

SELF-BLAME AND CONTROL APPRAISALS AS MODERATORS OF
ADJUSTMENT IN CHILDREN EXPOSED TO INTERPARENTAL CONFLICT

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Self-Blame and Control Appraisals as Moderators of

Adjustment in Children Exposed to Interparental Conflict

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Abstract

Grych and Fincham's cognitive-contextual model (1990) attempts to explain the relationship between interparental conflict and child adjustment. In particular, they propose that children's perceptions of interparental conflict may influence this relationship. The present study investigated the mediational and moderational effects of children's attributions of self-blame and control on this relationship using simple regression and hierarchical multiple regression. It was hypothesized that the interaction between self-blame and control would act as a moderator of the relationship between interparental conflict and child adjustment. One hundred and two mothers and their male and female children, aged 6 to 12.7 (M age= 8.77 years; $N=102$), participated. Children completed the Children's Perceptions of Interparental Conflict measure and the Revised Children's Manifest Anxiety Scale. Mothers completed the O'Leary Porter Scale, a measure of children's exposure to interparental conflict, and the Child Behavior Checklist, which assesses children's emotional and behavioural adjustment along the dimensions of externalizing and internalizing behaviour problems. No evidence was found for mediational effects. However, evidence was found supporting the hypothesis that the interaction between children's attributions of self-blame and control moderates the relationship between interparental conflict and child externalizing. Specifically, the combination of high self-blame and high control moderated the relationship between exposure to interparental conflict and child externalizing such that children exposed to more interparental conflict also displayed more externalizing problems. However, for children with other

combinations of high and low levels of self-blame and control attributions, the relationship between exposure to interparental conflict and child adjustment was not as strong. These findings have implications for our understanding of how children's views of interparental conflict may impact their adjustment.

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Self-Blame and Control Appraisals as Moderators of Adjustment in Children Exposed to Interparental Conflict

Exposure to interparental conflict has been demonstrated to have significant negative effects on children and their emotional adjustment (Amato & Keith, 1991; Emery, 1982, 1988). In their review of the literature, Grych and Fincham (1990) concluded that exposure to overt marital conflict poses a significant risk to child adjustment. For example, studies indicate that children in high-conflict families are negatively affected on numerous indices of child adjustment, including increased externalizing and internalizing behavior problems, elevated anxiety, reduced social and cognitive competence, and lowered school achievement (see Grych & Fincham, 1990, for a review). However, little is known about the mechanisms that may determine the association between interparental conflict and child adjustment. To answer these questions, researchers have recently begun to examine variables which may act as mediators or moderators of the relationship between interparental conflict and child adjustment (Grych & Fincham, 1990, 1993; Rossman & Rosenberg, 1992).

Increased attention to interparental conflict and its effect on child adjustment was sparked by the development of Grych and Fincham's (1990) cognitive-contextual model. Their innovative model describes the child's understanding of interparental conflict and stresses the importance of viewing interparental conflict from the child's perspective. Grych and Fincham's cognitive-contextual model attempts to integrate the existing knowledge about the impact of interparental conflict on children and suggests numerous research questions regarding the mechanisms that may mediate and

moderate the relationship between interparental conflict and child adjustment.

The cognitive-contextual model

Grych and Fincham (1990) developed their cognitive-contextual model to provide a conceptual framework to describe the child's experience of interparental conflict. Their focus on viewing interparental conflict from the child's perspective opened new research avenues, as much of the prior research in the area asked parents to provide information regarding their child's experience of interparental conflict without attempting to obtain data from the child directly (Grych, Seid, & Fincham, 1992). According to the cognitive-contextual model, the impact of interparental conflict on child adjustment is related to the child's *cognitions* about the conflict, which are partly guided by cognitive development, and the *context* in which the interparental conflict is occurring.

Grych and Fincham's (1990) model was designed to be a comprehensive picture of the variables that may combine to influence child adjustment. The model may be roughly described as consisting of three components: properties of interparental conflict; contextual factors in children's responses to interparental conflict; and children's appraisals for interparental conflict. Each of these components will be outlined in the following sections in the interest of providing a complete description of Grych and Fincham's model, however, it should be noted that the cognitive appraisals made by children exposed to interparental conflict were the main focus of the present study.

Properties of interparental conflict

All couples will experience some degree of conflict in their relationship, but not every instance of conflict will be equally damaging to children. Grych and Fincham (1990) identified a variety of conflict properties that may influence the child's initial appraisal of interparental conflict and affect both the child's emotional and cognitive response to the situation. The model posits that interparental conflict is multidimensional. Conflict properties include the frequency, intensity, degree of resolution, and content of the argument. The cognitive-contextual model suggests that the more children perceive interparental conflict to be frequent, intense, child-related, and poorly resolved, the more negative its impact will be on them. Specifically, conflict properties may influence child adjustment by affecting children's interpretations and understanding of interparental conflict (Grych & Fincham, 1993). Ideally, by identifying the properties of interparental conflict that are most damaging to children, it becomes possible to discriminate between different types of interparental conflict and their varying effects on child adjustment.

Grych and Fincham's (1990) emphasis on the properties of interparental conflict suggests that the extent to which the child is *exposed* to interparental conflict is an important factor in determining its impact on child adjustment. Hetherington, Cox, and Cox (1982) found that child adjustment was only associated with the degree of interparental conflict to which children were actually exposed. If children are directly confronted with evidence of disharmony between their parents, given that they rely on their parents to provide them with emotional security, they will likely perceive

interparental conflict as a significant threat to their well-being (Davies & Cummings, 1994). Perhaps if parents shield their children from interparental conflict by arguing "behind closed doors" children will not be as negatively affected by disharmony in their parents' relationship.

This study was not concerned with studying the effects of the properties of interparental conflict directly. However, it is recognized that these elements of interparental conflict help to shape child cognitions. Additionally, the present study used the extent to which children are actually exposed to interparental conflict as a predictor of child adjustment, as opposed to parents' reports of their own satisfaction or dissatisfaction with the marital relationship. Future research may attempt to link children's attributions of self-blame and control for interparental conflict with different combinations of the conflict properties proposed by Grych and Fincham's model.

Contextual factors in children's responses to interparental conflict

Grych and Fincham (1990) identified contextual factors which are proposed to act as moderators of the relationship between interparental conflict and child adjustment. Whereas conflict properties are elements of the interparental conflict situation itself, contextual factors are characteristics that a particular child brings to the conflict situation which may be stable or related to the current conflict. Contextual factors are divided into two general categories: distal context, which includes the child's past experience with interparental conflict, the emotional climate of the family, child temperament, and child gender; and proximal context, which includes the child's mood immediately prior to the conflict, and the child's expectations for the course of

the conflict.

In the present study, two contextual factors, child gender and child age, were of importance, in that these contextual factors are characteristics that children bring to the conflict situation and they may have an impact on the way children process interparental conflict. With respect to child gender, research regarding gender differences in the effect of marital conflict on child adjustment has been inconclusive. There is some evidence that boys are more negatively affected by exposure to interparental conflict (Emery & O'Leary, 1982; Hetherington et al., 1982; Porter & O'Leary, 1980), however, several studies have shown that both boys and girls are equally affected (Emery & O'Leary, 1984; Jouriles, Pfiffner, & O'Leary, 1988).

Other evidence suggests that boys and girls may react differently to interparental conflict, with boys more likely to show aggressive behaviors in response to interadult anger and girls more likely to show distress (Cummings, Iannotti, & Zahn-Waxler, 1985; Cummings, Vogel, Cummings, & El-Sheikh, 1989). As externalizing problems (e.g., aggression) are more observable and receive more consistent ratings across informants than do internalizing problems (e.g., depression/anxiety; Achenbach, McConaughy, & Howell, 1987), the finding that boys are more negatively affected by interparental conflict may, in fact, be an artifact of boys' and girls' different response styles. Indeed, in one study marital discord was *inversely* related to externalizing behavior problems in girls (Block, Block, & Morrison, 1981). A possible explanation for this finding may be that girls respond to marital discord by taking responsibility for preventing future problems between their

parents by being well-behaved in an effort to please their parents. Even if girls display maladjustment differently than boys do, this does not mean that they are not affected by interparental conflict (Emery, 1982). In the present study both boys and girls were included, and both externalizing and internalizing behavior problems measured.

Grych and Fincham's (1990) model stresses that children's developmental level is an important factor to consider in attempting to understand the link between interparental conflict and child adjustment. There is some evidence that children react differently to interparental anger depending on their age (Cummings, Zahn-Waxler, & Radke-Yarrow, 1984) and that these reactions may lead to differences in child adjustment. Developmental differences also exist in children's understanding of and reactions to interparental conflict (Hetherington, 1984) and therefore, age was an important consideration in the present investigation.

