

DEFENSE MECHANISMS AS MODERATORS OF THE EFFECTS OF  
EXPOSURE TO INTERPARENTAL CONFLICT ON CHILD ADJUSTMENT

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B. A. Honours, University of Manitoba

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

in the Department of Psychology

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July 1996

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Effects of Exposure to Interparental Conflict on  
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Defense Mechanisms as Moderators of the Effects of

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## ABSTRACT

This study described the relationship between defense mechanisms and psychological adjustment in 124 boys and girls, ages 7 to 11, exposed to a range of interparental conflict. The Children's Defense Measure was used to investigate defense mechanisms. Gender differences were not found in children's use of defense mechanisms, nor were differences found in their exposure to conflict or symptomatology. However, gender differences in the patterns of relationships among these variables were discovered. As interparental conflict increased, externally-oriented defenses buffered against externalizing behaviour problems, for boys. For girls, internally-oriented defenses exacerbated internalizing problems as exposure to interparental conflict increased.

## Acknowledgements

I am grateful to Patricia Kerig for her generous contributions of time, ideas, and data for this project. I would also like to thank Marlene Moretti, Ray Koopman, and Michael Maraun for their helpful consultations. Thank you to those who came before me in the Family Relations Lab, namely Renee Patenaude, Corina Brown, Anne Fedorowicz, and our many volunteers. My gratitude is extended to the families who participated in this study, especially all the "child psychologists". Lastly, I would like to thank my parents, Erna and Wayne Warren, whose emotional and financial support enabled me to write this thesis.

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## Defense Mechanisms as Moderators of the Effects of Exposure to Interparental Conflict on Child Adjustment

Interparental conflict is a term that represents a continuum of parental behaviours ranging from verbal altercations to physical violence (Carlson, 1984). Research has shown that witnessing conflict that is hostile, lengthy, focuses on the child, involves violence, or is insufficiently resolved can have significant negative effects on children's adjustment (Grych & Fincham, 1990) such as the development of physical ailments, academic difficulties, and emotional and behavioural problems (Emery, 1988). Following from research that has established that there are negative effects, the field has turned to process-oriented models to understand how these effects take place. Process-oriented models are dynamic models in which various factors moderate and mediate the impact of stressors (Cummings & El-Sheikh, 1991; Kerig, Fedorowicz, Brown, Patenaude, & Warren, 1996). Factors occurring within children are key to process-oriented models of the effects of stressors on them (Rutter, 1990). This study examined children's defense mechanisms or unconscious responses to stress that, in effect, change threatening aspects of a child's perceptual field (Vaillant, 1971). The study of unconscious processes is inherently difficult and requires reliance on overt indices of inner processes. Nonetheless, some researchers have endeavored to examine defense mechanisms. Gender differences have appeared in children's defense mechanisms; gender differences have also been found in children's reactions to interparental conflict. Similarities in the patterns of these gender differences suggest that a relationship between children's defense mechanisms and their reactions to interparental conflict exists.

### Gender Differences in Children's Reactions to Interparental Conflict

Gender differences have been found in children's behavioural, emotional, and cognitive

reactions to interparental conflict. With regard to cognitive responses, Cummings, Davies, & Simpson (1994) and Kerig et al. (1996) found that girls are more likely than boys to engage in self-blame and attribute the cause of their parents' conflict to themselves. Boys are less concerned with the cause of their parents' disputes and more concerned with the threat that they perceive to their security when their parents argue. These cognitive differences may relate to the emotional and behavioural problems that have been observed in boys and girls who witness interparental conflict. Research suggests that girls are more likely than boys to develop anxiety and depression in response to interparental conflict (Cummings, Iannotti, & Zahn-Waxler, 1985; Sternberg et al., 1993), whereas boys are more likely than girls to develop aggressive behaviour problems (Crockenberg & Covey, 1991; Block, Block, & Gjerde, 1986). Research suggests, however, that gender differences are small when children are responding to lesser forms of conflict such as background adult anger. Gender differences in children's reactions are more pronounced when interparental conflict escalates to physical violence (E. M. Cummings & Cummings, 1988).

When interparental conflict becomes an extreme stressor for children, similar but more marked patterns in children's responding occur. Girls who witness interparental violence have been found to be more prone to developing internalizing disorders than nonwitness females, whereas boys who witness interparental violence are more likely than nonwitness boys to develop both externalizing disorders and internalizing disorders (E. M. Cummings & Cummings, 1988; Kerig, 1996). For these reasons, boys who witness interparental violence have been considered to have poorer psychological adjustment, overall, compared with girls who are exposed to violence (Jaffe, Wolfe, Wilson, & Zak, 1986).

In sum, research has determined that there are effects of exposure to interparental conflict

for children and that those effects differ for boys and girls. Some research suggests that the effects differ for boys and girls because boys are exposed to greater levels of interparental conflict (Hetherington, 1989). However, other research suggests that there are not significant differences in children's exposure (Emery & O'Leary, 1982; Porter & O'Leary, 1980). Therefore, research must continue in order to satisfactorily determine the reasons why interparental conflict has its differing impact on boys and girls.

### Understanding Children's Reactions to Interparental Conflict

Until recently, social learning theory was the predominant model of how interparental conflict affects children (Carlson, 1984). Aggressive and passive behaviours were thought to be modelled by parents and learned by their children (Seltzer & Kalmuss, 1988). Gender differences in children's responses are explicable in this model because children are more likely to emulate the model to whom they are most similar (Carlson, 1984). Especially in the case of conflictual homes marked with physical violence, men are more likely to be aggressors and women are more likely to be victims and demonstrate signs of anxiety and depression. Social learning theory does not explain, however, why male witnesses have similar or greater degrees of internalizing problems as compared to female witnesses. The theory also neglects resilient children who witness interparental conflict for much of their lives but develop few or none of the previously mentioned problems. Reasons for child resiliency need to be elucidated as promotion of these factors is integral to the prevention of long-term problems in children exposed to conflict (Garmezy, Masten, & Tellegen, 1984). An alternative to the social learning model that accounts more fully for gender differences and the variability in children's responding to interparental conflict is Grych and Fincham's (1990) cognitive-contextual model.

The cognitive-contextual model. The cognitive-contextual model is a process-oriented

model of relevant properties of interparental conflict (e.g., content of an argument) and psychological context (e.g., a child's memory of past arguments) for children's adjustment. In this model, the child is an active agent in construing and responding to conflict, with the implication that a child's reaction follows from his or her appraisals of the conflict situation. This framework borrows from Folkman and Lazarus' (1985) research on coping which suggests that there are two forms of appraisal: primary appraisal, through which an individual evaluates a stressful situation with respect to his or her well-being, and secondary appraisal, through which the individual evaluates coping resources and options. Coping strategies refer to conscious, effortful cognitive and behavioural attempts to deal with taxing circumstances (Compas, 1987).

Coping with interparental conflict. Lazarus and Folkman (1987) suggest that a dichotomy exists in coping: problem-focused versus emotion-focused strategies. Problem-focused strategies are attempts to deal with stress by managing or changing the situation that is causing the stress. An example of problem-focused coping is cognitive decision-making or planning a way to resolve a problem. Emotion-focused strategies are attempts to regulate emotions or distress. An example of emotion-focused coping is positive cognitive restructuring or reframing a situation so it does not feel threatening. Folkman (1984) concluded that in the presence of an uncontrollable stressor, such as interparental conflict, emotion-focused coping should be related to better psychological adjustment compared with problem-focused coping. Boys exposed to interparental conflict have been found to react with more problem-focused coping (Armistead et al., 1990). This finding may explain why boys demonstrate poorer adjustment, overall, when exposed to increasing levels of interparental conflict compared with girls (Reid & Crusifulli, 1990).

