INTER-PARENTAL CONFLICT, PARENT-CHILD RELATIONSHIPS AND CHILDREN'S PSYCHOLOGICAL ADJUSTMENT: IMPLICATIONS FOR THE FAMILY-SCHOOL INTERFACE

Jessica J. Aitken

Thesis submitted for the degree of Doctor of Philosophy

Cardiff University

UMI Number: U584262

UMI

Dissertation Publishing

ProQuest

ACKNOWLEDGEMENTS

CONTENTS

SUMMARY

The collective body of research in this thesis applies a process-oriented perspective to the investigation of family effects on children's psychological, social and school-based adjustment. Specifically, it investigates the role of children's cognitions relating to inter-parental and parent-child relationships and their symptoms of psychological distress (internalising symptoms, externalising problems) as mechanisms underlying links between inter-parental conflict, negative parenting and children's academic attainment. Using two distinct samples of families from the UK a systematic programme of analyses was conducted.

First, the role of children's perceptions of harsh, rejecting parenting was assessed as a mechanism through which inter-parental conflict and parental hostility were related to children's behaviour problems, academic application and attainment in school. In order to integrate family and school influences, the moderating role of school support in the links between family influences and school outcomes was also examined in this study. Second, analyses were extended to consider the role of children's perceptions of the inter-parental and the parent-child relationship in linking hostility between parents (inter-parental conflict) to academic attainment. To clarify the nature of the relationships between indices of psychological adjustment (internalising symptoms, externalising problems) and academic attainment, these analyses also considered specific dimensions of psychological adaptation as mediators of links between child appraisals and academic adjustment. Finally, the importance of these appraisal processes in linking inter-parental conflict to children's adjustment during a time of recognised stress, the transition from

primary to secondary school, was investigated. Taken together, these analyses highlight the role of children's appraisals in linking inter-parental conflict and parent-child relations to children's adjustment in the school setting. Collectively, this body of research provides a basis for making specific links between children's experiences of family life and their adjustment in the school context, presenting a systematic approach to investigating the family-school interface with implications discussed for parents, educators, practitioners and policy makers.

CHAPTER 1

The last 30 years of research considering factors contributing to children's

psychological development has been marked by a change in emphasis with respect to

the source and nature of effects on children. Early studies focused primarily on wider

social factors, such as poverty and social class (Davis, 1943) and broad family

descriptors, such as family size and family type (Parsons & Bales, 1955). Research in

recent decades, while recognising the contribution of these factors, has highlighted

specifically the quality and nature of relationships within the family, as an important

basis from which to understand children's psychological, social and academic

development. This literature acknowledges that the family environment is the primary

context within which a child develops and that, as such, it is of principle importance to

understanding their ability to function well (Collins, Maccoby, Steinberg, Hetherington,

& Bornstein, 2000).

The majority of research acknowledging the importance of family influences on

children has focused upon how these effects serve to inform children's development

within the family context, specifically focusing on children's psychological adjustment.

In more recent years, however, research has begun to recognise that families can affect

children's adjustment across a range of contexts (Bronfenbrenner, 1977; Ryan, Adams,

Gullotta, Weissberg, & Hampton, 1995). While this literature is in its infancy, it

provides some evidence of family effects on children's ability to function well in

school.

Early considerations of family influences on children identified the importance

of family structure to explaining variation in children's psycho-social development

(e.g., Parish & Dostal, 1980; Parish & Nunn, 1981). The issue of family type remains a

central area of investigation, as national statistics demonstrate that there are an

increasing number of children in the UK who are part of family types other than

traditional two-parent households. Specifically, more than 10 percent of families with

dependent children in the UK were step-parent families in 2005, furthermore, the

number of children living in single-parent families has increased from seven percent in

1976 to 22 percent in 2006 (Social Trends, 2007). As family types that deviate from

traditional two-parent families are becoming increasingly common in the UK, this

factor will be considered further.

Family Structure and Divorce

Children belonging to family types that deviate from the traditional two-parent

family tend to exhibit higher levels of behaviour problems, higher levels of

internalising symptoms, more social problems and lower academic performance

(Bankston & Caldas, 1998; Battle, 1998; Ham, 2004; Marotz-Baden, Adams, Bueche,

Munro, & Munro, 1979). While early research suggested that the structure of the

family itself was responsible for these problems in children, more recent studies have

observed that certain family structures are associated with other factors that have

documented negative effects on children. Therefore, these factors serve to explain the

negative effects associated with certain family types. Specifically, children in single-

parent families are often at a disadvantage economically compared to two-parent

families (Amato, 1993; Demo & Acock, 1988; 1996). Economic disadvantage in terms

of low socio-economic status and economic pressure have consistently been linked with

psychological, social and academic problems in children (see Conger et al., 1992; 1993;

McLoyd, 1998), therefore, providing a link between family type and child adjustment.

However, this does not explain why step-parent families also show lower levels of

functioning than families with both biological parents present; these two types of

family should be equivalent economically.

One factor often common to both single-parent and step-parent families is the experience of family break-up or divorce. Divorce too has escalated in recent years, with the number of children under 16 years experiencing the divorce of their parents being below 80, 000 in 1970, rising sharply to 176, 000 in 1993 and falling slightly to 136, 000 in 2005 (Social Trends, 2007). While recent statistics might seem encouraging, the lower levels of divorce in recent years may be explained by the decline in marriages and the increase in cohabitation during this time. Studies have linked divorce and family break-up with a wealth of negative outcomes for children (see Amato, 2001; Amato & Keith, 1991). It is a particularly potent family transition as it is often accompanied by physical relocation of the family, poorer socio-economic conditions, limited contact with the non-resident parent, less supportive relations with the resident parent and increased levels of family conflict (Amato, 2001; Amato & Keith, 1991; Demo & Acock, 1988; 1996).

Children experiencing divorce tend to experience higher levels of internalising symptoms and externalising problems, lower self-esteem, poorer social adjustment and lower academic performance (see Amato, 2001; Amato & Keith, 1991) A number of explanations of the impact of divorce on children have been offered. As outlined above, some studies have noted that divorce is associated with poorer economic conditions. This creates family stress and exposes children to neighbourhoods with higher levels of deprivation and poorer schools. However, this explanation does not entirely account for the effects of divorce on children because children who become members of a step-parent family post-divorce often experience the same difficulties as those who are members of single-parent families at this time even though these families are in a better position financially (Jeynes, 1999).

Another explanation for the negative effect of divorce is that it causes disturbances in the parent-child relationship. There are several ways in which this relationship may be affected by the divorce process. First, the heightened levels of hostility in the inter-parental relationship may bubble over into the parent-child relationship (Erel & Burman, 1995). Second, children may be put in a position of feeling that they must choose between their parents, leading to feelings of distress and resentment. Divorce can drastically change the nature of the relationship between the child and the non-resident parent. Though figures vary, studies suggest that upwards of 20 percent of non-resident parents lose touch with their children after family break-up (Bradshaw & Miller, 1991, Dunn, 2003). The nature of the relationship between the child and the non resident parent has implications for their self-esteem, psychological adjustment, academic performance and behaviour problems (Clarke-Stewart & Hayward, 1996; Hetherington & Stanley-Hagan; 1997; Lamb, 1999). Divorce also may affect the child's relationship with the resident parent. In particular, these parents can be less emotionally available for children post-divorce more hostile towards the child, less consistent in their parenting practices and may rely on the child as an ally or source of support. These disrupted parent-child relations have been associated with internalising symptoms and externalising problems in children (Wood, Repetti, & Roesch, 2004).

Divorce also marks a time of pronounced family conflict in many cases. Inter-parental conflict pre-divorce is often high, and disagreements between parents regarding child custody, contact with the child and residency in the family home can further fuel discord during and after the completion of divorce proceedings (Grych, 2005). Studies considering levels of conflict at this time suggest that heightened levels of discord during divorce can have detrimental effects on children's psychological,

social and academic adjustment (Amato, 2001 Amato & Keith, 1991).

Therefore, it appears that although divorce represents an important family stressor, it is associated with disruptions in the parent-child relationship and inter-parental conflict that put children at risk of maladjustment in the face of family break-up, with a large body of evidence supporting the existence of effects of these two factors on children's psychological adjustment.

Research in recent years has considered additional factors that place children at risk of adjustment problems. This research has widened the scope of influences to consider the effects of siblings and peers (as well as genetic influences) on children.

Social Influences on Children: Peers and Siblings

Siblings in particular are an important aspect of the family unit. There is evidence to suggest that sibling relationships have implications for children's adjustment and their behaviour in wider social settings. Studies have demonstrated links between the nature of sibling relationships and children's internalising symptoms and their antisocial or delinquent behaviour (Criss & Shaw, 2005; Feinberg, Reiss, Neiderhiser, & Hetherington, 2005; Lobato, Kao, & Plante, 2005; Slomkowski, Rende, Conger, Simons, & Conger, 2001). Furthermore, it appears that features of the sibling relationship have implications for children's behaviour in social situations outside the family (Feinberg et al., 2005).

Studies investigating the influence of peers on children have revealed similar findings, with documented effects of peer relations on internalising symptoms and externalising problems, as well as social competence. Specifically, findings suggest that while positive relationships with peers can lead to improved social competence, peer rejection and victimisation can lead to emotional and behavioural problems (Ladd, 2006; Ladd, Herald, & Andrews, 2006; Troop & Ladd, 2005). However, a large body

5

of research has also provided evidence that children's own temperament, psychological adjustment and social behaviour predict peer acceptance and successful peer relationships, demonstrating the opposite direction of effects. For example, social skills training leads children to be more accepted by peers (Ladd & Mize, 1983). Also, studies emphasising the roles of behaviour and cognition have suggested that children who are rejected by peers tend to be more aggressive, with a greater propensity for hostile attribution biases and more self-serving social goals (Crick & Dodge, 1994; Dodge & Feldman, 1990; Ladd & Crick, 1989).

Though findings are somewhat mixed with respect to peers, it appears that peer relationships are important sources of influence on children's emotional adjustment and their behaviour in terms of social competence, aggression and delinquency. Moreover, work by Harris (1995; 1998) has contended that peers primarily orient differences in long-term personality development, with parental influences being limited to the contribution that genes passed on to their offspring play in accounting for variation in such development.

In support of the role of genetic influences, contemporary research has documented the role of genes to a range of adjustment problems in children. Behavioural and molecular genetic studies have found evidence for the heritability of depression, anxiety and antisocial or aggressive behaviour among others (Ge et al., 1996; Plomin, 1994; Rice, Harold, & Thapar, 2002a, b; Rutter, 2003; Thapar, Harold, Rice, & Langley, in press). Findings suggest that children whose parents experience specific psychological adjustment problems may have a predisposition to experiencing the same adjustment difficulties, which are passed down to them via genes that they share in common with their parents. Recent studies have also noted that there is a complex interplay between genes and environment, such that parents' provision of

specific family environments may be partially genetically determined. Furthermore, parents responses to their children may represent reactions to aspects of the child's behaviour and disposition that are genetically influenced (gene-environment correlation, see Rutter & Silberg, 2002). Environmental aspects of family life can also put children at increased genetic risk for developing symptoms (gene-environment interaction, see Rutter & Silberg, 2002).

However, a recent study by Rutter (2006) suggests that little recent research has provided evidence for the influence of direct genetic effects on psychopathology in the absence of an environmental risk factor. Recent findings have demonstrated main effects of environment, but not genes, on child adjustment and they note that the biggest effects are due to gene-environment interactions (Rutter, 2006). Therefore, genes appear to be passive in exerting effects on children unless accompanied by the appropriate environmental conditions to activate any underlying genetic potential.

Studies have identified specific environmental contexts in which genetic effects are expressed. In particular, heightened levels of family conflict and harsh, negative parental behaviour put children at greater risk of developing adjustment problems if there is an existing family history of specific indices of psychopathology (Jaffee et al., 2005; Rice, Harold, Shelton, & Thapar, 2006). Therefore, as the family environment serves to activate genetic susceptibilities as well as influencing their adjustment directly, it remains important to identify particular family experiences that increase children's risk of poor adjustment.

In relation to peers and siblings as well, it appears that the family environment may be the initial source of influence, with evidence suggesting that there are family factors common to each of these sources of socialisation. In terms of sibling relationships, studies have noted that negativity in the parent-child relationship leads to

more negative sibling relationships (Feinberg et al., 2005), with differential parental negativity to one sibling over the other being of particular significance to the quality sibling relationship (Dunn & Plomin, 1990). Furthermore, conflict in the inter-parental relationship has been associated with increased conflict and hostility between siblings (Dunn & Davies, 2001). While most studies suggests the effects of conflict between parents affects the sibling relationship indirectly through parental negativity (Brody, Stoneman, & McCoy, 1994; Dunn, Deater-Deckard, Pickering, Beveridge, & the ALSPAC study team, 1998), there is some evidence to suggest that inter-parental conflict makes a direct contribution to hostile sibling relationships (Dunn & Davies, 2001; Dunn et al., 1998). Research assessing familial effects on peer relationships has revealed similar influences. In particular, parental involvement in child socialisation appears to improve children's social competence and appropriate peer behaviour, whereas family conflict and poor parent-child attachment quality have negative effects on children's social skills and peer behaviour (Parke & Ladd, 1992).

Overall, it appears that siblings, peers and genetic influences play an important role in children's development. However, these factors are also likely influenced by aspects of the home environment. Influences specifically highlighted as important to the quality of both sibling and peer relationships are conflict and discord in the inter-parental relationship and levels of warmth versus negativity in the parent-child relationship. Research considering the combined influence of genetic and environmental effects has also highlighted these family subsystems as important in activating genetic susceptibilities in children. These two relationships have been further implicated in research concerning the effects of family structure (Clarke-Stewart & Hayward, 1996; Demo & Acock, 1996; Wood et al., 2004), socio-economic conditions (Conger et al., 1992; 1993), gene-environment interplay (Jaffee et al., 2005;

Rice et al., 2006) and peer and sibling relationships (Dunn & Davies, 2001; Dunn et al., 1998; Feinberg et al., 2005; Parke & Ladd, 1992) on children's social and psychological adjustment. As these two subsystems appear to have pervasive effects on families and children, these two relationships will be considered in further detail and will serve as the primary focus of family effects on children's emotional, behavioural and academic functioning considered throughout this thesis.

The Inter-Parental Relationship

Though the relationship between inter-parental discord and child adjustment has been studied since the 1930s (Hubbard & Adams, 1936; Wallace, 1935), there has been increasing recent recognition that this relationship has important implications for the functioning of the family and the child alike (Davies & Cummings, 1994; Emery, 1982; Erel & Burman, 1995; Grych & Fincham, 1990). Recent studies have made consistent links between inter-parental conflict, in particular, and children's adjustment problems. Research has documented a relationship between inter-parental conflict and children's internalising symptoms, externalising problems, social adjustment and school adjustment (Davies & Cummings, 1994; Davies, Harold, Goeke-Morey & Cummings, 2002; Grych, Harold, & Miles, 2003; Harold, Aitken, & Shelton, in press; Sturge-Apple, Davies, & Cummings, 2006a, b). These findings suggest that this factor is central to understanding children's adjustment across a number of different domains.

While links have been made between high levels of conflict and adjustment difficulties in children, it is important to note that not all inter-parental conflict is damaging for children. On the contrary, conflict is a normal part of most relationships. Furthermore, conflict between parents that is managed effectively can teach children valuable lessons about how to negotiate conflict in their own relationships (Harold, Pryor, & Reynolds, 2001). Research investigating what aspects of conflict are

particularly predictive of adjustment problems in children has suggested several aspects of conflict that are significant. Specifically, conflict that is frequent, intense or hostile in nature, poorly resolved and related to the child in content is a particularly potent predictor of adjustment problems in children (Grych & Fincham, 1990; Grych, Seid, & Fincham, 1992).

Research documenting children's responses to these forms of conflict has shown increased physiological arousal in response to inter-parental conflict in children as young as 6 months old (Shred, McDonnell, Church, & Rowan, 1991). There is also evidence that inter-parental conflict can lead children to perceive a sense of threat or feelings of responsibility for the cause of the conflict (Dadds, Atkinson, Turner, Blums, & Lendich, 1999; Grych et al., 2003). Children may also feel overwhelmed in response to conflict, leading to a sense of helplessness (Cummings & Davies, 2002). Links have been documented between inter-parental conflict and children's concurrent internalising symptoms, externalising problems, school adjustment and sleep problems (Dadds et al., 1999; El-Sheikh, Buckhalt, Mize, & Acebo, 2006; Grych, Fincham, Jouriles, & McDonald, 2000; Sturge-Apple et al., 2006a, b). Studies have also demonstrated that conflict of this kind has long-term effects on children's psychological adjustment (Grych et al., 2003; Harold, Shelton, Goeke-Morey & Cummings, 2002). There is also a large body of literature demonstrating the effects of inter-parental conflict on the quality of the parent-child relationship, suggesting that high levels of inter-parental conflict lead to increased levels of discord in the parent-child relationship (Erel & Burman, 1995).

It appears that the inter-parental relationship serves as a foundation for other relationships within the family. As such, it provides an orienting function, directing other relationships, especially the parent-child relationship (Satir, 1972). The parent-

child relationship itself is documented to impact on children's adjustment in as number of different ways. Moreover, there is a comparatively larger body of research investigating links between this relationship and child adjustment than there is concerning the inter-parental relationship.

The Parent-Child Relationship

The parent-child relationship is the most consistently investigated relationship within the family system. Literature focusing on the parent-child subsystem follows two distinct lines of investigation 1) studies concerning parents' behavioural control and child rearing strategies 2) research investigating reciprocal relations between parent and child. Literature investigating the former focuses on broad patterns of child rearing behaviours employed by parents to control and socialise their child. Importantly, this area considers the direction of influence to flow entirely from the parent to the child. Research considering the latter differs in that it involves reciprocal relations between the parent and the child. Rather than representing a general approach to child management, parent-child relations describe the affective, cognitive and behavioural dimensions of parent-child interactions (Maccoby, 1992).

Most early research concerning family influences focused on the parent-child bond, particularly the maternal bond. Pioneers in this area (e.g., Ainsworth, Blehar, Walters, & Wally, 1978; Bowlby, 1944; Rutter, Tizard, & Whitmore, 1970) focused on maternal deprivation or privation and the attachment between the child and parent as a potential source for maladjustment. Such research suggested that disruptions in the parent-child relationship could have long-lasting negative consequences for children in terms of emotional and behavioural problems.

Attachment can be conceptualised as the quality of the child's relationship with his or her primary care-giver (Bowlby, 1969). Subsequent classification of attachment

styles was identified by Ainsworth et al. (1978). Four main categories were constructed: secure, in which both parent and child are relaxed and enjoy the interaction; insecure-avoidant, in which the child displays physical and affective avoidance of the parent; insecure-resistant, in which the child shows both resistance and seeking of parental attention; and insecure-disorganised, in which the pattern of attachment behaviours are not consistent.

Research has consistently documented links between these broad styles of attachment and psychological adjustment in children (Bretherton, 1985; Carlson & Sroufe, 1995; Colin, 1996; Hazan & Shaver, 1990). These studies have suggested that secure attachment styles are associated with a range of positive adjustment indices for children including decreased internalising symptoms and externalising problems and an increased sense of autonomy. Bowlby (1969; 1973) suggested that the association exists because children's experiences of early interactions with primary care-givers lead to more generalised expectations about themselves and their environment.

Theories considering parental strategies of behaviour management have identified a number of different aspects of parenting behaviour. These patterns of behaviour have often been categorised into different forms or parenting styles. Baumrind (1967; 1978) initially proposed three distinct styles: authoritative, authoritarian and permissive parenting. Authoritative parents are child centred and controlling but not restrictive. Authoritarian parents show strict control and are more adult-centred than child-centred. Finally, permissive parents are warm and accepting but show a lack of parental control.

There is a cogent body of research linking these parenting styles to social, psychological and academic adaptation. Typically these studies have found that authoritative parenting is linked to positive adjustment across ages (Baumrind, 1991;

Lambourn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Elmen, & Mounts, 1989), whereas authoritarian parenting has been most consistently associated with negative outcomes for children (Baumrind, 1991; Lambourn et al., 1991; Steinberg et al., 1989). Children of permissive parents tend to have high levels of self-esteem but lower levels of maturity, impulse control, social responsibility and achievement (Baumrind, 1991). A fourth parenting style, termed uninvolved or neglectful parenting was introduced by Maccoby and Martin (1983), and is characterised by low responsiveness and low demandingness and has been associated with a battery of social and psychological problems in children (Block, 1971; Lambourn et al., 1991; Patterson, DeBaryshe, & Ramsey, 1989).

Research has also considered specific dimensions of parenting that have negative implications for children. Excessive behavioural control has been linked with externalising problems in children (Maccoby & Martin, 1983, Radke-Yarrow, Zahn-Waxler, & Chapman, 1983), whereas excessive psychological control has been linked with a range of internalising symptoms (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994; Barber, Olson, & Shagle, 1994; Fauber, Forehand, Thomas, & Wierson, 1990). Parental monitoring, alternatively, has been identified as a positive aspect of parenting, predicting reduced externalising problems (Herman, Dornbusch, Herron & Herting, 1997; Patterson & Stouthamer-Loeber, 1984). Furthermore, inconsistencies in discipline practices also have detrimental effects on children, predicting poor behaviour and conduct problems (Patterson, DeBaryshe, & Ramsey, 1989).

The dimensions of parenting that comprise parenting styles have also been considered separately with respect to child development. Studies have documented effects of acceptance and responsiveness (Stayton, Hogan, & Ainsworth, 1971; Loeb, Horst, & Horton, 1980; Bakeman & Brown, 1980; Egeland, Pianta, & O'Brien, 1993;

Jacobvitz & Sroufe, 1987) as well as warmth and hostility on child adjustment (Colman, Hardy, Albert, Raffaelli, & Crockett, 2006; Dennis, 2006).

Literature considering the effects of parent-child relations on children in the context of inter-parental conflict has particularly highlighted these latter affective aspects of the parent-child relationships as predictive of child adjustment problems. In studies where both inter-parental and parent-child relations have been considered, parental hostility in particular has been identified as an important factor in determining children's psychological adjustment. These studies suggest that hostile parent-child exchanges, in the context of inter-parental conflict, are associated with heightened levels of internalising symptoms and externalising problems in children (Harold & Conger, 1997; Harold et al, 1997). Similar effects have been found for the impact of parental withdrawal, in the presence of inter-parental discord, on children with higher levels of withdrawal predicting poorer psychological and school adjustment (Katz & Gottman, 1996; Sturge-Apple et al., 2006a, b).

From Documenting Links to Explaining Effects

The literature outlined above identifies two factors as particularly important predictors of adjustment problems in children: inter-parental conflict and parent-child relations. These family influences also provide an explanation of why broader or more distal descriptors of family life, such as socio-economic conditions and divorce, adversely affect children. Such findings suggest that these two factors have pervasive effects on children. Studies demonstrate links between these two aspects of family functioning and a wide range of adjustment indices, with effects being most consistently demonstrated in relation to children's internalising symptoms and externalising problems but with effects on physiological arousal, school adjustment, sleep quality and social behaviour also being documented (El-Sheikh et al., 2006; Katz,

2001; Struge-Apple et al., 2006a, b). The literature discussed so far provides evidence that inter-parental conflict and parent-child relations affect children's adjustment but it provides little insight into *how* or *why* these effects occur. In order to understand fully how these two factors inform child well-being it is important to consider the specific nature of the relationship between these two influences and the processes through which they affect children.

Furthermore, most of the studies described above focus on the effects of inter-parental and parent-child relations on children's psychological adjustment. In order to understand how far-reaching these effects may be for children, it is also important to consider how inter-parental and parent-child relations might both serve to inform children's adjustment beyond the family context and how effects might be conveyed. One context outside the family that is of particular importance to child development is the school context. Children spend a large proportion of their time between early childhood and late adolescence in the school setting. As such, it is an important setting for child development and their ability to function well in this context has implications for their adaptation to adult life (Ek, Sovio, Remes, & Jarvelin, 2005; Guay, Larose, & Boivin, 2004; Kosterman, Graham, Hawkins, Catalano, & Herrenkohl, 2001; Pelkonen, Marttunen, & Aro, 2003; Windle, Mun, & Windle, 2005).

Effects have been documented between family influences and children's school-related outcomes. Specifically, research to date has noted the impact of factors such as family economic pressure (Conger et al., 1992; 1993), parent education (Considine & Zappala, 2002) and family income (Amato & Ochiltree, 1986) on school performance and aptitude. The impact of divorce and family structure on children's school behaviour and academic achievement has also been documented (Emery, Hetherington, & DiLalla, 1984; Hetherington et al., 1982; Milne, Myers, Rosenthal, & Ginsberg,

1986). There are also a large number of studies demonstrating links between the parent-child relationship and children's behaviour and performance in school (e.g., Jacobson & Hofmann, 1997; Strage & Brandt, 1999). A small number of studies have documented the influence of inter-parental conflict on children's school outcomes (Doyle & Markiewicz, 2005; Sturge-Apple et al., 2006a, b).

On the whole, studies documenting family influences on children at school have made a strong case for drawing links between these two domains. However, compared to literature linking family influences to children's psychological adjustment, this literature has provided a less detailed account of how these effects occur. This literature will be considered further in Chapter 2.

In order to investigate 1) the processes through which inter-parental and parent-child relations inform child adjustment and 2) how these effects might be transferred to other contexts of child development, theoretical approaches to understanding family effects on children will be considered.

Theoretical Overview

There are three main theoretical perspectives relevant to understanding the effects of family relationships on children as outlined in this thesis: social learning theory, family systems theories and social-cognitive theories.

Learning Theory and Social Learning Theory

Early behavioural learning principles indicate that behaviour is learned as a result of exposure to punishments and rewards. In this way an increased engagement in certain behaviours might be facilitated by the introduction of a positive stimuli, or reward, and discouraged by the introduction of a negative stimuli, or punishment (Skinner, 1938; Tolman, 1932). In this way behaviour may be reinforced over a period of time to produce ingrained behaviour patterns. Social learning theory (Bandura,

1977) built on these principles but also considered the roles of cognition and environment in order to provide a more social-behavioural account of child development. This theory contends that the child takes an active role in their own environment. Therefore, children do not just learn through a schedule of punishments and rewards, they also learn from their social environment by observing behaviour and deriving rules from these observed events, which allow the child to make assessments of the likely outcomes based on a given course of action. This ability to derive general rules based on observed behaviours and consequences is called vicarious learning and it allows children to learn from their social environment based on events that may not involve them directly (Bandura, 1977). Based on their observations of the social environment, children may enact, or model, the behaviour they have learnt. This modelling of observed behaviours provides one simple explanation of how effects are transferred from inter-parental and parent-child relations to child adjustment. For example, children may observe a hostile exchange between parents and may model this behaviour in their own social exchanges (see Erel & Burman, 1995).

However, the emphasis in this theory is on the interplay between cognition, behaviour and environment (reciprocal determinism, Bandura, 1977). This interplay provides children with a strategy for choosing which behaviours to enact and which ones not to engage in. Therefore, in order to reproduce an observed behaviour, children must first be motivated to do so. Previous personal experience or vicarious learning may provide children with this motivation. Once a behaviour is enacted the child can also evaluate the consequences of the behaviour, if they are favourable it is more likely the child will enact this behaviour again in the future. In the family context, for example, children who witness conflicted inter-parental exchanges may model this behaviour. They may be further motivated to copy this behaviour if they reason that it

may distract parents from their own negative inter-parental exchanges. If this behaviour results in successful termination of the negative inter-parental exchange then the parents have served to reinforce the child's behaviour by providing the child with their desired outcome.