School-aged children are more likely than younger children to attempt to intervene in interparental conflict (Cummings et al., 1985) and this may have a negative effect on child adjustment if the child becomes involved in the parents' conflict (Grych, & Fincham, 1993; Jenkins, Smith, & Graham, 1989; Kerig, in press; Minuchin, 1974). For example, if the child attempts to mediate interparental conflict, parents may respond by pressuring the child to take sides in the argument or, possibly, will switch the focus of the argument onto the child who interrupted them.

Children's appraisals of interparental conflict

The cognitive-contextual model suggests that children exposed to interparental

conflict will actively attempt to *make sense* of and respond to interparental conflict (Grych & Fincham, 1990). The idea that children actively seek to understand stressors is confirmed in the coping literature (e.g., Herzberger & Tennen, 1986; Kagan, 1983). According to other social-information processing models (Akhtar & Bradley, 1991; Dodge, 1986), a child who is confronted with a stressful event may be expected to engage in the spontaneous generation of attributions for the event. Grych and Fincham (1990) proposed that children will attempt to understand interparental conflict by generating causal attributions and expectations of coping efficacy.

Grych and Fincham (1990) proposed two levels at which children may process interparental conflict. At the first level, primary processing, children make an affective appraisal of the situation's threat value. If the conflict situation is perceived to be threatening, the child will be motivated to discover the reasons for the conflict. At the second level of processing, children attempt to understand the conflict by making both attributions of blame for interparental conflict and appraisals of their personal control over the situation. In short, Grych and Fincham (1990) suggest that children who are exposed to interparental conflict may ask themselves "Why is this happening?" and "What can I do about it?" in an active attempt to understand and make sense of interparental conflict. The present study investigated the role of children's attributions of blame and control appraisals in explaining the link between interparental conflict and child adjustment.

Attributions of blame for interparental conflict. Children may make internal attributions for the cause of interparental conflict (e.g., seeing themselves as its cause)

and may also feel responsible for their parents' disputes (self-blame). However, attributions of causality must be conceptually distinguished from attributions of responsibility because they differ on the dimension of culpability (Grych & Fincham, 1990). In other words, children may make internal attributions for the *cause* of interparental conflict, but they may not feel *responsible* or to *blame* for the situation. For example, parents may argue because they hold opposing views on how to discipline their child. In this case, the child's misbehavior may be the cause of interparental conflict, yet the parents' inability to reach an agreement is not the child's fault. Fincham & Jaspars (1979) found that children as young as 6 years of age are able to distinguish between attributions of cause and blame which suggests that the use of children in this age group was justifiable in the present study.

Research indicates that, for children exposed to interparental conflict, attributions of self-blame are not uncommon (Grych & Fincham, 1993; Jenkins, Smith, & Graham, 1989). Attributions of responsibility have been observed in preschool-aged children by Wallerstein and Kelly (1980), who noted a tendency for these children to blame themselves for their parents' divorce. Grych and Fincham (1990) suggest that younger children may be more likely to blame themselves for interparental conflict than older children. There are several potential explanations for this developmental difference, such as young children's unwillingness to assign blame to parents in general, their limited awareness of the proximal causes of interparental conflict, and their egocentric view of the world (Grych & Fincham, 1990).

Jenkins, Smith, and Graham (1989) found that 24% of their sample of 9 to 12-

year-old children frequently blamed themselves for their parents' arguments.

Furthermore, they found a tendency for internal attributions to be linked to child maladjustment. This suggests that such attributions may play a moderating role in the relationship between interparental conflict and child maladjustment. Therefore, in the present study, it was proposed that children's attributions of self-blame would moderate the link between exposure to interparental conflict and child adjustment. If children feel that they are responsible for interparental conflict it seems logical that they may be motivated to rectify the situation. This assumption leads to the second focus of the study, namely children's appraisals of their control over interparental conflict.

Control appraisals. The coping literature draws a distinction between controllable and uncontrollable stressors and indicates that the coping efforts required to manage the two categories of stressors differ (Altshuler & Ruble, 1989; Band & Weisz, 1988; Miller & Green, 1985). Controllable stressors may be best negotiated through the use of problem-focused coping strategies which involve direct actions to change the stressful situation, whereas uncontrollable stressors may require emotion-focused coping which centers on efforts to manage internal distress (Band & Weisz, 1988). Research has shown that the ways in which children attempt to cope with interparental conflict have a significant impact on their emotional health and well-being (Compas, 1987; Cummings, Pellegrini, Notarius, & Cummings, 1989), therefore, the distinction between controllable and uncontrollable stressors has significant implications for the child's response to interparental conflict and child adjustment.

There is some evidence that perceived control may moderate the negative effects of stress. In general, maintaining a sense of control over negative situations may contribute to successful coping with stress and to maintaining a sense of well-being (Thompson & Spacapan, 1991). Understanding children's perceptions of personal control over stressful situations may also aid in determining how children will respond to those situations (Compas, Banez, Malcarne, & Worsham, 1991) and how their adjustment will be affected. Jenkins, Smith, and Graham (1989) found that the majority (71%) of their sample of 9 to 12-year-old children frequently attempted to intervene in their parents' arguments. One hypothetical explanation for this finding is that children who intervene in interparental conflict feel that they have some personal control over the situation and enter the conflict in order to exercise this control. In this way, control appraisals may impact the response that children make to interparental conflict. Interparental conflict is, under most circumstances, an uncontrollable stressor for children. Children who have unchallenged perceptions of personal control over interparental conflict may benefit from them as long as they provide a sense of power over the stressor. However, if children attempt to exercise their control by intervening in parental disputes their misperceptions are likely to have a negative influence on child adjustment. The frustration that children experience when their interventions do not succeed in eliminating future interparental conflict may, in fact, have a cumulative detrimental impact on child adjustment.

Other research has shown that children's control beliefs may moderate the relationship between stressful events and adjustment (Compas, Malcarne, & Fondacaro,

1988; Compas, Banez, Malcarne, & Worsham, 1991). Rossman and Rosenberg (1992) interviewed mothers and children from families ranging in their level of interparental conflict and found that children's perceptions of control during interparental conflict acted as a moderator of the relationship between family stress and behavioral problems. They found that the greater the child's sense of personal control during interparental conflict, the better the child's behavioral adjustment. Again, these control beliefs are only perceptions and may not reflect the actual degree of control the child could exert by intervening in parental disputes. Rossman and Rosenberg (1992) examined both direct and emotion-focused control in their research. In the present study, only children's perceptions of direct control over interparental conflict were considered because the focus was on what children believed they could do to actually affect interparental conflict, as opposed to their attempts to manage their internal distress. Specifically, it was hypothesized for this study that children's appraisals of direct control over interparental conflict would moderate the link between exposure to interparental conflict and child adjustment.

The interaction between attributions of blame and control appraisals as a moderator of adjustment in children exposed to interparental conflict

Thus far, evidence from prior research suggests that both attributions of responsibility (self-blame; Grych, Seid, & Fincham, 1992) and control appraisals (Rossman & Rosenberg, 1992) have an impact on child adjustment. However, it is not clear from the literature how the *combination* of these two variables may influence adjustment in children exposed to interparental conflict. Much of the prior research

has not differentiated between children's attributions of *self-blame* for interparental conflict and their beliefs regarding their control over the *solution* to family problems (Kerig, 1993; Patenaude, Kerig, & Brown, 1994). It may be that children who feel responsible for their parents' arguments will be affected differently by interparental conflict depending on whether or not they perceive some means by which to remedy the situation.

Researchers have pondered the possible motivation for children's attributions of self-blame for interparental conflict (Grych & Fincham, 1990). Some researchers have suggested that attributing responsibility to the self for uncontrollable negative events is not necessarily maladaptive (Bulman & Wortman, 1977). Self-blame may be adaptive if it facilitates perceptions of control over the stressful situation. By holding oneself responsible for a negative event, an individual may be comforted by the knowledge that a change in personal behavior will allow him or her to exercise control over the problem and prevent its re-occurrence. For example, in the child sexual abuse literature, it has been proposed that children may blame themselves for sexual abuse in order to maintain beliefs about personal control over future victimization (Lamb, 1986). Similarly, by attributing responsibility for interparental conflict to themselves, some children may be able to maintain beliefs of personal control over future family stress. For example, a child who attributes her parents' arguments to her own misbehavior (self-blame) may feel that it is possible to eliminate interparental conflict through changes in her own behavior (control).