To return to the cognitive-contextual model, the contention has been made that defense

mechanisms underlie the cognitive appraisals that determine overt coping responses in maltreated children (Carlson & Sroufe, 1995). Research suggests that negative affect amongst family members arouses anxiety and distress in children (Katz, Kramer, & Gottman, 1992). Hence children exposed to interparental conflict must regulate their own resulting affect. Defense mechanisms provide a means of affect regulation for children. Bowlby (1980) noted that children do not process all incoming information at the same level of consciousness. He used the term defensive exclusion to explain how the different levels of consciousness are used by children to exclude information that has previously resulted in upset. As they mature, children defend in more complex and elaborated ways. Children modify cognitive functions, such as how they encode and retrieve information, in addition to controlling their attention. Through impacting the amount and kind of information a child has about interparental conflict, defense mechanisms can directly affect primary appraisal, thereby affecting secondary appraisal and choice of coping strategy (Kerig & Warren, 1996).

Further, gender differences in defense mechanisms could explain gender differences in children's choice of coping strategies. Boys appear to use more externally-oriented defense mechanisms (Cramer, 1983) and more problem-focused coping in response to interparental conflict (Armistead et al., 1990). Girls appear to use more internally-oriented defense mechanisms (Cramer, 1983) and less problem-focused coping strategies in reaction to interparental conflict (Vuchinich, Emery, & Cassidy, 1988). Externally-oriented defense mechanisms may underlie problem-focused coping strategies, while internally-oriented defense mechanisms underlie more emotion-focused coping strategies. Gender differences in coping strategies could, in turn, be used to predict gender differences in children's psychological adjustment to interparental conflict. The construct of defense mechanisms, as it is used here,

follows from the formulations of many theorists.

### The Role of Defense Mechanisms

Freud's (1923; cited in Freud, 1957) original formulation stated that defense mechanisms are an unconscious means of managing conflicts among internal drives. The individual distorts or refuses to allow into consciousness unacceptable sexual and aggressive urges. Freud also stated that defending is not a generic process; defenses are discrete entities and different people use different defense mechanisms. Specific defense mechanisms he introduced were regression, repression, reaction formation, undoing, projection, introjection, turning against one's self, and reversal.

While mechanisms that distort information may appear maladaptive, A. Freud (1966) suggested that defense mechanisms are pathological only if one or a few are used to the exclusion of others, or if age-inappropriate defense mechanisms are used. She also emphasized the role of the ego in defending against both internal and external stressors, thus expanding the list of defense mechanisms to include sublimation, displacement, denial in fantasy, denial in word and act, identification with the aggressor, and altruism. Later theorists (e.g., Kernberg, 1976) made additions such as splitting and omnipotence to the Freuds' list of individual defense mechanisms.

Studies have been conducted to elucidate relationships among the individual defense mechanisms and between defense mechanisms and psychopathology. Vaillant (1971) studied 30 men for 25 years and calculated correlations between the defense mechanisms they used and their success in work and relationships. He developed a hierarchy of defense mechanisms according to level of pathology and divided it along a continuum of narcissistic, immature, neurotic, and mature defenses. Narcissistic defenses (e.g., projection) were those frequently used

by the least successful of his subjects and mature defenses (e.g., humour) were those commonly used by the most successful subjects. While this was an appealing first attempt at the empirical study of defense mechanisms, the measure of defenses relied on one clinician's observations of "overt idiosyncratic behaviour that seemed to reflect ego mechanisms" (Vaillant, 1971, p. 110). Haan (1977) also approached the study of ego mechanisms via clinical observation. She distinguished three modes of each of ten "classic" ego mechanisms as representing coping, defense, or fragmentation dependent on the degree of flexibility and adherence to reality associated with the mode of expression. She found that coping mechanisms were correlated with upward social mobility and above average intelligence and defense mechanisms were not. Haan's model is informative, especially because she incorporated coping and defenses in one model, but the model pathologized all defense mechanisms because they occur on an unconscious level.

Bond, Gardner, Christian, & Sigal (1983) developed a questionnaire for measuring conscious derivatives of defense mechanisms in adults and used factor analysis to derive four clusters of defense mechanisms that they referred to as defense styles. The four styles lay along what Bond considered to be a developmental continuum ranging from maladaptive, image distorting, and self-sacrificing, to mature defenses. Further empirical support for the model came from correlations among the four factors and measures of ego strength and ego development (Bond, 1995). Specifically, maladaptive defenses such as acting out had the lowest correlations with ego strength and development, consistent with past findings (e.g., Vaillant, 1971). Mature defenses had the highest correlations with the ego indices and included mechanisms such as humour and sublimation, in accordance with previous theorizing. Bond's idea of a developmental progression of defense mechanisms appears substantiated but the youngest

members of his sample were 16 years old. A more comprehensive understanding of the development of defense mechanisms requires the study of children and the internal mechanisms that protect them from stress.

Children's defense mechanisms. Many theorists have argued for a developmental continuum of defense mechanisms that starts in childhood (e.g., Freud, 1923; A. Freud, 1966; Vaillant, 1971). In general, there appears to be agreement as to the order in which defense mechanisms should develop (Cramer, 1983). Repression and denial are agreed to develop earlier in life; projection and turning against the self develop during school-age; and defenses such as rationalization develop by early adolescence. Attempts have been made to empirically study a developmental continuum of defense mechanisms. Bowlby (1980) conducted observational studies of defense and ego functioning in infants and young children, Ames, Learned, Metreaux, & Walker (1974) analyzed Rorschach responses of children aged 2 to 10, and Adams-Tucker (1984) coded children's hospital charts according to defensive responses in relation to sexual victimization. The Defense Mechanism Inventory (DMI; Gleser & Ihilevich, 1969), a second adult measure of conscious derivatives of defenses, has been used with adolescents (Levit, 1993). All of the above studies have supported the developmental continuum to some degree. Cognitively simple defenses (e.g., denial) are demonstrated first, "aggression outward" defenses (e.g., displacement and acting out) develop second (with the possible exception of projection; Levit, 1993), and turning against self, rationalization, and defenses entailing reversal appear last in childhood. Chandler, Paget, and Koch (1978) also found that children understand and are able to explain simple defense mechanisms, such as denial, before they are able to explain more developmentally advanced defenses. However, no measure specifically designed to operationalize and study children's defense mechanisms was used in the aforementioned studies.



The first measure designed for this purpose was the Children's Defense Measure (CDM; Botkin & Bunge, 1987).