There are some limitations to social learning theory. It does not explicitly take into account the child's developmental stage or cognitive capacities in accounting for how children interpret observed behaviour. Also, it only really acknowledges events that are directly proximal to children and are salient in their immediate environment or directly observable to them (e.g., violence on television). Therefore, the wider social context within which the child operates is overlooked.

Functionally, social learning theory emphasises the salient aspects of events in relation to outcomes or behaviours pertinent to the child's level of appraisal and derived sense of implication (i.e., learning). The perspective emanated as a direct extension from of classic learning-based approaches (Skinner, 1938; Tolman, 1932) to explaining the origins and sequalae of children's social and behavioural development. This perspective was derived as a reactionary product to earlier intra-psychic stage-based approaches to understanding child development (e.g., Freud 1914; Eriksson, 1968). Interestingly, as a reaction to the reductionist criticisms levied at learning and social learning perspectives in turn, a return to internal, emotion-focused processes was facilitated by Bowlby and colleagues (e.g., Bowlby, 1969; 1973) in articulating classic attachment theory.

Attachment Theory

In contrast to these learning-based approaches to understanding child socialisation, attachment theory emphasises the importance of affective relations between parents and children as a source of security and support for the child. As

described earlier, attachment is conceptualised as the bond that develops between the child and his of her primary care-giver (Bowlby, 1969). These emotional bonds have been described in terms of the child perceiving the parent as a secure base from which to explore and understand their wider social world (Ainsworth et al., 1978). Perceiving the parent as a secure base means that the child has confidence in the parent's availability and responsiveness. As such, attachment quality informs the child's sense of autonomy and mastery. It also serves as a foundation for more generalised expectations about other relationships and interactions.

Attachment security is derived from previous and current experiences within the parent-child relationship. Furthermore, contextual factors can temper the nature and quality of attachment. The family context has been emphasised as a particularly influential factor in understanding child distress and security. Consistent with this, some researchers have highlighted the importance of the family itself as a secure base (Bying-Hall, 1995). Beyond experiences in the parent-child relationship, a number of studies have documented the effects of the inter-parental relationship on children's attachment security (Belsky, 1999; Davies et al, 2002; Owen & Cox, 1997). Findings suggest that while supportive inter-parental relations serve to augment attachments, negative or hostile interactions between parents can be detrimental to attachment security. It is proposed that inter-parental conflict impacts on attachment security because, under these conditions, parents are a source of distress for the child and this may undermine the child's perception of the parent as a source of security and support (Owen & Cox, 1997Waters & Cummings, 2000). Therefore, attachment security not only provides children with a basis from which to form generalised working models of relationships, it can also be affected by other relationships and contextual factors. One approach that builds further on the concept of the cross over of influences from

one family relationship to another is provided by systems theories such as family system theory and ecological theory.

Family Systems Theory and Ecological Theory

One theory that provides significant consideration of the contexts within which the child develops is family systems theory. It acknowledges two important factors that advance understanding of child development with respect to family influences. First, it suggests that children develop as part of a number of different systems, such as the family system and the school system. Second, it proposes that these systems are interrelated. It contends that children are influenced by, and influence, these systems on both distal and proximal levels.

This theory was developed from general systems theory (Bertalanffy, 1973) and it suggests that systems possess four fundamental properties: 1) wholeness and order, 2) adaptive self-stabilisation, 3) self-organisation and 4) hierarchical structuring (Laszlo, 1972). Wholeness and order refers to the notion that the whole is more than the sum of its parts; the whole does not only contain the parts it also provides information on the relationship between parts. Therefore examining parts in isolation does not allow satisfactory reconstruction of the whole. With respect to the family system, this theory suggests that early focus on the parent-child relationship in absence of consideration any other relationships within the family does not provide an accurate account of how family relationships inform child adjustment; family processes can not be reduced to parent-child processes. This provides an argument for considering both inter-parental and parent-child relationships in order to understand family effects on children (Buehler & Gerard, 2002; Fincham, Grych, & Osborne, 1994; Harold & Conger, 1997; Harold et al., 1997).

The second property of adaptive self-stabilisation refers to the homeostatic

features of the system, which allow the system to self-regulate and compensate for changing conditions in the environment by making internal adjustments to maintain stability. This allows the family unit to adapt to changes such as children changing schools, parents changing or losing jobs and moving to a new neighbourhood. However, the family also needs to change in order to accommodate new conditions; this is termed adaptive self-organisation (Sameroff, 1989). For example, there are often permanent structural changes to the family unit. The birth of a child or the departure or introduction of a spousal partner constitute permanent changes to which the family must adapt and reorganise itself (Cox & Paley, 1997).

The last property of hierarchical structure describes the nested quality of systems. Each system is composed of smaller subsystems, which also function as systems. Therefore systems operate on microcosmic to macrocosmic levels. In the family setting, as outlined by Minuchin (1985), the child him- or herself functions as a system (as do other members of the family); family dyads, such as mother-child, inter-parental and sibling relationships function as systems; and the family as a whole represents a system. The family unit has many subsystems within it and family members can be members of more than one subsystem at once. In this way a mother can be a member of the mother-child dyad and the marital dyad simultaneously (Minuchin, 1985). Consequently, these systems are interconnected such that disturbances in one dyad may inform the functioning of another dyad. In this way, and of importance to this thesis, disturbances in the inter-parental relationship may disrupt the parent-child relationship.

Furthermore, the family functions within larger societal structures such as neighbourhoods or communities, which are also systems. Therefore, the child is part of the family system but also as a member of wider social systems such as the school and

the community. Bronfenbrenner's (1977) ecological theory, expands on this further, it describes the relationship between the human as a growing organism and the changing environments within which it develops. The emphasis here is on contexts for development and the notion that these contexts may overlap. For example, a child can be a member of a peer group and a school simultaneously.

The implication in this theory is that to understand human development, it is important to go past simple observations and begin to examine multiperson systems that are not limited to one setting. This perspective affords more dynamic appraisals of putative influences on child development; research, rather than being over simplified and outcome focused, should emphasise processes of and contexts for development, it should also consider the development of the child across contexts.

Ecological theory depicts the ecological environment as a hierarchical structure; with simple systems nested in more complex ones (see Figure 1). In this way systems can be considered on many different levels. The simplest level is the microsystem, which represents the level on which the child interacts with his or her immediate environment or environments, such environments include school, home and peer group. This microsystem is nested in a higher level structure termed the mesosystem. At this level interrelations among environments in which the child is present are considered. Therefore, relations between settings such as school, home and peer group are considered here. The next level is the exosystem, this is an extension of the mesosytem, it contains settings that may have some influence on the child's development but do not directly contain the child. Examples of this would include government and the mass media. The final structure is the macrosystem, within which all the other structures are nested. Bronfenbrenner describes the macrosystem as "the overarching institutional patterns of the culture or subculture, such as the economic,

social, educational, legal and political systems, of which micro-, meso-, and exosystems

are the concrete manifestations" (Bronfenbrenner, 1977, p515).
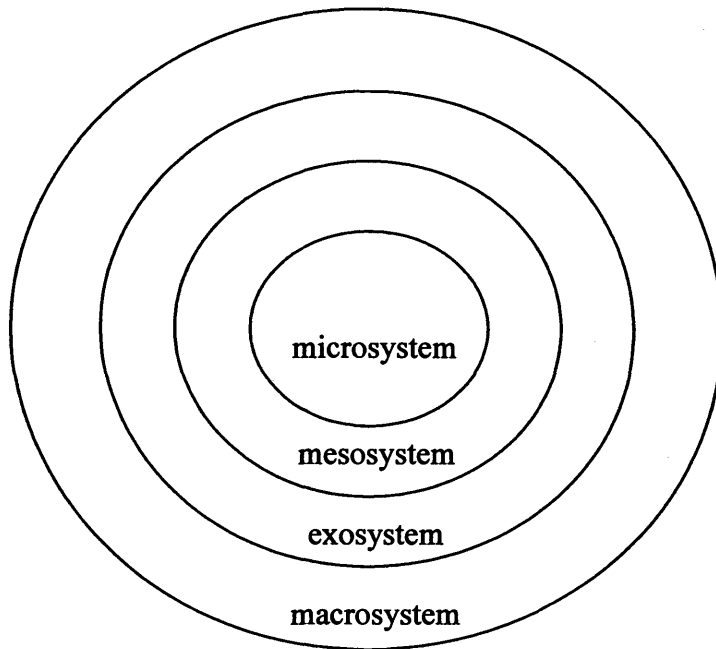
Figure 1: Bronfenbrenner's Ecological Framework

Most literature examining child adjustment has focused on the microsystem –

that is, looking at the effects of the child's immediate environments on them; the

primary environment to the child being the family. This is evidenced by the large body

of literature discussed above, which documents the impact of inter-parental and parent-

child relations on children's psychological adjustment. At the mesosystem level there

are several important issues: 1) the impact of one system on the child's functioning in

another, 2) the impact of more than one system on the child and 3) ecological transition

and these are of particular relevance to the current thesis.

Children typically experience the family context as the primary domain of

development. However, when children reach the age of four or five in the UK they are

introduced to the school environment. As ecological theory suggests that these family and school systems are interconnected, children's experiences of family life may influence children's level of functioning in the school context and, conversely, their experiences at school may inform their adaptation in the family context. For example, the way children behave as a result of peer group influences (Laird, Jordan, Dodge, Pettit, & Bates, 2001; Vitaro, Brendgen, Pagani, Tremblay, & McDuff, 1999) may affect their interactions with parents. Similarly, children's experiences of family life serve to inform their behaviour in a peer group or school setting (Parke & Ladd, 1992; Pettit, Harrist, Bates, & Dodge, 1991). It is also possible that there are combined effects of both settings on children. However, there is evidence to suggest that, though there is some degree of reciprocity, the family is the primary context for child development; therefore, this is the most influential setting for children (Collins et al., 2000). This will be considered further in Chapters 2, 3 and 4.

Another important feature of the mesosystem level is ecological transition. Ecological transitions are described as "the successive shifts in role and setting that every person undergoes throughout the lifespan" (Bronfenbrenner, 1977, pp 525). Examples of this include the birth of a child in the family, divorce, and the move to primary school or from primary school to secondary school. Such transitions often include more than one setting and mark changes in role as well as activity and sometimes in physical location. For example, a child starting primary school exchanges time in the home (or nursery) for time in school where they may become members of other settings (e.g., peer group, classroom), they take on the new role of "pupil" and engage in new activities related to learning and friendship building. Transitions most pertinent to the family-school interface involve school transitions, and these will be investigated further in Chapter 5.

Family systems theories provide an important framework from which to understand the conceptual connectedness of family with other systems. It also gives an account of pertinent influences within different levels of systemic structures. However, further consideration needs to be given to *how* effects are transferred from one social context to another and *how* contexts might combine to inform child development. One important perspective that provides an explanation of how this may occur is social cognition.

Social Cognitive Theories

Social cognitive theories build on social learning theory, placing emphasis on the role of perceptions and subjective evaluations of the social environment. The implication is that individuals construct and develop meaning relating to themselves and the social world around them (Noam, Chandler, & LaLonde, 1995). Specifically, social cognitions represent the processing by individuals of information relating to themselves, others and the social environment (Fiske & Taylor, 1991). Central to this approach is the concept that individuals make mental representations of how the social world functions. These mental representations are known as schemata, which are collections of knowledge based on past experience centring on a particular event, theme or person, they provide a working model, guiding attention, memory and behaviour in novel situations (Markus & Zajonc, 1985). Based on this individuals can also make attributions about the behaviour of others or themselves in many social situations beyond the information provided by the present situation (Heider, 1958). These derived schemata and attributions guide an individual's behaviour in a given situation.

One social cognitive theory, which has been applied effectively to child development, is social information processing (Crick & Dodge, 1994; Dodge, 1993). It suggests that children are active interpreters of their surroundings; they encounter social

situations already instilled with memories, past experiences and schemata. Therefore, previous experiences of interpersonal exchanges will provide children with examples that form their comprehension and expectations relating to a current circumstance. This theory proposes that children's behaviour in any given situation is determined by a series of sequential processing stages in which information about the environment is encoded stored, retrieved and acted upon (Crick & Dodge, 1994; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Dodge, 1985; 1986; Slaby & Guerra, 1988).

Crick and Dodge (1994) provided a detailed account of these sequential steps. Children must first encode the internal and external cues and then interpret them. These first two steps allow children to have a mental representation, or schema, of their present social situation. Interpretation of a given situation may be informed by relevant knowledge from past experience, including previously derived attributions and social cues. After the child has encoded and interpreted the cues they must then devise or clarify a goal for the situation. Goals are states of arousal that aim to produce specific outcomes; these can be determined by feelings, temperament, adult instruction and cultural norms. After goals have been clarified the child must construct, or access a response, often generating multiple potential responses for any one situation. From this bank of responses the child must make a selection. To do this, they must evaluate the responses based on the relative success or failure of past behaviour in achieving goals, moral rules or values and self efficacy. This process results in the most positively evaluated response being selected and enacted.

As implied above, because children's comprehension of current events is based on schemata and attributions formed by their own interpretations of past events, previous negative experiences can inform children's expectations in new situations or contexts. For example, if a child is exposed to hostile exchanges within the home that

child may learn to expect hostile exchanges in novel social exchanges outside the home leading to a hostile attribution bias, creating a tendency to view others' behaviour as hostile, even in the absence of evidence of clear intent (Nasby, Hayden, & DePaulo, 1979; Pettit, et al., 1991). In this way, children's memories of social exchanges within the family, encoded according to their own subjective interpretations, serve as the basis for understanding their interpretations and expectations relating to subsequent social exchanges. So children's interpretations of exchanges in one family relationship will inform their understanding and expectations relating other family relationships.

Furthermore, children's interpretations can become ingrained over time. Crick and Dodge (1994) suggest that early experiences "lay down the neural paths" initially that subsequent experiences will negotiate (p81). Based on previous interpretations and greater efficiency developing in the neural pathways, patterns will become more rigid over time. Therefore, early experiences will then continue to inform children's interpretations of later exchanges and their understanding of exchanges and experiences across contexts. This interpretation of new situations based on previous experience demonstrates how social cognitions might explain the effects of family relationships on children's adaptation across contexts. As the majority of children's early experiences occur within the family, it is feasible that this context provides some of the most rigid working models informing their social knowledge. Therefore, children's experiences of family life will determine their interpretation of events that occur across settings.

Links Between Cognitions and Adjustment

Social information processing may offer several explanations of the impact of social exchanges within the family on children's adjustment. Specifically, there are several stages in cognitive processing where biases may lead to maladaptive cognitions and responses, providing implications for children's emotions and social interactions.

First, biases may occur when cues are being encoded. There are a vast amount of cues in the social environment; because of this, previously developed heuristics are used to ensure that only the relevant sections are encoded. Biases at this point may mean that relevant information is overlooked or that individuals may pay selective attention to particular types of cues, such as hostile cues, over others (Dodge, 1985).

Secondly, cues are interpreted to produce a mental representation of their meaning, especially with respect to threat or the intentions of others. Representations also may be subject to biases. If cues are represented mentally as threatening the individual is more likely to respond in an aggressive manner (Nasby et al., 1979). In support of this, aggressive behaviour in children is associated with a number of biases in cognitive processing. When presented with a social situation aggressive children are most likely to attend to aggressive cues within the environment over benign cues and have problems attending to other, more relevant stimuli (Dodge & Coie, 1987; Dodge, Pettit, Bates, & Valente, 1995). These children tend to pay less attention to external cues when interpreting behaviour of others; instead they rely on their own stereotypes or the most recent cues (Dodge & Newman, 1981; Dodge & Tomalin, 1987). They are also more likely to have hostile attribution biases relating to others' behaviour (Dodge, Pettit, McClaskey, & Brown, 1986) and to interpret ambiguous situations as hostile (Dodge et al., 1995; Dodge et al., 1986; Graham & Hudley, 1994). Furthermore, aggressive children appear to generate fewer hypothetical responses, and poorer quality responses, to social exchanges (Shure & Spivack, 1980) and generate a higher number of potential aggressive responses (Waas, 1988). Research has also demonstrated that these children make more positive assessments of outcomes of aggressive behavioural responses (Crick & Ladd, 1990; Guerra, Huesmann, & Hanish, 1995).

Studies have also shown links between cognitive styles and depressive

symptoms. Children experiencing higher levels of depressive symptoms appear to selectively attend to negative aspects of social events (Dodge, 1993). Similar to aggressive children, they tend to have hostile attribution biases but they are more likely to generate indirect or passive responses to the perceived aggressive stimulus (Quiggle, Garber, Panak, & Dodge, 1992). Furthermore, these children are subject to other attributional biases such that they make stable, internal attributions for social failure but external attributions for social success (Crick & Ladd, 1993).

Anxious children are most likely to selectively attend to threatening cues and view ambiguous situations as threatening (Daleiden & Vasey, 1997). They often select avoidant responses to social exchanges (Barrett, Rapee, Dadds, & Ryan, 1996) and have a tendency to expect negative outcomes from social events (Chorpita, Albano, & Barlow, 1996). Similar to children with symptoms of depression they seem to make stable, internal attributions for their social failures (Daleiden & Vasey, 1997).

Children who are socially isolated and withdrawn show a different pattern of cognitions. They tend to be less accurate in their encoding of relevant social information (Harrist, Zaia, Bates, Dodge, & Pettit, 1997), especially with respect to understanding other peoples' intentions (Waldman, 1996). They also appear to generate fewer proactive and more indirect, passive potential responses to social situations (Chung & Asher, 1996) and are more likely to evaluate these types of responses as positive (Erdly & Asher, 1998). Socially competent children on the other hand are inclined to encode social cues more accurately (Dodge & Price, 1994). They are less likely to attribute hostile intent (Dodge & Price, 1994) and more likely to perceive benign intent (Nelson & Crick, 1999) in others' behaviour. They are also more likely to positively evaluate prosocial goals and are less inclined to evaluate aggressive strategies positively than their aggressive counterparts (Chung & Asher,

1996).

A Summary of Theoretical Approaches

The three theories outlined above provide a basis from which to consider family effects on children's adaptation across settings. Social learning theory (Bandura, 1977) provided an early account of how cognitions, behaviour and environment interact to inform children's understanding of their social environment and their behaviour as a result of that understanding. Two theories building from this were then explored in order to consider how family relationships might be interrelated and how they might inform children's adjustment across contexts. Ecological theory (Bronfenbrenner, 1977) provided a framework recognising that children develop within complex interlocking social systems, which can combine to inform child development. Social information processing theory (Crick & Dodge, 1994) provided an account of how these effects can be transferred from one context to another and how experiences in several contexts might consolidate existing cognitions and inform children's schemata and attributions. These in turn inform their understanding of social situations and orient their behavioural and emotional responses. In this thesis, these theories will serve as the conceptual basis for understanding how children's experiences of family life affect their ability to function well in school and how family and school settings may combine to inform children's psychological and academic adaptation.

The next section of this chapter will consider how these perspectives relate to the two family relationships identified earlier as particularly important for understanding child adjustment: the parent-child relationship and the inter-parental relationship. Research highlighted earlier demonstrated that these two aspects of family functioning are particularly important to understanding child adjustment. Further discussion will use the theories outlined above to serve as a basis for

understanding *how* inter-parental conflict and parent-child relations affect child

adjustment and the mechanisms through which these effects occur.

Inter-Parental Conflict and Parent-Child Relations: A Process-Oriented Approach

The theories outlined above suggest three primary issues important to providing

a process-oriented account of the influence of inter-parental and parent-child relations

on children. First they suggest that dyadic relationships within the family are

interconnected. This suggests that the inter-parental relationship informs the parent-

child relationship and vice versa. Second, they suggest that children's cognitions

derived from witnessing social exchanges shape their interpretations of other social

situations and their behavioural responses to these situations. Finally they suggest that,

as children operate in multiple social contexts, their experiences in one context may

serve to inform their adjustment in another context. Each of these issues will be

considered further below.

Inter-Parental Conflict and Child Adjustment: Effects Through the Parent-Child

Relationship

The majority of research supporting the connections between inter-parental and

parent-child relations has suggested that, while some bi-directional effects may exist,

conflict in the inter-parental relationship is more likely to inform the quality of the

parent-child relationship rather than vice versa. Literature considering interrelatedness

of these two factors has proposed that the link is best accounted for by a transfer of

negative affect from the inter-parental relationship to the parent-child relationship (Erel

& Burman, 1995). This may occur for a number of reasons. First, intense conflict

between parents may lead to a *spillover* of hostility into the parent-child relationship

leading parents to express hostility towards the child (Engfer, 1988; Erel & Burman,

1995). Second, parents experiencing high levels of inter-parental conflict may attempt

to detract from the problems in their own relationship by directing their attention away from the couple relationship and toward the problems in the parent-child relationship; therefore, scapegoating the child for problems in the marital relationship (Fauber et al., 1990; Vogel & Bell, 1960). Finally, parents experiencing high levels of inter-parental conflict may be less emotionally available for their children, which may lead to inconsistent parenting styles (Emery et al., 1984; Erel & Burman, 1995) or more withdrawn and less emotionally responsive parenting (Katz & Gottman, 1996).

In support of this, research has documented a robust correlation between affect expressed in the inter-parental relationship and that expressed in the parent-child relationship (Cox, Paley, & Harter, 2001; Erel & Burman, 1995; Fauber & Long, 1991). Many of these studies have demonstrated that inter-parental conflict impacts on child adjustment through its effect on the parent-child relationship. This strong and consistent association between inter-parental conflict and parent-child relations, and between parent-child relations and child adjustment, has lead some researchers to suggest that as the effects of the inter-parental relationship on children appear to operate through the parent-child relationship, then it is the latter relationship that should be considered of primary importance to child adjustment and not the former (Fauber & Long, 1991).

However, if effects of inter-parental conflict were only conveyed to children through the parent-child relationship, this conflict would impact on children regardless of whether they were present to witness it or not. In opposition to this, a study conducted by Emery, Fincham and Cummings (1992) provided evidence that children are more adversely affected by conflict between parents if they are present to witness it than if they are not, suggesting that effects of inter-parental conflict on children are not entirely explained by the parent-child relationship. Instead, conflict must also exert

some direct effects on children, which may be informed by their own interpretation of inter-parental exchanges.

Inter-Parental Conflict and Child Adjustment: The Role of Child Appraisals

Research relating to social cognition, as discussed earlier, has provided evidence that children's understanding of novel situations is based on their cognitive representations built by subjective interpretation of past events (Crick & Dodge, 1994). This work emphasises that children's subjective evaluations of social events, rather than the events per se, more closely correspond to their behavioural responses, and that these interpretations and evaluations of a given social exchange serve to inform their interpretations and behavioural responses in future exchanges in different contexts.

Research considering direct links between inter-parental conflict and child adjustment has used accounts of social information processing to explain the unique contribution of conflict to children's psychological well-being. This research has highlighted the role of children's appraisals of the inter-parental relationship in explaining variation child adjustment in the context of conflict in this relationship (Davies & Cummings, 1994; Davies et al., 2002; Grych & Fincham, 1990; Grych, et al., 2003). It suggests, in particular, a direct link between children's appraisals of conflict situations and their adjustment outcomes. Therefore, children actively attempt to understand conflict situations and respond according to this understanding (Davies & Cummings, 1994; Grych & Fincham, 1990; Harold & Conger, 1997). In this way, different children witnessing the same conflict may interpret it differently according to their own subjective appraisals. This suggests that children's appraisals of conflict should more consistently predict adjustment outcomes than parents' reports of conflict, a suggestion that has been borne out in recent research (Davies et al., 2002; Harold et al., 1997; Harold, Shelton, Goeke-Morey, & Cummings, 2004).

33

The theory of inter-parental conflict that most closely corresponds to this information processing approach is the cognitive contextual framework, proposed by Grych and Fincham (1990). This purports that children's cognitive evaluations of conflict between parents are fundamental to understanding the impact that this conflict has on their psychological well-being. It proposes that children's interpretation of the inter-parental exchanges inform their immediate affective reactions and that the emotions elicited determine more in-depth processing of the interaction (Grych & Cardoza-Fernandez, 2001). The appraisals that children form are also likely to be informed by the characteristics of the conflict, the context (for example, prior experience of similar conflicted exchanges and the nature of the parent-child relationship) and the age of the child. The emotional climate of family relations, previous experience of conflict, interpretation of conflict, and the child's coping ability also inform this understanding.

Specific attributions have been identified as particularly potent in the context of inter-parental conflict. Specifically, it is important for children to identify whether a hostile inter-parental exchange is threatening to them. Attributions relating to threat will determine children's behavioural responses to conflict. For example, children who perceive inter-parental conflict as personally threatening and feel unable to cope may seek to withdraw from that exchange (Kerig, 2001). Evidence has also suggested that children make attributions in order to establish who is responsible for the conflict. While locating blame for the conflict with parents might be quite adaptive for children, feeling responsible for the conflict themselves may lead to negative emotions that might motivate them to intervene and attempt to resolve the conflict. This may entail the child becoming a direct target for the hostility being expressed in the exchange or could lead to children repeatedly engaging in 'acting out' behaviour to divert parents'

attention away from the conflicted exchange (Cummings, Davies, & Campbell, 2000; Davies & Cummings, 1994). Recent research has specifically implicated these two appraisals: threat and self-blame as mediators of the relationship between inter-parental conflict and adjustment problems.

Appraisals of threat have been repeatedly linked with internalising symptoms (Grych et al., 2000; Grych, et al., 2003). Similarly, appraisals of self-blame have been linked to internalising symptoms (Dadds et al., 1999; Grych et al., 2000) and externalising problems (Dadds et al., 1999; Grych et al., 2003). However, recent research has demonstrated a stronger relationship between self-blame and externalising problems than between self-blame and internalising symptoms. Longitudinal research by Grych et al. (2003) found that threat was more strongly implicated in children's internalising symptoms, consistent with children's withdrawal from threatening conflicted exchanges. The same research found that self-blame was more strongly associated with externalising problems, consistent with the notion that children may intervene in conflict they feel responsible for by acting out in order to distract their parents. These acting out behaviours perhaps become ingrained over time leading to externalising problems.

A second theory, the emotional security hypothesis, proposed by Davies and Cummings (1994) stresses the importance of affective processes in explaining children's responses to inter-parental conflict. The hypothesis posits that conflict between parents has powerful implications for children because it poses a threat to their emotional security. Emotional security supports the child's ability to cope effectively with problems and is derived from their past experiences of the frequency, form and resolution of inter-parental conflict. Children's emotional security, in turn, affects their regulation of their own emotional arousal, guides them to cope with conflict and affects

their internal representations of family relationships.

Research has suggested implications for emotional security in children's internalising symptoms and externalising problems (e.g., Harold et al, 2004). Several pathways explaining these links have been offered (Cummings et al., 2000; Davies & Cummings, 1994). First, repeated experience of destructive conflict leads to sensitisation and chronic arousal in children, leaving them with fewer resources to regulate their own emotions (Davies & Cummings, 1994). Second, research has shown that frequent exposure to conflicted inter-parental exchanges leads children to become sensitised to conflict situations, this leads to increasingly intense responses. Third, consistent with social information processing perspectives, past experience of negative inter-parental conflict increases the likelihood that children will interpret current conflict as negative and ensures that they will attend to more negative aspects of conflicted exchanges so they are more likely to view conflict as threatening, leading to higher levels of emotional arousal (Crick & Dodge, 1994; Davies & Cummings, 1994). Finally, children may be motivated to improve their emotional security by attempting to reduce or end conflict between parents.