Brickman, Rabinowitz, Karuza, Coates, Cohn, and Kidder (1982) created a

model of helping and coping behavior that draws a distinction between taking responsibility for the problem and taking responsibility for the solution to the problem. By looking at the *interaction* between these two variables, four possible combinations of self-blame and control are suggested which Brickman et al. (1982) postulate are representative of four distinct ways of approaching the world (see Figure 1).

Insert Figure 1 about here

According to Brickman et al.'s (1982) model, one's response to a stressful situation depends on the combination of blame and control attributions made for that situation. That is, an individual's response to a problem situation is influenced by the interaction between these attributions. For example, the action expected of the self in a situation in which the individual feels responsible for the problem and for the solution (high self-blame/high control) is termed "striving." This suggests that the individual feels compelled to find a solution to rectify the situation. On the other hand, when the individual feels responsible for the problem but not the solution to the problem, (high self-blame/low control) he or she may be expected to "submit" or endure the negative situation.

An adaptation of Brickman et al.'s (1982) model to the present study suggests that child adjustment may also vary based on the combination of self-blame and control attributions that children make for interparental conflict. For example, children who believe that their own behavior is responsible for their parents' disputes may

experience a sense of control over interparental conflict which leads them to "strive" to remedy the situation by changing their behavior, although they still must deal with negative feelings for their part in creating the problem. On the other hand, children who feel that they have control over interparental conflict, and are also free of the guilt associated with causing the conflict, may "assert" themselves to end their parents' arguments. Subjectively, this response has a more positive quality than the "striving" response described above. Unfortunately, children who feel responsible for interparental conflict and yet see no avenue to end the conflict, may be left to "submit" or endure the situation, a response which has a quality of helplessness and victimization. Finally, children who do not see themselves as involved in interparental conflict whatsoever, meaning that they have both low self-blame and low control beliefs, may "accept" the situation and keep themselves removed from it.

The Current Study

The current study attempted to uncover the mediational and moderational links between children's exposure to interparental conflict and child adjustment. Grych and Fincham's (1990) cognitive-contextual model posits that the way in which children make sense of interparental conflict will affect their adjustment. The ability of children's attributions of blame and control to explain the relationship between exposure to interparental conflict and child adjustment has been the focus of past research. Based on previous findings in the literature, a relationship between higher levels of interparental conflict and self-blame attributions and more negative child adjustment was expected in the present study (Grych & Fincham, 1993). Higher

levels of perceived control over interparental conflict were expected to relate to more positive child adjustment (Rossman & Rosenberg, 1992). Also, this study proposed that the *interaction* between different levels of children's attributions of self-blame and control for interparental conflict would moderate child adjustment, a question which has not been previously explored (see Figure 2).

Insert Figure 2 about here

Hypotheses

The specific predictions made for the degree of child adjustment problems associated with different levels of self-blame and control attributions in this study were informed by Brickman et al.'s (1982) model. High self-blame and low control is linked to "submission" in the model, therefore it was hypothesized that this combination of child attributions would be predictive of higher levels of externalizing and internalizing problems. Furthermore, it was expected that this combination would predict the most negative child adjustment relative to other combinations of high and low levels of self-blame and control.

High self-blame and high control predicted "striving" in the Brickman et al. (1982) model. It was hypothesized that self-blame might be more adaptive for child adjustment when combined with high control beliefs. This particular combination of attributions may prevent feelings of helplessness (Lamb, 1986) and have a buffering effect on child adjustment.

Low self-blame and low control was expected to predict relatively positive adjustment in children exposed to interparental conflict. It was hypothesized that children holding these beliefs would be less likely to become involved in their parents' arguments. Low self-blame and low control beliefs may aid children in their "acceptance," following from the Brickman et al. (1982) model, of the inevitability of parental arguments. From this perspective such a viewpoint might be considered adaptive.

Lastly, low self-blame and high control is related to "assertion" in the Brickman et al. model. It was hypothesized that such a combination of attributions would predict the most adaptive child adjustment, as it allows children to feel some personal power over the stressful situation.

Brief summary of specific hypotheses

- a) Increased marital conflict was hypothesized to be related to higher levels of internalizing and externalizing problems.
- b) The *interaction* between attributions of self-blame and control was expected to moderate the relationship between interparental conflict and internalizing and externalizing problems.

Hypothesized interactions between self-blame and control

- a) High self-blame and low control was hypothesized to be related to the most negative child adjustment.
- b) High self-blame and high control was hypothesized to be related to the second most negative child adjustment.

- c) Low self-blame and low control was hypothesized to be related to the second most positive child adjustment.
- d) Low self-blame and high control was hypothesized to be related to the most positive child adjustment.

Method

Participants

Participants in the present study were part of a larger project investigating the effects of interparental conflict on child adjustment. Mothers and children were recruited from the Lower Mainland area through notices and announcements at daycare centres, elementary schools, family service agencies, recreation centres, libraries, parenting and couples' communication classes, and family and marital therapy clinics.

Characteristics of the sample

Participants were 102 married women and their first-born children. Fifty-six boys ($M = 8.64$; $SD = 1.66$) and 46 girls ($M = 8.94$; $SD = 1.52$), ranging in age from 6 to 12.7 years, participated in the study. Mothers ranged in age from 25 to 47 years and had been married 10.49 years on average. The majority of participants were from Caucasian (88%), middle class families with an average of 2.2 ($SD = .66$) children per family. Wide variability in the degree of marital problems was seen in these intact families, with 26.5% scoring in the clinical range (≤ 97) for marital distress on the DAS (range = 22 to 143; $M = 104.23$; Spanier, 1976). Children also varied with respect to the degree of externalizing and internalizing behavior problems they displayed as reported by their mothers (see Table 1). Regarding internalizing behavior

problems, 19.6% and 10.8% of children fell in the clinical range and borderline clinical range, respectively. For externalizing behavior problems, 7.8% of child participants fell in the clinical range while another 3.9% fell in the borderline clinical range.

Insert Table 1 about here

Procedure and Measures

Mothers and children completed the measures either in their own home or at the Simon Fraser University Burnaby campus. Children were privately interviewed by trained research assistants or by the graduate student researcher. Mothers were asked to sign a consent form for both their own participation and that of their minor child. The child's assent to participate in the study was also obtained. Mothers and children were informed that they could discontinue participation at any time without penalty. Families received \$10 (CAN.) and an informative pamphlet entitled "Helping children cope with stress: A handbook for parents" for their participation in the study. Deception was not used in this project and all information was collected with careful attention to the preservation of families' privacy through the use of identification numbers rather than names.

Child Measures

Children's Perceptions of Interparental Conflict (CPIC; Grych, Seid, & Fincham, 1992). The CPIC consists of 51-items regarding the child's experience of interparental conflict answered either "true", "sort-of-true", or "false" by the child.

From these 51 questions, nine subscales have been derived which have been further combined through factor analyses to yield three factor scales: Conflict Properties, Threat, and Self-Blame. For the purposes of the present research, the factor-derived Self-Blame scale was used. This scale consists of five questions which ask about the extent to which children blame themselves for interparental conflict or feel that their parents blame them, and four items asking whether the child is frequently the topic of the parents' arguments. The children's perceptions of interparental conflict, as measured by the CPIC, have been shown to be meaningfully related to parents' reports of children's exposure to interparental conflict on the OPS. Such a relationship provides some general validation of the CPIC as a measure of interparental conflict. The Self-Blame scale has acceptable internal consistency ($\alpha = .78$) and test-retest reliability over two weeks ($\alpha = .76$). The validity of the Self-Blame scale was also assessed. It was associated with higher scores on self-reports of internalizing behavior problems for both boys and girls ($r_s = .57$ and $.32$, respectively, $p_s < .05$), as well as internalizing behavior problems in boys as reported by their teachers ($r = .17$, $p < .05$; Grych, et al., 1992). The CPIC was given in an interview format to the child participants.

Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). The RCMAS is a measure of trait anxiety symptoms consisting of 37 items, of which 28 items measure the child's level of manifest anxiety (Anxiety Scale). The remainder of the items provides an estimate of the child's attention to impression management (Lie Scale). The child is asked for a "yes" or "no" endorsement of each trait. The RCMAS has demonstrated internal consistency ($KR_{20} = .83$; Reynolds &

Richmond, 1978), concurrent validity with the trait scale of the State-Trait Anxiety Inventory for Children ($r = .85$, $p < .001$; Reynolds, 1980), and construct validity based on a factor analysis which revealed three factors consistent with previous research (Reynolds & Richmond, 1979). The RCMAS was given in an interview format to the child participants.