The CDM is a semi-structured projective task that utilizes picture apperception techniques. Children are asked to create stories in response to drawings of scenarios common to childhood. Children are then asked questions about the child character in each drawing on the basis that they will attribute their own conscious derivatives of defense mechanisms - or thoughts and feelings - to the character. Botkin (1990) factor analyzed 243 children's responses and found factors somewhat similar to those that Bond et al. (1983) found with adults. Externally-oriented defense mechanisms such as identification with the aggressor and acting out formed an "Externalizing" factor which is similar to Bond's "Immature" defensive style. However, in this child sample, projection loaded on another factor with other defenses that "Isolate" the self from painful experiences and affect. Defenses such as denial through fantasy and regression formed a factor which Botkin termed "Distancing", and reaction formation and rationalization joined with other internally-oriented defenses to form a factor termed "Intellectualizing" which is similar to Bond's "Neurotic" style. Differences in the two factor structures may relate to the fact that many of the defenses Bond studied were developmentally advanced for children, and therefore could be termed "mature" for children but "immature" for adults. In terms of individual defenses, research with the CDM suggests that rationalization, regression, and isolation of affect are used the most in middle childhood and humour is used the least (Botkin, 1990). Botkin (1990) also found that children in high stress conditions (i.e., children from a low teacher expectation group in a high preferential treatment classroom) used more defense mechanisms, overall, but used "mature" defenses such as rationalization less often than did children in low stress conditions.

Gender differences in children's defense mechanisms have also been found in previous

studies. Adams-Tucker (1984) observed that sexually abused boys used denial more than did sexually abused girls. Cramer (1979) administered the DMI to adolescents and reported that females used turning against self and principalization and males used more turning against the other and projection. In a subsequent study, Cramer (1983) videotaped younger children's behaviour and coded it according to the DMI. Boys demonstrated turning against the object more than girls, who engaged in more reaction formation or changing feelings to opposite, more acceptable feelings. Levit (1991) also found that girls scored higher on turning against self and boys scored higher on displacement, identification with the aggressor, acting out, and projection. It appears that boys use more of the externally-oriented defense mechanisms that are developmentally "immature", or appear earlier in children's development, with some exceptions (e.g., projection). Nonetheless, conclusive statements cannot be made as no study of gender differences in children's defense mechanisms has been conducted with an empirically validated measure specifically designed for children.

The purpose of this study was to use such a measure, the CDM, to investigate the defense mechanisms used in middle childhood. Further, the relationship between defense mechanisms and children's functioning was examined in a population exposed to varying levels of a stressor common in children's lives, interparental conflict.

### Hypotheses

Hypothesis 1. The literature is contradictory as to whether boys and girls are exposed to differing levels of interparental conflict. Therefore, this study investigated gender differences in exposure to interparental conflict. Gender differences in children's externalizing and internalizing behaviour problems were also examined. Consistent with previous research, it was hypothesized that boys would have greater externalizing behaviour problems compared with

girls, who would have greater internalizing behaviour problems in reaction to interparental conflict.

Hypothesis 2. It was hypothesized that boys would demonstrate greater use of externally-oriented defense mechanisms, namely displacement, somatization, identification with the aggressor, acting out, and humour, compared with girls. It was expected that girls would demonstrate greater use of the internally-oriented defense mechanisms, or what Botkin (1990) refers to as an intellectualizing defensive style, including reaction formation, pseudomaturity, rationalization, and regression.

Hypothesis 3. Based on the premise that externally-oriented defense mechanisms underlie problem-focused coping, and problem-focused coping is detrimental in uncontrollable circumstances (Folkman, 1984), it was hypothesized that an externally-oriented defensive style would relate to increased child symptomatology in children exposed to interparental conflict. An intellectualizing defensive style was also hypothesized to moderate the relationship between witnessing interparental conflict and developing psychological symptomatology. However, intellectualizing defense mechanisms were predicted to have a buffering effect against the development of anxiety, poor self-esteem, and other internalizing and externalizing behaviour problems, when compared to an externally-oriented defensive style.

Exploratory analyses. Exploratory analyses were conducted to examine gender differences in isolating and distancing defensive styles. The buffering effects of isolating and distancing defense mechanisms on the development of psychopathology were also investigated. Both defensive styles incorporate defenses that are considered externally-oriented and defenses that are considered internally-oriented (Botkin, 1990) and, therefore, directional hypotheses were not made.

## Method

Participants

This study was part of a larger, ongoing investigation of the effects of interparental conflict on families. Mothers and their first- and second-born children were recruited from the Lower Mainland area via notices distributed through daycare centers, elementary schools, family service agencies, and recreation centers, and announcements in local newspapers, television, and radio programs. Sixty-one girls ( $M$  age = 8.8 years,  $SD$  = 1.62 ) and 63 boys ( $M$  age = 8.5 years,  $SD$  = 1.60) ranging in age from 6 to 12.7 years participated. The child sample was comprised of 101 eldest children and 23 siblings. Fifty-seven percent of sibling pairs were boy/girl pairings, 13% were boy/boy pairings, and 30% were girl/girl pairings. Eighty-nine mothers ranged in age from 25 to 45 years and had been married an average of 10.40 years. Most parents who participated were Caucasian (86.5%) with an average household income of over \$50,000. There was variation in the amount of interparental conflict to which the entire sample of children was exposed. There was similar variation in the amount of conflict to which siblings were exposed. Children also varied in the degree of their self-reported anxiety and the degree of their internalizing and externalizing behaviour problems as reported by mothers (see Table 1). Twenty percent of children fell in the clinical range of the internalizing and/or externalizing scale of the Child Behaviour Checklist (Achenbach & Edelbrock, 1991). Nine percent of children and 20% of mothers had been in individual psychotherapy.

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Insert Table 1 about here

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### Procedure

Children and their mothers completed measures at a lab on the Simon Fraser University Burnaby campus or in their own home. Children were interviewed separately by trained undergraduate and graduate research assistants. Mothers were asked to sign a consent form for their participation and that of their child. Children were also asked if they wish to participate and told that they could discontinue participation at any time. Families received \$40 if one child participated and \$60 if two children participated, in addition to a handbook on helping children cope with stress, and a certificate for their participation. Confidentiality was maintained through the use of subject numbers on questionnaires rather than names.

### Measures

Children's Defense Measure (CDM; Botkin & Bunge, 1987). The CDM was developed for children between the ages of 8 and 12 years old; it has been used successfully with children as young as 6 years old (Kerig, personal communication, 1995). The CDM consists of 8 projective cards that act as a stimuli for stem stories finished by the child and a 17-item questionnaire for each card that asks about conscious derivatives of defenses, or thoughts and feelings, that might be experienced by the child in the story. Subjects indicate on a 4 point Likert scale whether they agree that the child would react a certain way "alot", "pretty much", "a little", or "not at all". The CDM assumes that children will project themselves onto the silhouette of the child portrayed in the card. Each scenario has a female version and a male version. The three pairs of cards that were used for the present study depict a sibling argument, a child overhearing parents arguing, and separation from parents.

Seventeen defense mechanisms are measured by the CDM. They were chosen on the basis of their theoretical importance for normal and pathological development (Bond et al., 1983;

A. Freud, 1966; Hann, 1987; Kernberg, 1976; Vaillant, 1971). The defense mechanisms measured are: reaction formation, devaluation, omnipotence, denial through fantasy, withdrawal, displacement, somatization, identification with the aggressor, projection, rationalization, acting out, humour, pseudomaturity, regression, splitting, isolation of affect, and dissociation (see Table 2 for descriptions). Botkin (1990) reported extensive steps taken to ensure face validity of the defense mechanism items including consultation with child psychologists and psychiatrists.

