are shown. Straight lines can be interpreted similarly to regression paths. Curved lines represent the correlation between unexplained variance of the measures. Standardized coefficients and unstandardized coefficients (in parentheses) are included. Unstandardized coefficients are provided for comparisons across boy and girl samples.  $+p < .1$   $*p < .05$ .  $**p < .01$ .  $***p < .001$ .

*Comparison of opposite-gender dyads.* It was hypothesized that girls' perceptions of interparental conflict are more closely associated with negativity in the father-daughter than in the mother-daughter relationship. To test this hypothesis, the association between interparental conflict on negativity of parent-child relationships was constrained to be equal for mother-daughter and father-daughter relationships. Thus, paths a and b in the theoretical model were constrained to be equal. This reduced model then represented the hypothesis that no significant differences exist in the impact of perceptions of interparental conflict on perceptions

of mother-daughter versus father-daughter relationships. No significant difference was found between the constrained and unconstrained models,  $\chi^2(1, N = 85) = 0.255, p < .15$ , indicating no significant difference between the effect of interparental conflict on girls' perceptions of mother-daughter versus father-daughter relationships. Interparental conflict was significantly associated with negativity in both the mother-daughter and father-daughter relationship (both  $ps < .001$ ), indicating that perceptions of interparental conflict are associated with perceptions of more negative parent-child relationships with both mothers and fathers. Interestingly, the constrained model met all criteria for model fit, Satorra-Bentler scaled  $\chi^2(9, N = 85) = 16.08, p = .07$ .

*Exploratory analyses.* To generate hypotheses, a series of analyses were performed to determine if some associations among variables were not important to model fit. The goal here was not to find a better-fitting model per se, but rather to determine whether all hypothesized associations were important for understanding girls' adjustment. This pattern of important associations could then be compared to the pattern for boys.

A procedure analogous to the one described earlier for boys was employed. All nonsignificant paths could be omitted without significantly reducing model fit,  $\chi^2(2, N = 85) = .60, p > .1$ . Thus, the path from perceptions of mother-daughter relationships to internalizing problems, and the path from perceptions of interparental conflict to girls' externalizing problems, could be omitted. This indicates that in the context of the variables considered, such perceptions are less important to girls' adjustment than the other variables in the model.

#### *Comparisons across Boys and Girls*

The full theoretical model was simultaneously fit to the boy and girl data using the EQS multigroup analysis feature (Bentler, 1989). Such analyses allow parameters in one population to be compared to analogous parameters in another population. As with the separate analyses of boys' and girls' data, some analyses were employed to test hypotheses, whereas others were performed for exploratory purposes.

Indices of fit for the multigroup model were inconsistent. The chi-squared goodness of fit was significant,  $\chi^2(16, N = 169) = 37.63, p < .00$ , indicating poor fit, although of note, the Satorra-Bentler correction is not available for multigroup analyses. The Bentler-Bonnet Normed Fit Index was .91, the Bentler Bonnet Nonnormed Fit Index was .85, the Comparative Fit Index .94, the Bollen Fit Index was .95, and the McDonald Fit Index was .88, overall indicating an acceptable level of model fit. Analyses were performed to ensure that the loadings of the latent variable

were not significantly different across groups. The first loading was already constrained to be equal to 1 for both groups; therefore the remaining two loadings were constrained to be equal across boy and girl groups. The chi-squared difference test indicated that the fit of the constrained model was not significantly different from the unconstrained multigroup model,  $\chi^2(2, N = 169) = 4.59, p > .1$ . For all the across-group comparisons, the loadings of the latent variable were forced to be equal across boy and girl samples.

*Comparisons of opposite-gender dyads.* First, Hypothesis 3b was tested (i.e., that perceptions of marital conflict have a more negative impact on perceptions of mother-son relationships when compared with perceptions of mother-daughter relationships). The path between interparental conflict and mother-son relationships was constrained to be equal to the path from perceptions of conflict to mother-daughter relationships (path a in the theoretical model). The fit of this reduced model was compared to the fit of the full model, wherein these paths were allowed to be estimated separately. An analogous procedure was used to test the hypothesis that the impact of marital conflict was greater on father-daughter relationships than on father-son relationships (path b in the theoretical model).