Discord Control and Coping Questionnaire (DCCQ) (Rossman & Rosenberg, 1992). The DCCQ consists of 23 items that ask children about the ways in which they believe that they can control their parents' arguments. The items are presented in a structured alternative format whereby children first decide which alternative is more true of them and then determine the degree to which it is true of them. These items load onto two factors, one regarding Direct Intervention by the child and the other focusing on Self-Calming strategies that the child may employ. Not all items were administered in the present study. For this investigation only the questions loading on the Direct Intervention factor were included. Four items from this factor scale were omitted because they had low factor loadings ($\leq .40$). Nine items in total were administered to the children. Rossman and Rosenberg (1992) reported psychometric data for this measure including internal consistencies for the Direct Intervention factor ($\alpha = .79$) and test-retest reliabilities for the Direct Intervention factor ($\alpha = .74$). The DCCQ was given to children in an interview format.

Adult Measures

Dyadic Adjustment Scale (DAS) (Spanier, 1976). This widely-used measure of the quality of the marital adjustment was used to describe the sample in the present study. The DAS consists of 32 items which yield four subscales (dyadic satisfaction,

dyadic cohesion, dyadic consensus, and affectional expression) and an overall adjustment score. The present investigation used only the overall adjustment score to represent marital adjustment (≤ 97 is the cut-off for a clinically distressed marriage). The DAS has been shown to have good psychometric properties including total score reliability ($\alpha = .96$), criterion-related, content, and construct validities (Spanier, 1976). This measure was completed by mothers in a questionnaire format.

O'Leary Porter Scale (OPS; Porter & O'Leary, 1980). This is a measure of the parent's perception of the frequency with which marital conflict is witnessed by the child. The OPS consists of 10 items and has good internal consistency ($\alpha = .86$) and test-retest reliability over two weeks ($r = .96$; Porter & O'Leary, 1980). The OPS has concurrent validity as it is significantly correlated with other measures of interparental conflict such as the Conflict Properties subscale of the CPIC ($r = .30$; Grych, Seid, & Fincham, 1992). Mothers completed this measure in a questionnaire format.

Intervention questions. In order to explore the impact of children's actual intervention in interparental conflict situations, two additional questions were added to the OPS which were considered separately. These questions asked how often the child intervenes in interparental conflicts and about the consequences of the child's interventions. Mothers were asked to rate these on a five-point scale.

1. How often does this child attempt to intervene when you and your partner argue?

0	1	2	3	4
Never	Rarely	Sometimes	Often	Very Often

2. If this child attempts to intervene when you and your partner have arguments, what effect does it usually have?

0	1	2	3	4
We stop completely	We quiet down	No effect	Argument gets worse	Child becomes involved

Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1991). The CBCL asks parents about their child's competencies and problem behaviors. This measure provides numerous factor-derived problem scales, but those that were of primary interest in the present study included the Externalizing subscale and the Internalizing subscale. The Total Problem score was also considered. In addition to these broad-band problem scores, the narrow-band scores of Aggression and Depression were used as Grych, Seid, and Fincham (1992) considered them to be the most pure examples of externalizing and internalizing problems. The psychometric properties of the CBCL are known to be excellent, including test-retest reliability over a 7 day, 1 year, and 2 year period for the problem scales ($r = .89$; $r = .75$; $r = .71$, respectively), as well as content, construct, and criterion-related validities (Achenbach & Edelbrock, 1991).

Results

Results will be organized into four sections: (1) the mediational and moderational effects of self-blame attributions and control appraisals on the relationship between interparental conflict and child externalizing; (2) the mediational and moderational effects of self-blame attributions and control appraisals on the relationship between interparental conflict and child internalizing; (3) the mediational and moderational effects of the *interaction* between attributions of self-blame and control on the relationship between interparental conflict and child externalizing, and,

finally; (4) the mediational and moderational effects of the *interaction* between attributions of self-blame and control on the relationship between interparental conflict and child internalizing.

The present study also addressed the issue of distinguishing between mediational and moderational effects. The literature has been inconsistent in its use of the terms mediator and moderator, indeed these terms have often been used interchangeably (Baron & Kenny, 1986). However, mediators and moderators play unique roles in influencing the relationship between interparental conflict and child adjustment (Patenaude, Kerig, & Ward, 1995). Mediation suggests that an intervening variable is responsible for the observed relationship between interparental conflict and children's symptoms. Moderators, as Baron and Kenny (1986) define them, affect the strength and/or direction of the relationship between two variables rather than creating it. In essence, a moderational explanation implies that interparental conflict will be distressing for children irrespective of the part they feel that they personally play in the situation. Their cognitions regarding interparental conflict may simply raise or lower the degree of effect. Although both mediational and moderational explanations were examined in the present study, a moderational effect was anticipated given that prior research has shown that parental disputes affect children regardless of their cognitions regarding the conflict (Emery, 1982; 1988).

Limitations of the tests for mediational and moderational effects

Baron and Kenny's (1986) recommendation for testing mediators and moderators assumes that the variable to be tested is a single variable and not an interaction term. In the present study, the *interaction* between children's self-

blame/control attributions was proposed as a moderator. If the complete regression model needed to assess the moderational effect of the *interaction* (self-blame x control) on the relationship between interparental conflict and child adjustment was properly tested, the final predictor in the equation would be a three-way interaction between the independent variable (interparental conflict) and the interaction term (self-blame x control). To address hypotheses related to the moderational impact of the interaction term (self-blame x control), the regression equation used to predict child adjustment must include all the main effects and second order interactions from which the three-way (interparental conflict x self-blame x control) interaction term is derived.

According to Cohen (1992), if one expects a medium effect size with eight predictors in the regression equation, the sample must include at least 107 cases. The present sample approaches this size ($N = 102$), however, hierarchical multiple regression completed using the full model did not reveal any moderational effects whatsoever. There are a number of potential explanations for this outcome: the power was too low, as the minimum number of cases according to Cohen (1992) could not be gathered; the effect size is actually much smaller than anticipated and would require several hundred additional participants to be detected; or, simply, that the interaction between self-blame and control attributions does not, in fact, function as moderator of the relationship between interparental conflict and child adjustment.

To test the moderational effect of the *interaction* between self-blame and control at the present sample size, however, assumptions were made that the second order interaction terms of the regression equation, from which the three-way interaction is derived, would not make more than a negligible contribution to the

prediction of child adjustment. In short, due to sample size restrictions, a partial regression model was tested based on the assumption that the predictive ability of the second order interaction terms in the regression equation would be small. Certainly, the findings related to the moderational impact of the self-blame x control interaction on the link between exposure to interparental conflict and child externalizing may have been inflated by the exclusion of the second order interaction terms from the regression equation. Put another way, the moderation effect of the self-blame x control interaction is confounded with the two-way interactions to the unknown extent that they are non-zero, therefore, the present findings must be interpreted with caution.

Establishing the relationship between interparental conflict and child adjustment in the sample

Given that the purpose of this project was to identify mechanisms responsible for the relationship between exposure to interparental conflict and child adjustment, the existence of a relationship between these variables in the present sample was confirmed before proceeding with the analyses. As expected, greater exposure to interparental conflict was related to higher levels of child externalizing ($r = .36, p < .001$) and internalizing ($r = .35, p < .001$) from the mothers' perspective; and was moderately related to the child's reports of internalizing problems ($r = .14, p = .08$).

Self-blame and control as mediators of the relationship between interparental conflict and child adjustment

The mediational effects of children's self-blame and control beliefs were tested using a series of simple multiple regressions as recommended by Baron and Kenny (1986). In this procedure, the proposed mediator is regressed on the independent

variable, the dependent variable is regressed on the independent variable, and, finally, the dependent variable is regressed on both the proposed mediator and the independent variable. Mediation is indicated if each regression is significant and the effect of the independent variable on the dependent variable is decreased when the mediator is added to the regression equation. The first condition requires that the independent variable be correlated with the proposed mediator. This relationship is expected as the mediator is assumed to be generated by the independent variable. As shown in Table 2, Pearson correlations between interparental conflict and both self-blame attributions ($r = .09$, $p = .185$), and control appraisals ($r = -.06$, $p = .274$) were not significant. The lack of relationship between these variables indicated that mediational effects of each of self-blame attributions and control appraisals on the relationship between interparental conflict and child adjustment was not demonstrated.