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Insert Table 2 about here

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Exploratory factor analysis conducted with 243 third, fourth, and fifth grade students suggested a three-factor solution in each grade but the rotated factors did not look similar across grades (Botkin, 1990). LISREL multiple group analysis with a simultaneous solution for the three groups was performed; a four-factor solution provided an adequate fit to all the data. The goodness of fit of the hypothesized model, with invariant factor pattern matrix over groups, was confirmed by simultaneous analysis of covariance matrices. Factor 1 (Externalizing) consists of the five defense mechanisms of displacement, somatization, identification with the aggressor, acting out, and humour. Factor 2 (Isolating) consists of splitting, isolation of affect, dissociation, and projection. Factor 3 (Intellectualizing) is a bipolar factor consisting of four positive loadings and an equal number of negative loadings. The defense mechanisms with positive loadings are reaction formation, pseudomaturity, rationalization, and regression. The defenses with negative loadings are devaluation, displacement, projection, and acting out. Factor 4 (Distancing) consists of four defense mechanisms that ward off feelings of vulnerability: devaluation,

omnipotence, denial through fantasy, and regression.

The internal consistency of the defense mechanism items across cards was examined by Botkin (1990). Chronbach's alphas for each defense mechanism across cards ranged from .14 to .78. Lower alphas are expected as different coping and defense mechanisms are often triggered by the different situations portrayed by the CDM cards (Warren, Kerig, Brown, & Fedorowicz, 1995). Hence, this study examined children's reaction to only the interparental argument card (Figure 1) as it should give the best representation of the processes children undergo when exposed to interparental conflict.

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Insert Figure 1 about here

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Defensive style scores were calculated in a manner informed by Botkin's (1990) factor analysis and reliability analyses conducted for this study. For each defensive style, defense mechanisms that loaded positively on one of Botkin's factors were summed. The externally-oriented defensive style score was a sum of scores on the displacement, somatization, identification with the aggressor, acting out, and humour items for the interparental conflict card of the CDM. The intellectualizing defensive style score was the sum of scores on the reaction formation, pseudomaturity, rationalization, and regression items. The isolating defensive style score was a sum of scores on the splitting, isolation of affect, dissociation, and projection items. The distancing defensive style score was a sum of responses to the devaluation, omnipotence, denial through fantasy, and regression items. Chronbach's alpha was calculated for answers to all three cards used in the larger study. The defensive style scales of externally-oriented, intellectualizing, isolating, and distancing had acceptable reliability coefficients of .77, .74, .65,

and .68, respectively.

Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978). The RCMAS is a measure of trait anxiety comprised of 37 items, 28 items to measure anxiety (Anxiety Scale) and 9 items to measure impression management (Lie Scale). Each item represents a symptom of anxiety which children endorse with a "yes" or "no". The RCMAS has demonstrated internal consistency (Chronbach's alpha = .83), concurrent validity ( $r = .85$  with trait scale of State-Trait Anxiety Inventory for Children), and construct validity according to a factor analysis which suggested three factors consistent with facets of anxiety demonstrated in prior research (Reynolds & Richmond, 1979).

Self-Perception Profile for Children (SPPC; Harter, 1985). The SPPC is a measure that taps children's perceptions of their competence in five areas, as well as their global sense of self-worth. Children respond to 36 items by first choosing one of two descriptions of how "some kids feel" and then endorsing that description as being "really true" of themselves or "sort of true". The SPPC has acceptable internal consistency, ranging from .71 to .86 for the different subscales. Acceptable concurrent validity is suggested by strong negative correlations between a previous version of the global self-worth scale and measures of depressed affect (Harter, 1990).

Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1991). The CBCL asks parents to list and rate their children's strengths and problem behaviours. The CBCL provides many factor-derived scales but those pertinent to this investigation are externalizing subscale total and internalizing subscale total. The psychometric properties of the CBCL are very good including content, construct, and criterion-related validity, and one week test-retest reliability of .89 (Achenbach & Edelbrock, 1991).

O'Leary-Porter Scale (OPS; Porter & O'Leary, 1980). The OPS measures a parent's



perception of the frequency with which marital conflict is witnessed by his or her child. The measure contains 10 items, has good internal consistency (Cronbach's alpha = .86), and has acceptable two week test-retest reliability ( $r = .96$ ; Porter & O'Leary, 1980). The concurrent validity of the OPS is demonstrated by significant correlations with child reports of on the Conflict Properties subscale of the Children's Perceptions of Interparental Conflict scale (CPIC; Grych, Seid, & Fincham, 1992).

## Results

### The relationship between interparental conflict and child adjustment

An ANOVA was first conducted to determine whether there were gender differences in mothers' ratings of the amount of conflict children were exposed on the OPS. Results showed that boys and girls were not exposed to significantly different amounts of interparental conflict in this sample ( $F(1, 114) = .38, p = .54$ ). A MANOVA was performed to examine differences between boys' and girls' psychological adjustment. Boys and girls did not differ in the anxiety that they reported on the CMAS nor the internalizing and externalizing problems that their mothers reported on the CBCL ( $F(1, 108) = 1.36, p = .26$ ; see Table 1 for means). Correlations were conducted as a preliminary examination of the relationships among the variables under investigation. Only two correlations were significantly different for boys and girls (see Table 3). Correlations were therefore calculated for boys and girls combined. Greater exposure to interparental conflict was related to higher levels of externalizing behaviour problems ( $r = .28, p < .01$ ) and internalizing behaviour problems ( $r = .20, p < .20$ ) as reported by mothers on the CBCL. Interparental conflict was significantly correlated with self-reported anxiety on the CMAS for boys but not girls. The global self-worth scale of the SPCC was excluded from analyses because of a ceiling effect; most children scored the maximum value on the subscale.

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Insert Table 3 about here

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### Children's defense mechanisms

A MANOVA was performed in order to determine whether there were gender differences in children's use of the four defensive styles, externally-oriented, intellectualizing, isolating, and distancing. A main effect for gender was not found ( $F(1, 120) = 1.12, p = .35$ ). Children in this sample used distancing defense mechanisms the most and externally-oriented defense mechanisms the least (see Table 1). When correlations were calculated for boys and girls combined, correlations among the CMAS and the four defensive styles showed that increased anxiety was associated with children's increased use of the defensive styles of external-orientation ( $r = .21, p < .05$ ), intellectualizing ( $r = .19, p < .05$ ), and isolating ( $r = .28, p < .05$ ).

### Gender differences in the moderational effects of defense mechanisms on the relationship between interparental conflict and child adjustment

The hypothesis that an externally-oriented defensive style would exacerbate the effects of interparental conflict and an intellectualizing defensive style would buffer against the effects was tested using the hierarchical multiple regression procedure recommended by Baron and Kenny (1986). To begin, separate regression analyses were conducted, one for boys and one for girls. This procedure both allowed for comparison of the residual mean squares for boys and girls with F tests, and tested for homoscedasticity in the data. Interparental conflict was first entered into the regression equation. A defensive style was then entered, followed by an interaction term for interparental conflict and the defensive style. This procedure was followed for the three

dependent variables of children's reports of anxiety, mothers' reports of children's externalizing behaviour problems, and mothers' reports of children's internalizing behaviour problems. Gender differences were found in the moderational effects of externally-oriented, intellectualizing, isolating, and distancing defensive styles on the relationship between interparental conflict and child adjustment. Therefore, regression analyses remained separate for males and females.