Inter-Parental Conflict, Parent Child Relations and Child Adjustment: A Combined Approach

Some researchers have begun to assert that trying to assess the contribution of either the inter-parental or the parent-child subsystem to children's adjustment in absence of the other provides only partial understanding of the influences of family relationships on child adjustment (Buehler & Gerard, 2002; Fincham et al., 1994; Harold & Conger, 1997; Harold et al., 1997). Consistent with family systems theory, it is suggested that effects from these subsystems do not occur independently. Rather it is important to understand how inter-parental conflict and parent-child relations mutually

influence child adjustment. In recognition of this, Harold and colleagues proposed a family wide model (Harold & Conger, 1997; Harold et al., 1997) in which inter-parental conflict impacts on children via their perceptions of the inter-parental relationship *and* through their perceptions of the parent-child relationship. As highlighted in social information processing theories, this model posits that children's subjective evaluations of exchanges within a given family relationship serve to inform their working models of relationships in general (Crick & Dodge, 1994). In this way, previous experience of inter-parental conflict can serves as an "emotional primer" making children more sensitive to conflict and hostility in the relationships they share with other members of the family (Harold & Conger, 1997). As it has been noted in previous studies that the intensification of inter-parental conflict serves to disrupt the relationship between parent and child (Fauber & Long, 1991; Erel & Burman, 1995), the family wide model posits that perceptions of the inter-parental relationship will be particularly relevant to children's appraisals relating to the parent-child relationship.

Evidence supporting this model has demonstrated that both inter-parental conflict and parent-child relations contribute to children's appraisals of these two relationships (Harold & Conger, 1997; Harold, et al., 1997). However, children's appraisals of conflict between parents also inform their appraisals of the parent-child relationship. Therefore, children who perceive inter-parental conflict to be destructive are also likely to interpret parent-child relations as more hostile and threatening. So conflict serves as a context for disrupted appraisals of both inter-parental and parent-child relations and it is these evaluations that inform subsequent adjustment in terms of internalising symptoms and externalising problems (Harold & Conger, 1997; Harold et al., 1997).

Overall, it appears that accounts suggesting effects of inter-parental conflict on

children via disturbances in the parent-child relationship and those suggesting effects through children's appraisals of inter-parental conflict both provide important explanations of the mechanisms through which these inter-parental relations inform child adjustment. However, family systems and social cognitive theories described above suggest that both of these mechanisms are important to understanding child adjustment in the context of family discord. Furthermore, family wide models testing the role of these two mechanisms demonstrate the contribution of each of these mechanisms to children's psychological well-being. In order to provide further insight into the nature of the effects of these factors on children, which indices of child adjustment are affected by these two family relationships and why these effects may occur should be considered further.

Family Relationship Effects on Children: Indices of Adjustment

Early research investigating the influence of inter-parental relations on children noted a greater association between inter-parental conflict and psychological outcomes associated with undercontrol and poor self-regulation, such as aggression, than with symptoms of overcontrol, such as anxiety and withdrawal (Emery, 1982). A large body of research has found links between dissatisfaction and discord in the inter-parental relationship and aggressive or antisocial behaviour (Hetherington, Bridges, & Insabella, 1998; Holden & Ritchie, 1991; Peterson & Zill, 1986). Similarly, disruptive inter-parental relations have been associated with hyperactive or impulsive behaviour (Block, Block, & Morrison, 1981; Peterson & Zill, 1986), delinquency (McCord & McCord, 1959; Porter & O'Leary, 1980) and conduct disorder (Gonzales, Pitts, Hill, & Roosa, 2000; Long, Forehand, Fauber, & Brody, 1987; Webster-Stratton & Hammond, 1999). However, most recent research has considered this range of aggressive, delinquent behaviour as part of a spectrum of externalising problems (Cummings, Vogel,

Cummings, & El-Sheikh, 1989; Grych et al., 2003; Harold et al., 2004).

There have been several explanations of how and why negative inter-parental exchanges are associated with these externalising problems. Firstly, as discussed above, children may act out to distract parents from conflicted exchanges. If this behaviour is successful in reducing or ending conflict they will be more likely to engage in this behaviour again, leading to more and more disruptive behaviour over time (Cummings et al, 2000; Davies & Cummings, 1994). Secondly, children may model hostile behaviour that they witness in inter-parental exchanges (Bandura, 1977). Finally, as a result of witnessing repeated aggressive exchanges between parents, children appear to develop biases in social-cognitive processing leading them to respond more aggressively to other social situations (Crick & Dodge, 1994; Pettit et al, 1991).

Robust links have also been documented between inter-parental conflict and a range of symptoms categorised as internalising symptoms in more recent research. Disturbances in the inter-parental relationship have been related to depressive symptoms (Johnston, Gonzalez & Campbell, 1987; Turner & Kopiec, 2006; Unger, Brown, Tressell, & Ellis-McLeod, 2000a) and lower self-esteem (Doyle & Markiewicz, 2005; O'Brien, Bahadur, Gee, Balto, & Erber, 1997; Turner & Kopiec, 2006), as well as anxiety (Kerig, 1998a; Porter & O'Leary, 1980) and withdrawal (Jacobson, 1978; Long, Slater, Forehand, & Fauber, 1988). However, the most studies considering this range of symptoms have noted links between inter-parental conflict and broad indices of internalising symptoms (Davies et al., 2002; Harold, et al., 2004; Holden & Ritchie, 1991).

Researchers have suggested that discordant relations between parents impact on these internalising symptoms for several reasons. Children become sensitised to

conflicted inter-parental exchanges after repeated exposure, and may become

increasingly physiologically and emotionally aroused by witnessing conflict situations,

leading children to be unable to regulate their emotional responses. Also, children who

witness intense, frequent and poorly resolved conflict between parents are more likely

to feel threatened by conflict and withdraw from these exchanges; this response pattern

may become ingrained over time. Furthermore, these perceptions may contribute to

cognitive biases causing children to view other social situations as negative and

threatening (Cummings et al., 2000; Davies & Cummings, 1994; Grych & Fincham,

1990).

While the majority of research investigating family socialisation has focused on

children's psychological adjustment, some studies have also considered how distress in

the inter-parental relationship might affect children's social behaviour (Hetherington et

al., 1982; Lindsey, MacKinnon-Lewis, Campbell, Frabutt, & Lamb, 2002; Marks,

Glaser, Glass, & Horne, 2001). Explanations of how the inter-parental relationship

affects social competence are largely derived from social information processing theory

(Crick & Dodge, 1994). These problems in social behaviour, as described in relation to

cognitions, may be caused by children misinterpreting social situations based on

understanding derived from witnessing exchanges between parents (Crick & Dodge,

1994; Grych & Cardoza-Fernandez, 2001; Pettit et al., 1991).

There has been little application of research concerning inter-parental conflict to

the investigation of children's academic competence. The research that does exist

largely concerns the effects of discordant divorce on academic performance (Amato &

Keith, 1991; Forehand, Neighbors, Devine, & Armistead, 1994; Long et al., 1988;

McCombs & Forehand, 1989). Some studies have considered the impact of this

relationship on children's school adjustment (Sturge-Apple et al., 2006a, b) and their

cognitive competence (Wierson, Forehand, & McCombs, 1988; Long et al., 1987).

However, there is little programmatic research in this area, particularly with respect to

inter-parental conflict, so it is still unclear how or why conflict between parents impacts

on children's cognitive or academic functioning. In particular, there are very few

studies that consider the role of children's appraisals as a mechanism through which the

effect of conflict on school-related outcomes can be understood (see Harold et al., in

press for exceptions). This will be discussed further in Chapter 2.

Research linking aspects of the parent-child relationship, in the context of inter-

parental conflict, to child adjustment have considered the effects of several specific

aspects of this relationship, as outlined above. Studies have highlighted parental

hostility as particularly significant in the context of inter-parental discord. This factor

has been linked with both internalising symptoms and externalising problems in

children (Harold & Conger, 1997; Harold et al., 1997). This hostility may be

threatening to children, causing them to become withdrawn. Conversely, it also

provides children with examples of hostile, aggressive behaviour to model.

Parental withdrawal or lack of emotional availability has also been associated

with internalising symptoms and externalising problems in children (Katz & Gottman,

1996; Sturge-Apple et al., 2006a, b; Webster-Stratton & Hammond, 1999). Findings

suggest that withdrawal may lead children to feel rejected. It may also lead to a lack of

parental awareness of the child's social world (Katz & Gottman, 1996), which may

allow children to act out undetected by the parent. Furthermore, inconsistent parenting

styles or inconsistent discipline associated with a preoccupation with problems in the

inter-parental relationship, or with disagreements between parents relating to discipline

strategies, have been linked to psychological adjustment problems (Fauber et al., 1990).

These inconsistencies provide children with few clear boundaries with respect to

behaviour. Furthermore, conflict that arises from differences in approaches to parenting concerns the child directly and children find this kind of child-related conflict particularly stressful (Grych & Fincham 1993). Studies have also suggested that inter-parental conflict can affect the nature of attachment between parent and child and that this, in turn, is associated with children's internalising symptoms and externalising problems (Davies et al, 2002). This is because disruptions to the attachment processes threaten children's emotional security, leading to feelings of distress.

There is also a considerable amount of research concerning the impact of the parent-child relationship on children's adjustment in school and their academic attainment, though very few of these studies consider effects of the parent-child relationship on school related outcomes in the context of inter-parental conflict (see Harold et al., in press; Sturge-Apple et al., 2006 a, b for exceptions). Common themes in this area have been parenting styles and parenting behaviour (Aunola, Stattin, & Nurmi, 2000; Beyer, 1995; Bronstein, Clausen, Stoll, & Abrams, 1993), attachment (Jacobson & Hofmann, 1997; Moss & St-Laurent, 2001; Noom, Dekovic, & Meeus, 1999) and parent-child interactions (Feldman & Wentzel, 1990; Harrist, Pettit, Dodge, & Bates, 1994). The few studies that do consider the influence of parent-child relations in the context of conflict between parents have revealed mixed findings, with some studies providing evidence for this relationship as a mechanism through which inter-parental conflict leads to poor school functioning and others finding no support for this pathway (Harold et al., in press; Sturge-Apple et al., 2006a, b). These findings will be considered in more detail in Chapter 2.

Collectively, the literature described above provides a complex account of the effects of inter-parental and parent-child relations on children, considering two primary mechanisms through which effects are transferred from the inter-parental relationship

to child adjustment. While this provides a more accurate view of *how* these influences occur, further specificity can be derived by considering what factors serve to moderate these pathways.

<u>Age and Gender: Moderating Effects</u>

There is evidence to suggest that family effects on children may vary with age. Children's responses to family relationships vary as a function of age in several respects. Studies have documented changes in the nature of cognitive evaluations, behavioural responses and susceptibility to certain indices of adjustment. In particular, children's cognitions develop as the child matures and this has implications for their responses to social exchanges within the family.

While effects of family relationships on children appear to start early, with children as young as 6 months of age showing distressed responses to inter-parental conflict (Shred et al., 1991), the nature and magnitude of these responses changes over time. In the early years children typically show distress and fear in responses to witnessing inter-parental conflict (Cummings et al., 1989), as a result these children are less likely than other age groups to actively intervene in conflict (Cummings & Davies, 1994).

Early to mid childhood (2-6 years of age) marks the onset of pre-operational thought. Children in this period typically have a grasp of more abstract representation of reality and from the age of three can remember central details of personally relevant events in correct temporal order (Grych & Cardoza-Fernandez, 2001). Therefore these children are able to more accurately represent events that have occurred within the family. Due, perhaps, to deficits in executive function and fewer social experiences from which to generate alternatives, these children struggle to generate possible behavioural responses to inter-parental conflict that will allow them to change the

outcomes of the situation or allow them to moderate their levels of emotional arousal (Grych, 1998). Furthermore, these children tend to have a largely egocentric perspective, which means they often fail to distinguish their own point of view from others. This also leads these children to judge their own behaviour is highly salient, often leading them to view their own behaviour as the cause of parental anger (Covell & Abramovitch, 1987; Grych, 1998). Children of this age group also view their own intervention in inter-parental disputes as an effective strategy for reducing or ending the conflict and consequently are more likely to become directly involved (Covell & Miles, 1992; Cummings, 1994). Favourable evaluation of this strategy drops off in late adolescence, when children favour more avoidant responses (Hetherington & Clingempeel, 1993). One explanation for this is that children adopt more effective strategies for dealing with conflict as they get older.

Adolescence marks the onset of puberty and formal operational thought for children, it is also often coupled with increasingly wide social circles for children. Adolescents have larger working memories; therefore increased ability to apply problem solving and more sophisticated information processing. They are more able to think systematically about logical relations within a given problem and have an increased capacity for abstract ideas. As a result, schemata increase in sophistication further leading to greater reliance on these to efficiently process social information (Crick & Dodge, 1994). Therefore, adolescents may make more efficient appraisals of family exchanges and may have more accurate recall of these events. This capacity for abstract ideas allows these children to be more introspective at this age, allowing them to cope with stressful events using cognitions rather than behaviour (Kleiwer, 1991). However, this ability to be introspective may cause adolescents to view social exchanges as more personally relevant (Elkind, 1967), which may lead them to view

conflict between parents as more personally relevant and more pertinent to their psychological well-being than children at earlier stages of development.

Studies have also suggested that children's susceptibility to particular adjustment problems in the face of family discord varies with age. Research has suggested that toddlers are more likely to respond to stressors with temper tantrums and aggression, whereas older children are more likely to show psychological distress through dysphoria and passivity (Angold & Rutter, 1992; Compas, Hinden, & Gerhardt, 1995; Davies & Cummings, 1994). Rates of delinquency are also higher in older children and peak during adolescence (Moffitt, 1993).

Additionally, the features of these family relationships that are salient to children may vary according to age. Studies have shown that young children tend to emulate parents' behaviour more, suggesting that adjustment problems at this age may be partly due to modelling of maladaptive behaviour witnessed in the home. This effect appears to diminish as children enter school (Easterbrookes & Emde, 1988). As children get older and their understanding of family interactions becomes more sophisticated, it is likely that effects of family interactions on children become more complex. Understanding of exchanges within the family will change over time due to biological changes in child development and increasing complexity of cognitive representation of social situations.

Another factor that is documented to moderate the influence of family relationships on child adjustment is child gender. Two broad models of gender differences in effects of inter-parental conflict on children have been proposed. First, it has been suggested that family conflict exerts greater effects on boys than on girls. This approach implies that boys are more vulnerable to conflict between parents because they are less sheltered from family disputes than girls (Rutter, 1970). The

45

second model is based on theories of gender socialisation, it suggests that children's

responses to social situations are informed by gender norms and, therefore, adjustment

problems for boys and girls tend to be aligned with gender typical responses. This

means that boys are more likely to display externalising problems and girls are more

susceptible to internalising symptoms (Davies & Lindsay, 2004; Zahn-Waxler, 1993).

In relation to responses to family interactions, some research has provided support for

the contention that boys are less sheltered from conflicted family exchanges and,

therefore, are more vulnerable to adjustment problems (Block et al., 1981; Kerig, 1996;

1999). However, recent studies have suggested that this vulnerability model only holds

true for children in middle childhood and that girls may actually fare worse than boys

when they reach adolescence (Davies & Lindsay, 2001; 2004). One explanation for

this reverse of effects in adolescence is that adolescents adhere more strongly to social

norms in gender differences than children of other ages, leading boys to pursue

independence and self-direction, while girls place emphasis on communion and

therefore take greater responsibility for the family. Therefore, conflicted and

discordant family relations may actually lead to more pronounced feelings of distress

and inadequacy in girls of this age group than boys, consistent with the gender

socialisation explanation (Davies & Lindsay, 2001; 2004).

There is also some suggestion that the mechanisms through which conflict

affects children may vary as a function of gender, with some studies suggesting a more

direct impact of inter-parental conflict on boys but a more indirect route via the parent-

child relationship for effects of conflict on girls (Harold et al., 1997; Johnson &

O'Leary, 1982). However, findings relating to differences between mechanisms

between boys and girls need to be explored further before any confident conclusions

can be drawn.

Summary and Thesis Focus

Overall, the present chapter suggests that the family is an important context from which to understand child development. In particular, it emphasises the importance of both inter-parental and parent-child relationships as a source of influence on children. It highlights the role of family systems and ecological theories and social information processing as a platform from which to understand the relationship between these two family factors and their influence on child adjustment. Specifically, the literature described above demonstrates the importance of children's appraisals of these family relationships in explaining children's psychological adjustment in the context of inter-parental conflict and disrupted parent-child relationships. The evidence discussed also provides a rationale for the application of these appraisal processes to understanding family influences on children's adjustment in the school context. Ecological theory provides a platform for integrating family and school contexts by suggesting that the contexts within which a child develops overlap and, as such, are interrelated. The social information processing perspective suggests a means for these effects to be transferred from the family system to the school system by demonstrating that children's cognitions derived from the family environment are used to inform their understanding of other contexts. In this way appraisals relating to family relationships are proposed to inform children's adjustment in the school context in the current thesis.

The programme of research covered in this thesis will also explore how psychological processes and cognitions identified as integral to the literature pertaining to psychological adjustment might extend to explain variation in academic adaptation. The studies will attempt to move beyond the historic focus on internalising symptoms and externalising problems in the literature investigating the impact of inter-parental and parent-child relations on children in order to understand children's ability to

function across contexts.

As one of the most sensitive periods highlighted in children's academic careers is the transition children make from one school to another (Bronfenbrenner, 1977), the thesis will also explore the effects of family stress on children's transition from primary to secondary school, recognising that the timing of this transition coincides with other important developmental changes, such as the onset of adolescence and increasingly sophisticated cognitive processes. It will investigate the implications of family stress at this sensitive period for aspects of social interaction and adaptation to school transition and academic attainment. Finally, the thesis will delineate the implications of the associated findings for family- and school-based interventions and programmes aimed at recognising the importance of 'the voice of the child' as highlighted in recent legislation.

Chapter Outline

Chapter 2: Chapter 2 will provide a review of existing research linking children's experiences of family life with their school-related outcomes. It will identify the key themes in research making family-school connections in comparison to literature linking family influences to psychological adjustment and consider the range of school-related outcomes featured in this research. It will also emphasise the need for more process-oriented research when assessing the impact of the family context on children's ability to function in the school context.

Chapter 3: This chapter will take a broad appreciation of the influence of family relationships on children, suggesting that disruptions in inter-parental and parent-child relationships tend to co-occur. This study builds on literature suggesting that conflict and hostility in these two relationships inform children's appraisals of each relationship, but that appraisals relating to inter-parental conflict also actually serve to

inform children's appraisals of the parent-child relationship. Furthermore, this literature demonstrates that these appraisals relating to the parent-child relationship are associated with children's long-term internalising symptoms and externalising problems (see Harold et al., 1997). Therefore, the chapter will also consider how children's experiences of both inter-parental and parent-child relationships inform their appraisals of parent-child relations and how appraisals of this relationship, in turn, inform their school-related outcomes. In terms of these outcomes, the chapter will consider indices that represent a global assessment of school adjustment by not only considering academic attainment but by also exploring teachers' assessments of behaviour and children's ability to apply themselves at school. It will also examine the role of school support as a moderator of the links between distress in these two family subsystems and children's adaptation in the school context.

Chapter 4: This chapter will build on the previous chapter by recognising that inter-parental conflict often precedes and contributes to disruptions in the parent-child relationship. Specifically, this study will investigate the impact of inter-parental conflict on children's academic attainment, paying particular attention to the role of children's appraisals of both the inter-parental and the parent-child relationship. The chapter will also emphasise the importance of reconceptualising psychological adjustment when examining its influence on other factors, in particular, children's school-related outcomes. Specifically, it will consider the utility of grouping psychological adjustment into internalising symptoms and externalising problems when attempting to explain variation in academic attainment.

Chapter 5: This chapter is distinct from the preceding two chapters because it considers school transition as a 'special case' of family influences on school adaptation. School transition is perceived as a sensitive period in which social transition from one

school environment to another often coincides with the transition from childhood to adolescence, and cognitive changes as children move towards the onset of formal operational thought. The analyses in this chapter assess family and school influences on children's expectations and adaptation to school transition. Consistent with the previous study, this chapter examines the influence of both appraisals of the inter-parental and the parent-child relationship in explaining the effects of inter-parental conflict on children's ability to function well in school in terms of internalising symptoms, externalising problems, social adaptation and academic competence. However, these factors are considered in the context of anticipation of transition and actual transition from primary to secondary school.

Chapter 6: This chapter will review programmes already aimed at family-school interventions and compare US and UK based practice and existing policy relating to these. Based on the literature discussed in Chapters 1 and 2 and the evidence provided in the empirical chapters it will assess existing strategies aimed at improving children's behaviour and performance in school. In particular it will consider the importance of acknowledging family influences on children's adjustment in this context and make specific recommendations for improvements to existing practice based on the empirical findings making specific reference to 1) the importance of the inter-parental relationship 2) the role of child appraisals of family-level interactions and 3) the effects of family influences on children during times of pronounced school stress, notably, the transition from primary to secondary school.

Chapter 7: This final chapter will be an extensive conclusion to the thesis, providing an integrative summary of derived findings and their implications. Limitations of the current research, recommendations for future research and practical applications of the findings will also be discussed.

CHAPTER 2

The first chapter of this thesis reviewed literature and theories considering the effects of inter-parental and parent-child relationships on children's psychological adjustment, paying particular attention to the role of children's cognitions relating to these two primary family subsystems. It also noted that there has been little systematic application of literature considering the role of appraisals in explaining the effects of both inter-parental and parent-child relations on children's school related outcomes. Chapter 2 will review literature assessing family effects on children's academic adaptation. This literature will be used to consider how mechanisms through which family relationships are demonstrated to affect children's psychological functioning might relate to children's school adjustment.

Traditionally, literature concerned with family socialisation and literature making family-school connections have followed distinct lines of inquiry. Therefore, themes emphasised in one domain have not necessarily crossed over to the other. As a result, while studies assessing children's development within the family context have emphasised the importance of inter-parental and parent-child relations, research considering children's development in the school context has had a different focus. This second chapter will, therefore, concentrate on reviewing research considering these forms of family-level influences and children's academic capabilities.

Family Influences on School Outcomes

Literature investigating familial influences on children's academic adaptation is in short supply compared to the literature linking family experiences and psychological adjustment. Notably, there is a large body of research assessing the latter that focuses on how both inter-parental and parent-child relations inform children's psychological

well-being. While these studies have reached a so called 'second generation' of research (Davies & Cummings 2002), which considers the processes through which inter-parental and parent-child relations impact on children, research concerning family-school connections shows less systematic investigation of these two sources of influence. Research assessing the family-school interface has typically focused on documenting three broad domains of family influences on children: socio-economic factors (e.g., McLoyd, 1998), the parent-child relationship (e.g., Aunola et al., 2000; Feldman & Wentzel, 1990), and divorce and family structure (Amato & Keith, 1991; Demo & Acock, 1996; Ham, 2004).

Socio-Economic Status and Other Wider Community Factors

Socio-economic status refers to the social and economic standing that a given person or family may have and is often indexed by parents' education levels, family income and parents' occupation. There is evidence to suggest that this aspect of family functioning affects children's behaviour in school and their academic achievement (Considine & Zappala, 2002; Hope & Bierman, 1998). Several pathways of influence have been suggested in relations between socio-economic status, children's psychological adjustment and school outcomes. It can impact on interpersonal relationships within the home through feelings of stress relating to economic hardship (Conger et al., 1992; 1993). It may also determine the amount of resources available to the child within the home, such as books and computers (Entwisle & Alexander, 1995). Furthermore, families with low socio-economic status tend to live in more deprived areas in which schools are overpopulated and under funded; these areas may also be subject to more community violence and higher crime rates (Hope & Bierman, 1998).

A major literature review of the effects of socio-economic disadvantage on child cognitive functioning, socio-emotional functioning and academic achievement was

conducted by McLoyd (1998). It identified low socio-economic status, family poverty and economically disadvantaged neighbourhoods as unique predictors of poor cognitive functioning, socio-emotional functioning and low academic achievement. The review highlights family income as one of the most potent predictors of poor outcomes. Further, it suggests that effects of socio-economic status on children's academic outcomes can be considered at community, school and family levels. Community level resources refer to neighbourhood socioeconomic composition, housing and crime rates. School level influences include educational resources, teacher's morale and teacher's expectations. Family level influences concern economic pressure and home resources.

Literature considering neighbourhood effects of socio-economic status on children suggests that neighbourhoods marked by low economic deprivation also have poorer housing, higher levels of community violence and a higher frequency of ethnic minorities. Children from these communities tend to display higher levels of aggression in school, lower levels of academic performance and are more vulnerable to bullying (Considine & Zappala, 2002; Datcher, 1982; Hope & Bierman, 1998; Schwartz & Gorman, 2003).

The general demographic of the school can also have an impact on academic performance. In particular, research suggests that children from schools with a high proportion of low socio-economic status pupils, a low proportion of pupils living in intact families and a high proportion of ethnic minority pupils tend to fare worse academically (Caldas & Bankston, 1997; 1999). Furthermore, low socio-economic status schools have teachers with different characteristics than those of high socio-economic status schools in terms of ethnicity, gender and years of teaching and these factors are associated with children's attendance, attention to work and academic performance (Farkas, Grobe, Sheehan, & Shaun, 1990).

There are several family-level mechanisms that have been proposed to explain the effect of family socio-economic status on children. Parents from low socio-economic status families tend to have lower aspirations and expectations for their children and feel less equipped to help their children with schoolwork (Amato & Ochiltree, 1986; Zady & Portes, 2001). Furthermore, the stresses associated with economic hardship may lead to feelings of financial strain, which affect parents' psychological well-being, levels of inter-parental conflict and the nature of the parent-child relationship as well as parents' school involvement. These factors in turn affect children's psychological adjustment and their academic attainment (Conger et al., 1992; 1993; Gutman & Eccles, 1999).

From the above literature it appears that the relationship between socio-economic status and academic performance is mediated by factors more proximal to the child. In school, socio-economic status affects the resources available in the classroom (McLoyd, 1998), teachers' experience (Farkas et al., 1990) and their expectations (Rist, 1970) and these in turn affect children's performance. Within the family, research has demonstrated two broad ways in which socio-economic status affects children's school related outcomes. First, parents from low socio-economic status families tend to be less involved, or less effectively involved, in their children's schoolwork and have lower expectations of their child's achievement (Hess & Holloway, 1984; Zady & Portes, 2001). Second, families experiencing economic pressure tend to be more depressed and susceptible to family conflict, which impacts on parent-child relations and children's psychological and academic functioning (Conger et al, 1992; 1993). As socio-economic factors appear to affect children through these more proximal family relationships, it is important to consider which aspects of these family relationships affect children's academic adaptation and through what mechanisms.

Parenting Behaviour and Parent-Child Relations

There is a considerable amount of literature assessing the impact of the parent-child relationship on academic achievement. This research has considered parents' direct involvement in children's school-related activities as well as more generalised assessment of the quality of parenting and parent-child interactions.