Insert Table 2 about here

Self-blame as a moderator of the relationship between interparental conflict and child externalizing

The moderational effects of self-blame attributions and control appraisals on the relationship between interparental conflict and child externalizing problems on the CBCL were examined using hierarchical multiple regression in the procedure recommended by Baron and Kenny (1986). Hierarchical multiple regression was used to investigate the moderational effects of self-blame for interparental conflict on child externalizing. In this procedure, the regression equation was set to predict child

externalizing problems. At the first level of analysis, child age was entered alone in the regression equation to control for age effects. Child age was found to contribute significantly to the prediction of externalizing behavior problems, accounting for 8% of the variance ($F(1, 100) = 8.65, p < .004$). In the second step, interparental conflict and self-blame attributions were entered. Together these variables accounted for an additional 12% of the variance in child externalizing ($F(1, 98) = 14.56, p < .01$). The moderational effect of self-blame would be indicated if, in the third step, the interaction between interparental conflict and self-blame contributed to the prediction of child externalizing. As shown in Table 3, the interaction between interparental conflict and self-blame accounted for an additional 4% of the variance ($F(3, 97) = 5.42, p < .05$) suggesting the presence of moderational effects.

Insert Table 3 about here

Control as a moderator of the relationship between interparental conflict and child externalizing

Turning to control appraisals as a potential moderator of the relationship between interparental conflict and externalizing child behavior problems, hierarchical multiple regression was performed using a similar procedure to that described above. Results indicated that the interaction between interparental conflict and control appraisals did not contribute significantly to the prediction of externalizing child behavior problems, therefore evidence for the moderational effect of control appraisals was not found (see Table 4).

Insert Table 4 about here

Self-blame as a moderator of the relationship between interparental conflict and child internalizing

Hierarchical multiple regression was again used to investigate whether self-blame attributions act as a moderator of the relationship between interparental conflict and child internalizing. At the first level of analysis, child age was entered alone to control for age effects, however, child age did not contribute significantly to the prediction of child internalizing problems as reported by the mother on the CBCL, nor was there support for self-blame as a moderator of the relationship between interparental conflict and internalizing child behavior problems (see Table 5).

Insert Table 5 about here

Similar analyses were conducted to investigate the moderational impact of self-blame attributions on child internalizing as reported by the child on the RCMAS. Child age did not contribute significantly to the prediction of child internalizing as reported by the child, nor did self-blame attributions act as a moderator of the relationship between children's exposure to interparental conflict and child internalizing (see Table 6).

Insert Table 6 about here

Control as a moderator of the relationship between interparental conflict and child internalizing

No evidence was found to support a moderational effect of control appraisals on the relationship between interparental conflict and child internalizing as reported by either the mother (see Table 7) or the child (see Table 8).

Insert Table 7 about here

Insert Table 8 about here

The interaction between self-blame and control appraisals as a moderator of the relationship between interparental conflict and child externalizing

The moderational effect of the interaction between self-blame attributions and control appraisals on the relationship between interparental conflict and mother's reports of child externalizing on the CBCL was investigated by entering the three-way interaction between interparental conflict, self-blame attributions and control appraisals in the third step of the hierarchical multiple regression. A moderational effect was demonstrated in this analysis ($F(3, 97) = 6.28, p < .01$; see Table 9) with the interaction between self-blame and control accounting for an additional 5% of the

variance in child externalizing.

Insert Table 9 about here

The interaction between self-blame and control appraisals as a moderator of the relationship between interparental conflict and child internalizing

The moderational effect of the interaction between self-blame attributions and control appraisals on the relationship between interparental conflict and mother's reports of child internalizing on the CBCL was investigated by entering the three-way interaction between interparental conflict, self-blame attributions and control appraisals in the third step of the hierarchical multiple regression. A moderational effect was not demonstrated in this analysis (see Table 10). The procedure was repeated to investigate the moderational effect of the interaction between children's self-blame attributions and control appraisals on children's reports of their internalizing problems. Similarly, no moderational effect was evidenced in this analysis (see Table 11).

Insert Table 10 about here

Insert Table 11 about here

Changes in the degree of relationship between interparental conflict and child adjustment at different levels of self-blame and control attributions

In order to map the change in the relationship between interparental conflict and externalizing child behavior problems, an equation was created to describe externalizing child behavior problems (DV) as a function of interparental conflict (IV) multiplied by a regression weight comprised of the regression weight of the interaction (M_1M_2) between self-blame (M_1) and control (M_2) and actual scores on the self-blame and control variables [e.g., $DV = \beta_0 + (\beta_{m_1m_2}M_1M_2) + (\beta_{iv \times m_1m_2}M_1M_2)IV$]. Based on the range of scores obtained for the self-blame and control variables, low and high values were chosen and inserted in the function equation. These values were then graphed to illustrate changes in the degree of relationship between interparental conflict and externalizing child behavior problems for varying levels of self-blame and control. As shown in Figure 3, the relationship between exposure to interparental conflict and child externalizing was strongest for the high self-blame/ high control condition. This figure suggests that children exposed to a high level of interparental conflict also have greater externalizing problems. The degree of relationship between the IV and DV for the remaining combinations of self-blame and control attributions seems less strong in that high or low levels of exposure to interparental conflict did not lead to particularly high levels of child externalizing problems (see Figure 3).

Insert Figure 3 about here

The association between child adjustment and attributions of self-blame and control

In the present study a number of hypotheses were advanced pertaining to the differential effects of levels of self-blame attributions and control appraisals on child adjustment. To illuminate the moderational impact of the interaction between self-blame attributions and control appraisals both variables were split at the median and reassigned into "High" and "Low" groups which, along with exposure to interparental conflict, produced a 6-cell design (see Table 12). The cell means for child externalizing (CBCL) divided by level of self-blame, control, and exposure to interparental conflict were subjectively compared with the hypothesized relationships based on the Brickman et al. (1982) model.

Insert Table 12 about here

Self-blame and control as moderators of the relationship between interparental conflict and boys' adjustment

Exploratory analyses were undertaken that involved re-conducting the hierarchical multiple regression procedure on the sample divided by gender. For boys, the results evidenced in the overall sample were reconfirmed. In addition, a trend was discovered for moderational effects of control appraisals on the relationship between interparental conflict and boys' reports of anxiety symptoms on the RCMAS, $F(3, 51) = 3.31, p = .07$ (see Table 13). This analysis indicated that control appraisals were able to explain an additional 5% of the variance in boys' self-reported anxiety symptoms.

Insert Table 13 about here

Self-blame and control as moderators of the relationship between interparental conflict and girls' adjustment

For girls, however, a very different pattern of results was revealed. None of the moderational effects of self-blame on the relationship between interparental conflict and externalizing child behavior problems were supported in the subsample of girls. However, additional moderational effects were suggested which had not appeared in the overall sample. A trend was discovered for a moderational effect of control appraisals on the relationship between interparental conflict and child internalizing on the CBCL, ($F(3, 41) = 3.82, p = .06$; see Table 14). Control appraisals explained an additional 8% of the variance in internalizing child behavior problems, suggesting the possibility of a moderational relationship.

Insert Table 14 about here

Discussion

In the past, parents have been asked to provide information regarding their child's experience of interparental conflict. However, Grych and Fincham's (1990) cognitive-contextual model suggests that the "child's eye" view of interparental conflict is important to consider if we wish to understand how parents' arguments affect child adjustment. The present study followed from Grych and Fincham's (1990) model by

focusing on the child's perspective of interparental conflict in an effort to identify mechanisms that may account for the relationship between exposure to interparental conflict and child adjustment. Specifically, children's attributions of self-blame and control over parents' arguments were the focus of the present study. In particular, this study examined the moderational effects of the interaction between children's attributions of self-blame and control on the link between exposure to parents' arguments and children's externalizing and internalizing problems.

An important issue in the present study was the distinction between mediators and moderators. Baron and Kenny (1986) have criticized researchers for using the terms "mediation" and "moderation" interchangeably when, in fact, they refer to very different mechanisms by which a third variable influences the relationship between two other variables. Grych and Fincham's (1990) cognitive-contextual model suggests that children's attributions of self-blame and control will *mediate* the effect of children's exposure to interparental conflict on child adjustment. In other words, Grych and Fincham claim that children's attributions of self-blame and control will provide the essential pathway that links exposure to interparental conflict with child adjustment. Their model seems to suggest that if children fail to make attributions of self-blame or control when they are exposed to conflict between their parents, the relationship between interparental conflict and child adjustment would not be seen.