A marginally significant difference was found when the impact of perceptions of interparental conflict on perceptions of parent-child relationships was constrained to be equal for mother-son and mother-daughter relationships,  $\chi^2(1, N = 169) = 2.81, p < .1$ . This indicated that the impact of interparental conflict was greater on mother-son relationships when compared to mother-daughter relationships. However, no significant difference was found when comparing the association of perceptions of interparental conflict with father-son versus father-daughter relationships.

*Exploratory analyses.* Analogous parameters that appeared to be different in the single-group analyses were compared across boys and girls. Specifically, the differences suggested by single-population analyses were: (a) Perceptions of interparental conflict were important in predicting externalizing behavior for boys but not for girls; (b) perceptions of mother-child relationships were important for predicting internalizing behavior for boys, but not for girls; and (c) perceptions of father-child relationships were important for predicting internalizing behavior for girls, but not for boys.

The only significant difference was in the comparison of the path from perceptions of father-child relationship to child internalizing,  $\chi^2(1, N = 169) = 6.44, p < .05$ . The parameter was larger for girls, indicating that negativity in the father-daughter relationship is more strongly associated with girls' internalizing problems when compared to the association between negativity in the father-son relationship with boys' internalizing

problems. Of note, other gender differences in the patterns of relations among variables (path from mother-child relationships to internalizing problems significant for boys, but not for girls; path from perceptions of interparental conflict to child externalizing behaviors significant for boys, not for girls) were in the same direction as in the individual models, but did not attain significance.

## DISCUSSION

The first hypothesis, in which a theoretical model of direct and indirect effects was predicted to contain significant parameters for each, was confirmed for both boys and girls. Thus, in the context of interparental conflict, children's adjustment is better understood by examining both children's perceptions of parent-child relationships and children's perceptions of interparental conflict. The results are also indicative of interparental conflict affecting children's adjustment in more than one way. First, perceptions of interparental conflict were significantly associated with perceptions of more negative parent-child relationships, which in turn were associated with child adjustment problems. Second, witnessing interparental conflict seems to have a direct effect on children's adjustment as well. Conflict perceived by children to be intense, unresolved, a threat to themselves, or their own fault, may be considered a stressor. Such stress appears to affect children's adjustment directly, above and beyond the effects of perceptions of interparental conflict on perceptions of parent-child relationships.

The second hypothesis, that interparental conflict has an impact on perceptions of father-child relationships beyond the effect on mother-child relationships, was confirmed for both boys and girls. This suggests that children who perceive their parents engaging in conflict do not form a global perception of negative parent-child relationships. Rather, such conflict is associated with perceived negativity in both father-child relationships and mother-child relationships; this cannot be accounted for by negativity in one relationship alone. This result highlights the need to examine both father-child and mother-child relationships when considering the impact of interparental conflict on parent-child relationships.

The third hypothesis, that conflict has a different impact on parent-child relationships depending on the gender of the parent and the gender of the child was also supported, but not for all gender dyads. Perceiving marital conflict was more strongly associated with negativity in mother-son than in father-son relations. This suggests that perceptions of interparental conflict may be more disruptive to boys' perceptions of their relationships with their mothers than to their perceptions of their relationships

with their fathers. Similarly, in comparisons across families, perceptions of interparental conflict were more strongly associated with perceptions of negative mother-son relationships than with negative mother-daughter relationships, suggesting that witnessing such conflict may be more disruptive to sons' perceptions of their relationships with their mothers than to daughters' perceptions of their relationships with their mothers.

No such differences were found in father-child relationships. Thus, girls who witnessed interparental conflict were no more likely to perceive their relationships with their fathers as being negative than they were to perceive their relationships with their mothers as being negative. Similarly, no significant differences were found when comparing the impact of perceptions of marital conflict on perceptions of father-son relationships versus perceptions of father-daughter relationships. Thus, there was no support for the hypothesis that father-child relationships are more affected by children's perceptions of marital conflict than are mother-child relationships, nor was there complete support for the hypothesis that perceptions of opposite-gender relationships are more disrupted by perceptions of interparental conflict.

It is not clear why there were cross-gender effects of interparental conflict on perceptions of mother-child relationships and not for perceptions of father-child relationships. The opposite-gender spillover hypothesis predicts that interparental conflict has a greater influence on parents' behavior toward the opposite gender child because that child is more reminiscent of the spouse. It is possible that this happens with both mothers and fathers, but that each behaves differently. Mothers may engage in more negative behaviors with their sons, whereas fathers may withdraw from their daughters (Howes & Markman, 1989). Negative behaviors may produce greater perceptions of negative mother-son relationships, whereas the more subtle behaviors associated with fathers withdrawing may be less salient to daughters.