The importance of parental involvement as a factor in children's school performance has been widely investigated. Research has demonstrated that the nature and degree of parental involvement in children's school life has a significant bearing on children's academic achievement, academic attitudes and behaviours, and their school completion (Anguiano, 2004; Englund, Luckner, Whaley, & Egeland, 2004; Jeynes, 2005; 2007; Ratelle, Larose, Guay, & Senécal, 2005).

Parental involvement is a broad construct made up of various components including parental aspirations and expectations, their involvement with school activities and their supervision of school-related activities within the home. One meta-analysis demonstrated that while parental home supervision appears to exert only weak effects, parental expectations are strongly related to children's school-related achievements (Fan & Chen, 2001). Work focusing specifically on parental aspirations and expectations has suggested that this factor is important in shaping children's academic achievement (Fan, 2001) selection of school subjects (Jacobs, Davis-Kean, Bleeker, Eccles, & Malanchuk, 2005), self-perceptions relating to task performance (Frome & Eccles, 1998) and career choices (Schnabel, Alfeld, Eccles, Koller, & Baumert, 2002). It is argued that parental expectations have such an effect on children's school performance because parental attitudes and expectations are conveyed to the child through parenting behaviour and associated reward and reinforcement processes. This shapes the child's own perceptions in terms of academic goals, task demands and their

own sense of competence in school-related activities. These social cognitions, in turn, determine the child's value judgements and expectations relating to academic tasks, which affects their task selection and performance (Eccles & Wigfield, 1995; Parsons et al., 1983). In this way parents' direct involvement in their child's academic life has an important influence on the child's motivation, task selection and academic performance. This literature provides insight into the importance of parental engagement in the child's academic career, a concept that has been well heeded in school-based interventions aimed at improving children's academic performance (Epstein, 2005). However, there is a large body of research demonstrating that the general quality of the parent-child relationship also has significant effects on children's school adjustment. As this factor has also been associated with children's psychological and social adjustment, it appears to have far-reaching consequences for children in the school context; not only in terms of their academic progression but also in terms of their social, affective and behavioural adaptation.

Literature considering the influence of the quality of the parent-child relationship on school-related outcomes, aside from parental academic engagement, can be broadly divided into parenting characteristics or practices and the quality of the interactions between parents and children. A number of parenting characteristics that have positive and negative effects on children's school adjustment have been identified. Findings have demonstrated that supportive, involved parenting and high parental expectations of children's academic achievement predict the best academic outcomes for children (Bronstein et al., 1993; Bronstein et al., 1996; Masten et al., 1999; Melby & Conger, 1996).

Early studies assessing the impact of parenting styles on children suggested that authoritarian parenting, characterized by strict control and lack of responsiveness has

negative effects on children (Baumrind, 1967; 1978). Further research has indicated that authoritarian and neglectful parenting lead to maladaptive achievement strategies and low academic performance (Aunola et al., 2000; Steinberg et al., 1989). Alternatively, authoritative parenting has been consistently associated with adaptive achievement strategies and high levels of academic success (Aunola, et al., 2000; Steinberg et al., 1989) even in college years (Strage & Brandt, 1999). Explanations for the effects of parenting styles on children focus on the mediating roles of children's achievement strategies or motivations styles. These studies suggest that parenting styles determine children's academic expectations, their attributions relating to the causes of academic failure or success and their self-discipline, and that this in turn determines academic performance (Aunola, et al., 2000; Steinberg et al., 1989; Strage & Brandt, 1999).

Distinct from this literature on parenting practices, studies have also demonstrated links between the quality of interactions in the parent-child relationship and children's academic performance. Much of this research has focused on attachment, which has been associated with higher cognitive engagement and motivation styles (Moss & St-Laurent, 2001), school readiness (Belsky & Fearon, 2002), attention and participation in school (Jacobson & Hofmann, 1997) and academic competence (Jacobson & Hofmann, 1997; Noom et al., 1999). This research has suggested that attachment informs children's sense of autonomy and mastery, which determines their ability to engage with academic tasks and perform well at them. Therefore, children who have secure attachment styles develop a sense of confidence, persistence and task involvement with respect to academic tasks that allows them a more successful approach to academic achievement (Strage & Brandt, 1999).

The general quality of interactions between parents and children are also

important in informing children's school adjustment. Negative parent-child interactions have been associated with poor academic competence (Harrist et al., 1994; Pianta, Nimetz, & Bennett, 1997), low levels of frustration tolerance and poor work habits (Pianta et al., 1997), classroom behaviour problems (Morrison, Rimm-Kauffman, & Pianta, 2002; Pianta et al., 1997), school absences (DuBois, Eitel, & Felner, 1994) and low grades (Feldman & Wentzel, 1990; Morrison et al., 2002).

Specific aspects of parenting also have significant implications for children's academic adaptation. Parental hostility and rejection in particular have detrimental effects on children's academic performance (Feldman & Wentzel, 1990; Jacobson & Hoffman, 1997), as does parental withdrawal or emotional unavailability, which is associated with poor school adjustment (Melby & Conger, 1996; Sturge-Apple et al., 2006a, b).

Collectively, there is a large body of evidence documenting the impact of a wide range of factors relating to the parent-child relationship on children's behaviour and performance in school. Findings suggest that this relationship is central to understanding how children function within the school context. However, research considering children's psychological adjustment has highlighted the inter-parental relationship as important to understanding child development. This research has portrayed the inter-parental relationship as the conductor of the family system in that it orients and directs other relationships in this context (Satir, 1972). There is comparatively less research investigating how this relationship informs children's adaptation to school. Research that does exist in this area largely focuses on family structure and divorce.

Family Structure and Divorce

Literature assessing the impact of family structure on children has typically viewed the two-parent nuclear family as the most adaptive for a child (Parsons & Bales, 1955). Therefore, deviations from this family type in terms of single-parent or step-parent families are problematic for children (Bankston & Caldas, 1998; Battle, 1998; Ham, 2004; Marotz-Baden et al., 1979). With respect to academic adaptation, studies have documented links between single-parent families and low academic achievement (Kurdek & Sinclair, 1988; Milne et al., 1986), poor school attendance, low educational attainment and low grade point average (Astone & McLanahan, 1991; Heard, 2007). Researchers have provided several explanations for the impact of the single-parent family type on children's academic performance. Some studies have noted the impact of reduced socio-economic status associated with single parent families as a factor in determining academic performance and school engagement (Astone & McLanahan, 1991; Zill, 1996). Related to this, research has also suggested that maternal employment might determine the influence of single-parent families on academic performance (Beyer, 1995). Furthermore, it has been suggested that parents from single-parent families are less involved with their children's schoolwork (Astone & McLanahan, 1991; Kurdek & Sinclair 1988; Martinez & Forgatch, 2002).

Step-parent families have also been linked with academic disengagement and poorer academic performance (Astone & McLanahan, 1991; Kurdek & Sinclair, 1988; Jeynes, 1999). Specifically, this family type appears to impact on children negatively because of variation in parenting practices (Astone & McLanahan, 1991; Martinez & Forgatch 2002), reduced time spent with non-resident parents (Clarke-Stewart & Hayward, 1996; Hetherington & Stanley-Hagan; 1997; Lamb, 1999) and the heightened levels of family conflict associated with step-parent families (Dunn, 2002; Jeynes,

1999). Research has identified transitions between different family structures (e.g., two-parent to single-parent, single-parent to step-parent) as times of particular strain for children. These periods are marked by upheaval and conflict between family members, which children find stressful (Martinez & Forgatch, 2002; Dunn, 2002).

One particular family structure transition associated with marked negative effects in children is divorce. Children from divorced families are less productive in school (Kinard & Reinharz, 1986); they show lower cognitive competence (Forehand, McCombs, Long, Brody, & Fauber, 1988) and lower academic performance (Amato, 2001; Demo & Acock, 1988; 1996; Kinard & Reinherz, 1986). However, most of the effects of divorce on children's academic capabilities can be explained, not by the divorce itself but by factors associated with this event. The amount of contact with the non-resident parent and the quality of the relationship with the resident parent during this period of transition are particularly important for children's adjustment (Hetherington et al., 1982; Marotz-Baden et al., 1979). As mentioned earlier, research has also noted a connection between divorce and decreased socio-economic status (Amato, 1993; Demo & Acock, 1996) and the impact of socio-economic status on children's emotional and academic functioning has been widely recognized. However, this explanation is not sufficient to explain the effects of divorce on children because children in step-parent families who have experienced divorce tend to fare as badly as, and in some cases worse than, those from single-parent families even though their socio-economic status is higher (Amato, 1994; Jeynes, 1999).

Furthermore, evidence for the effects of divorce being explained entirely by reduced contact with the non-resident parent is not sufficient. Children who lose contact with a parent due to divorce and separation in particular are at a greater risk of adjustment problems than children who lose contact with a parent for other reasons

(Lynn, 1974). With respect to academic performance in particular, findings demonstrate that children who have experienced the death of a parent had lower levels of academic achievement than children from intact families; however, they had higher levels of achievement than children from divorced families (Amato & Keith, 1991), suggesting that it is the nature of the separation, not the separation per se which is important.

A further explanation of the effects of divorce on children is that of family conflict. This suggests that inter-parental and parent-child conflict can mediate the effects of divorce on children (Demo & Acock, 1988; Emery, 1982). In support of this, studies have found that divorces characterised by high levels of conflict are most damaging for children (Amato, 2001; Amato & Keith, 1991; Demo & Acock, 1988). In terms of academic performance, these types of divorce have been associated with lower levels of cognitive competence and academic performance (Amato & Keith, 1991; Demo & Acock, 1996; Forehand et al., 1988; Forehand et al., 1994). Furthermore, differences have been noted between high and low academic performance groups in terms of inter-parental and parent-child conflict (McCombs & Forehand, 1989).

Explanations of the effects of inter-parental conflict associated with divorce on children's academic performance include direct effects of conflict on children due to sensitisation to conflicted exchanges (as described by Cumming & Cummings, 1988; Davies & Cummings, 1994) and the impact of inter-parental conflict on parent-child relations (as outlined by Emery, 1982; Erel & Burman, 1995; McCombs & Forehand, 1989). However, how these explanations relate specifically to academic performance as opposed to psychological adjustment, or which explanation is most credible in this context has not been fully explored. Indeed, while there is a wealth of research investigating links between inter-parental conflict in the absence of divorce and

61

children's psychological adjustment, there has been very little investigation of the impact of the inter-parental relationship on children's functioning beyond the bounds of psychological adjustment, particularly with respect to academic attainment (Grych, 2001).

Some studies have demonstrated that low marital satisfaction has a negative impact on children's academic achievement (Feldman, Wentzel, Weinberger, & Munson, 1990; Westerman & LaLuz, 1995). However, while this research gives some indication of the impact of the inter-parental relationship on children, research suggests that inter-parental conflict rather than general satisfaction with the inter-parental relationship is particularly detrimental to children's adjustment (King, Radpour, Naylor, Segal, & Jouriles, 1995).

Several studies have documented links between marital discord and children's behaviour in school (Emery & O'Leary, 1984; Erath & Bierman, 2006; Marcus, Lindahl & Malik, 2001). However, there are even fewer studies assessing its impact on children's school adjustment (Sturge-Apple et al., 2006a, b) and their school grades (Doyle & Markiewicz, 2005; Harold et al., in press; Unger, McLeod, Brown & Tressell, 2000b). One study has provided some evidence that inter-parental and parent-child relations each make unique contributions to children's academic functioning (Belsky & Fearon, 2004). Findings suggested that children with positive experiences of both inter-parental and parent-child relationships functioned better cognitively and academically than those who only had positive experience of one of these relationships. This provides some indication that not all effects of the inter-parental relationship on children's academic capacities are transmitted through the parent-child relationship.

These few studies provide different explanations of the impact of inter-parental relations on children's adjustment in school. Some of this research suggests that inter-

parental conflict disrupts the nature of the parent-child relationship and parental involvement in schoolwork (Erath & Bierman, 2006; Sturge-Apple et al., 2006a, b; Unger et al., 2000b). Other research asserts that conflict impacts on children's emotional-cognitive processing of events, which has implications for their ability to function well at school (Marcus et al., 2001; Harold et al., in press). However, the aspects of the parent-child relationship and the types of processing considered vary greatly across these studies, making it difficult to draw any firm conclusions about the processes involved. These studies will be discussed further later in this chapter.

On the whole, few studies have adequately investigated the role of the inter-parental relationship in accounting for variation in children's academic performance. Research investigating children's psychological adjustment has repeatedly demonstrated that the inter-parental relationship not only orients other relationships within the family, it is also central to children's socio-emotional functioning. This work places emphasis on the child's own perspective in determining their psychological adjustment in the context of negative family relationships. There has been little, if any, systematic application of this research to understanding how children develop in the school context.

Exploring *how* Family Factors Impact on School Performance: From Family Effects to Family Process

As demonstrated in Chapter 1, research linking inter-parental relations to children's psychological adjustment has covered a wide spectrum of influences on children. While early research in the area tended to be outcome focused, placing emphasis on outcomes associated with certain variables, more recent research has placed emphasis on the need for a process-oriented approach to understanding links between marital conflict and children's adjustment problems (Fincham, 1994). This

process-oriented research stresses the need for understanding the intervening mechanisms that determine how children may be affected by inter-parental and parent-child relations and to what extent (Cummings & Davies, 2002). In response to this, literature concerning the impact of this relationship on children's psychological adjustment has explored various family conditions and relationships, paying particular attention to the cognitive and affective mediators of these influences (Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006; Grych et al., 2003; Harold et al., 2002; 2004). Findings in this area of research reveal a complex interplay of influences on psychological adjustment. Some of this work has provided evidence that effects of family relationships on children may occur across contexts. Moreover, effects are transferred to other contexts according to the general social rules that children might derive from witnessing exchanges within the family (Crick & Dodge, 1994; Forehand, Armistead, & Klein, 1995).

Studies specifically assessing family effects on children's academic adaptation have identified several important influences in this domain. This research suggests influences common to other aspects of child adjustment, such as divorce and socio-economic status are important to children's school performance but it also notes aspects of family life that are specific to school performance such as parental achievement expectations (Amato & Ochiltree, 1986) and parental involvement in schoolwork (Astone & McLanahan, 1991; Jeynes, 2007).

Research focusing specifically on the influence of family relationships on children's academic adjustment, in contrast to research making links between family relationships and psychological adjustment, is still in its infancy. While literature assessing the influence of the parent-child relationship on school performance has assessed the importance of various mediating factors (e.g., Ketsetzis, Ryan & Adams,

1998; Steinberg et al., 1989), there are few studies that recognise this relationship in the context of the wider family system. In particular there is little recognition of the role of the inter-parental relationship, independent of divorce and family structure, in orienting this and many other aspects of family life in relation to children's school-related outcomes (for exceptions see Harold et al, in press; Sturge-Apple et al., 2006 a, b). Literature considering the role of divorce has provided preliminary evidence for the association between inter-parental conflict and academic performance. However, with little empirical investigation of the mechanisms through which this association is explained, this research is still at the outcome-oriented stage. In order for this area of research to progress further, a more integrated and process-oriented approach is required. Future research should consider the mechanisms through which family relationships combine to inform adjustment in this context by building on work established in literature assessing children's psychological adjustment. In particular consideration should be given to the cognitive and affective mechanisms highlighted in the psychological adjustment literature and how these may relate to children's adjustment and performance in school (Harold et al., in press). Furthermore, influences inherent in the family environment must be considered as part of a wider ecological system rather than as isolated predictive factors (Bronfenbrenner, 1977; Cox & Paley, 1997; Minuchin, 1985).

Contextualising Family Effects: Familial Influences as Risk Factors

In order to contextualise family influences as they impact on children, many studies have considered these influences as indices of family stress. These have been conceptualised as a series of risk factors for poor adjustment in children (e.g., Belsky & Fearon, 2002; Rutter, 2000; Sameroff; 2000). These risk factors represent familial sources of stress for children, which put them at risk of adjustment problems. The

central premise of this approach is that, rather than individual risk factors being important, it is an accumulation of various negative events and experiences, which put children at risk of psychological, social and academic problems (Brookes-Gunn, Klebanov, Liaw, & Duncan, 1995; Furstenberg, Cook, Eccles, Edler, & Sameroff, 1999). Therefore, children with a greater number of risk factors present are more likely to display adjustment problems.

However, considering family influences as additive risk factors provides perhaps a too simplistic account of the effect of the family environment on children. Some studies have suggested that there is an increased risk for adjustment problems associated with a certain threshold of risk factors. In particular, an increase from three to four risk factors has been associated with steep increases in adjustment difficulties (Forehand, Biggar, & Kotchick, 1998; Rutter, 1979). It appears then that risk factors do not operate in a simple additive manner; instead, consistent with a family systems approach, stresses within the family potentiate one another such that the cumulative effect is greater than the sum of each risk factor considered separately (Forehand et al, 1998; Rutter, 1979). Furthermore, the nature of the risk-resilience process appears to differ for different outcomes being considered (Belsky & Fearon, 2002). It has also been suggested that there is a lack of specificity in particular family factors that put children at risk of maladjustment in this literature, which may be due to unmeasured risk factors or inconsistency in risk factors being assessed across studies (Coie et al., 1993). Risk factors that have been identified include divorce, parents' marital status, low social support, indices of socio-economic status and economic pressure, parental health, parental psychopathology, parent-child relations and inter-parental conflict (Belsky & Fearon, 2002; Blackson, Butler, Belsky, Ammerman, Shaw, & Tarter, 1999; Forehand et al., 1998; O'Connor, Hetherington, & Reiss, 1998).

Although few studies making family school connections acknowledge the role of inter-parental conflict, there is evidence that this relationship can serve as a source of acute stress for children. Lewis, Siegel and Lewis (1984) noted that, out of a list of 20 life events, parents arguing in front of their children was identified as the third worst by children. Furthermore, research has identified inter-parental conflict and marital quality as risk factors affecting children's psychological adjustment and their academic achievement (Belsky & Fearon, 2002; Forehand et al., 1998).

Studies have noted that inter-parental conflict is not simply an additional risk factor, it can be triggered by other familial influences such as divorce, economic pressure and emotional distress and it sets in motion a causal chain of events (Fincham et al., 1994; MacKinnon-Lewis & Lofquist, 1996). In this way inter-parental conflict may be accompanied by increased parental rejection or withdrawal (Easterbrookes & Emde, 1988; Erel & Burman, 1995; Gerard, Krishnakumar, & Buehler, 2006), changes in parents' mood and disruptions in implementation of parenting practices (Patterson, 1982). Therefore, not only is inter-parental conflict a distinct stressor in its own right, it can lead to a series of other negative familial events, which each put children at risk of adjustment problems.

As discussed in Chapter 1, there is a compelling body of literature providing evidence for the spillover of negative emotion from the inter-parental to the parent-child relationship (Erel & Burman, 1995). Collectively this research suggests that inter-parental relations characterised by conflict and hostility lead to hostility and/or emotional withdrawal in the parent-child relationship (Easterbrookes & Emde, 1988; Katz & Gottman, 1996; Volling & Belsky, 1991). Furthermore, parents may become preoccupied with problems in the inter-parental relationship, leading to inconsistent discipline for the child (Emery et al., 1984).

Though inter-parental conflict has been identified as one of many risk factors associated with academic underachievement (Forehand et al, 1998), only a small number of studies have noted links between inter-parental conflict and parent-child relations with respect to children's academic adaptation. First, some studies assessing the impact of divorce on academic attainment have suggested that effects are due to the impact of divorce on the quality of the parent-child relationship (Martinez & Forgatch, 2002). In particular, findings have demonstrated that divorced parents tend to be less emotionally available, less involved or consistent in their parenting and more hostile towards children and that this, in turn impacts on children's behaviour and performance in school (Hetherington et al., 1982; Marotz-Baden et al., 1979; Sturge-Apple et al., 2006 a, b). Consistent with this, some studies have noted links between general family-level conflict and children's social and emotional adjustment in school through the quality of the parent-child relationships (Adams, Ryan, Ketsetzis, & Keating, 2000; Kesetzis et al., 1998). The few studies that do exist assessing the effects of inter-parental conflict and parent-child relations on academic outcomes have demonstrated that inter-parental hostility and withdrawal impacted on children's school adjustment through parental emotional unavailability (Sturge-Apple et al., 2006a, b; Unger et al., 2000b). This suggests that the chain reaction initiated by conflict between parents affects children across contexts; not just in terms of psychological adjustment but also their school adjustment and academic achievement.

However, support for the parent-child relationship as a mechanism through which inter-parental conflict impacts on school adjustment and academic attainment has been inconsistent. Doyle and Markiewicz (2005) found that parenting mediated the influence of inter-parental conflict on internalising symptoms and externalising problems but failed to mediate the influence of inter-parental conflict on children's

school grades. Furthermore, a recent study conducted by Harold et al. (in press) demonstrated that when the parent-child relationship and children's appraisals of conflict are considered as competing mechanisms children's appraisals, rather than the parent-child relationship, provide a mechanism through which inter-parental conflict impacts on children's academic attainment. Therefore, as noted earlier, it is possible that the impact of familial risk factors and their relationship with other risk factors may vary according to the context being considered or the index of child adjustment being assessed (psychological versus social versus academic). This study is also the first, to the author's knowledge, to demonstrate the importance of appraisals relating to inter-parental conflict for children's academic attainment.

Overall, research assessing family-level risk factors for poor child adjustment, and the literature exploring family socialisation suggests that both inter-parental and parent-child relations are closely linked and have important implications for children. However, there is little research assessing the combined influence of these family relationships on children's ability to function well in the school setting. Furthermore, there is little understanding of the mechanisms through which these relationships inform children's behaviour and performance in school. In particular, there has been very little investigation of children's cognitive appraisals of these relationships as they relate to school adjustment, though the evidence that does exist suggests that appraisals are important to children's academic functioning. Therefore, mechanisms through which these family factors inform school adjustment must be considered further.

Family to School: The Transfer of Effects

Ryan and Adams (1995) provided a family-school relationships model in order to understand how effects might be conveyed from the family to the school context. In this model, family and school related factors are arranged along a distal-proximal

dimension such that children's school adjustment is placed at the centre and all factors

contributing to children's school adjustment were expressed concentrically surrounding

this. The influences range from the outermost level, which include exogenous

social/cultural and biological factors, to the most proximal level: child personal

characteristics. The models suggests that family factors with an intermediate level of

proximity, such as general family relations and parent-child relations affect children's

school outcomes through more proximal factors such as child personal characteristics.

These characteristics represent a wide range of personal qualities but of most relevance

to the present thesis are the two characteristics that have received a lot of attention in

the family socialisation literature: children's psychological adjustment and their

appraisals or attributional processes.

In support of this link between family and school domains through children's

personal characteristics, Forehand and colleagues (Forehand et al., 1995; Forehand &

Wierson, 1993) have argued that children's early experiences at home lay the

foundations for social exchanges and learning in the school context. So if problematic

behaviours and cognitions are established in this environment, then this can create

difficulties for children in the school context. Therefore, children's cognitions formed

in the family environment and their emotional and behavioural disposition may serve as

a mechanism for the transfer of effects to the school context.

Attributions and Academic Attainment

The first mechanism through which family relationships are proposed to

influence children's behaviour and performance in school is through the attributions

and cognitions they derive from family experiences, which may be applied to the

school setting. An explanation for the nature of links between attributions and

academic performance has been provided by Weiner (1974), who linked attribution

theory (see Heider, 1958) to motivation and achievement. This adapted framework emphasised causal attributions in particular, which were categorized along three dimensions: stability, controllability and locus of control. In this way the cause of a given event can be classified as stable if causes do not change over time or unstable if they do change. The cause can be perceived as controllable if it can be altered by the individual or uncontrollable if they cannot. Also, the cause can be perceived to have either an external or internal locus of control, depending on whether the event is due to factors internal or external to the individual. So academic ability, for example, can be classified as stable, internal but uncontrollable; effort is unstable, internal and controllable; and luck is unstable, external and uncontrollable.

Studies by Dweck and Repucci (1973), and Diener and Dweck (1978) have noted that children with the poorest performance and failure orientation with respect to academic performance are more likely to attribute failure to internal, stable attributions, such as ability (also discussed in Weiner, 1979). Alternatively, the most successful students appear to attribute success and failure to internal, unstable, controllable factors, such as effort (Dweck & Repucci, 1973; Platt, 1988).

Though these specific attributions do not correspond directly to the attributions and appraisals acknowledged in the family socialisation literature it is plausible that, consistent with work demonstrating that early family experience lays the foundations for behaviour and performance in other contexts, these attributional styles originate from early family socialisation (Crick & Dodge, 1994; Forehand et al., 1995). With respect to children's social cognitions, Crick and Dodge (1994) remark that early experiences initially chart the neural paths that will be traversed by cognitions relating to subsequent experiences. These pathways become more rigid over time, meaning that subsequent experiences have less capacity to change neural pathways and the related

cognitive styles. Therefore, early experiences have an enduring influence on subsequent appraisals and attributions made by an individual. As most early experience occurs within the family, attributional styles that are formed early in the child's life may be a mechanism through which family effects are conveyed to the school context. Some support for this link between family socialisation and attributions relating to achievement has been provided by Hokoda and Fincham (1995). This study demonstrated more sensitive and responsive parenting from mothers of children displaying mastery orientation to achievement than those than mothers of children who had a helpless orientation. Further to this, some studies have noted that parenting styles also inform children's attributions relating to the causes of academic achievement (Aunola et al., 2000).

Further evidence for the potential link between family experiences and academic attributions can be derived from literature considering attributions relating to inter-parental conflict. As discussed in Chapter 1, literature considering family socialisation has proposed that children actively try to understand conflict situations and respond according to this understanding (Davies et al., 2002; Davies & Cummings, 1994; Grych & Fincham, 1990; Harold & Conger, 1997). In this way, children witnessing the same conflict may interpret it differently according to their own appraisals. In particular children's appraisals of inter-parental conflict in terms of their feelings of threat, self-blame, coping efficacy and emotional security have been identified as important to explaining variation in psychological adjustment (Davies et al, 2002; Grych et al., 2003; Dadds et al., 1999). These appraisals bear some similarity to the causal attributions observed in Weiner's (1972; 1974) work. For example, children's tendencies to self-blame in response to inter-parental conflict have internal and stable and somewhat uncontrollable attributions about the causes of conflict. These

types of attribution are consistent with feelings of helplessness (Diener & Dweck, 1978; Dweck & Repucci, 1973). Children who experience feelings of threat in contrast perceive the causes of conflict to be external, stable and uncontrollable. The formation of these attributional styles, therefore, may lead to the formation of particular appraisals of social exchanges in other contexts, which may have deleterious effects on their efficacy in these specific settings.

Only one study has investigated the role of appraisals of conflict as a mechanism through which inter-parental conflict impacts on children in the school context (Harold et al., in press). Findings suggest that the attributional styles developed by children in response to inter-parental conflict play an important role in informing children's long-term academic performance over time. Specifically this study highlighted the unique impact of children's appraisals of self-blame in response to inter-parental conflict on their academic attainment over and above any effects exerted by the parent-child relationship.