In this study, attributions of self-blame and control were not found to mediate the relationship between interparental conflict and child adjustment, as suggested by Grych and Fincham's (1990) cognitive-contextual model. However, self-blame was found to *moderate* the link between exposure to parents' disputes and child

externalizing. A moderational relationship between interparental conflict and child adjustment suggests that conflict between parents will negatively affect children through mechanisms other than children's attributions for the conflict. Children's attributions will modify the direction and/or strength of that effect. For example, the fear that parents will divorce is a common one for children exposed to interparental conflict. Disputes between parents may negatively affect children's adjustment because they threaten the child's sense of emotional security (Davies & Cummings, 1994). In short, children's attachment relationships with caregivers may seem "at stake" when children are exposed to interparental conflict and the stress of such a threat may also affect child adjustment.

The results of the present study indicated that children's attributions of self-blame may moderate the relationship between interparental conflict and child externalizing. In other words, while all children exposed to interparental conflict may show some degree of externalizing problems, children who blame themselves for the conflict may be even more negatively affected. The present research was the first to find evidence for the *moderational* effects of children's attributions of self-blame on the relationship between interparental conflict and child adjustment. However, some caution must be taken in interpreting these findings given that the full regression model could not be tested. All in all, this finding appears to support Grych and Fincham's (1990) cognitive-contextual model by suggesting that child attributions do influence the impact of parents' disputes on children.

Children's attributions of self-blame for interparental conflict did not moderate the relationship between exposure to interparental and child internalizing in the present

study. This relationship was expected based on previous literature (Grych & Fincham, 1993), however there are several explanations that could account for the lack of findings related to child internalizing. Generally, objective behavioral measures are employed by child researchers because parents are available to act as raters of their child's behavior. However, certain classes of behavior problems, such as internalizing problems, may be under-reported by these measures because they are more difficult for adults to detect (Wicks-Nelson & Israel, 1991). For example, parents, particularly those who are distracted by spousal conflict, may provide less accurate reports of child internalizing problems because these behaviors are less visible and less troublesome to them than are child externalizing problems. In fact, this bias may help to explain the emphasis in the literature on the association between exposure to interparental conflict and children's *externalizing* problems (Crockenberg & Covey, 1991; Emery, 1982). In the present study, however, it should be noted that children's attributions of self-blame and control did not moderate the relationship between interparental conflict and child-reported internalizing problems, despite the potential for children to give more accurate reports of their symptoms.

Past researchers have identified control appraisals as moderators of the relationship between exposure to interparental conflict and child adjustment (Rossman & Rosenberg, 1992). However, evidence was not found in the present study for this moderational effect. There are several possible explanations for this failure to replicate previous findings in the literature. One possibility is that the sample of children in the present study had not been exposed to a sufficient range of intensity in interparental conflict. For example, Rossman and Rosenberg (1992) interviewed

children from families where interparental conflict ranged from minimally to physically violent. Given that participants in the present study were self-recruited from the community at large, many of the families who volunteered for the project reported little or no interparental conflict. Perhaps the level of interparental conflict to which children are exposed must be of a relatively distressing nature before they are motivated to evaluate their personal control over the situation. It should also be noted that Rossman and Rosenberg's measure (1992) included a Self-Calming factor which was not used in the present investigation. It is possible that their finding that control acts as a moderator of the relationship between children's exposure to interparental conflict and child adjustment would have been replicated had this study included the Self-Calming factor.

Lamb (1986) proposed that the *interaction* between children's attributions of self-blame and control may influence the impact of sexual abuse on child adjustment. Similarly, in the present study, it was suggested that children with differing levels of self-blame and control attributions for interparental conflict may vary in the degree to which they display externalizing and internalizing problems. However, children's experiences of sexual abuse and interparental conflict differ in ways that may hinder the direct translation of Lamb's ideas. Lamb (1986) noted that children receiving psychotherapy for sexual abuse tended to blame themselves for the abuse and refused to abandon this misperception easily. She hypothesized that children's attributions of self-blame for sexual abuse may, in fact, give them a sense of personal control over preventing future abuse. These children, however, had already been removed from the abusive situation. In contrast, interparental conflict is an uncontrollable stressor that is

an ongoing concern for children. After all, children who intervene in their parents' arguments are unlikely to end interparental conflict indefinitely. Therefore, the child's adaptive illusion of control over parental disputes will be difficult to maintain over the long run. This distinction highlights the importance of future longitudinal research on the impact of children's attributions of self-blame and control in the context of longstanding parental acrimony.

The results of the present study suggest that the interaction between children's attributions of self-blame and control moderates the relationship between interparental conflict and child externalizing. In short, depending on the child's combination of levels of self-blame and control for interparental conflict, child externalizing will be relatively more or less severe. Brickman et al.'s model (1982) of helping and coping behaviors guided the hypotheses of this study concerning how different levels of children's self-blame and control attributions would affect child adjustment. Predictions regarding the relative severity of child adjustment problems, for the four combinations of levels of self-blame and control, were confirmed in some instances and contradicted in others.

The present study identified the highest level of child externalizing as associated with high levels of both self-blame and control attributions. Indeed, regression analyses indicated that the relationship between exposure to interparental conflict and child externalizing is strongest for children who hold both high levels of self-blame and control. This finding seems to dispute the idea that self-blame may be relatively adaptive when accompanied by high control beliefs. Children's high self-blame/high control beliefs may only remain adaptive as long children are able to

maintain these beliefs without feeling compelled to take action in the conflict situation. If the child does take action and his or her interventions fail, he or she will be left to deal with the negative feelings associated with self-blame. It should be noted however that mother's reports of their children's interventions indicated that children in the present sample rarely, if ever, intervened in parental disputes. Therefore, questions concerning the impact of intervening in parental disputes cannot be adequately explored using the intervention questions asked of mothers in this study. Also, there was not a sufficient range of responses on the intervention items to make them useful in an exploratory analysis. This may be because parents were reluctant to report their children's involvement in interparental conflict or, alternately, that parents were not aware of children's attempts to intervene. Future research should attempt to ask children to report the frequency of their interventions in parental disputes. Jenkins, Smith, and Graham (1989) reported that the majority of children in their sample of intact families admitted to intervening in their parents' arguments. Perhaps a similar finding would have emerged in the present sample had children themselves reported on the frequency and impact of their interventions in parental disputes.

Another potential explanation for the association of high self-blame and control beliefs with externalizing problems is that high control beliefs may contribute additional stress, without alleviating the negative impact of self-blame, when children's attempts to end interparental conflict fail. Children who attempt to end their parents' disputes may become very frustrated by the fact that they have no actual control over interparental conflict. Parents' arguments are an uncontrollable stressor for most children, therefore children who attribute control to themselves have likely

misperceived their power over the situation. Constant failure at exerting control over interparental conflict may in fact compound the negative impact of parental disputes on child adjustment.

It was hypothesized in the present study that the most negative child adjustment would be related to the combination of high self-blame and low control attributions for interparental conflict. This expectation was based on Brickman et al.'s (1982) model which associated this combination of attributions with "submission." Subjectively, submission was interpreted as a response suggestive of victimization and helplessness. The findings of the present study, however, did not relate this combination of child attributions with the most severe level of child maladjustment. One explanation for this may be that, in the high self-blame/low control condition, children avoid becoming involved in their parents' conflicts because they feel they would not have control over the situation if they attempted to intervene. These children may be left with the stress associated with blaming themselves for interparental conflict, however they need not shoulder additional stress because their attributions of low control discourage further involvement in the conflict situation.

The lowest level of externalizing behavior was seen in children who made low self-blame and high control attributions for interparental conflict. Given that these children do not self-blame for interparental conflict they may not experience internal pressure to repair interparental conflict in the same way as children who make high self-blame attributions. However, children who make low self-blame/high control attributions may remain comforted by their perception that they could control interparental conflict if it became unbearable for them.

Some limitations of the present research must be acknowledged. Firstly, due to inadequate power, it is impossible to test for gender effects that might be obscuring the moderational effects of child attributions of self-blame and control on the relationship between interparental conflict and child adjustment. Gender effects were not expected in the present research based on the inconclusive findings concerning gender in previous studies. Exploratory analyses, conducted subsequent to addressing the primary hypotheses of the present study, suggested that the moderational effects of control may have been obscured by a gender effect. There was a marginally significant finding suggesting that girls' attributions of control moderate the relationship between exposure to interparental conflict and child internalizing. In other words, when girls perceived that they have more control over interparental conflict they also displayed more internalizing behavior problems. Moderational effects of this kind were not observed for boys. Evidently gender effects are important variables to consider in future to help explain the relationship between interparental conflict and child adjustment (Cummings, Davies & Simpson, 1994; Kerig, 1993; Kerig, Cowan, & Cowan, 1993).