The moderational effects of externally-oriented defense mechanisms. Interparental conflict accounted for a significant portion of variance in boys' externalizing behaviour problems (see Table 4). Externally-oriented defense mechanisms did not account for significant variance but the interparental conflict X externalizing defensive style interaction term did account for additional variance in mothers' reports of boys' externalizing behaviour problems. Figure 2 demonstrates that, as interparental conflict increased, boys who used fewer externally-oriented defense mechanisms had greater externalizing behaviour problems. For boys, an externally-oriented defensive style acted as a buffer against externalizing behaviour problems with increased exposure to interparental conflict. An externally-oriented defensive style did not moderate the relationship between interparental conflict and mothers' reports of internalizing behaviour problems, or boys' self-reported anxiety.

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Insert Table 4 about here

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Insert Figure 2 about here

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Externally-oriented defense mechanisms did not moderate the relationship between

interparental conflict and girls' externalizing problems, or mothers' reports or self-reports of internalizing problems (see Table 4).

The moderational effects of intellectualizing defense mechanisms. Boys' use of intellectualizing defense mechanisms did not effect the relationship between externalizing behaviour problems, internalizing behaviour problems, or self-reported anxiety (see Table 5).

When data from girls were analyzed, interparental conflict accounted for a small portion of mothers' reports of their internalizing behaviour problems (see Table 5); intellectualizing defensive style did not account for any additional variance. The interparental conflict X intellectualizing defensive style term accounted for additional variance in mothers' reports of their daughters' internalizing behaviour problems. Figure 3 shows that girls high in intellectualizing defense mechanisms had fewer internalizing problems than girls low in intellectualizing defense mechanisms when interparental conflict was low. Conversely, girls high in intellectualizing defense mechanisms experienced greater internalizing problems as interparental conflict increased. Intellectualizing defense mechanisms did not moderate the relationship between interparental conflict and mothers' reports of externalizing problems.

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Insert Table 5 about here

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Insert Figure 3 about here

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The moderating effects of isolating defense mechanisms. No moderating effect of isolating defense mechanisms on the relationship between interparental conflict and child adjustment was

observed for boys in this sample (see Table 6).

Isolating defensive style did not account for variance in mothers' reports of girls' internalizing behaviour problems beyond that accounted for by interparental conflict. Interparental conflict X isolating defensive style did account for a significant portion of girls' internalizing behaviour problems as reported by mothers (see Table 6). Greater use of an isolating defensive style was related to a lower degree of internalizing behaviour problems when interparental conflict was low (see Figure 4). As interparental conflict increased, use of an isolating defensive style became associated with greater internalizing behaviour problems in girls. Isolating defense mechanisms exacerbated the effects of interparental conflict on internalizing behaviour problems in girls.

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Insert Table 6 about here

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Insert Figure 4 about here

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The moderating effects of distancing defense mechanisms. Distancing defense mechanisms did not moderate the relationship between boys' exposure to interparental conflict and their self-reported anxiety or their mothers' reports of behaviour problems (see Table 7).

Distancing defense mechanisms did moderate the relationship between girls' exposure to interparental conflict and mothers' reports of their internalizing behaviour problems (see Table 7). Interparental conflict accounted for a small portion of girls' internalizing behaviour problems. Distancing defensive style accounted for no additional variance. Interparental

conflict X distancing defensive style, however, accounted for a significant amount of variance in girls' internalizing behaviour problems. Figure 5 shows a pattern similar to that for intellectualizing and isolating defensive styles; when interparental conflict was low, greater use of distancing defense mechanisms was associated with lower levels of girls' internalizing behaviour problems compared with less use of distancing defenses. When interparental conflict was high, greater use of distancing defense mechanisms was associated with increased internalizing behaviour problems in girls.

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Insert Table 7 about here

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Insert Figure 5 about here

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### Discussion

The results of this study did not show gender differences in boys' and girls' exposure to interparental conflict in this sample. This finding adds to accumulating evidence (Emery & O'Leary, 1982; Porter & O'Leary, 1980) that boys and girls are not differentially sheltered from, or exposed to, interparental conflict.

Gender differences were not found in children's use of defense mechanisms. Cramer (1983) speculated that 7 to 11 year old boys and girls use similar defense mechanisms, relative to children in other age groups, because they are in the latency stage of psychosexual development. In this stage, intrapsychic conflicts related to sexual urges are temporarily reduced. Consequently, defense mechanisms are not primed to guard against stressors inside or outside of

children. Cramer (1983) suggested that defense mechanisms are less active for boys and girls during this developmental stage. Therefore, differences between the two groups are less noticeable. However, this claim has yet to be empirically tested. Future study with younger children and adolescents is necessary to determine fluctuations in defense mechanism use throughout childhood.

Gender differences were not found in boys' and girls' self-reported anxiety and mothers' reports of internalizing and externalizing behaviour problems. While gender differences have long been found in the internalizing and externalizing behaviour problems of children exposed to interparental conflict (Emery, 1982), recent studies suggest that this trend may be shifting. Katz and Gottman (1993) found no differences in boys' and girls' symptomatology in relation to marital conflict. Mothers' reports of boys' internalizing problems may be increasing because mothers in the 1990's are attuned to signs of anxiety and depression in their sons (Tomkins et al., 1994). On the other hand, research suggests that mothers are reporting increased levels of externalizing problems in their daughters because of real increases in aggressive behaviours in girls (Artz, 1995). However, even if gender differences are not found at the level of main effects for the variables under consideration in this study, current research (Kerig et al., 1996) suggests that there may be gender differences in the relationships amongst exposure to interparental conflict, psychological processes, and child adjustment.

The relationships among interparental conflict, defense mechanisms, and externalizing and internalizing problems found in this study were different for boys and girls and were different from those hypothesized. For boys, externally-oriented defense mechanisms had an effect similar to that predicted at lower levels of conflict but opposite to that predicted at higher levels of conflict. When interparental conflict was low, an externally-oriented defensive style was

associated with increased externalizing behaviours, such as disobedience or fighting. However, as interparental conflict increased, an externally-oriented defensive style was associated with decreased externalizing behaviours. This finding suggests that externally-oriented defense mechanisms work to boys' advantage when they are exposed to more extreme conflict.

For girls exposed to lower levels of conflict, intellectualizing defense mechanisms had a similar effect to that hypothesized. For girls exposed to more moderate levels of conflict, intellectualizing defenses had a different effect from what was expected. As interparental conflict increased, the use of intellectualizing defense mechanisms was associated with increased internalizing problems; isolating and distancing defensive styles had similar effects. It appears that these three defensive styles benefited girls when they were exposed to lower levels of interparental conflict. Under conditions of moderate to severe interparental conflict, however, intellectualizing, isolating, and distancing defensive styles were related to increased internalizing problems as reported by girls' mothers.

There are a number of possible reasons why an externally-oriented defensive style would buffer against increasing levels of interparental conflict and would do so for boys but not for girls, and why an intellectualizing defensive style would exacerbate symptomatology for girls but not for boys. Defense mechanism development may be dependent on both cognitive (Chandler et al., 1978; Schibuk, Bond, & Bouffard, 1989) and emotional development (Brody, 1985). Externally-oriented defense mechanisms are among the first defense mechanisms to develop (Cramer, 1983) and, therefore, may be associated with earlier stages of cognitive and emotional functioning. Indeed, Vaillant (1971) found that defense mechanisms such as acting out were associated with more primitive levels of psychological functioning in adults. He attributed the relationship to the lack of complexity or maturity of individuals' defenses. Hence,



in children, an externally-oriented defensive style might also relate to less mature or adaptive responses to the stressor of interparental conflict. The data in this investigation show that, under low levels of interparental conflict, this was the case for boys for whom an externally-oriented defensive style was related to greater externalizing problems.