Exploratory analyses suggest that opposite-gender parent-child relationships also may be important in a way that is more complicated than was originally predicted. In these analyses it was indicated that negative relationships with the opposite-gender parent were more strongly associated with child internalizing problems than were negative relationships with the same-gender parent. Thus, negativity in the father-daughter relationship significantly predicted girls' internalizing problems, whereas negativity in the mother-daughter relationship did not, and this difference was significant when compared across samples. Similarly, negativity in the mother-son relationship significantly predicted boys' internalizing problems, whereas negativity in the father-son relationship did not, although this difference did not achieve significance when compared across

samples. It should be noted that this does not mean that perceptions of the relationship with the same-gender parent were necessarily unrelated to children's internalizing problems, but rather that they did not predict such problems above and beyond what was predicted by the opposite-gender parent. This is indicative of relationships with the opposite-gender parent being more important for internalizing problems when considered in the context of the variables in this study.

One potential explanation for these results is consistent with the notion that because children tend to identify with the same-gender parent, children's perceptions of marital conflict may affect particularly their perceptions of opposite-gender parent-child relationships in a way that has an impact on children's adjustment. Central to this explanation is the idea that in the context of witnessing marital conflict, negative interactions with the opposite-gender parent become particularly salient to the child. For example, because children tend to identify with the same-gender parent, a girl who witnesses her parents engaging in distressing conflict may be likely to identify with her mother in this instance. Because she identifies with her mother, witnessing conflict between her parents might lead her to believe that her own relationship with her father is less secure. This would not necessarily lead her to perceive her relationship with her father as more negative. However, it would cause any negative interactions with her father to be more threatening and upsetting, in that such negative interactions would seem to confirm that her relationship with her father was threatened. Of note, such feelings of insecurity seem more likely to produce feelings of anxiety and depression than externalizing problems, which is consistent with the results of the exploratory analyses. An analogous scenario could be suggested for boys. Therefore, in the context of children witnessing interparental conflict, negativity in opposite-gender parent-child relationships may have a particularly important impact on children's adjustment.

One other gender-related difference in the associations between perceptions of interparental conflict and child adjustment is noteworthy. Perceptions of interparental conflict had direct effects on indices of both boys' internalizing and externalizing problems, whereas for girls, perceptions of interparental conflict directly affected only indices of internalizing problems. This difference did not attain significance when compared across populations, although it was in the expected direction and might attain significance in a larger sample. This gender difference is consistent with Cummings et al.'s (1994) finding that scores on the Children's Perception of Interparental Conflict scale were predictive of internalizing and externalizing scores in boys, but only internalizing scores in girls. Although it is not entirely clear why this difference exists, their data

are suggestive of girls experiencing self-blame for their parents' conflicts, which might produce internalizing problems. In contrast, boys may react to feelings of personal threat, which might produce both internalizing and externalizing problems.

The present findings illustrate the benefits of examining interparental conflict, parent-child relationships, child adjustment, and gender simultaneously in one model rather than as isolated effects. The effects described earlier would not have been discernible if only specific relations (e.g., impact of marital conflict on parent-child relationships) were examined in isolation. The results also illustrate the benefits of attending to both parent and child gender; the patterns found were only discernible because all possible parent and child dyads were examined.

These results also can be seen to highlight the importance of measuring children's perceptions of conflict and of focusing on dimensions of conflict known to be distressing to children. Theoretical statements on the spillover of marital conflict into parent-child relationships have been focused on ways in which such conflict may alter parents' attitudes and behavior according to their children's gender. However, these results suggest that, in addition to children's perceptions of parents' behavior, children's awareness of their parents' conflict may alter the significance children assign to their relationships with their parents according to parent gender. At the same time, these results probably apply only to distressing conflict, specifically, conflict that is intense, unresolved, threatening to children, and possibly child-related.