Other limitations of the present study involve the measurement of children's attributions of self-blame. Firstly, the sample obtained for the project may not have provided a sufficient range of scores on children's self-blame. In fact, some of the children interviewed were directly exposed to little or no interparental conflict either because parents were in basically non-conflictual relationships or, occasionally, because parents made an effort to shelter their children from interparental conflict. Perhaps other hypothesized mediational and moderational effects would have emerged

if children from a more diverse sample of families experiencing interparental conflict had been interviewed. Secondly, very few items comprise the Self-Blame scale and those items seem repetitive. At the present time no other measure of children's attributions of self-blame for interparental conflict exists. Future researchers would be wise to extend the Grych, Seid, and Fincham (1992) measure to increase its usefulness. The generalizability of the present study may be limited by the reduced range on the Self-Blame measure and the fact that the majority of the participating families reported fairly low levels of child exposure to interparental conflict and child adjustment problems. These results may be best applied to nonclinical intact families who would be less likely to seek psychological intervention. However, even in these families, a relationship between children's exposure to interparental conflict and child adjustment was still observed which was moderated by children's attributions of self-blame and control.

Given the sensitive nature of research on the effects of interparental conflict, there is some concern that children and parents in the present sample responded to the questionnaires in a way that minimized the actual degree to which the children were exposed to interparental conflict and/or their level of child adjustment. It is not clear to what extent children who did self-blame for interparental conflict denied making those attributions during the interview. Similarly, it is not clear to what extent parents were accurate regarding the amount of interparental conflict to which their child was exposed. Naturally, valid reports of the children's and parents' perceptions are essential for determining the nature of the relationship between exposure to interparental conflict and child adjustment.

Implications of the present research

The findings of the present study lend further support to Grych and Fincham's (1990) cognitive-contextual model stressing the importance of the child's perceptions of interparental conflict in understanding their reactions to it. There are important implications following from the present research for the future interventions made with children exposed to interparental conflict. If we discover what child cognitions are associated with relatively positive outcomes for children exposed to interparental conflict we can begin to help children cope more effectively with these stressors. Although children's attributions for interparental conflict did account for a significant portion of the variance in child adjustment, the amount that it accounted for was not particularly large. This suggests that, although attempting to intervene with children to change their attributions for interparental conflict may be helpful, preventing children's exposure to interparental conflict in the first place may be the most effective strategy for helping children. Simply encouraging children to change their attributions for interparental conflict, without helping parents change the conflict situation to make it less stressful for children, may not be a sufficiently powerful intervention and may have less chance to succeed. First of all parents' may simply strive to shield their children from interparental conflict. On the other hand, if exposure to interparental conflict considered to be damaging to children, parents can be encouraged to change the child's experience of the conflict situation so that it is less likely to promote attributions of self-blame. The items of the Self-Blame factor of the CPIC suggest that the content of parental arguments (i.e., when the child is the subject of the argument) is related to children's attributions of self-blame. Parents may be able to

help children by ensuring that they do not expose them to conflict in which the child is the central topic. A combination of intervention approaches, with both the children and parents, is probably the most practical and effective strategy for helping children.

Future research should focus on repeating these analyses with a larger number of families, to allow for the analysis of gender effects, and with a sample of children who represent a full range of intensity in self-blaming, perhaps by recruiting more severely distressed families. Also, the present research was unable to include fathers' perceptions of children's exposure to interparental conflict and child adjustment.

Future researchers may wish to expand the present study by including a comparison of mothers' and fathers' impressions of their child's adjustment to interparental conflict.

Finally, research may evolve to include identifying the coping strategies that children, who hold different combinations of self-blame and control attributions, use to deal with their exposure to interparental conflict. Perhaps we will find that certain combinations of child attributions reliably predict specific child coping strategies.

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Table 1

Means, standard deviations, and ranges of child adjustment variables

	<u>M</u>	<u>SD</u>	Range
CBCL Externalizing	9.22	6.36	0 - 28
CBCL Aggression	7.76	5.45	0 - 26
CBCL Internalizing	8.88	6.57	0 - 32
CBCL Depression	5.14	3.89	0 - 19
CBCL Global	9.12	17.16	3 - 74
RCMAS Anxiety	9.33	6.05	0 - 23

Table 2

Pearson correlation coefficients for interparental conflict, self-blame, control, interaction (self-blame x control) and child adjustment measures

	IC	SB	CON	SBxCON	EXT	INT	RCMAS
IC	---	.09	-.06	.09	.36***	.35***	.14
SB		---	.00	.88***	.07	-.07	.17*
CON			---	.35***	-.05	-.09	-.05
SBxCON				---	.08	-.05	.15
EXT					---	.53***	.02
INT						---	.15
RCMAS							---

*p < .05; **p < .01; ***p < .001

Note. IC=interparental conflict; SB=self-blame attributions; CON=control appraisals; SBxCON = self-blame x control; EXT=child externalizing reported by mother; INT=child internalizing reported by mother; RCMAS=child internalizing reported by child.

Table 3

Hierarchical multiple regressions for interparental conflict and self-blame onto child externalizing as reported by mothers

Step	Variable Block	F	R ² Change	B
1	Child age	8.65**	.08	-.09**
2	Interparental conflict	14.56**	.12	.08
	Self-blame			-1.21
	Interparental conflict x Self-blame	5.42*	.04	.11*

* $p < .05$; ** $p < .01$

Table 4

Hierarchical multiple regressions for interparental conflict and control onto child externalizing as reported by the mother

Step	Variable Block	F	R ² Change	B
1	Child age	8.65**	.08	-.08**
2	Interparental conflict	14.70**	.12	.10
	Control			-.16
3	Interparental conflict x Control	.57	.00	.00

** $p < .01$

Table 5

Hierarchical multiple regressions for interparental conflict and self-blame onto child internalizing as reported by mothers

Step	Variable Block	F	R ² Change	B
1	Child age	.51	.01	-.02
2	Interparental conflict	14.99**	.13	.42**
	Self-blame			-.03
3	Interparental conflict x Self-blame	.19	.00	-.02

**p <.01

Table 6

Hierarchical multiple regressions for interparental conflict and self-blame onto child internalizing as reported by children

Step	Variable Block	F	R ² Change	B
1	Child age	.40	.00	.03
2	Interparental conflict	5.17*	.05	.26
	Self-blame			1.06
3	Interparental conflict x Self-blame	1.29	.01	-.05

* $p < .05$

Table 7

Hierarchical multiple regressions for interparental conflict and control onto child internalizing as reported by mothers

Step	Variable Block	F	R ² Change	B
1	Child age	.51	.01	-.01
2	Interparental conflict	14.34**	.12	-.03
	Control			-.26
3	Interparental conflict x Control	1.26	.01	.02

** $p < .01$

Table 8

Hierarchical multiple regressions for interparental conflict and control onto child internalizing as reported by children

Step	Variable Block	F	R ² Change	B
1	Child age	.40	.00	-.03
2	Interparental conflict	.76	.02	-.18
	Control			-.19
3	Interparental conflict x Control	.90	.01	.01

Table 9

Hierarchical multiple regressions for interparental conflict and the interaction (self-blame x control) onto child externalizing as reported by mothers

Step	Variable Block	F	R ² Change	B
1	Child age	8.65**	.08	-.08**
2	Interparental conflict	14.75**	.12	.10
	Interaction (self-blame x control)			-.05*
3	Interparental conflict x Interaction	6.28**	.05	.004*

* $p < .05$; ** $p < .01$

Table 10

Hierarchical multiple regressions for interparental conflict and the interaction (self-blame x control) onto child internalizing as reported by mothers

Step	Variable Block	F	R ² Change	B
1	Child age	.51	.01	-.02
2	Interparental conflict	14.60**	.13	.35*
	Interaction (self-blame x control)			-.01
3	Interparental conflict x Interaction	.01	.00	1.45

* $p < .05$; ** $p < .01$

Table 11

Hierarchical multiple regressions for interparental conflict and the interaction (self-blame x control) onto child internalizing as reported by children

Step	Variable Block	F	R ² Change	B
1	Child age	.70	.00	.02
2	Interparental conflict	1.49	.04	.22
	Interaction (self-blame x control)			.04
3	Interparental conflict x Interaction	.84	.01	-.002

Table 12

Cell means for child externalizing at varying levels of self-blame and control

	HIGH CONFLICT		LOW CONFLICT	
	HIGH CONTROL	LOW CONTROL	HIGH CONTROL	LOW CONTROL
LOW SELF-BLAME	8.25 (n=8)	8.55 (n=11)	7.64 (n=14)	10.67 (n=9)
HIGH SELF-BLAME	12.94 (n=16)	10.54 (n=13)	7.13 (n=15)	7.88 (n=16)

Table 13

Hierarchical multiple regressions for interparental conflict and control onto child internalizing as reported by boys (N=56)

Step	Variable Block	F	R ² Change	B
1	Child age	1.66	.03	.08*
2	Interparental conflict	8.77**	.14	-.43
	Control			-.43
3	Interparental conflict x Control	3.31	.01	.04

**p < .01

Table 14

Hierarchical multiple regressions for interparental conflict and control onto girls' internalizing as reported by mothers (N=46)

Step	Variable Block	F	R ² Change	B
1	Child age	.18	.00	.83
2	Interparental conflict	5.21*	.11	.26*
	Control			.15
3	Interparental conflict x Control	3.82	.08	.06

*p <.05

Figure Caption

Figure 1. Four category model of helping and coping behaviors adapted from Brickman, Rabinowitz, Karuza, Coates, Cohn, & Kidder (1982).