The question remains as to what "immature" aspects of an externally-oriented defensive style are responsible for their being maladaptive when stress is low? The common feature of all defenses comprising this style is that they focus an individual's attention on factors outside of him or herself. Perceptions are affected such that responsibility for the occurrence of negative events or the experience of negative affect is assigned to factors external to the individual (Cramer, 1991). An examination of each of the externally-oriented defenses is illustrative. An individual engaging in displacement focuses negative affect onto a nonthreatening object rather than the true source of anxiety. Identification with the aggressor involves taking on attributes from this external source of anxiety rather than focusing on one's own characteristics. Somatization moves discomfort from the psyche to the body where it can be dealt with through physical or medical means. Acting out allows an individual to express anxiety, anger, or other negative emotions as behaviours rather than experiencing them as affect. Even humour involves making a joke out of uncomfortable material and sharing it aloud. All of these processes move the locus of negative affect away from the self. Hence, the individual may take less personal responsibility for his or her discomfort, ruminate less, and move beyond uncomfortable issues quickly. From a societal perspective, this orientation is not adaptive because it may not further other persons' welfare. For example, in the classroom, the child who engages in externally-oriented defense mechanisms may appear irresponsible, disruptive during class, or aggressive in peer interactions. Under certain circumstances, such a child might be poorly

adjusted compared with others who use less of these externally-oriented defenses.

Conversely, the child who uses intellectualizing defenses may appear well-adjusted in a classroom or family setting. Intellectualizing defense mechanisms are internally-oriented in that they focus attention on the self and maintain responsibility for reducing discomfort within oneself (Cramer, 1991). Rationalizing negative thoughts and feelings or changing negative emotions to other, more acceptable emotions are socially desirable processes. Defense mechanisms such as rationalization and reaction formation do not disturb others or lead to confrontation. They also require greater cognitive and emotional flexibility and are associated with higher levels of ego development in children (Levit, 1993). It follows that a child using an intellectualizing defensive style would be deemed well-adjusted when compared with his or her peers. This was the phenomenon observed in girls exposed to low levels of interparental conflict - girls using more of the intellectualizing defense mechanisms had fewer internalizing behaviour problems according to mothers. However, when level of interparental conflict increased, the relationship changed substantially.

When level of interparental conflict was moderate to severe, use of an intellectualizing defensive style was associated with increased internalizing problems in girls, whereas use of an externally-oriented defensive style became associated with fewer externalizing behaviour problems in boys. To understand the changing relationship between the variables, it is helpful to return to the concept of controllability. When stressful situations are uncontrollable, children who take less responsibility for changing the stressor are expected to demonstrate better adjustment (Folkman, 1984). Hence attributing negative events and feelings to agents outside of the self may protect a child exposed to uncontrollable interparental conflict. The question remains: is moderate to severe interparental conflict uncontrollable for children compared with

lesser forms of conflict (Kerig et al., 1996)? Grych and Fincham (1990) examined the important characteristics of interparental conflict for child adjustment. The presence of physical force was one such characteristic that was related to poor child adjustment. Demonstrations of violence by a physically larger parent would understandably reduce a child's confidence in his or her ability to control interparental conflict. Findings from this study suggest that boys exposed to higher levels of interparental conflict are better adjusted if their defense mechanisms locate the cause of anxiety, and responsibility for reducing it, outside themselves. Findings also suggest that girls exposed to higher levels of interparental conflict fare worse when they maintain the locus of responsibility for negative affect within themselves through the use of the internally-oriented intellectualizing defense mechanisms. When the characteristics of lower and higher levels of conflict are taken into consideration, it is understandable that externally-oriented defense mechanisms buffer children against the effects of moderate to severe interparental conflict and intellectualizing defense mechanisms exacerbate the effects, but why does the former relationship hold for boys and the latter relationship hold for girls only?

Cummings et al. (1994) found that both boys and girls made attributions regarding perceived threat and personal responsibility for interparental conflict but only perceived threat predicted boys' externalizing and internalizing problems, whereas attributions of self-blame predicted girls' internalizing problems. Kerig et al. (1996) discovered that boys and girls engaged in similar amounts of self-blame when interparental conflict was low but girls became more likely than boys to blame themselves for conflict when level of conflict increased. Gender differences in children's cognitive appraisals of interparental conflict may not appear until certain levels of conflict are reached. However, the relationship between cognitive appraisals and psychological adjustment remains different for boys and girls and appears to fall along

gender-stereotypic lines. In other words, boys have previously been found to react aggressively to interparental conflict (Crockenberg & Covey, 1991; Porter & O'Leary, 1980), while girls respond with anxiety or depression (Cummings, Iannotti, & Zahn-Waxler, 1985; Sternberg et al., 1993). Very recent studies, however, have not found these main effects. Rather, results show interaction effects between moderating processes, such as appraisals of perceived threat and self-blame, and gender (Cummings et al., 1994; Kerig et al., 1996). The external orientation previously found in males (Cramer, 1983) may give perceptions of threat from the external stressor of interparental conflict greater bearing on their psychological adjustment. The internal orientation apparent in females (Cramer, 1983) may give girls' appraisals of personal responsibility for interparental conflict greater bearing on their adjustment.

Going a step beyond conscious appraisals to defense mechanisms, externally-oriented defense mechanisms, if they are functioning properly, should reduce the amount of threat perceived from the actual aggressor or anxiety-provoking situation. For example, displacement requires a child to consider an alternative object (e.g., the family cat) to be the cause of his anger rather than the true source (e.g., the fight between his mom and dad) in order for the child to experience relief from aggressing against the object. Hence anxiety attributable to the interparental conflict is diluted. This rationale suggests why externally-oriented defensive styles reduced, rather than exacerbated, anxiety experienced by boys exposed to increasing interparental conflict. Externally-oriented defenses reduce perceptions of threat emanating from the objectively threatening situation. The same connection between perceived threat and psychological adjustment does not exist for girls (Cummings et al., 1994). This difference between boys and girls may explain why externally-oriented defense mechanisms were not found to affect the relationship between exposure to interparental conflict and externalizing behaviour

problems for girls.

There does appear to be a connection between girls' attributions of self-blame and their psychological adjustment (Cummings et al., 1994; Kerig et al., 1996). If attributions of self-blame are predictive of girls' internalizing behaviour problems, it follows that defense mechanisms which focus attention on the self, rather than outside of the self, would exacerbate internalizing problems. When the level of interparental conflict is high and, therefore, risk of developing internalizing problems is high, the benefit of using developmentally advanced defense mechanisms is likely outweighed by the detriment of using internally-oriented defense mechanisms which increase perceptions of self-blame.