Psychological Adjustment and Academic Achievement

The second mechanism through which family effects are transferred to children's school performance is via their psychological adjustment. As discussed at length in Chapter 1, there is a vast array of literature documenting the link between family factors and children's psychological well-being. Explanations of how psychological adjustment is related to other aspects of children's academic functioning differ. Research has documented links between psychological adjustment and other aspects of child functioning, whereby psychological maladjustment has a spillover effect, leading to social inadequacies and academic problems (Dodge & Pettit, 2003; Garber, Quiggle, Panak, & Dodge, 1991). However, there is also a competing suggestion that some adjustment problems may actually serve as protective factors

73

buffering children against other adjustment problems (Farrington, 1995; Masten et al, 2005; Moffitt, Caspi, Harrington, & Milne, 2002). As most research investigating the influence of inter-parental conflict and parent-child relations have considered internalising and externalising problems, research investigating the nature of links between these two indices of psychological adjustment and children's academic performance will be considered.

Links between externalising problems and academic performance have been repeatedly demonstrated. Research investigating these links suggests that children displaying high levels of externalising behaviour tend to perform less well academically than their peers (Adams, Snowling, Hennessy, & Kind, 1999; Hinshaw, 1992; Mingyue, Rengang, & Jian, 2001; Stormshak, Bierman, & the Conduct Problems Prevention Research Group, 1998). However, most of this research only reports covariation between behaviour problems and academic achievement, rather than asserting causal relationships between the two variables.

The few studies that do try to establish the direction of effects between these two factors provide mixed findings. There is some evidence that academic difficulties lead children to become frustrated and subsequently act out (Williams & McGee, 1994). However, most of the studies provide evidence that, on the whole, externalising problems impact on academic performance rather than vice versa. This research reveals links between high levels of externalising problems and a decline in academic performance over time (Jimerson, Egeland, & Teo, 1999). Also, there are a number of studies demonstrating that children's behaviour problems affect their ability to perform well in class (Egeland, Kalkoske, Gottesman & Erickson, 1990; Fergusson, Horwood, & Lynsky, 1993). These studies indicate that children with behaviour problems perhaps lack the concentration, attention and application required to perform as well as

their peers at school.

Research attempting to explain the relationship between internalising symptoms and academic performance has produced unclear results. On the whole there are fewer studies documenting links between internalising and academic achievement than there are showing links between externalising problems and academic achievement (Masten et al., 2005). Furthermore, some studies suggest that internalising symptoms inform academic performance (Kovacs & Devlin, 1998; Roeser, Eccles, & Sameroff, 2000) while other studies have suggested that the effects are in the opposite direction (Masten et al., 2005; Maughan, Rowe, Loeber, & Stouthamer-Loeber, 2003). Moreover, some studies have failed to find any significant links between internalising symptoms and academic performance (Cole, Martin, Powers, & Truglio, 1996). One possible explanation for these mixed results is the nature of the different profiles of symptoms that contribute to the concept of internalising. Internalising typically consists of scores on depression, anxiety and withdrawal. While this range of symptoms provides a global measure of affective symptoms, it may be too broad for assessing relations with academic achievement for several reasons.

Depression, anxiety and withdrawal all represent distinct problems in adaptation; an individual experiencing high levels of anxiety may not be experiencing high levels of depression and vice versa. As these problems are distinct, they may inform academic performance differently (or be affected by it differently). The majority of studies investigating the links between depression and academic achievement have found that high levels of depression lead to low academic performance (Bardone, Moffitt, Caspi, Dickson, & Silva, 1996; Haines, Norris, & Kashy, 1996; Roeser et al., 2000; Shahar et al., 2006). However, there have been mixed reports concerning these links, with some research suggesting no significant link

between depressive symptoms and children academic competence (Cole et al., 1996).

Inconsistencies in these findings may be due to heterogeneity of age groups

investigated, for example, Maughan et al. (2003) found links between reading ability

and depression in boys aged 7-10 years but not in teen-aged boys. Mixed findings may

also be a result of differences between clinical and normative samples, as there is more

evidence for clinical levels of depression impeding performance than sub-threshold

levels (see Masten et al., 2005).

Links between anxiety and academic performance are similarly mixed. Early

research concerning stress and performance suggests that the relationship between these

two factors differs according to the levels of stress experienced, such that stress can aid

performance up to a certain level but when stress levels go above a certain threshold

they can impede performance (Yerkes & Dodson, 1908). So certain levels of stress or

anxiety may be necessary in order to complete any given task. This suggests that

normative levels of anxiety may actually be useful in achieving academic goals,

whereas clinical levels of stress may hinder performance. In support of this research

has documented a positive association between anxiety in community samples and

academic competence (DiLalla, Marcus, & Wright-Phillips, 2004), yet clinical levels of

anxiety have been associated with achievement deficits (Bernstein & Borchardt, 1991).

It appears then, that although internalising is an important way to conceptualize

a cluster of psychological adjustment problems, grouping symptoms of anxiety,

depression and withdrawal in this way obscures understanding of the nature of the

relationship between these specific symptoms and academic competence. In normative

samples at least the relationship between depression and academic performance is

distinct from the relationship between anxiety and academic performance. In order to

understand the nature of the relationship between the symptoms that comprise

internalising symptoms and academic outcomes these components need to be considered as distinct symptom profiles.

Overall, it appears that a wide range of indices of psychological adjustment are related to children's academic application and attainment. However, the nature of these relationships varies according to the specific index of psychological adjustment being considered. Notwithstanding these differential effects, as psychological adjustment has been linked to disturbances in interparental and parent-child relations and is also associated with academic adaptation, psychological adjustment may offer a mechanism through which these family relationships inform academic outcomes.

Family Process and Academic Functioning: A Summary of Mechanisms

A review of the potential mechanisms through which family relationships inform children's academic functioning has highlighted several important factors. First, it has demonstrated that inter-parental conflict can lead to a spillover of negative emotion into the parent-child relationship. It can also affect children's subjective evaluations of conflicted exchanges, such as appraisals of threat and self-blame. Both parent-child relations and children's attributions relating to family relationships have documented effects on children's psychological adjustment in terms of internalising symptoms and externalising problems. Moreover, a limited number of studies have noted effects of these factors on children's academic adaptation (Harold et al., in press; Sturge-Apple et al., 2006a, b). Attribution styles and children's psychological adjustment have also been identified as mechanisms through which these experiences of family life affect children's adjustment and achievement in the school context.

However, while this evidence provides a detailed account of the intervening mechanisms through which family relationships affect behaviour and performance in school, these effects do not occur in isolation. Children's ability to function well at

school is also partly determined by the nature of the school environment. Aspects of this setting may also affect the extent to which these family processes impact on school adjustment. Therefore, in order to provide a truly process-oriented account of family-school connections, it is important to consider what aspects of this environment affect children and whether these factors might moderate the impact of family influences on children in this context.

An Integrated Perspective of Family-School Connections: The Role of School-Level Influences

There is evidence to suggest that many aspects of the school setting inform children's school performance (Coon, Carey, Fulkner & DeFries, 1993; Marchant, Paulson, & Rothlisberg, 2001; Pianta et al., 1997; Wentzel, 2002; Wright & Cowen, 1983). Generally, it appears that positive perceptions of school life are associated with better motivation, higher competence and fewer behaviour problems (Entwisle, Kozeki, & Tait, 1989; McEvoy & Welker, 2000; Rutter, 1983). Effects of school characteristics on children's peer acceptance and psychological adjustment have also been demonstrated (e.g., Chang, 2003). Areas receiving the most attention have been the role of teachers (Babad, 1993; Birch & Ladd, 1997; Juvonen & Wentzel, 1996) and the school environment (Coon et al., 1993; Marchant et al., 2001; Wright & Cowen, 1983).

Literature relating to characteristics of the school has found that school environment and climate have an impact on children's school functioning. Specifically, order and organisation in the classroom have been associated with children's affect, achievement, peer popularity and adjustment (Wright & Cowen, 1983). The social composition of the school, in terms of race, SES, school social structure and social climate also has implications for children's academic achievement (West, 1986). Furthermore, children's perceptions of the school as positive and nurturing and a

78

supportive social environment in school are associated with higher social and emotional functioning, academic competence, motivation and academic achievement (Marchant et al., 1997; Roeser et al., 2000). Children's perceptions of the school climate in terms of cohesion, friction, competition and overall satisfaction with classes have also been associated with children's conduct problems in school (Loukas & Robinson, 2004).

Studies have also highlighted the importance of the teacher-child relationship in determining child adjustment in this setting. Consistent with research highlighting the parent-child relationship as a primary source of socialisation (Collins et al., 2000) it appears that the teacher-child relationship exerts less influence on school adjustment outcomes in comparison to the parent-child relationship (Birch & Ladd, 1997). However, the teacher-child relationship informs a variety of aspects of children's adjustment in the school setting. In particular it affects children's school attitudes, their engagement with the school environment, their work habits and their academic performance (Birch & Ladd, 1997; Marchant et al., 2001; Pianta et al., 1997). Investigations of the impact of teachers' pupil management strategies on child adjustment suggest that teaching styles that involve high levels of control and responsiveness and low levels of negative feedback appear to have positive effects on children's school achievement (Marchant et al., 2001; Wentzel, 2002).

Research has also considered the effect of teacher's expectations and beliefs on children's social interactions within the classroom and their academic achievement. There is a compelling body of research suggesting that teachers' expectations of children's academic competence have a significant effect on their subsequent achievement (Brophy & Good, 1974; Jussim, Eccles, & Madon, 1996; Jussim & Eccles, 1992; Wentzel, 2002). Furthermore, teachers' attitudes to specific behaviours have an impact on classroom norms, which in turn affect students' assessments of each other

and themselves. In this way teachers act as social referents in the classroom context, giving other students information regarding rules and expectations and thus have an effect on how a child is evaluated by their peers (Chang, 2003).

It also appears that the affective quality of the teacher-child relationship is important. In particular, studies have demonstrated that high levels of conflict in the teacher-child relationship are associated with poor classroom behaviour and low academic performance. Conversely, warm and supportive relations with teachers are associated with higher levels of self-esteem and improved achievement levels in children (Birch & Ladd, 1997; Pianta & Stuhlman, 2004).

There is also some indication that teachers and other adults at school may offer some protection for children against the effects of negative experiences at home on their psychological and academic adaptation. Literature investigating protective factors buffering children against the effects of discord or divorce at home has noted that children who receive support from sources outside the home tend to fare better than children who do not (Cowen, Pedro-Carroll, & Alpert-Gillis, 1990; Emery & Forehand, 1994). Specific to the school environment, Kelly and Wallerstein (1977) identified warm and attentive relations with teachers as being associated with more positive adjustment in children who had experienced discord in the home. Children also appear to fare better academically in the face of divorce if their schools adopt a more authoritative teaching style (Hetherington, 1993).

It appears then that understanding connections between family relationships and school performance requires consideration of intervening mechanisms that originate from both family and school contexts. Children's appraisals of family relationships have been highlighted as mechanisms through which these relationships impact on children's internalising symptoms and externalising problems (Davies & Cummings,

1994; Grych & Fincham 1990; Harold & Conger, 1997). These indices of psychological adjustment have been differentially linked with academic performance, with externalising symptoms demonstrating the most robust negative effects (Adams et al., 1999; Hinshaw, 1992; Jimerson et al., 1999).

Literature exploring children's school outcomes has also suggested that the quality of the teacher-child relationship exerts significant effects on children's academic performance (Birch & Ladd, 1997; Hamre & Pianta, 2001; Pianta et al., 1997) and may protect children from the effects of negative family experiences (Kelly & Wallerstein, 1977). Therefore, consistent with Bronfenbrenner's (1977) Ecological Framework, both family and school contexts appear to combine to inform children's psychological and academic adjustment.

Summary of Chapters 1 and 2

The primary aims of Chapters 1 and 2 have been to collate research to date that concerns the influence of the family on children's behaviour and performance in school, to provide an overview of theoretical frameworks that allow more organised consideration of links between family and school domains and to highlight where further research is required. Chapter 1 provided a historical overview of literature relating to family effects of children's adjustment. It emphasised the importance of the main theories with respect to this: family systems, in particular ecological theory (Bronfenbrenner, 1977), as a broad framework for understanding the connected nature of influences within the family, and connections between family and school domains. Social information processing (Crick & Dodge, 1994) was also considered as a mechanism through which family effects inform child development and explain how these effects may be conveyed to settings other than the home. Further to this, Chapter 1 described the importance of inter-parental and parent-child relations in informing

children's psychological adjustment and that children's appraisals of these two relationships are of primary importance in understanding variation in children's adjustment. It also highlighted the lack of investigation of these processes with respect to school performance.

In light of this, Chapter 2 has highlighted the difference in focus between the family socialisation literature and family-school literature and outlined the key themes in research making family-school connections. It was noted, in particular, that the importance of the inter-parental relationship as architect of the family system and the role of children's perceptions, well documented in the family socialisation literature, has largely been overlooked in the family-school interface literature. It was also recognised that the inter-parental relationship and the parent-child relationship represent two important factors in a complex pattern of familial risk factors in which certain household events trigger causal chains of negative relationships and experiences. This chapter also sought to propose mechanisms through which effects of these family factors were conveyed to the school context. In particular, children's personal appraisals and attributions were proposed as a mechanism through which children's behaviour and performance in school may be affected by experiences in the family. It was also suggested that children's school performance may be affected by family experiences through children's psychological adjustment. In addition to this, Chapter 2 recognised that the way in which children's experiences of family life play out in the school environment may be affected by support received in the school environment and it placed emphasis on the importance of the teacher-child relationship as an influence on children in school.

These two chapters together provide a platform for several directions for further investigation. Bronfenbrenner's ecological theory (1977) outlined in Chapter 1 and

evidence discussed in Chapter 2 suggests that the family environment exerts significant influences on children's school adaptation, Chapter 1 highlighted the importance of inter-parental and parent-child relations for children's psychological adjustment and offered appraisals as mechanisms through which these relationships impact on children. However, Chapter 2 noted that few studies have considered the impact of the inter-parental relationship, in the absence of divorce, on behaviour and performance in school. Furthermore, very few studies have considered the internal appraisals highlighted as mechanisms explaining the impact of inter-parental and parent-child relations on children's psychological adjustment as described in chapter one as they might apply to the school context. Therefore, Chapter 2 identified ways in which children's psychological adjustment and their appraisals and attributions derived from the family environment might act as mechanisms through which inter-parental and parent-child relations inform school performance. Chapter 2 also recognised that the nature of relations between indices of psychological adjustment and academic performance may be complex and require further investigation. Additionally, Chapter 2 highlighted that, although the family setting is recognised as the primary site for child socialisation (Collins et al., 2000; Crick & Dodge, 1994), teachers and the school environment also have an important influence on behaviour and performance in school. Finally, Bronfenbrenner's ecological theory (1977) outlined in Chapter 1 identified ecological transitions such as school transitions as sensitive periods for children and, therefore, as times when family effects on school adaptation may be particularly important.

With a view to addressing these issues, three empirical chapters will follow. The first empirical chapter will address the lack of research applying the mechanisms identified in the literature concerning inter-parental conflict and child psychological

adjustment to the school setting by giving a broad appreciation of effects of family relationships on academic performance, considering the combined influence of inter-parental and parent-child relations. Using a three-wave longitudinal design this study will also assess the importance of children's perceptions of the parent-child relationship as a mechanism through which family effects are conveyed to the school setting. It will provide a broad view of school adaptation, assessing how teachers' reports of children's behaviour and children's application to schoolwork inform their subsequent exam results. Building on research that recognises the importance of support from outside the family, this chapter will also consider support from adults at school as a moderator of the influence of conflict and hostility at home on children's behaviour and performance in school. Variations with respect to gender will also be explored.

The second empirical chapter will extend the findings of the previous study by taking a more in-depth view of the nature of the influence of inter-parental conflict on children's academic outcomes. As there has been a distinct lack of research considering the role of children's appraisals when making family-school connections it will also introduce the role of child cognition in relation to both inter-parental and parent-child relations in order to understand effects on adjustment in this context. The properties of academic attainment as an outcome will also be explored, specifically investigating relations between indices of psychological adjustment and academic attainment. Analyses will assess the impact of inter-parental conflict on children's academic attainment using a longitudinal design. Specifically the study will consider the effects of inter-parental conflict on children's psychological adjustment via children's appraisals of threat, self-blame and parenting, and how indicators of psychological adjustment differentially inform academic attainment. Again, gender differences in these processes will also be considered.

Based on Bronfenbrenner's (1977) consideration of ecological transitions as sensitive periods in development, the final empirical chapter will review existing literature assessing family and school influences on sensitive periods of schooling when children are asked to make transitions from home to school or from one school to another. It will recognise the importance of these transitions in informing the children's academic adjustment and will propose that family influences may be particularly potent at these stages. Specifically, using data from a two-wave longitudinal study, this chapter will consider how transition affects a number of indices of child and family functioning before and during the transition process, it will also explore how the family processes considered in the preceding chapter inform children's psychological, social and academic adaptation during anticipation and negotiation of the transition from primary to secondary school.

Collectively, these studies should provide a clearer understanding of the processes through which inter-parental and parent-child relations contribute to children's behaviour and performance in school through a range of appraisal-based and adjustment-based mechanisms. They should also provide further insight into how family and school influences can combine to inform children's academic functioning. These analyses will not only further current empirical understanding of family-school connections, but also have direct application to practice and policy aimed at improving children's academic development. The findings from each study will carry practical implications for interventions directed at both family and school aimed at achieving these ends.

Two Longitudinal Studies

The analyses outlined above emphasise the importance of intervening mechanisms in explaining the effects of family relationships on children. They also

emphasise the need for investigation of the child's perspective in order to understand how these effects are conveyed. Furthermore, they highlight the importance of considering the combined influence of effects located in both family and school domains on children. These issues require investigation with the use of datasets with very specific properties. First, studies that speak to the processes through which one factor affects another, making predictions about the causal ordering of variables is best assisted by the use of longitudinal data, in which the variables of interest can be separated in time. Second, research assessing the child's perspective, as well as sources of influence on this such as the family context and the school context require multi-informant designs, in which information is provided from multiple perspectives. The use of several different reporters also reduces reporter bias and problems relating to error variance. Finally, the last study aims to assess how family effects on children in the school context may vary based on whether these children are undergoing school transition or not. These research questions, along with the specifications outlined above, require a particular type of sample, which allows children undergoing transition to be considered in comparison to children who are not.

Based on the issues outlined above, this thesis will use data derived from two longitudinal studies. The first, called the Welsh family study, assessed the influence of family factors on children's psychological, social and academic adjustment over three waves. The second, called the South Wales school transition study, assessed these factors in two cohorts of children: those making the transition from primary to secondary school and those completing their last two years of primary school. These will be described in detail below.

The Welsh Family Study

Data for the Welsh family study were collected between 1999 and 2004 (see

Grych et al., 2003; Harold et al., 2002; 2004 for published work using this dataset).

The primary focus of this study was to explore the processes through which children's

family environment determines variation in their emotional, behavioural and academic

development over time. Data were gathered from 387 families at the first wave of data

collection. Using questionnaire materials, children provided reports of their

experiences of family climate, economic pressure, inter-parental relations and parent-

child relations. Children also gave reports of their school life as well as their social,

emotional, behavioural and academic adjustment. Importantly, both mothers and

fathers provided data for this study. Parents responded to questionnaires concerning

similar aspects of family life as those completed by children and additionally provided

reports of their own psychological well-being and social support. They also provided

evaluation of their children's adjustment across a range of indicators. Teachers also

completed questionnaires concerning each child's adjustment and their application and

performance in school. Key Stage Three (KS3) and General Certificate of Secondary

Education (GCSE) exam results of children's in the study were also obtained. These

are nationally administered government set exams in key subjects completed by

children in year nine (KS3, aged 13-14 years) and year eleven (GCSEs, aged 15-16

years).

Sample

Schools were selected to take part in the study based on the socio-economic

profile of their "catchment area" to provide a cross section of schools representative of

families living in England and Wales at the time of data collection. Children in the UK

living in a specific geographic region are all members of the same "catchment area" and

are required to attend one of a prescribed list of schools. Demographic information on families living in any given school catchment can be accessed by postal code location (Office of National Statistics - UK). Of families who took part in all three waves of data entry, 75.9 % were both biological parent families, 10.9 % were single parent families and 11.0 % were step-parent families (2.2 % representing "other"). Demographic statistics calculated for this sample suggest the families involved in this study were representative of British families living in England and Wales at the time of the study with respect to parent education, family composition, ethnic representation and economic diversity (Social Trends, 2002). Specifically, 81.4% of mothers and 73.2% of fathers completed secondary or high-school education only, 41.8% of mothers and 35.0 % of fathers completed technical or vocational level training, and 42.4 % of mothers and 35.7 % of fathers completed university education. Additionally, 97.6% of the children in the study were of White-European origin, 1.5 % were of Indian, Sri-Lankan, or Pakistani origin, with the remaining .9 % being of non-British origin (e.g., East African, Jamaican).

Procedure

After contacting schools, letters were sent to parents offering them and their children the opportunity to participate in a study looking at links between children's experiences of family life and their well-being. In addition to this, parents were able to attend a presentation describing the study during a school parents' evening. Subsequently, parents received another letter describing the study in more detail and a consent form. No money was offered to families but parents were told that they would receive a booklet detailing the key findings of the study after all data were collected. Parents received their questionnaires through the post. Questionnaire packets contained instructions for completion, two packets of questionnaires (one each for mothers and

fathers), and stamped addressed envelopes for each parent to return when completed. Their questionnaires consisted of measures aiming to reflect the nature of family interactions, quality of the marital relationship, parent-child relations and child rearing, parents' symptoms of psychological well-being, work and financial issues, and their children's behavioural, social and emotional adjustment. Parents were asked to complete their questionnaires independently and a contact number was provided for questions or queries. Children completed their questionnaires as part of their ordinary school day. Items relating to the nature of the family environment, the relationship with their parents, the relationship between their parents, the school environment, social support and coping, and their behavioural, social and emotional adjustment comprised their questionnaire. As part of an overall debriefing, researchers discussed with children the benefits of successfully negotiating and resolving conflicts between individuals. Children were encouraged to speak about how they felt after completing their questionnaires. No concerns were raised by any children participating in the study. Teachers also filled in questionnaires providing information on children's academic achievement and their psychological and social adjustment. Three waves of data were collected at twelve-month intervals (1999, 2000, and 2001) and parents, teachers and children completed the same questionnaires at each time point.

The South Wales School Transition Study

The second dataset is derived from the South Wales school transition study. The central aim of this study was to examine how family influences inform children's anticipation and negotiation of transition from primary to secondary school. It followed 94 children from year five (aged 9 to 10 years) in spring 2006 to their final year of primary school in year six (aged 10 to 11 years) in spring 2007, capturing the build up to transition. Concurrently it followed 95 children from year six in spring 2006 to their

first year of secondary school (year 7, aged 11 to 12 years) in spring 2007, capturing

the period of transition. Children, mothers, fathers and teachers all provided responses

to questionnaires similar to those constructed for the Welsh family study; however, all

reporters also provided responses to questions relating specifically to anxieties and

expectations surrounding transition and resources that had been available to aid this

transition period.

Sample

Schools were selected to take part in the study based on the socio-economic

profile of their catchment area to provide a cross section of schools representative of

families living in England and Wales at the time of data collection. Of families who

took part in both waves of data entry, 75.5 % were both biological parent families, 11.7

% were single parent families and 8.5 % were step-parent families (3.2 % representing

"other"). Demographic statistics calculated for this sample suggest the families

involved in this study were representative of British families living in England and

Wales at this time in terms of parent education, family composition, ethnic

representation and economic diversity (Social Trends, 2007). Of the total sample,

86.26 % of mothers and 83.36 % of fathers completed secondary or high-school

education only, 32.82 % of mothers and 55.26 % of fathers completed technical or

vocational level training, and 39.00 % of mothers and 34.21 % of fathers completed

university education. As with the first study, this study had a low ethnic composition

with 98.48 % of mothers and 96.30 % of fathers being of White-European origin, .01 %

of mothers and .03 % of fathers were of Asian origin, and .01% of mothers and .01 %

of fathers were of Black-Caribbean or Black-African origin.

As described above, children who took part in the study were in one of two

cohorts, those in year five at Time 1 who were followed up in year six and Time 2 and

those in year six at Time 1 who were followed up in year seven at Time 2.

Procedure

Upon initial contact with schools, letters were sent to parents asking them and their children whether they would like to participate in a study investigating children's experiences of family life and their well-being and their feelings surrounding making the transition from primary to secondary school. Parents were provided with a contact number for further details relating to the study and a consent form was included. Parents who consented for their children to participate received their questionnaires through the post. Parent questionnaire packets contained instructions for completion, separate packets of questionnaires for mothers and fathers, and stamped addressed envelopes for each questionnaire to be returned when completed. Their questionnaires consisted of measures relating to the nature of family interactions, the quality of the inter-parental relationship, the parent-child relationship and parental child rearing strategies, parents' symptoms of psychological well-being, work and financial issues, and their children's behavioural, social and emotional adjustment. Parents were also asked to comment on their anxieties and expectations surrounding their child's transition to secondary school. Parents were asked to complete their questionnaires independently and were encouraged to use contact number if they had any questions or queries.

Children completed their questionnaires as part of their ordinary school day. Their questionnaires consisted of items relating to the nature of the family environment, their relations with their parents, the relationship between their parents, the school environment, social support and coping, and their behavioural, social and emotional adjustment. Children were also asked questions relating to their opinions, expectations and anxieties concerning the transition to secondary school. As in the previous study,

children were encouraged to speak about how they felt after completing their questionnaires and no concerns were raised by any children participating in the study. Teachers also filled in questionnaires providing information on children's academic achievement, their psychological and social adjustment and any programmes the school had in place to prepare children for secondary school.

<u>Summary of Datasets</u>

These two datasets have specific attributes that will facilitate investigation of the research questions outlined for each of the empirical chapters. The Welsh family study consists of three waves of data provided by parents, teachers and children, as well as children's key stage three exam results. This dataset will allow the investigation of the impact of family and school experiences on children's behaviour problems, application and exam results in school over time. As it this dataset uses a multi-informant design, providing information from parents, children and teachers, family relationships and children's adjustment can be assessed from different perspectives and within different contexts. This multi-informant approach will also reduce error and inflated associations that occur as a result of a single-reporter bias.

Assessing effects longitudinally will further reduce error variance associated with participants providing responses at a single time point, it also affords examination of how effects unfold over time and allows the possibility of asserting the temporal ordering of variables using practices such as autoregressive techniques, which allow the criterion variable to be considered as an index of change. These data will be used to explore the research questions highlighted in Chapters 3 and 4.

The South Wales school transition study is also multi-informant and has the potential for autoregressive techniques afforded in the Welsh family study. The study also uses the same multi-informant design used in the Welsh family study. This dataset

assessed children's experiences of family and school and their perceptions of transition

before and after their progression from primary to secondary school. The opportunity

that pre and post-transition assessment offer for research have been previously noted

(Bronfenbrenner, 1977). The child, and the contexts in which the child functions, can

be appraised prior to and post-transition, assessing the impact of the transition on the

child's development and on the systems involved. The dataset also provides a means

for assessing how children undergoing transition differ from children those not

undergoing this experience by comparing two cohorts of children: those making the

transition from primary to secondary school and those remaining in the primary school

setting for the duration of the study. It will also be possible to assess the contribution

that family and school influences make to children's ability to negotiate this period

successfully using the data from this study. These data will be used to investigate

questions relating to school transition as outlined for Chapter 5.