RESPONSIBILITY FOR THE SOLUTION

		HIGH	LOW
RESPONSIBILITY FOR THE PROBLEM	HIGH	STRIVING	SUBMISSION
	LOW	ASSERTION	ACCEPTANCE

Figure Caption

Figure 2. Moderational effects of the relationship between interparental conflict and child adjustment.

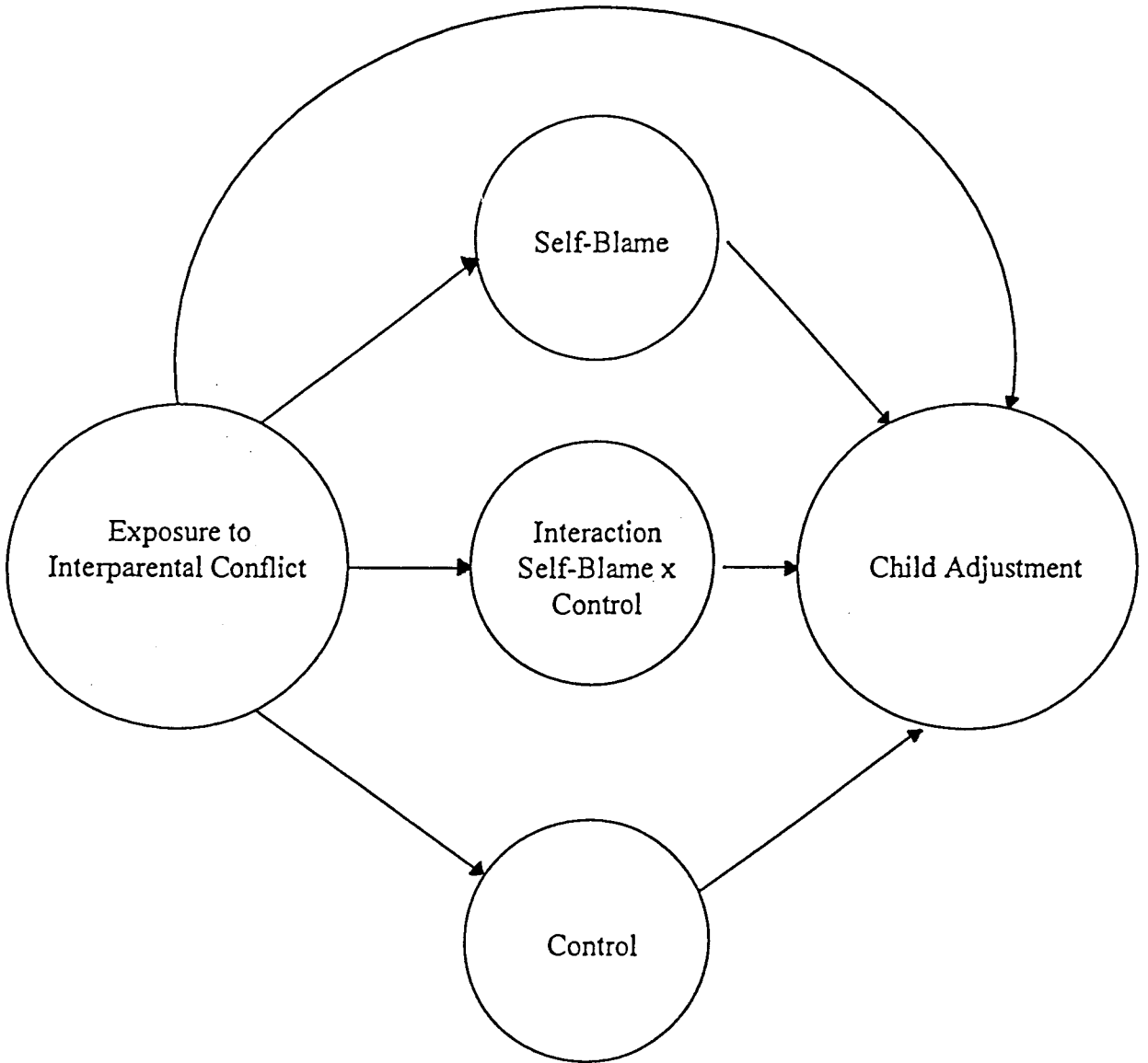
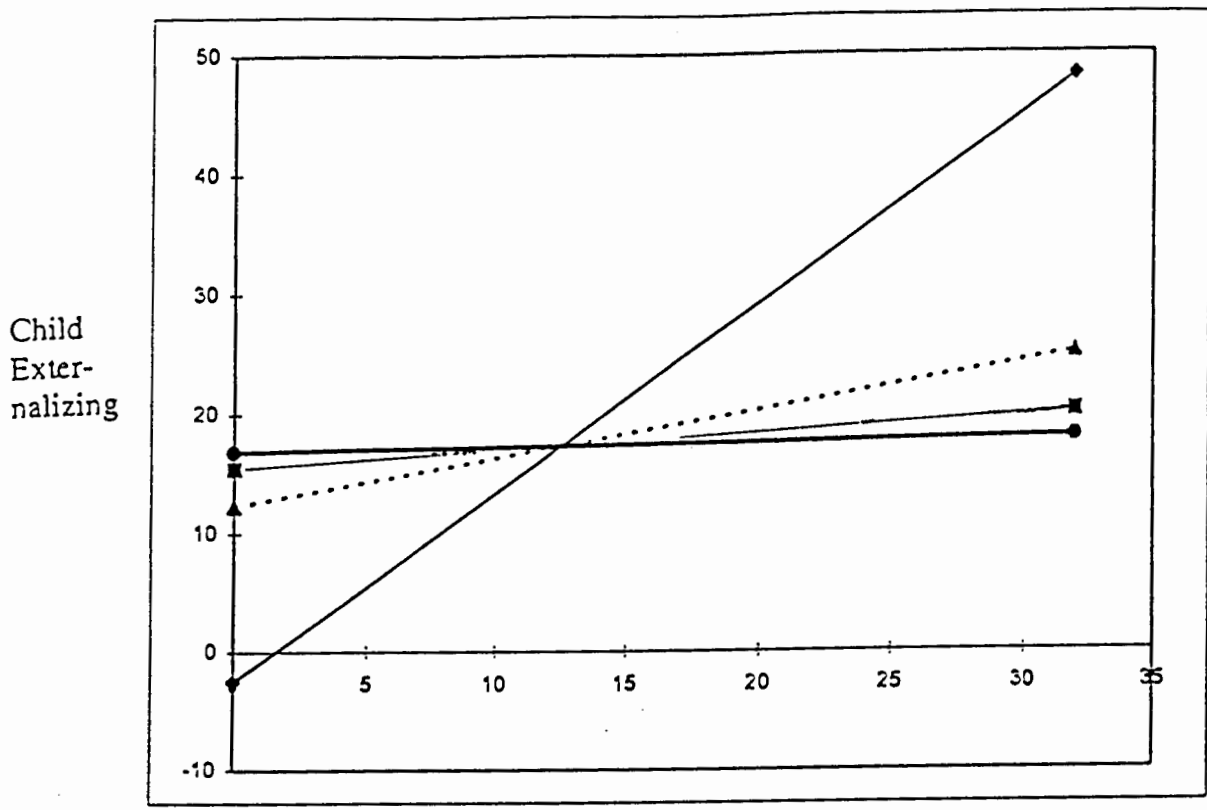


Figure Caption

Figure 3. Changes in the degree of relationship between interparental conflict and child adjustment at different levels of self-blame and control attributions.



Exposure to Interparental Conflict

Legend

- High Self-blame
High Control
- High Self-blame
Low Control
- Low Self-blame
High Control
- Low Self-blame
Low Control