All defense mechanisms comprising the intellectualizing style are internally-oriented according to the CDM's originator (Botkin, 1990). Similar patterns for intellectualizing, isolating, and distancing defensive styles for girls suggest that all share the common feature of a greater internal rather than external orientation. Botkin (1990) observed that the isolating factor of the CDM represented "more of an internally based mode of dealing with affect and/or anxiety" (p.45), although certain isolating defenses (i.e., projection) are considered to be externally-oriented (Cramer, 1991). Freud (1957) suggested two types of projection exist. Primary projection occurs when ego boundaries are permeable and inner affect is attributed to outer agents. Secondary projection occurs when an individual's ego boundaries are intact and inner affect is both negated (e.g., "I'm not angry") and attributed to external agents (e.g., "You are angry"); secondary projection is a complicated defense requiring both internal and external processes. Perhaps secondary projection is that which is measured by the CDM, thus increasing the internal orientation of this factor. Distancing defense mechanisms also fall midway on the internal-external continuum of defending. Exactly where devaluation, omnipotence, denial, and

regression lie is difficult to ascertain. However, descriptions of the four mechanisms suggest that distancing defense mechanisms are not externally-oriented processes in that others are not held accountable for one's inner emotions (see Table 2). Hence patterns observed for the other internally-oriented defensive styles hold for distancing defense mechanisms, as well.

There may be additional reasons for gender differences in the effects of internally-oriented and externally-oriented defense mechanisms. The benefits of focusing anxiety and aggression outward during moderate interparental conflict balanced by the disadvantages of "gender-inappropriate" behaviours for girls. The behavioural concomitant of externally-oriented defense mechanisms, such as acting out, can be loud, disruptive, and even physically aggressive behaviours. Such behaviour is not expected of girls and is associated with social disapproval (Block, 1983) which may exacerbate their difficulties. The result may be the neutralizing of any benefits of an externally-oriented defensive style for female adjustment to moderate to severe interparental conflict.

The idea that many externally-oriented defense mechanisms are well-established by the latency stage (Cramer, 1983) may also have implications for the adjustment of boys and girls to more severe levels of interparental conflict. The more sophisticated internally-oriented defense mechanisms are in the formation process at this stage (A. Freud, 1966) and may not serve children as effectively as established externally-oriented defenses. While boys and girls did not use significantly different amounts of any of the four defensive styles, girls tended to use more of all the defensive styles, including three internally-oriented defensive styles. Girls appear to defend more and in more varied ways. Girls, therefore, may have flexibility in their defensive repertoire, while boys have access to a lesser variety of defenses. In conditions of low stress, flexibility in responses to stress is associated with better psychological adjustment (Compas,

Worsham, & Ey, 1992). However, under the increased stress of higher levels of interparental conflict, children who have an automatic "default" of externally-oriented defense mechanisms may be protected more than children who use a combination of externally- and internally-oriented defenses. In support of this idea, Botkin's (1990) study found that children exposed to higher levels of stress in schools used more of the primitive, externally-oriented defenses compared with their classmates. O'Leary (1984) suggested that children regress when exposed to severe interparental conflict and developmental accomplishments (e.g., toilet training) are undone. Children may regress in their use of defense mechanisms when exposed to higher levels of interparental conflict. Defense mechanisms from earlier stages of psychosexual development may have been the only ones functional for children from a threatening home environment. Hence boys who used similar levels of externally-oriented defense mechanisms as girls but somewhat less of the other three styles of defenses may have benefitted.

The reasons for differing relationships between interparental conflict, defense mechanisms, and symptomatology for boys and girls are complex. Rutter (1979) argued that children exposed to interparental conflict were at risk of developing psychopathology if they were male or, conversely, were resilient if they were female. It is clear, however, that sex alone does not function as a protective mechanism as once thought. Protective mechanisms have now been demonstrated to be more complicated than biological characteristics. Cognitive processes do have significance for children's resiliency to interparental conflict but the presence of certain cognitions (e.g., self-blame) does not constitute a protective or risk factor. Rather, it is the interaction between child gender and certain cognitive processes that appears to predict resiliency or vulnerability to the effects of interparental conflict (Cummings et al., 1994; Kerig et al., 1996). Likewise, this study suggests that resiliency to interparental conflict is predicted by

the interaction of child gender and psychological processes that precede cognitive processes, namely defense mechanisms.

In terms of the connection between defense mechanisms and coping strategies, findings from this study suggest that this relationship may be more complicated than it first appeared. Under conditions of greater exposure to interparental conflict, externally-oriented defense mechanisms were buffers against psychopathology for boys. This result is similar to that predicted for emotion-focused coping if uncontrollable stress is severe (Folkman, 1984). Internally-oriented defense mechanisms exacerbated internalizing problems for girls when interparental conflict was moderate to severe; problem-focused coping strategies have also been found to exacerbate problems in uncontrollable circumstances (Weisz, McCabe, & Dennig, 1994). Perhaps externally-oriented defense mechanisms are a precursor to emotion-focused coping because they exonerate the individual from feelings of responsibility for a given problem. If externally-oriented defense mechanisms focus responsibility outside of the self, the individual can more easily avoid thinking about or dealing with a problem. Internally-oriented defense mechanisms work differently; these defenses theoretically increase the role one perceives oneself to play in a given situation. Hence children who use internally-oriented defense mechanisms may be more likely to attempt to solve rather than avoid an interparental conflict. In conclusion, the relationship between defending and coping appears to be the opposite of that previously suggested. It now appears that externally-oriented defense mechanisms may have a stronger relation to emotion-focused coping and internally-oriented defense mechanisms may have a stronger relation to problem-focused coping. These are hypotheses that must be addressed in future research if we are to understand the intricacies of children's reactions to interparental conflict.



### Limitations

This study follows from a number of developments in the area of developmental psychopathology, including the use of process-oriented models in child research, the elucidation of finer distinctions in boys and girls' adjustment to stress, and the recognition of coping strategies and their importance in resilience to stress. It is the first study of defense mechanisms in relation to a stressor common in the lives of children, interparental conflict. This study, however, has some limitations. Because the Children's Defense Measure is the only existing measure of children's defense mechanisms, this investigation suffers from "mono-operational bias" (Cook & Campbell, 1979). Given that defense mechanisms are internal processes, they are inherently difficult to measure or observe. The development of multiple reliable measures is necessary for research in the area to progress.

Results of this study may be confounded by developmental differences within the 7 to 11 year old age range. Some theorists view this age range as comprising one stage of development (e.g., the latency stage, Freud, 1938). Others see it as possibly including two stages of cognitive development (Piaget, 1932). Correlations among child age and the variables under investigation were not significant for boys, girls, or children combined (see Table 3). Nonetheless, a thorough investigation of developmental differences in defense mechanisms, with an age range spanning multiple stages of development, is needed.

Sample characteristics may also have affected the results. The children interviewed comprised a normative sample from the community at large. Canadian studies suggest that 1 in 10 women in the community is the victim of physical violence from her partner each year (MacLean, 1987). Nonetheless, the distribution of children's exposure to interparental conflict was somewhat negatively skewed, with more children having been exposed to lesser rather than

greater amounts of conflict. Research suggests that level of interparental conflict has implications for patterns in children's responding (E. M. Cummings & Cummings, 1988). More research with children exposed to increased levels of stressors is necessary to address the role that defense mechanisms play for children who are resilient to trauma.