CHAPTER 3

The previous two chapters have provided a review of two lines of empirical investigation: that concerning the processes through which family relationships inform children's psychological adjustment and that investigating the effects of family influences on children's school-related outcomes. Literature described in the first chapter suggested that households marked by low socio-economic status (Conger et al., 1992; 1993), changes in family structure (Amato & Keith, 1991; Hetherington et al., 1998), parental psychopathology (Downey & Coyne, 1990) and disrupted parent-child relations (Erel & Burman, 1995) are associated with a broad range of psychological adjustment difficulties in children, including aggression, conduct disorder, anxiety and depression. Some of this literature also observes that a factor common to many of these family influences is conflict in both inter-parental and parent-child relationships. It has been argued that these two family relationships inform children's psychological and social adaptation (Davies & Cummings, 1994; Emery, 1982; Erel & Burman, 1995; Fauber & Long, 1991; Grych & Fincham, 1990). Moreover, research has placed emphasis on children's appraisals as a mechanism through which the influence of family discord on children's psychological well-being can be explained (Davies & Cummings, 1994; Grych & Fincham, 1990; Harold & Conger, 1997).

As described in the previous chapter, research making links between family influences and children's school-related outcomes has acknowledged the effects of similar family influences on children's academic performance (socio-economic status, McLoyd, 1998; divorce, Demo & Acock, 1996; McCombs & Forehand, 1989; the parent-child relationship, DuBois et al., 1994; Melby & Conger, 1996) with one exception: while recognising, to some extent, the importance of both inter-parental and parent-child

94

relations, this literature has provided little consideration of how children's appraisals of family relationships might explain variation in behaviour and performance in school (see Harold et al., in press for exceptions).

This first empirical chapter aims to address this by considering children's appraisals of the parent-child relationship as a mechanism through which inter-parental and parent-child relations contribute to children's behaviour and performance in school. Furthermore, Chapter 2 outlined the influence of the school environment on children's academic adaptation. In order to provide an integrated perspective of the family-school interface consistent with an ecological perspective (Bronfenbrenner, 1977), the present study will also consider how support from the school environment influences school adjustment and whether school support might buffer children against the effects of hostile family relationships on their behaviour and performance in school.

Inter-parental Conflict, Parent-Child Relations and Children's Psychological Adjustment

There is a well established history of literature recognising the potential negative impact of inter-parental discord on children (see Davies & Cummings, 1994; Emery 1982; Grych & Fincham 1990; Zimet & Jacob, 2001 for reviews). Two primary mechanisms through which inter-parental conflict impacts on children's psychological well-being have been identified: 1) via disturbances in the parent-child relationship, and 2) through the emotional responses and cognitive appraisals that children form following exposure to conflict.

Evidence for the first mechanism demonstrates that parents who are involved in discordant and hostile inter-parental relationships tend to also behave in a more hostile manner towards their children (Erel & Burman, 1995). Specifically, hostile exchanges between parents can spillover to adversely affect the quality of the parent-child relationship (Erel & Burman, 1995; Fauber & Long, 1991; Zimet & Jacob, 2001). Some researchers

have gone as far as to say that "it is at the site of parenting practices that conflict has its effect on children", suggesting that efforts to improve children's adjustment should, therefore, be directed at this level (Fauber & Long, 1991, p. 816). However, if inter-parental conflict only impacts on children through disturbances in the parent-child relationship then conflict should exert the same effects on children whether they are present to witness it or not (Emery et al., 1992). Yet children appear more adversely affected by conflict that they witness than by conflict that they do not (Cummings & Davies, 2002; Emery et al, 1992), thereby suggesting that inter-parental conflict exerts important direct effects on children.

In order to further understand this direct link between conflict and children's adjustment, researchers have considered another mechanism of influence, focusing on the role of children's cognitive appraisals, emotional responses and internal representations of the inter-parental relationship (Davies & Cummings, 1994; Grych & Fincham 1990; Harold & Conger, 1997). This research demonstrates that conflict between parents affects children's psychological well-being according to the child's own subjective evaluations of the implications of that conflict for their emotional security (Davies & Cummings, 1994) and according to their appraisals of the degree of threat posed by the conflict, their sense of responsibility for it and their ability to cope with it (Dadds et al., 1999; Grych & Fincham, 1990; Grych et al., 2003; Kerig, 1998a). Therefore, the child's perspective serves as a mechanism through which variation in children's psychological adjustment in the context of inter-parental conflict is explained. Furthermore, children's appraisals of inter-parental conflict not only orient immediate responses to conflict; they also inform children's long-term psychological adjustment (Davies et al., 2002; Grych et al., 2003).

In seeking to integrate and assess the respective roles of inter-parental and parent-child relations as well as children's appraisals in explaining the effects of family

relationships on children, Harold and colleagues (Harold & Conger, 1997; Harold, et al.,

1997) proposed a family-wide model. This model suggests that rather than considering

either mechanism in isolation, it is important to consider how both inter-parental *and*

parent-child relations contribute to adjustment. Specifically, these studies observed that

disturbances in inter-parental and parent-child relations co-occur and that children's

experiences of these relationships both inform their working models of relationships.

These interpretations of inter-parental and parent-child relations, in turn, impact on

children's psychological adjustment. Findings from these studies demonstrated that parent-

child relations exerted effects on child adjustment via child appraisals of this relationship.

Inter-parental conflict, however, affected child appraisals of conflict frequency, which in

turn affected their appraisals of the parent-child relationship and these appraisals were

related to children's psychological adjustment (Harold, et al., 1997; see also Buehler &

Gerard, 2002). These findings suggest that inter-parental conflict serves as a context for

disrupted appraisals of both the inter-parental relationship and the parent-child relationship.

This integration of inter-parental and parent-child mechanisms represents a step

forward in research concerning family process. However, further areas of investigation

require clarity. First, how do these processes affect children's adjustment in different

developmental contexts such as the school environment? Second, what gender differences

exist in the influence of these relationships and associated appraisals on children?

Gender Differences

Gender differences are apparent in the documented relations between inter-parental

conflict, parent-child hostility and child adjustment. Some studies have found that the type

of adjustment problems experienced by children differ according to gender, with boys

being more likely to externalise their distress in response to family conflict while girls

appear more likely to internalise it (Zahn-Waxler, 1993; Grych et al., 2003). Others have

found that the processes through which conflict and hostility at home inform child adjustment appear to be gender-differentiated, (see Davies & Lindsay, 2001; 2004; Kerig, 1998b). However, collectively there are inconsistencies in findings relating to gender differences, with few studies testing whether statistically significant differences exist between boys and girls in the effects of inter-parental conflict and parent-child hostility on child adjustment (Davies & Lindsay, 2001; 2004; Grych et al., 2003). Therefore, the nature of the differences in process for boys and girls warrants further investigation.

Family Influences Across Contexts: Implications for the Family-School Interface

Previous research examining the mechanisms through which inter-parental and parent-child conflict impact on children has focused on broad indices of psychological adjustment (internalising symptoms and externalising problems). In order to fully appreciate the effect of inter-parental and parent-child relationships on children it is important to consider how they affect children's ability to function across contexts. One context of primary importance in childhood is the school setting (Booth & Dunn, 1996; Ryan et al., 1995). Children spend a significant amount of time in this environment and their ability to perform well in school has implications for their functioning in later life, not just in predicting future academic success and transition to the work place but also levels of depression, alcoholism and violent or criminal behaviour (Ek et al., 2005; Guay et al., 2004; Kosterman et al., 2001; Pelkonen et al., 2003; Windle et al., 2005).

Research addressing the family-school interface has considered a variety of family influences on children's behaviour and performance in school. Studies have noted the influence of parenting practices (Aunola et al., 2000; Fang, Xiong & Guo, 2003), attachment quality (Jacobson & Hofmann, 1997; Moss & St-Laurent, 2001; Noom et al., 1999) and the affective quality of the parent-child relationship (Melby & Conger, 1996; Moss & St-Laurent, 2001) in explaining variation in children's academic adaptation. In

particular, parental hostility and rejection have been associated with a range of problems

for children in school, including school absences, poor scholastic self-perceptions and low

academic performance (Feldman & Wentzel; 1990; DuBois et al., 1994).

Though there has been little investigation of the impact of inter-parental conflict on

children's ability to function well at school (see; Harold et al., in press; Sturge-Apple et al.,

2006a, b for exceptions), the association between divorce and children's behaviour and

performance in school is well documented (Demo & Acock, 1996; Kinard & Reinharz,

1986; McCombs & Forehand, 1989) and some studies have suggested that the impact of

divorce on children's academic adaptation is a product of conflict in the family (Amato &

Keith, 1991; Demo & Acock, 1996; Long et al., 1988; McCombs & Forehand, 1989).

Studies that do exist assessing relations between inter-parental conflict and school-related

outcomes demonstrate that appraisals relating to conflict (Harold et al., in press) and

parent-child relations (Sturge-Apple et al., 2006a, b) provide mechanisms through which

inter-parental conflict informs children's academic adaptation.

School Influences on Children

Another important source of influence on children's school-related outcomes is the

relationships that exist in the school environment itself. Specifically, there is a compelling

body of evidence suggesting that the teacher-child relationship is particularly influential in

determining children's school adaptation. While this relationship appears to exert less

influence on school outcomes than the parent-child relationship (Birch & Ladd, 1997),

links have been documented between the quality of the teacher-child relationship and a

range of outcomes for children including behaviour problems (Hamre & Pianta, 2001),

academic skills (Pianta & Stuhlman, 2004), motivation (Harter, 1996), school attitudes

(Birch & Ladd, 1997), work habits and academic application (Birch & Ladd, 1997; Pianta

et al., 1997), and academic performance (Birch & Ladd, 1997; Hamre & Pianta, 2001;

Pianta et al., 1997).

From Outcomes to Processes: Mediators and Moderators of Family Influences on

Academic Outcomes

Research considering the family-school interface that is outlined above

acknowledges the importance of family relationships for understanding children's

behaviour and performance in school. However, understanding connections between

family relationships and school performance requires consideration of intervening

mechanisms that originate from both family and school contexts. As identified in the

family socialisation literature, the child's own perspective provides an important link

through which family relationships inform children's adjustment (Davies & Cummings,

1994; Grych & Fincham, 1990; Harold & Conger, 1997). In particular, children's

appraisals of inter-parental and parent-child relations have been highlighted as mediating

mechanisms through which these two relationships impact on children's internalising

symptoms and externalising problems (Davies & Cummings, 1994; Grych & Fincham

1990; Harold & Conger, 1997). There is preliminary evidence that children's appraisals

documented to explain variation in children's psychological adjustment may also be the

mechanisms through which family discord impacts on children's behaviour and

performance in school. These studies highlight the intervening role of the parent-child

relationship (Sturge-Apple et al., 2006a, b) and children's appraisals of conflicted inter-

parental relations (Harold et al., in press) in explaining the impact of inter-parental conflict

on school adjustment and academic attainment. Notwithstanding this handful of recent

studies, there has been little empirical investigation of how these family processes relate to

child and adolescent school adaptation.

Another mechanism through which family relationships impact on children's academic performance is through their psychological adjustment (Ryan et al., 1995). While evidence for associations between internalising symptoms and academic achievement has been inconsistent (Masten et al., 2005), there is a large body of literature documenting the contribution of children's externalising problems to their academic performance (Adams et al., 1999; Hinshaw, 1992; Jimerson et al., 1999). This relationship has been explained in terms of children with behaviour problems being less able to apply themselves in school, leading to a lack of engagement with material delivered in class (Jimerson et al., 1999). Few studies, however, have considered how psychological adjustment with respect to school outcomes fits into a wider framework of family and school influences (Ryan et al., 1995).

Children's application and goal-oriented behaviour has also been considered as a mechanism through which family relationships serve to inform academic attainment. Studies have suggested that family socialisation informs children's motivation to perform goal-directed behaviour in the school context (Ryan et al., 1995; Wentzel, 1999). Specifically, children who experience positive and supportive family relationships tend to report more interest in school work and more persistence and effort relating to school and homework, perhaps because these children are more likely to internalise adaptive goal orientations towards learning (Hokoda & Fincham, 1995). Adaptive goal orientations, such as intrinsic motivation and mastery orientation, are associated with increased effort aimed at understanding academic material and mastering the skills involved in the tasks, in turn, these efforts are associated with improved academic outcomes for children (Goldberg & Cornell, 1998; Gottfried, 1985; Morgan & Yang, 1995).

Wentzel (1999) argues that family socialisation influences on children's motivation and goal-directed behaviour also have important implications for the teacher-child

relationship, in that children's affiliation with teachers may lead to greater rule compliance and on-task behaviour. In support of this, studies suggest that warm, low conflict teacher-child relationships are associated with more appropriate behaviour in school and higher academic achievement (Birch & Ladd, 1996; Schaps, Battistich, & Solomon, 1997). Further to this, perceived support from adults at school has been associated with adaptive pursuit of academic goals and mastery orientation (Wentzel, 1997). There is also evidence to suggest that support from sources outside the home represent an important protective factor, which might buffer children against the effects of discord or divorce at home on their behaviour and performance at school (Cowen, Pedro-Carroll, & Alpert-Gillis, 1990; Emery & Forehand, 1994). Concerning the school environment particularly, Kelly and Wallerstein (1977) demonstrated that warm and attentive relations with teachers were associated with more positive adjustment patterns in children who had experienced parental divorce. Therefore, support children receive in the school environment may not only inform children's appropriate behaviour and academic application but it may also moderate the influence of family relationships on children's school-related outcomes by attenuating the effects of negative experiences at home on behaviour and performance in school.

Summary

The literature considered above suggests that inter-parental and parent-child relations are pertinent to understanding children's academic attainment (Buehler & Gerard, 2002; Harold & Conger, 1997; Harold et al., 1997). It also identifies several processes through which these relationships influence attainment. First, family socialisation research has emphasised the importance of children's appraisals of family relationships as a mechanism through which variation in children's adjustment outcomes can be explained (Grych & Fincham, 1990; Harold & Conger 1997). Second, literature making family-

school connections has identified externalising problems and academic application as mechanisms through which family relationships inform academic attainment (Ryan et al., 1995; Wentzel, 1999). Third, there is evidence to suggest that supportive teacher-child relations not only influence children's behaviour and performance in school but also may determine the impact of hostile family relations on children's ability to function in the school setting (Kelly & Wallerstein, 1977; Wentzel, 1999).

The Present Study

The present study employed a longitudinal design to investigate the impact of inter-parental conflict and parent-to-child hostility on children's academic adaptation (see Figure 1). It was proposed that academic application and children's externalising behaviour would serve as a mechanism linking these two family relationships to academic attainment. The role of children's appraisals of parent-child relations as a mechanism through which inter-parental conflict and parent-to-child hostility exert effects on children's academic application and their behaviour in school was also examined. In order to provide an integrated perspective of the family-school interface, the present study also assessed the role of school support as a moderator of links between distress in these two family subsystems and children's behaviour and application in school. Additionally, to assess whether processes differed by gender, models were estimated first together and then separately for boys and girls. It was hypothesised that children's appraisals of parent-child relations would provide a linking mechanism through which inter-parental conflict and parent-to-child hostility would impact on children's behaviour and application in school. It was also hypothesised that children's perceptions of support from adults at school would moderate the influence of inter-parental conflict, parent-to-child hostility and children's perceptions of parent-child relations on children's behaviour and application in school.

104

Inter-Parental
Conflict

Poor Academic
Application

Child Perceptions of
Parent-Child
Relations

Low Academic
Attainment

Parent-to Child
Hostility

Teacher Reports of
Behaviour Problems
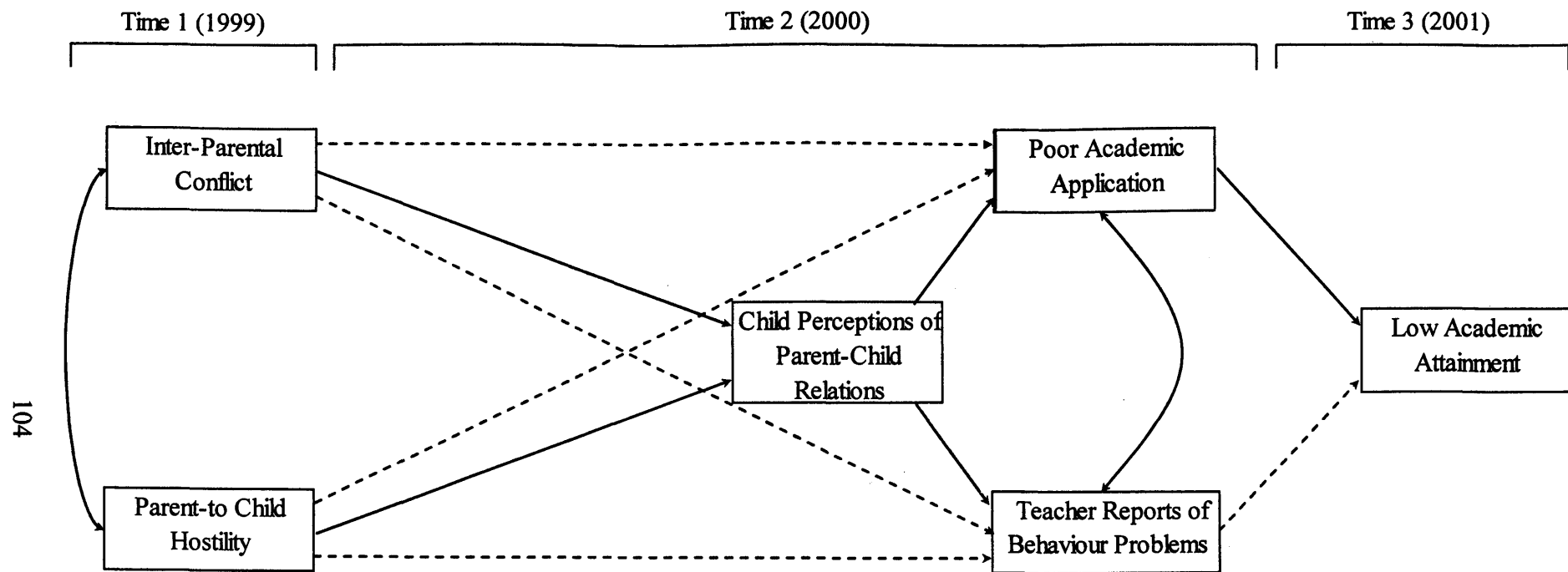
Figure 1: Theoretical model of the relationship between inter-parental conflict, parent-to-child hostility, teacher reports of behaviour problems, poor academic application and low academic attainment.

Method

Sample

The sample for the present study was derived from the Welsh family study described in Chapter 2 (refer to this chapter for a more detailed description of the sample and procedure). Due to the nature of the questions being asked in this study, the subsample used for the current analyses only included households that consisted of two adults (two-parent families, 91.3%; stepparent families, 8.7%). In this subsample 99.5% of the children were of White-European origin and 0.5% were of Indian or Sri Lankan origin. The combined sample of children, parents and teachers who provided complete data for all three time points (1999, 2000, 2001) equalled 208 cases (girls = 107, boys = 101). Ages ranged from 11 to 13 years (mean = 11.66 years, $SD = .48$) at Time 1 (1999).

There were three significant differences between measures provided by children for whom there was complete data and those for whom there was not. Children who provided complete data had significantly improved exam scores (t (458) = 4.83, $p<.01$), poor academic application (t (408) = 6.10, $p<.01$) and lower levels of behaviour problems (t (431) = 3.71, $p<.01$).

Measures

Inter-Parental Conflict

Two indices of inter-parental conflict were used to assess parent reports of inter-parental conflict: a subset of questions relating to inter-parental hostility taken from the Iowa Youth and Families Project ratings scales (IYFP; Melby et al., 1993) and the O'Leary Porter Scale (Porter & O'Leary, 1980). The IYFP measure consists of four questions, including: "During the past month, how often did your husband/wife/partner 1) get angry at you 2) Criticise you or your ideas". Responses for this scale range between one ("Always") and seven ("Never"). Items for this measure were recoded so that high scores

reflected high conflict. Reports from this measure demonstrated a good reliability estimate (mothers α =.88 and fathers α =.90). The O'Leary Porter Scale (Porter & O'Leary, 1980) was used to measure inter-parental conflict occurring in the presence of the child; it is a 10 item scale and includes questions such as: "How often would you say you and your spouse/partner argue over money matters in front of this child?" and "How often do you complain to your spouse/partner in front of his child?" Responses for this scale range between one ("Never") and five ("Very often"). The internal consistency estimates for this scale were good (mothers, α =.83; fathers, α =.79). These two scales were combined to give an overall measure of inter-parental conflict (α =.92).

Parent-to-Child Hostility

This was measured using parent reports of their hostility towards their children, assessed by a subset of questions relating to parent-child hostility taken from the IYFP rating scales (Melby et al., 1993). This measure consists of four questions, including: "During the past month, how often did you 1) get angry at him/her 2) criticise his/her ideas". Responses for this scale range between one ("Always") and seven ("Never"). Reports from this measure demonstrated good internal consistency (mothers, α = .83; fathers, α = .86; combined, α = .85).

Child Perceptions of Parent-Child Relations

Children's perceptions of parent-child relations were measured using the Rejection and Withdrawal of Relations subscales of the Child Report of Parental Behaviour Inventory (CRPBI; Margolies & Weintraub, 1977). These subscales consisted of seven and five items respectively and included questions such as: "My mum/dad forgets to help me when I need it" (Rejection) and "My mum/dad is less friendly with me if I don't see things his/her way" (Withdrawal of Relations). Responses were of the form "True", "Sort of True" or "Not True". Items for this measure were coded such that high scores reflected poor parent-

child relations. Both subscales showed good internal consistency for mothers (Rejection, α = .88; Withdrawal of Relations, α = .84) and for fathers (Rejection, α = .86; Withdrawal of Relations, α = .82). These subscales were combined to give an overall measure of child perceptions of parent-child relations (α = .94).

School Support

Children's perceptions of support from adults at their school were assessed using a subset of questions from the 'My School' scale from the IYFP Ratings Scales (Melby et al., 1993). The measure assesses children's attitudes towards adults at their school and their appraisals of the extent to which adults at their school are dependable, supportive and positive towards them. The current study aimed to consider the potential buffering role of general warm and positive relations between children and adults at school. This aspect of the teacher-child relationship has been noted as particularly beneficial for children (Birch & Ladd, 1997; Pianta & Stuhlman, 2004). The subset of questions used for the present study reflected aspects of general warmth and closeness in relations between children and adults at school, items pertaining to help with schoolwork related problems and specific personal problems were not included. This subscale consisted of seven items, which included "Most of the adults at my school care about me" and "I like the adults at my school". Responses took the form "Yes", "Don't Know", "No". A good internal consistency estimate was attained for this scale (α = .90).

Teacher reports of behaviour problems

This construct consisted of teacher reports of children's aggression and delinquency, which were assessed using the aggression and delinquency subscales of the Teacher Report Form (TRF) of the Child Behaviour Checklist (CBCL; Achenbach, 1991). Example items from these subscales are "Argues a lot" (Aggression) and "Lying or cheating" (Delinquency). The response scales ranged from zero to two (0 = "Not true of

the child", 1 = "Somewhat/sometimes true of the child", 2 = "Very/often true of the child"). Good internal reliability estimates were attained for both subscales (α =.95 and α =.70 respectively) and these were combined to give an overall measure of teacher reports of child behaviour (α = .95).

Poor Academic Application

Teachers were asked to report on each child's level of application at school compared to other pupils of the same age. This measure comprised two questions: "How hard is s/he working?" and "How much is s/he learning?" The response scale ranged from one ("Much less") to seven ("Much more"). A good internal consistency estimate was established for these questions (α = .95). Scores were recoded so that high scores reflected poor academic application.

Low Academic Attainment

End-of-year examination grades (Key Stage 3) in three core subject areas (English, maths and science) were used to measure academic attainment. Key Stage 3 exams are national tests in core subjects that all British school students sit at the end of their third year of secondary school (aged 13 or 14 years). This measure of academic attainment was used because it carries practical significance for children as it may be used to determine, based on ability, the class that they are placed in for core subjects for the rest of secondary school. It also gives the most objective measure of their performance since their first year of secondary school. As these are national tests graded by external examiners they are also free from reporter bias. Grades for these exams are given in the form of numeric scores between one and seven, seven representing the highest level of attainment and one representing the lowest. Exam scores were recoded so that high scores reflected low academic attainment. The internal consistency score for this measure was good (α = .87).

Table 1: Means, standard deviations and intercorrelations among all study variables

	1.	2.	3.	4.	5.	6.	7.
1999							
1. Inter-parental conflict	1.00						
2. Parent-to-child hostility	.45**	1.00					
2000							
3. Children's perceptions of parent-child relations	.29**	33**	1.00				
4. School support	-.22**	-.30**	-.24**	1.00			
5. Teacher reports of behaviour problems	.16*	.32**	.27**	-.26**	1.00		
6. Poor academic application	.26**	.37**	.31**	-.32**	.66**	1.00	
2001							
7. Low academic attainment	.17*	.23**	.25**	-.15*	.41**	.61**	1.00
Mean	.00	12.27	34.71	7.89	.75	5.53	6.46
SD	14.07	6.44	9.96	3.72	1.06	2.83	2.70

Note. N = 208
*p<.05, **p<.01.

Table 2: Means, standard deviations and Intercorrelations among all study variables for boys (N = 101) and girls (N = 107) separately

	1.	2.	3.	4.	5.	6.	7.
1999							
1. Inter-parental conflict	-	.46**	.27**	-.32**	.16	.23*	.12
2. Parent-to-child hostility	.45**	-	.33**	-.28**	.19ᵃ	.26**	.13
2000							
3. Children's perceptions of parent-child relations	.32**	.33**	-	-.28**	.37**	.33**	.22*
4. School support	-.07	-.32**	-.17	-	-.12	-.29**	-.19*
5. Teacher reports of behaviour problems	.18	.44**	.16	-.37**	-	.54**	.41**
6. Poor academic application	.32**	.48**	.26**	-.33**	.68**	-	.59**
2001							-
7. Low academic attainment	.24*	.33**	.27**	-.082	.41**	.66**	
Boys' Mean	.00	23.52	36.00	7.58	1.01	6.37	6.60
Boys' Standard deviation	13.54	6.14	10.30	3.52	1.19	3.11	2.72
Girls' Mean	.00	23.03	33.49	8.18	.50	4.73	6.33
Girls' Standard deviation	15.16	6.73	9.53	3.90	.86	2.28	2.69

Note. Boys below the diagonal, girls above.
ᵃp<.10. *p<.05. **p<.01.

Results

Preliminary Analysis

Tables 1 and 2 contain means, standard deviations and correlations for all study

variables. The correlations across constructs are consistent with the proposed theoretical

model. Measures of inter-parental conflict correlated with measures of

parent-to-child hostility ($r = .45, p < .01$). Both conflict and hostility correlated with

behaviour problems and poor academic application (inter-parental conflict and behaviour

problems, $r = .16, p < .05$; inter-parental conflict and poor academic application, $r = .26$,

$p < .01$; parent-to-child hostility and behaviour problems, $r = .32, p < .01$; parent-to-child

hostility and poor academic application, $r = .37, p < .01$). In turn, behaviour problems and

poor academic application were related to low academic attainment ($r = .41, p < .01$ & $r = $

.61, $p < .01$ respectively).