Several limitations of the present study need to be addressed in future research. First, the results need to be replicated. This is both because some of the results were produced by exploratory analyses, and because structural equation modeling capitalizes on chance to fit a model, and therefore needs to be replicated. Second, the use of only children's perceptions of parent-child relationships raises the question of whether such reports reflect observed differences in parental behavior. Such perceptions presumably reflect a combination of parents' actual behavior and children's interpretation of this behavior. Thus, it is not clear to what extent each of these contributed to the results seen. Third, many of the constructs were measured using self-report. In part, this reflected an emphasis on children's perceptions as essential to understanding the impact of interparental conflict on child adjustment, but reliance on self-report measures raises the possibility that the results reflect method variance. However, gender was not a self-report variable in this study. The fact that significant results were seen both within and across gender samples, and that the same underlying pattern involving opposite-sex parents and child internalizing problems emerged for boys and girls, is unlikely to reflect

method variance. An important next step would be to replicate this study using both self-report and objective measures, including parent reports on parent-child relationships.

Fourth, sample size precluded use of latent variables to model children's adjustment in order to control for rater bias (Kenny & Kashi, 1992). Therefore, much of the advantage of ratings from multiple reports was lost in this approach. The alternative of summing variables from multiple measures is not ideal and thus replication of the study is important. Finally, in this study only unidirectional relations among variables were examined. This reflects the fact that one purpose of the study was to integrate several lines of research wherein relations among these variables have been treated primarily as unidirectional. Bidirectional effects also may occur, however. For example, child behavior problems stemming from attention deficit hyperactivity disorder could cause negative perceptions of parent-child relationships, as well as create a difficult home atmosphere, which in turn could lead to marital conflict.<sup>2</sup> Thus, an examination of bidirectional effects is needed in future research.

Notwithstanding these limitations, several conclusions can be drawn from the present findings. By integrating two approaches to investigation of the association between marital conflict and child adjustment, it was shown that witnessing marital conflict can affect child adjustment both directly and indirectly as mediated by its negative impact on parent-child relationships. Moreover, the results are indicative that gender matters in understanding marital conflict, parent-child relationships, and child adjustment. Ignoring the role of parent and child gender renders an incomplete picture. Perceptions of interparental conflict appear to be more disruptive of perceptions of mother-son relationships than of father-son or mother-daughter relationships. Furthermore, when examining marital conflict, parent-child relationships, and child adjustment, children's relationships with the opposite-sex parent were predictive of child internalizing disorders, but relationships with the same-sex parent were not. This suggests that in the context of children's awareness of interparental conflict, negative interactions with the opposite-sex parent may be particularly harmful to children's adjustment.

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<sup>2</sup>We are grateful to an anonymous reviewer for this suggestion.

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## Appendix A.

### Covariances, Means, and Standard Deviations for Boys

	1.	2.	3.	4.	5.	6.	7.
CPIC Factor 1	46.71						
CPIC Factor 2	14.84	17.79					
CPIC Factor 3	6.92	5.91	9.83				
Internalizing	2.71	2.87	2.16	2.29			
Externalizing	4.37	1.82	2.54	1.25	6.18		
Mother-son rel.	42.59	24.33	21.92	13.73	10.90	244.44	
Father-son rel.	38.25	14.95	9.90	7.50	9.89	114.56	174.65
<i>Variable</i>				<i>M</i>			<i>SD</i>
CPIC Factor 1				27.55			6.83
CPIC Factor 2				17.54			4.22
CPIC Factor 3				11.40			3.14
Internalizing				−0.33			1.54
Externalizing				−0.69			2.49
Mother-son rel.				32.57			15.64
Father-son rel.				32.37			13.22

Note. CPIC = Children's Perceptions of Interparental Conflict.

## Appendix B.

**Covariances, Means, and Standard Deviations for Girls**

	1.	2.	3.	4.	5.	6.	7.
CPIC Factor 1	70.91						
CPIC Factor 2	32.93	30.98					
CPIC Factor 3	14.15	8.04	9.45				
Internalizing	6.36	5.29	1.09	3.33			
Externalizing	5.60	3.62	0.48	1.15	8.82		
Mother-daughter rel.	56.32	40.73	3.88	11.37	15.80	178.94	
Father-daughter rel.	63.91	40.17	10.52	16.13	6.45	117.58	221.89
<i>Variable</i>				<i>M</i>			<i>SD</i>
CPIC Factor 1				28.82			6.83
CPIC Factor 2				18.68			4.22
CPIC Factor 3				10.69			3.14
Internalizing				-0.06			1.51
Externalizing				-0.27			2.49
Mother-daughter rel.				30.45			15.64
Father-daughter rel.				32.96			13.22

Note. CPIC = Children's Perceptions of Interparental Conflict.