Despite its limitations, this study increases our understanding of the defense mechanisms that children use in relation to interparental conflict. Defense mechanisms have received little empirical scrutiny and yet they have been integral to conceptualizations of child and adult functioning since the early days of psychology as a discipline. Perhaps as researchers acknowledge the need for more complicated models to explain the sequelae of events, such as exposure to interparental conflict (Grych & Fincham, 1990), defense mechanisms will be subjected to further study. Only then will we know when defense mechanisms are maladaptive and when they truly defend us.

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Table 1

Means, standard deviations, and ranges of variables

	<u>M</u>	<u>SD</u>	Range
OPS Total	8.65	6.78	0-33
RCMAS Anxiety	9.65	6.28	0-23
CBCL Externalizing	8.95	6.12	0-28
CBCL Internalizing	8.32	6.34	0-32
Externally-oriented defensive style	5.33	3.23	0-15
Intellectualizing defensive style	5.33	2.40	0-12
Isolating defensive style	5.36	2.81	0-12
Distancing defensive style	6.61	2.61	0-12

Note. EDS was comprised of 5 items. The remaining defensive styles were comprised of 4 items each.

Table 2

Descriptions of defense mechanisms measured by The Children's Defense Measure (from Botkin, 1990)

Defense mechanism	Description
1. Reaction formation	The expression of feelings, attitudes or behaviours that is the opposite of the child's true impulses.
2. Devaluation	Thoughts or feelings that reduce the importance of a person to whom the child has strong negative feelings.
3. Omnipotence	The child's feelings of superiority or control over people so as to feel invincible.
4. Denial through fantasy	Avoidance of perceptions of reality through the use of fantasy or play.
5. Withdrawal	Avoidance of thoughts, feelings, or perceptions of reality through the child's retreat into self or solitary play.
6. Displacement	Redirection of feelings or wishes from their original object to an acceptable substitute.
7. Somatization	The child's expression of unacceptable feelings through physical symptoms.
8. Identification with the aggressor	The child takes on attributes of a person by whom he or she feels threatened.

9. Projection                      Attributions of the child's own unacknowledged or unaccepted feelings onto others.
10. Rationalization                The use of thinking so as to avoid the experience of painful feelings.
11. Acting out                      Expressing unconscious conflicts in actions rather than words in order to avoid conscious experience of associated affect.
12. Humour                         The child's direct expression of painful feelings that make light of or evoke laughter at his or her experience.
13. Pseudomaturity                Taking responsibility beyond the child's current developmental level, in order to not experience his or her unmet needs.
14. Regression                    A symbolic return to patterns of acting or feeling that are reminiscent of earlier stages of development.
15. Splitting                        Psychological separation of good and bad feelings in order to not feel both sets of feelings simultaneously.
16. Isolation of affect             Unconscious separation of cognition and affect so that the child can acknowledge a painful event without experiencing painful feelings.
17. Dissociation                    Temporarily modifying one's sense of self to avoid feeling distress.
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Correlation matrix for child age, exposure to interparental conflict, child adjustment variables, and defensive styles

	AGE	OPS	RCMAS	CBCL- EXT	CBCL- INT	CDM- EXT	CDM- INT	CDM- ISOL	CDM- DIST							
AGE	--	.00	.13	-.15	-.18	-.12	.12	.01	-.06	-.08	.04	-.21	.18	.02	-.16	-.12
OPS	--	--	.35**	-.19	.25*	.31*	.20	.19	.05	-.07	.07	-.12	.12	.05	.08	.10
RCMAS	--	--	--	--	.30*	-.04	.15	.07	.30*	.11	.18	.17	.35**	.22+	.17	.13
CBCL-EXT	--	--	--	--	--	--	.46**	.60**	.10	.02	.01	-.17	.07	.01	.06	.14
CBCL-INT	--	--	--	--	--	--	--	--	.10	-.12	.01	-.04	.09	.01	.04	.17
CDM-EXT	--	--	--	--	--	--	--	--	.50**	.62**	.29*	.62**	.41**	.47**		
CDM-INT	--	--	--	--	--	--	--	--	.24+	.57**	.51**	.66**				
CDM-ISOL	--	--	--	--	--	--	--	--	.21+	.53**						

+p < .10; \*p < .05; \*\*p < .10

Note. OPS = interparental conflict; RCMAS = anxiety; CBCL-EXT = externalizing problems; CBCL-INT = internalizing problems; CDM-EXT = externally-oriented defenses; CDM-INT = intellectualizing defenses; CDM-ISOL = isolating defenses; CDM-DIST = distancing defenses. Underscore indicates those correlations that are significantly different (p < .05).

Table 4

Hierarchical multiple regressions for interparental conflict and externally-oriented defensive style on externalizing behaviour problems

Step	Variable Block	R <sup>2</sup>	F	B
Boys				
1	Interparental conflict (IC)	.06*	3.88*	.25*
2	Externalizing defensive style (EDS)	.07	.07	.08
3	IC x EDS	.12+	3.11+	-.07+
Girls				
1	Interparental conflict (IC)	.09*	5.36*	.24*
2	Intellectualizing defensive style (IDS)	.10	.13	.08
3	IC x IDS	.12	1.17	-.04

+p < .10; \*p < .05

Table 5

Hierarchical multiple regressions for interparental conflict and intellectualizing defensive style on internalizing behaviour problems

Step	Variable Block	R <sup>2</sup>	F	B
Boys				
1	Interparental conflict (IC)	.04	2.12	.18
2	Intellectualizing defensive style (IDS)	.04	.00	-.02
3	IC x IDS	.04	.04	-.01
Girls				
1	Interparental conflict (IC)	.04	1.85	.18
2	Intellectualizing defensive style (IDS)	.04	.02	-.06
3	IC x IDS	.12*	.09*	.10*

\* $p < .05$

Table 6

Hierarchical multiple regressions for interparental conflict and isolating defensive style on internalizing behaviour problems

Step	Variable Block	R <sup>2</sup>	F	B
Boys				
1	Interparental conflict (IC)	.04	2.22	.18
2	Isolating defensive style (ISDS)	.04	.27	.16
3	IC x ISDS	.05	.69	.04
Girls				
1	Interparental conflict (IC)	.04	1.85	.18
2	Isolating defensive style (ISDS)	.04	.00	.02
3	IC x ISDS	.14*	5.56*	.09*

\* $p < .05$



Table 7

Hierarchical multiple regressions for interparental conflict and distancing defensive style on internalizing behaviour problems

Step	Variable Block	R <sup>2</sup>	F	B
Boys				
1	Interparental conflict (IC)	.04	2.22	.18
2	Distancing defensive style (DDS)	.04	.05	.07
3	IC x DDS	.06	.94	.04
Girls				
1	Interparental conflict (IC)	.04	1.85	.18
2	Distancing defensive style (DDS)	.06	1.09	.37
3	IC x DDS	.14*	4.79*	.07*

\*p &lt; .05

Figure Caption

Figure 1. The interparental conflict card of the Children's Defense Measure (female version; Botkin & Bunge, 1987).

Figure 2. The effects of externally-oriented defensive style on the relationship between exposure to interparental conflict and externalizing behaviour problems in boys.

Figure 3. The effects of intellectualizing defensive style on the relationship between exposure to interparental conflict and internalizing defense mechanisms for girls.

Figure 4. The effects of isolating defensive style on the relationship between exposure to interparental conflict and internalizing behaviour problems in girls.

Figure 5. The effects of distancing defense mechanisms on the relationship between exposure to interparental conflict and internalizing behaviour problems in girls.