Model Tests

Structural equation modelling (LISREL 8.50; Joreskog & Sorbom, 1996) using

maximum likelihood estimation was employed to test the validity of the proposed

theoretical model. Model tests were conducted in four stages. The first stage provided

initial tests of the impact of inter-parental conflict (Time 1) and parent-to-child hostility

(Time 1) on academic performance (Time 3). The second stage tested the roles of

behaviour problems (Time 2) and children's poor academic application (Time 2) in

explaining the influence of inter-parental conflict (Time 1) and parent-to-child hostility

(Time 1) on academic performance (Time 3). The third stage tested the role of child

perceptions of the parent-child relationship (Time 2) in explaining the influence of inter-

parental conflict (Time 1) and parent-to-child hostility (Time 1) on teacher's reports of

behaviour (Time 2) and children's poor academic application (Time 2). The final stage of

analysis tested the moderating role of school support (Time 2) in determining the impact of

inter-parental conflict (Time 1) and parent-to-child hostility (Time 1) and child perceptions of parent-child relations (Time 2) on poor academic application (Time 2) and behaviour problems (Time 2).

Initial Effects Tests

The first model tested the influence of inter-parental conflict and parent-to-child hostility on low academic attainment two years later. Though inter-parental conflict shared an initial bivariate correlation with low academic attainment ($r = .17, p<.05$), there was no significant relationship between these two variables once parent-to-child hostility was included in the model ($\beta = .09, p>.05$). There was, however, a significant association between inter-parental conflict and parent-to-child hostility ($r = .45, p<.01$) and a significant path between parent-to-child hostility and low academic attainment ($\beta = .19$, $p<.05$). Therefore, according to the criteria set out by Baron and Kenny (1986), the relationship between inter-parental conflict and low academic attainment was mediated by parent-to-child hostility. In support of this, indirect tests (see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002) confirmed that the indirect path between inter-parental conflict and low academic attainment via parent-to-child hostility was significant ($\beta = .10$, $p<.05$). This model produced a perfect fit to the data, which results from all unknown parameters relative to degrees of freedom being estimated (i.e., the model is fully saturated).

The Roles of Poor Academic Application and Behaviour Problems

The second model (Figure 2) tested the intervening roles of poor academic application and behaviour problems in the influence of inter-parental conflict and parent-to-child hostility on later low academic attainment. Again there was no significant path between inter-parental conflict and low academic attainment ($\beta = .02, p>.10$). There was also no significant relationship between inter-parental conflict and poor academic
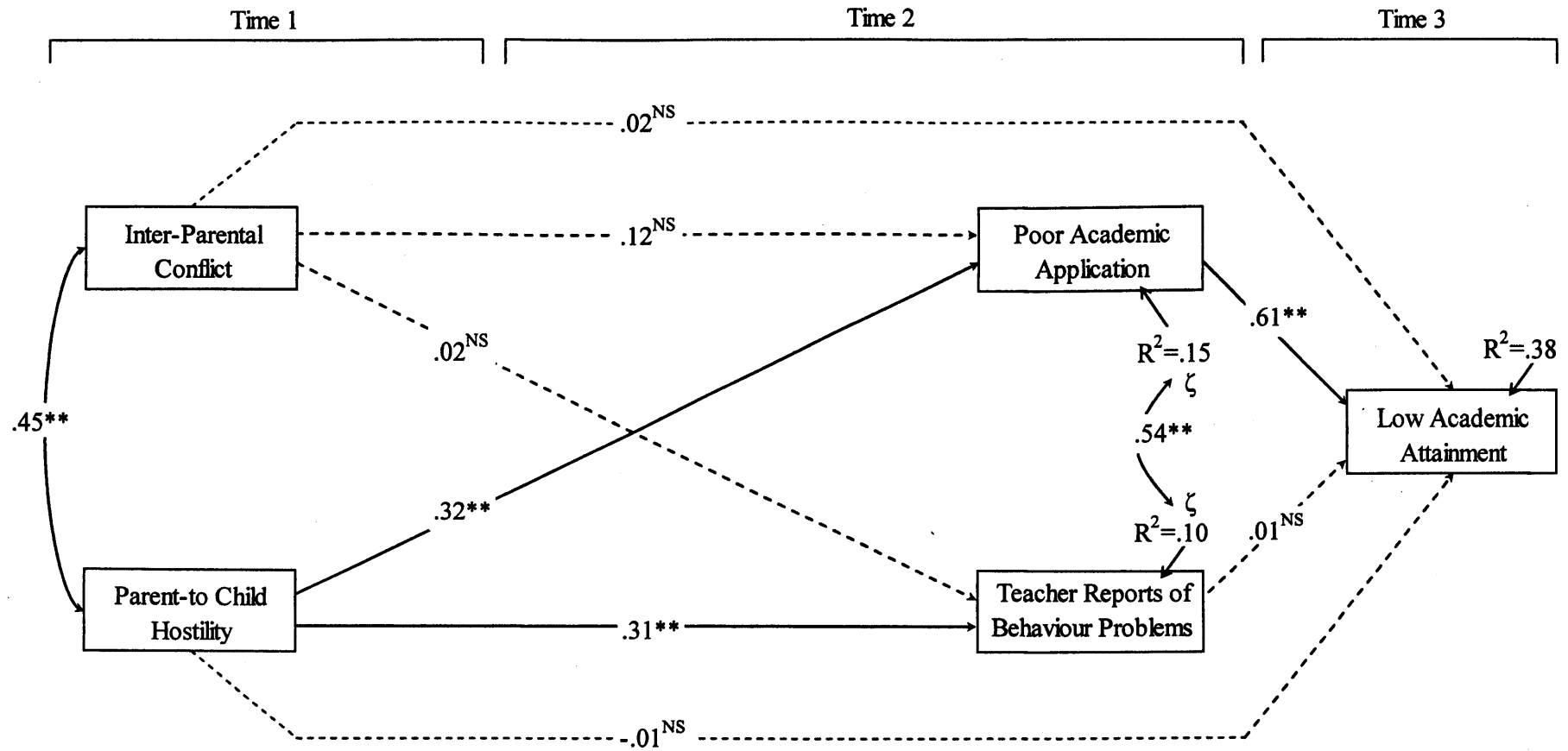
Figure 2: The mediating roles of poor academic application and teacher reports of behaviour problems in the relationship between inter-parental conflict, parent-to-child hostility, and children's low academic attainment *$p<.05$, **p

application (β = .12, p>.10) or between inter-parental conflict and behaviour problems in this model (β = .02, p>.10). The pathway between parent-to-child hostility and low academic attainment was no longer significant in this model (β = -.01, p>.10). However, there was a significant path between parent-to-child hostility and poor academic application (β = .32, p<.01) and a significant path between poor academic application and low academic attainment (β = .61, p<.01), suggesting that poor academic application mediated the initial relationship between parent-to-child hostility and low academic attainment. There was also a significant path between parent-to-child hostility and behaviour problems (β = .31, p<.01) but no significant direct relationship between behaviour problems and low academic attainment (β = .01, p>.10). However, there was a significant association between poor academic application and behaviour problems (r = .54, p<.01), and behaviour problems were significantly related to low academic attainment when poor academic application was absent from the model (β = .37, p<.01), suggesting that poor academic application mediated the relationship between teacher reports of behaviour problems and low academic attainment; therefore providing a further indirect mechanism through which parent-to-child hostility was related to low academic attainment. In support of this, indirect effects tests revealed that there was a significant indirect pathway between parent-to-child hostility and low academic attainment through poor academic application (β = .22, p<.05) *and* a marginally significant pathway between parent-to-child hostility and low academic attainment through behaviour problems and poor academic application (β = .12, p<.10). Again, the model provided a perfect fit to the data due to all unknown parameters relative to degrees of freedom being estimated.

Stacked model comparisons (Bollen, 1989) revealed two gender differences in the pattern of relations in this model. In the boys' model there was a significant pathway between parent-to-child hostility and poor academic application (β = .42, p<.01) but this

effect was only marginal in the girls' model (β = .20, $p<.10$, $\Delta\chi^2$ = 5.61, $p<.05$). There was also a significant pathway between parent-to-child hostility and behaviour problems for boys (β = .45, $p<.01$) but not for girls (β = .14, $p>.10$, $\Delta\chi^2$ = 7.95, $p<.01$), suggesting direct effects of parent-to-child hostility on boys' behaviour problems and poor academic application but not on girls'.

The Role of Children's Perceptions of Parent-Child Relations

The third model (Figure 3) tested the intervening role of children's perceptions of the parent-child relationship in the influence of both inter-parental conflict and parent-to-child hostility on children's poor academic application and their behaviour problems. As there were no significant direct effects of either inter-parental conflict or parent-to-child hostility on children's low academic attainment in the previous model, these paths were taken out for this stage of analyses to provide a more parsimonious model. Significant paths were found between parent-to-child hostility and child perceptions of parent-child relations (β = .25, $p<.05$); child perceptions of parent-child relations and poor academic application (β = .20, $p<.05$); and child perceptions of parent-child relations and behaviour problems (β = .19, $p<.05$). There was no significant path between child perceptions of parent-child relations and low academic attainment (β = .07, $p>.10$). However, significant paths remained between parent-to-child hostility and poor academic application (β = .27, $p<.05$) and between parent-to-child hostility and behaviour problems (β = .26, $p<.05$). Therefore, child perceptions of parent-child relations appeared to partially mediate the impact of parent-to-child hostility on both poor academic application and behaviour problems. In confirmation of this, indirect effects tests demonstrated that parent-to-child hostility was also significantly indirectly related to low academic attainment via these two pathways (β = .04, $p<.05$ and β = .04, $p<.05$ respectively). There

Time 1 Time 2 Time 3

Inter-Parental Conflict

Poor Academic Application

$.08^{NS}$

.18*

-.01^{NS}

.20*

$R^2=.10$

$R^2=.18$

ζ

.59*

$R^2=.38$

.45**

Child Perceptions of Parent-Child Relations

Low Academic Attainment

.27*

.07^{NS}

.51**

.25*

.19*

ζ

Parent-to Child Hostility

$R^2=.10$

.00^{NS}

.26*

Teacher Reports of Behaviour Problems

Df = 2
$\chi^2 = 0.08$
RMSEA = 0.0
GFI = 1.00
AGFI = 1.00

115
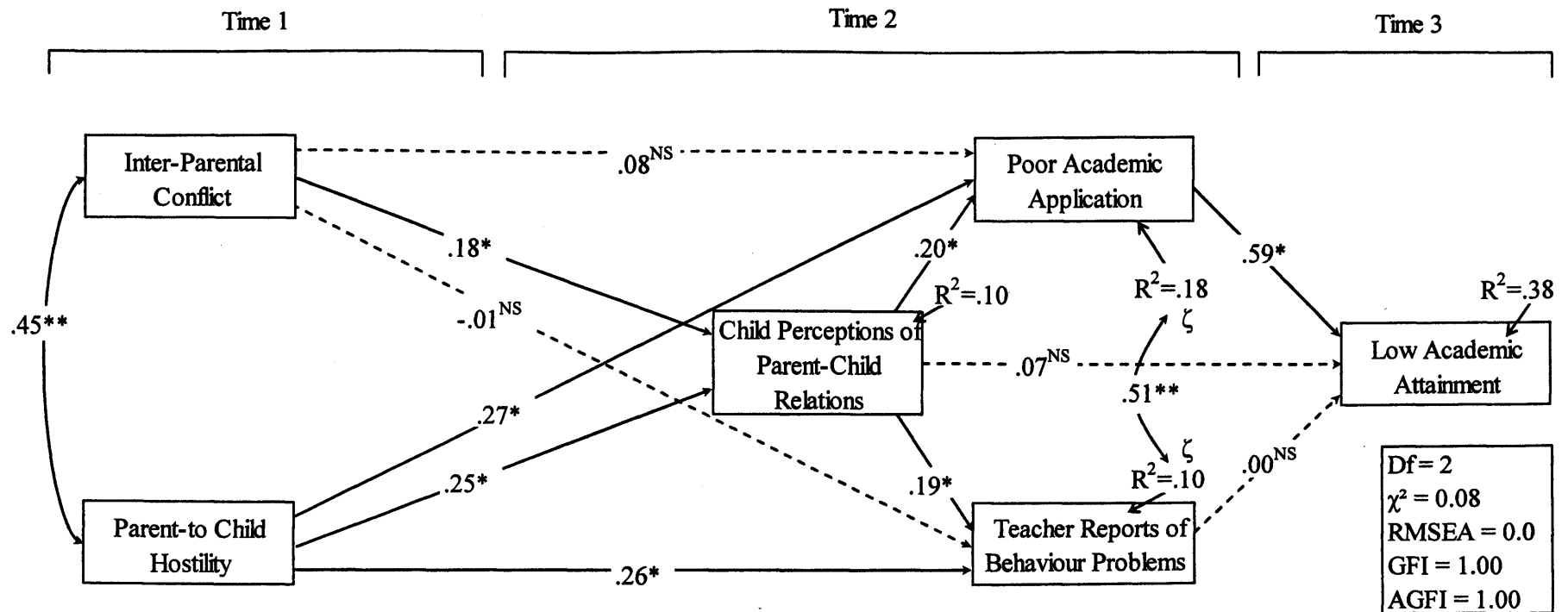
Figure 3: The mediating role of children's perceptions of parent-child relations in the influence of inter-parental conflict, parent-to-child hostility on poor academic application, teacher reports of behaviour problems and children's low academic attainment *$p<.05$, **$p<.01$.

was also a significant path between inter-parental conflict and child perceptions of parent-child relations (β = .18, p<.05). Indirect effects tests revealed that inter-parental conflict was marginally indirectly related to low academic attainment in this model through child perceptions of parent-child relations and poor academic application (β = .03, p<.10), and through child perceptions of parent-child relations, behaviour problems and poor academic application (β = .03, p<.10). The Fit indices confirmed that this model was a good fit to the data (χ^2 = .08; RMSEA = .00; GFI = 1.00; AGFI = 1.00).

Some gender differences were identified in the pattern of relationships. The pathway between child perceptions of parent-child relations and behaviour problems was significant for girls (β = .34, p<.05) but not for boys (β = .03, p>.10, $\Delta\chi^2$ = 8.86, p<.01). There were also significant differences for paths between parent-to-child hostility and poor academic application and between parent-to-child hostility and behaviour problems. Both pathways were significant for boys (β = .40, p<.01; β = .44, p<.01 respectively) but not for girls (β = .13, p>.10, $\Delta\chi^2$ = 6.61, p<.05; β = .06, p>.10, $\Delta\chi^2$ = 10.31, p<.01 respectively). Again, this demonstrates the direct effect of parent-to-child hostility on behaviour and application for boys but not for girls. For girls effects were through their perceptions of parent-child relations.

The Moderating Role of School Support

The final model (Figure 4) tested the moderating role of school support in determining the degree of impact that inter-parental conflict, parent-to-child hostility and children's perceptions of parent-child relations had on poor academic application and behaviour problems. Interaction terms were centred in accordance with guidance provided by Aiken and West (1991). There were main effects of school support on poor academic application (β = -.20, p<.05) and behaviour problems (β = -.15, p<.05). School support

116
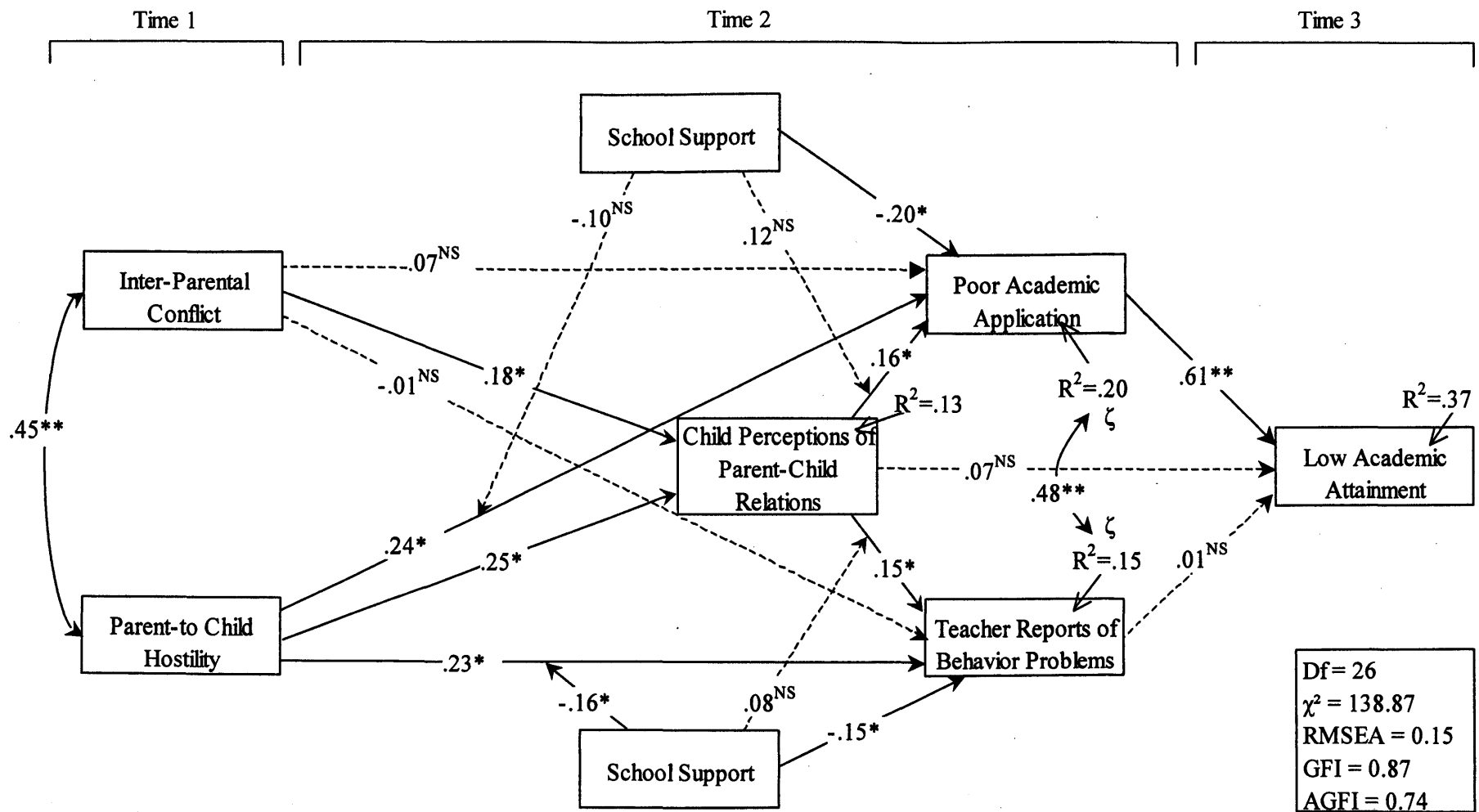
Figure 4: The moderating role of school support on the influence of inter-parental conflict, parent-to-child hostility on poor academic application, teacher reports of behaviour problems *p<.05, **p<.01.

117

also moderated the relationship between parent-to-child hostility and behaviour problems

($\beta = -.16$, $p<.05$). The fit statistics suggested that this model was poorer fit to the data than

previous models ($\chi^2 = 138.87$; RMSEA = .15; GFI = .87; AGFI = .74); however, the poor

fit is an artefact of the increased number of non-

specified pathways in this model, which are due to the inclusion of the interaction terms.

Simple slope analyses were conducted to assess the nature of the moderating effect

of school support on the impact of parent-to-child hostility on behaviour problems (Aiken

& West, 1991). The effect of parent-to-child hostility on behaviour problems was plotted

for low (one standard deviation below the mean), medium (mean) and high (one standard

deviation above the mean) levels of school support (see Figure 5). The relationship

between parent-to-child hostility and teacher's reports of behaviour problems was not

significant at high levels of school support ($\beta = .07$, $p>.10$). It was significant at medium

and low levels ($\beta = .21$, $p<.01$ and $\beta = .36$, $p<.001$ respectively).
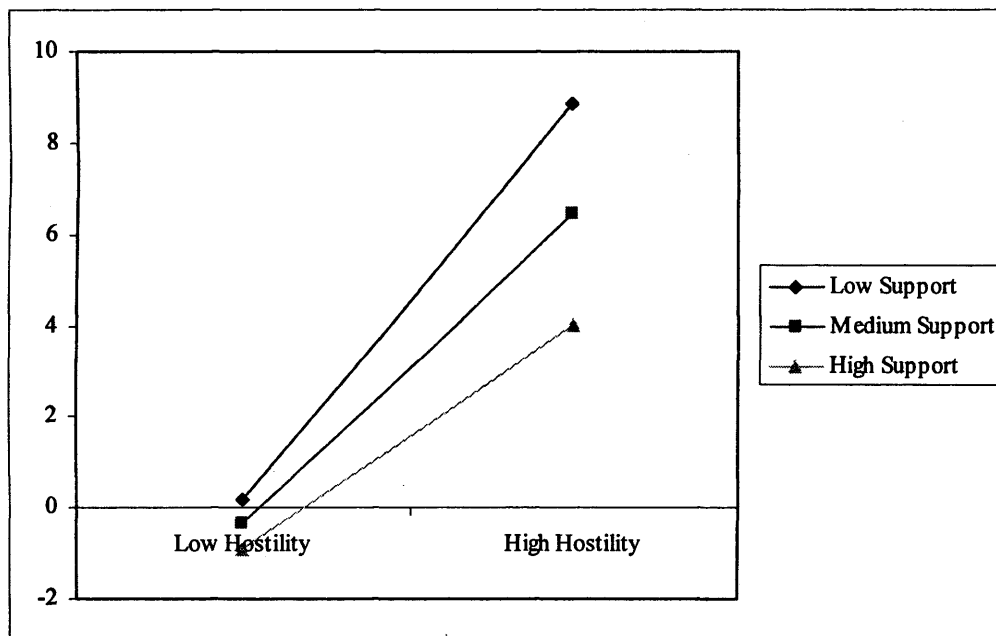
Figure 5: Simple slope analysis testing the influence of parent-to-child hostility on
teacher reports of behaviour problems at low, medium and high levels of school
support

118

These results suggest that, while parent-to-child hostility exerts direct as well as indirect effects on children's behaviour problems, these direct effects are strongest when there is an absence of support for children from the school environment. Conversely, when support from the school environment is high, the direct impact of parent-to-child hostility on children's behaviour is less pronounced. However, the indirect effects of inter-parental conflict and parent-to-child hostility on children's behaviour problems through their perceptions of parent-child relations are not diminished by support from the school environment.

Summary

Preliminary analysis suggested that parent-to-child hostility exerted direct effects on low academic attainment but that the impact of inter-parental conflict on low academic attainment was mediated by parent-to child hostility. The second stage of analysis demonstrated that parent-to-child hostility was related to both behaviour problems and poor academic application. Application, in turn was significantly related to low academic attainment one year later, whereas the influence of behaviour problems on low academic attainment was mediated by poor academic application. Therefore the initial relationship between parent-to-child hostility and low academic attainment was mediated by poor academic application. The stage of analyses testing the role of child perceptions of parent-child relations demonstrated that child perceptions partially mediated the impact of parent-to-child hostility on both application and teacher reports of behaviour problems. Child perceptions also provided a mechanism through which inter-parental conflict was related to these two factors. The final stage of analysis, testing the moderating role of school support, demonstrated that not only did school support influence children's poor academic application and teacher reports of behaviour problems as reported by teachers, it also moderated the effect of parent-to-child hostility on these behaviour problems. By gender

analyses revealed that while boys appeared to experience a more direct effect of parent-child relations on their behaviour and application in school, the effects of this relationship on girls' poor academic application and behaviour problems was through their perceptions of the parent-child relationship.

Discussion

The present study extends existing research by providing a family-wide perspective of influences on children's behaviour, application and performance in school. It provides evidence for the roles of both the parent-child relationship and the inter-parental relationship in informing children's ability to function well at school. Importantly, the study demonstrates that children's perceptions of parent-child relations provide a mechanism through which both inter-parental conflict and parent-to-child hostility impact on children's behaviour and application in school. Findings also indicate that support from adults at school might buffer children against the impact of hostility at home on their functioning in school.

Earlier studies have identified links between events that occur at home and how children behave and perform in school. Most of this evidence has focused on aspects of the parent-child relationship and has demonstrated the importance of parenting and parenting styles (Aunola et al., 2000; Steinberg et al., 1989), attachment (Moss & St-Laurent, 2001) and parental hostility (Feldman & Wentzel, 1990) for children's adaptation in school. Comparatively less research has considered the importance of the inter-parental relationship to school-related outcomes (Sturge-Apple et al., 2006a, b; Westerman & LaLuz, 1995) and only one study, to the authors' knowledge, has considered the impact of inter-parental conflict and parent-child relations on children's behaviour and performance in school using a longitudinal design (Harold et al., in press). Previous research indicates that conflict between parents not only informs children's appraisals of the inter-parental

relationship, it also informs their appraisals of the parent-child relationship (Harold &

Conger, 1997; Harold et al., 1997). Providing support for this, the present study

demonstrated that both inter-parental conflict and parent-to-child hostility exert unique

effects on children's perceptions of parent-child relations. These perceptions appeared to

act as a linchpin, linking inter-parental conflict to children's academic application and their

ability to behave appropriately in school; they also partly explained the initial effect of

parent-to-child hostility on these two aspects of school adjustment.

Previous research has considered the influence of children's behaviour on their

ability to perform well at school. Findings have provided robust evidence for the effects of

aggressive and delinquent behaviour on low academic attainment (Adams et al., 1999;

Hinshaw, 1992; Jimerson et al., 1999). The importance of motivation or academic

engagement in determining levels of performance has also been emphasised (Eccles &

Wigfield, 2002, Marchant et al., 1997; Pintrich, 2003). However, few studies have looked

at these two factors together. The findings in the current study suggest that the relationship

between children's behaviour in school and their low academic attainment is mediated by

their level of application in school. It seems that children who experience behaviour

problems are unable to successfully apply themselves to schoolwork and this affects their

performance in the classroom. This is consistent with previous research linking high levels

of externalising behaviour with a decline in children's academic achievement over time

(Jimerson et al., 1999) and findings indicating that children who act out in the classroom

are less able to attend to and engage with academic tasks (Egeland et al., 1990).

Some gender differences were found in the pattern of relations between family

functioning, school support and child adjustment. For girls, inter-parental conflict and

parental hostility exerted effects on their behaviour and application through perceptions of

parent-child relations. However in the boys' model, while inter-parental conflict and

parental hostility were related to their perceptions of the parent-child relationship, these perceptions were not related to application or behaviour problems. Instead, parent-to-child hostility exerted direct effects on poor academic application and behaviour problems. Inter-parental conflict exerted indirect effects on these outcomes through the concurrent association with parent-to-child hostility. Overall, family relationships exerted direct effects on boys' behaviour and application, whereas perceptions of parent-child relations acted as a mechanism through which family effects impacted on girls' behaviour and application. These stronger direct links between discord in family relationships and externalising problems for boys than for girls are consistent with past research (Davies & Lindsay, 2004). Previous studies have demonstrated that boys appear to be less shielded from family conflict than girls, leading to a greater risk of psychological adjustment problems for boys in conflicted households (e.g. Harold & Conger, 1997), which appears to be borne out in the present study. However, the present study did not examine effects on levels of internalising symptoms. Davies and Lindsay (2001; 2004) have argued that boys and girls are equally affected by family conflict but that, consistent with gender socialisation, girls are more likely to display internalising symptoms in response to conflict and boys are more likely to display externalising problems (Davies & Lindsay, 2001; 2004). It is possible that a stronger link between family relationships and internalising symptoms would have been observed in girls if this had been assessed.

The final aim of this study was to investigate the moderating role of support from adults at school in understanding the effects of hostility in inter-parental and parent-child relationships on children's academic adaptation. While several studies have highlighted the importance of the teacher-child relationship in informing behaviour and performance in school (Birch & Ladd, 1997; Pianta et al., 1997), few studies have considered the possibility that positive relationships with teachers and other adults at school might serve

as a protective factor, buffering children against the impact of negative aspects of relationships in the family on children's ability to function well at school (see Kelly & Wallerstein, 1977 for exceptions). Findings from the present study suggested that not only were adults at school able to directly influence children's behaviour and application in school, they were also equipped to buffer children against the impact of hostility at home on their behaviour in school. When support from adults at school was perceived to be high, children's behaviour was less affected by hostility from parents than when children perceived medium or low levels of support. This suggests that even in the context of discord at home children may be able to function well at school if they have warm, supportive relationships with the adults there.

Overall, the findings from this study demonstrate that children's experiences in their relationships at home, and their understanding of those experiences, can have important effects on their ability to behave and perform well in school. This is consistent with studies based on a family-wide perspective (Harold & Conger, 1997; Harold et al, 1997), which document the influence of inter-parental and parent-child relations on children's appraisals, and demonstrate the impact of these appraisals, particularly of the parent-child relationship, on children's psychological adjustment. The findings of the present study extend previous research by suggesting that these appraisals also inform children's academic adaptation. The findings also provide evidence for the interplay between family and school contexts, showing that, while children's appraisals mediate the impact of family relationships on children's behaviour and performance in school, support at school can moderate the effects of some of these family influences.

Some limitations to the present study are noteworthy. First, the measure of academic attainment used was children's scores on national Key Stage Three exams. As these exams only occur once in the child's academic career it was not possible to control

for academic attainment at an earlier time point. Therefore, autoregressive techniques, which allow the criterion variable to be considered as an index of change, could not be employed for the present analyses. This means that caution should be exercised when interpreting pathways in these analyses as causal.

Second, there were some significant differences between children who provided complete data for all study variables and those for who did not and, therefore, were not included in the current sample. Children who had complete data fared better with respect to behaviour problems, poor academic application and academic attainment, which may have affected the pattern of results. Consequently, the findings may offer a more conservative estimate of the effects of family relationships on children's academic attainment.

Third, poor academic application was assessed using only two items, which were designed to assess the amount of effort the child was applying in class. A fuller measure of motivation to learn or goal orientation might have provided a more complete view of the child's attitude to their work.

Finally, as an initial step towards an integrated perspective of the processes through which family and school influences combine to inform children's academic attainment, the current analyses only considered children's appraisals of the parent-child relationship as a mechanism through which inter-parental and parent-child relations inform children's behaviour and performance in school. However, there is evidence to suggest that children's appraisals of inter-parental conflict are also an important mechanism through which inter-parental conflict impacts on child adjustment (Grych & Fincham, 1990; Grych et al., 2003). Therefore, further investigation of links between hostile family relationships and children's school related outcomes should consider these appraisals.

Notwithstanding these limitations, the present study represents an important step towards integrating research relating to child adjustment in the family and school setting. The findings provide evidence for the role of children's perceptions of parental behaviour in understanding adaptation to school and extend previous research by considering the combined influence of both family and school contexts on children's behaviour, academic application, and attainment in school.

Implications for Policy & Practice

These findings have practical importance for policy makers and practitioners, indicating three points of departure for designing interventions aimed at improving children's ability to function well at school. 1) Findings suggest that, consistent with research assessing influences on children's psychological adjustment, inter-parental and parent-child relations are important for understanding children's academic adaptation. These findings give credence to theories suggesting that the family unit exerts strong effects on children's ability to function across contexts (Booth & Dunn, 1996; Bronfenbrenner, 1977; Ryan et al., 1995). 2) The results also suggest that children's perceptions of relationships within the family act as the mechanism through which the transfer of effects from family background to school adjustment occurs. Therefore, interventions aimed at shaping children's understandings and attributions relating to both inter-parental and parent-child relations may reduce the impact of negative family experiences on children's ability to function in multiple contexts. 3) While previous research has shown that teachers are able to exert a positive influence on children's behaviour and performance, the present study has shown that positive relationships with adults at school can also moderate the influence of hostile experiences at home on children's behaviour in school, suggesting that teachers are in a potentially powerful position to inform children's adjustment in the school context, even in the face of family

adversity. However, with the family context being a dominant and enduring influence, teachers may feel ill-equipped to bolster children against problems rooted in the home. The challenge is to assist teachers in recognizing their capacity in this regard and to identify the means to support them in doing so.

<u>Summary</u>

This chapter has provided a broad perspective of how relationships within the family combine to influence children's behaviour and attainment in school. It has also demonstrated how family and school contexts combine to influence children's academic adaptation. While this chapter represents one of the first studies to consider children's appraisals as a mechanism through which family relationships inform behaviour and attainment in school, several questions remain. First, it is unclear what role children's appraisals of inter-parental relations might play in the connection between family relationships and academic attainment. Second, Chapter 2 and the current chapter noted that while links between externalising problems and academic attainment are robust, there is less consistent evidence of links between internalising symptoms and academic attainment. Therefore, the nature of this latter relationship warrants further consideration. Both of these issues will be investigated further in Chapter 4.

CHAPTER 4

The present chapter aims to make an in-depth investigation of how discordant family relationships inform children's psychological well-being and academic attainment. It will build on literature suggesting that, though disturbances in inter-parental and parent-child relationships often co-occur, it is more consistently the case that conflict and hostility in the inter-parental relationship precedes, and may be a catalyst for, hostility in the parent-child relationship (Engfer, 1988; Erel & Burman, 1995). As an extension of the study contained in Chapter 3, this chapter will consider the child's perspective of both inter-parental and parent-child relations as mechanisms through which inter-parental conflict impacts on academic attainment. The present study also attempts to provide further insight into the nature of the relationship between psychological adjustment and academic attainment by considering internalising symptoms and externalising problems as mechanisms through which inter-parental conflict and children's appraisals of inter-parental and parent-child relations inform academic attainment.

Inter-parental Conflict and Children's Psychological Adjustment

Research conducted in the last 15 years has given attention to the processes through which certain aspects of conflict impact negatively on children (e.g., Cummings & Davies, 2002; Davies et al., 2002; Grych et al., 2003). As outlined in the previous chapter and in Chapter 1, literature in this area has proposed two possible mechanisms through which conflict affects children: the indirect effects hypothesis (e.g., Erel & Burman, 1995; Fauber & Long, 1991) and the direct effects hypothesis (Davies & Cummings, 1994; Grych & Fincham 1990).

The indirect effects hypothesis posits that inter-parental conflict impacts on children through the disturbances it causes in the parent-child relationship. Specifically, affect

expressed in the inter-parental relationship spills over into the parent-child relationship. Therefore, parents who express aggression and hostility towards each other may become aggressive and hostile towards their children (Easterbrooks & Emde, 1988; Fauber et al., 1990). Alternatively, parents who are frustrated or preoccupied with the inter-parental relationship may become less emotionally available for their child (Katz & Gottman, 1996; Sturge-Apple et al., 2006a, b; Volling & Belsky, 1991). These two specific aspects of parenting have been associated with a range of negative outcomes for children. Moreover, as demonstrated in the previous chapter, discordant inter-parental relations can also affect children's working models of relationships; therefore affecting children's perceptions of the parent-child relationship.

Children experiencing hostile parenting in the context of inter-parental conflict are at greater risk of attention problems, internalising symptoms, externalising problems and conduct disorder (Fauber et al., 1990; Jouriles, Barling, & O'Leary, 1987). Similarly, parental withdrawal or lack of emotional availability of parents in this context has been associated with poor psychological well-being and poor school adjustment (Buehler & Gerard, 2002; Easterbrooks & Emde, 1988; Sturge-Apple et al., 2006a, b).

However, as noted in the previous chapter, conflict also exerts direct effects on children; that is, effects that are not channelled through the parent-child relationship. These direct effects stem from children directly witnessing conflict between parents (Emery et al., 1992). Early direct effects explanations focused on children modelling parents' aggressive behaviour (Patterson, 1982). However, much of the research in this area in the past two decades has demonstrated that inter-parental conflict also impacts on children according to their emotional responses and appraisals relating to conflict (Davies & Cummings, 1994; Davies, et al., 2002; Grych & Fincham, 1990).

This approach has emphasised that rather than relying on parent reports of conflict, it is important to assess children's perceptions of these exchanges. One reason for this is because different children show widely varying responses to witnessing the same conflicted exchange (Davies & Cummings, 1994). Investigation of why such individual differences are consistently demonstrated has lead to the conception that children's subjective evaluations of these exchanges explain variation in responses to witnessing inter-parental conflict (e.g. Davies & Cummings, 1994; Grych & Carodoza-Fernandez, 2001; Grych & Fincham, 1990; Harold & Conger, 1997).

One of the most documented theories acknowledging the importance of children's subjective evaluations of inter-parental conflict is the cognitive contextual framework (Grych & Fincham, 1990). This theory focuses on the role of cognitions in understanding the impact of inter-parental conflict on children's well-being. According to this perspective, children's awareness of the frequency, intensity and resolution of conflict informs the degree of emotional arousal they experience. Furthermore, if children perceive conflict to be threatening or feel unable to cope with it they will experience more distress. Similarly, if the conflict is related to the child in content this may lead to feelings of self-blame, which will elicit negative emotions (Dadds et al., 1999; Grych et al., 2003).

There is a growing body of research implicating children's appraisals of threat and self-blame as mechanisms linking inter-parental conflict to children's adjustment problems. Appraisals of threat have been consistently associated with internalising symptoms in children (Grych et al., 2000; Grych et al., 2003), particularly in boys (Grych et al., 2000; Dadds et al., 1999; Grych et al., 2000; Kerig, 1998a). One recent study has also noted links between threat and eternalising problems for boys only (Grych et al., 2003). Appraisals of self-blame have been linked to internalising symptoms (Dadds et al., 1999; Grych et al., 2000) and, more recently, externalising problems in boys and girls (Dadds et

al., 1999; Grych et al., 2003). The only study to longitudinally assess the role of these appraisals in explaining variation in children's psychological adjustment has demonstrated that appraisals of threat and self-blame appear to differentially predict internalising symptoms and externalising problems, respectively. While appraisals of threat were associated with internalising symptoms in this study, appraisals of self-blame were more consistently associated with externalising problems (Grych et al., 2003).

Overall, both direct and indirect explanations of the impact of inter-parental conflict on children have received a substantial amount of support. However, most studies only consider one or the other approach, which does not allow comparison of the two mechanisms. To examine the relative contribution of both the parent-child relationship and children's perceptions of conflict to children's adjustment, a relatively small number of studies have assessed direct and indirect mechanisms simultaneously (e.g., Frosch, Mangelsdorf & McHale, 2000; Harold et al., 1997; Davies et al., 2002; Owen & Cox, 1997). Most of these findings demonstrate roles for both direct and indirect mechanisms in explaining variation in psychological adjustment in the context of inter-parental conflict. These studies suggest that conflict may cause disturbances in the parent-child relationship, which impact on child adjustment, *and* that inter-parental conflict also affects children directly according to the perceptions they form of their parents' arguments and disagreements. This work, acknowledging both mechanisms, suggests that in order to fully consider the processes through which inter-parental conflict affects children, both mechanisms should be considered.

Familial Influences of Children's Attainment in School

The majority of existing research investigating links between inter-parental conflict and child adjustment has investigated broad dimensions of internalising symptoms and eternalising problems (see El-Sheikh et al., 2006; Harold et al., in press; Sturge-Apple et

al., 2006a, b for exceptions). While these indices of adjustment are important for understanding children's psychological well-being, other outcomes that are central to child development have received comparatively little attention. Notably, there has been no systematic application of this research in relation to children's school adjustment and academic achievement. As outlined in Chapters 2 and 3, the school environment is an important context for children's functioning. Additionally, Chapter 3 provides preliminary evidence that children's appraisals of family relationships are important to their functioning in this domain.

Family Relationships and School Attainment

The majority of research assessing the influence of family relationships on school success has focused on the parent-child relationship (Feldman & Wentzel, 1990; Strage & Brandt, 1999). Findings suggest that harsh or inattentive parenting practices are associated with poor academic attainment, behaviour problems in school and fewer friends. Conversely, positive parenting practices are associated with higher academic achievement, fewer behaviour problems and greater popularity with peers (Steinberg et al., 1989; Strage & Brandt, 1999; Aunola et al., 2000). It has also been noted that the affective quality of the parent-child relationship impacts on children's school attainment. Specifically, parental hostility and rejection and parental withdrawal or emotional unavailability have been repeatedly associated with poor school adjustment and academic attainment in children (Feldman & Wentzel, 1990; Jacobson & Hoffman, 1997; Sturge-Apple et al., 2006a, b).

Literature addressing the influence of the inter-parental relationship in this context has primarily been concerned with the effects of divorce on school outcomes (McCombs & Forehand, 1989; Amato & Keith, 1991; Demo & Acock, 1996). This body of literature suggests that children who have experienced their parents' divorce tend to fare worse than their peers from intact families with respect to academic attainment and classroom

behaviour. Though this research is largely concerned with family structure, much of it suggests that the links between divorce and problems at school are best accounted for by levels of conflict within the family (McCombs & Forehand, 1989; Amato & Keith, 1991; Demo & Acock, 1996), especially conflict between parents pre- and post-divorce (Long et al., 1988; Amato & Keith, 1991).

A handful of studies have considered and documented the effects of the quality of the inter-parental relationship on children's school adjustment (Feldman et al., 1990; Sturge-Apple et al., 2006a; Westerman & La Luz, 1995). Similar to the literature exploring children's psychological adjustment, proposed explanations for this link include direct effects of conflict on children through sensitisation and indirect effects through disturbances in parent-child relations (McCombs & Forehand, 1989; Sturge-Apple et al., 2006a).

One recent study has considered the roles of parenting and children's appraisals of conflict in linking inter-parental conflict to children's academic attainment (Harold et al., in press). This study specifically tested the roles of negative parenting and self-blame in response to this conflict as mechanisms through which inter-parental conflict affects academic attainment. It also considered children's externalising behaviour as a mechanism through which parent-child relations and self-blaming appraisals inform their academic attainment. Interestingly, findings revealed that it was children's appraisals of self-blame not parenting which were the strongest predictor of academic attainment and these effects were not mediated by children's aggressive behaviour. These findings provide clear evidence that children's appraisals of conflict are important in determining children's attainment in school. However, the role of threat appraisals has also been implicated in recent studies relating to children's appraisals of conflict (e.g., Dadds et al., 1999; Grych et al., 2003). Therefore, the importance of appraisals of threat as a mechanism through which

inter-parental conflict informs academic outcomes should be considered. Additionally, the analyses in Chapter 3 only considered externalising problems in relation to academic attainment so the role of internalising symptoms in this process warrants further investigation.

Psychological Adjustment and Children's Academic Adaptation

Research investigating potential links between children's psychological adjustment and their capacity to perform well academically, as described in previous chapters, has provided evidence for robust links between externalising problems and academic attainment (Adams et al., 1999; Hinshaw, 1992; Mingyue et al., 2001; Stormshak et al., 1998). Many of these studies demonstrate that children's behaviour problems affect their ability to perform well in class (Fergusson et al., 1993; Egeland et al., 1990), perhaps because children with higher levels of externalising problems are less well able to concentrate and apply themselves.

Research attempting to explain the relationship between internalising symptoms and academic attainment has produced mixed findings. On the whole there are fewer studies documenting links between internalising symptoms and academic achievement than there are highlighting the role of externalising problems (Masten et al., 2005). One explanation for the lack of established links between internalising symptoms and academic attainment lies in the nature of the different profiles of symptoms that contribute to the construct of internalising. Internalising symptoms typically consist of scores on depression, anxiety and withdrawal. While this range of symptoms provides a global measure of affective symptoms, it may confound relations between distinct (albeit related) indices of psychological distress and academic achievement. Depression, anxiety and withdrawal all represent distinct adaptive problems. Therefore individuals experiencing high levels of anxiety may not be experiencing high levels of depression and vice versa (Cannon &

Weems, 2006). As these problems are distinct, they may also inform academic attainment differentially.

Studies have documented links between clinical levels of depression and low academic attainment (Bardone et al., 1996; Kovacs & Devlin, 1998). However, those investigating the influence of sub-threshold levels of depressive symptoms and academic attainment are fewer in number and have produced mixed findings (see Masten et al., 2005), with some studies finding significant effects (Haines et al., 1996) and others failing to do so (Cole et al., 1996). These findings imply that while severe levels of depression impede academic attainment, sub-threshold levels of depression affect academic attainment to a lesser extent. One explanation of links between depression and low academic attainment may be learned helplessness. This factor has been identified as common in depression sufferers (Miller & Seligman, 1975; Valas, 2001) and is also associated with poor academic outcomes. Specifically, children with a helpless orientation to achievement tend to have poorer test attainment and academic attainment (Fincham, Hokoda, & Sanders, 1989).

Links between anxiety and academic attainment are equally unclear. Early research investigating stress and attainment also suggests that the relationship between these two factors may differ depending on whether anxiety levels are normative or severe (Sharma, 1970; Yerkes & Dodson, 1908). Specifically, this research suggests that some degree of stress is necessary in order to motivate goal directed behaviour but extreme levels of stress interfere with an individual's capacity to perform effectively. Therefore, certain levels of stress or anxiety may be necessary for achieving academic goals, whereas clinical levels of stress may hinder attainment (Bernstein & Borchardt, 1991). In support of this, there is evidence to suggest that high levels of anxiety in community samples, though detrimental

to psychological adjustment, may actually lead to high levels of academic attainment because anxiety serves as a motivator to achieve (DiLalla et al., 2004; Eady, 1999).

It appears then, that although internalising symptoms are an important means of conceptualising a constellation of psychological adjustment problems, this categorisation obscures the understanding of the nature of the relationship between the distinct symptoms profiles represented by this broad index and academic competence. In normative samples at least, there are findings to suggest that the relationship between depression and academic attainment is diametrically opposed to the relationship between anxiety and academic attainment (DiLalla et al., 2004; Haines et al., 1996). Specifically, while high levels of anxiety may induce motivation to achievement, high levels of depression may be associated with learned helplessness, which is related to poor achievement. Therefore, it appears that in order to understand the nature of the relationship between the symptoms that constitute internalising symptoms and academic outcomes these components need to be considered as distinct symptom profiles.

Summary

Based on the literature covered here there are several important issues to consider when hypothesising links between inter-parental conflict and academic achievement. 1) Research investigating child psychological adjustment suggests that both direct and indirect paths are important processes in understanding the impact of inter-parental conflict on children (e.g., Harold et al., 1997; Davies et al., 2002). This research has emphasised the importance of using children's appraisals of inter-parental conflict *and* the parent-child relationship in order to understand why some children are affected more by conflict than others. 2) While literature making family-school connections has documented bivariate associations between disturbances in inter-parental relationship and children's academic achievement, this literature gives little consideration of the processes identified in the

family socialisation literature, namely how children's appraisals of family relationships inform academic achievement. 3) Though conceptualising children's emotional and behavioural well-being as internalising symptoms and externalising problems provides a useful insight into children psychological adjustment, the nature of the relationship between psychological adjustment and academic attainment may be more complex than these broad indices of psychological adjustment are able to capture. Internalising symptoms in particular appear to have a complex relationship with academic attainment.

The Present Study

The aim of this study, therefore, was to consider the long-term effect of inter-parental conflict on children's academic attainment (see Figure 1). Because past research has highlighted the role of direct and indirect pathways, children appraisals of inter-parental conflict in this context (specifically, threat and self-blame) and parenting behaviour were both examined. Children's perceptions of parental rejection and withdrawal in particular were assessed because these two dimensions are identified as consistent with a spillover hypothesis (Erel & Burman, 1995). Furthermore, the present analyses considered how symptoms representing internalising symptoms and externalising problems might link children's appraisals of inter-parental and parent-child relations to subsequent academic attainment. Therefore, for the present study, a sample of 236 school children (aged 11-13 years), their parents and teachers was used to test a family-school model in which inter-parental conflict (Time 1) was hypothesised to directly affect children's appraisals of negative parenting behaviour (Time 2), threat (Time 2) and self-blame relating to inter-parental conflict (Time 2). Appraisals of threat (Time 2), self-blame (Time 2) and negative parenting behaviour (Time 2), in turn, were hypothesised to affect later academic achievement (Time 3) through concurrent relations with children's internalising symptoms (Time 2) and externalising problems (Time 2).
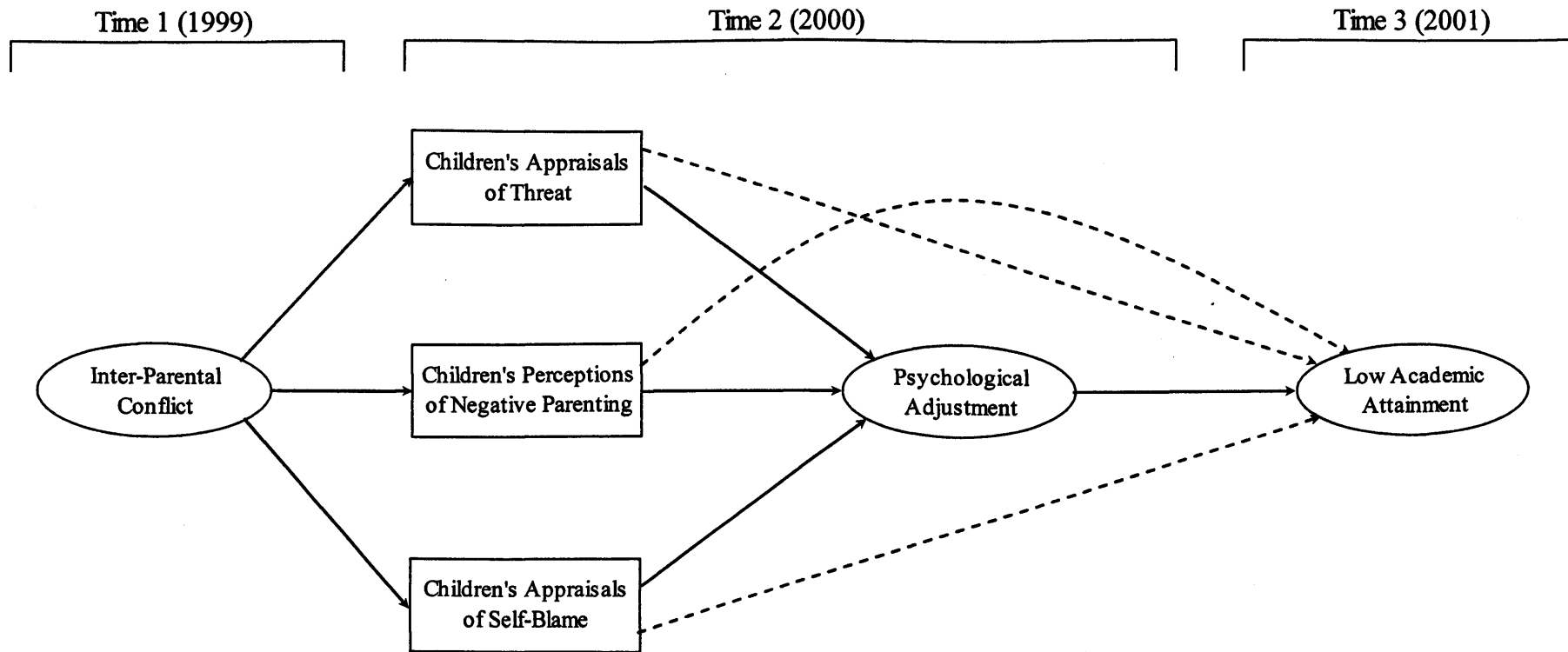
Figure 1: Theoretical model of the relationship between inter-parental conflict, children's perceptions of negative parenting behaviour, children's appraisals threat, children's appraisals self-blame, psychological adjustment and low academic attainment

Method

Sample

Data for these analyses were derived from the Welsh family study. This study focused on children's experiences of family life and their social, psychological and academic adjustment (for a more detailed description of sample and procedures see Chapter 2).

Due to the nature of the issues being investigated in the current study, children from any families other than two-parent families were excluded from the sample. Consequently only families comprising either both biological parents (91.3 %) or one biological parent and one step-parent (7.7 %) were retained for the study sample so that all families had one male and one female guardian within the home. Of parents in the study, 38.0% of mothers and 34.7% of fathers completed secondary or high-school education only, 32.6% of mothers and 28.9% of fathers completed technical or vocational level training, and 29.8% of mothers and 36.4% of fathers completed university education. Of the children in the study, 98% were of White-European origin, 1.5% were of Indian, Sri-Lankan, or Pakistani origin, with the remaining 0.6% being of non-British origin (e.g., East African, Jamaican). The combined sample for the current analyses, containing complete information for children and parents for all three time points, consisted of 236 cases (125 girls, 111 boys). Children were between the ages of 11 and 13 years at the first point of data collection, with a mean age of 11.69 (SD = .47) at this time.

As in Chapter 3 there were some differences between scores on study variables for children who completed all three waves of data and those who did not provide information for all measures included in the study. Children who did not complete all three waves scored higher on child perceptions of inter-parental conflict, teacher scores

of aggression and had lower grades on two of the three exam subjects considered (child reports of conflict properties: $t(526) = 5.59$, $p<.01$; teacher reports of aggression: $t(431) = 11$, $p<.01$; maths scores: $t(467) = 17.16$, $p<.01$; science scores: $t(471) = 16.25$, $p<.01$).

Measures

Inter-Parental Conflict

Two measures were used to assess parent reports of inter-parental conflict, a subset of questions relating to inter-parental hostility taken from the IYFP rating scales (Melby et al., 1993) and the O'Leary Porter Scale (Porter & O'Leary, 1980). The IYFP measure consists of four questions, including: "During the past month, how often did your husband/wife/partner 1) get angry at you 2) Criticise you or your ideas." Responses for this scale range between one and seven (representing "Always" and "Never" respectively). Items for this measure were recoded so that high scores reflected high conflict. Reports from this measure demonstrated good reliability estimates for both mothers ($\alpha =.89$) and fathers ($\alpha =.89$). The O'Leary Porter Scale (Porter & O'Leary, 1980) was used to measure inter-parental conflict occurring in the presence of the child; it is an eight item scale and includes questions such as: "It is difficult in these days of tight budgets to confine financial discussions to specific times and places. How often would you say you and your spouse/partner argue over money matters in front of this child?" and "How often do you complain to your spouse/partner in front of his child?" Responses for this scale range between one and five (representing "never" and "very often" respectively). Again, reliability estimates for this scale for both mothers and fathers were good ($\alpha = .83$ and $\alpha = .78$ respectively). These two subscales were combined to provide an overall index of inter-parental discord and hostility ($\alpha = .92$).

Child reports of inter-parental conflict were measured using the Conflict Properties subscale of the Children's Perceptions of Inter-parental Conflict scale (CPIC; Grych, et al., 1992). This subscale consists of 17 items and is made up of three further subscales that aim to represent the Frequency, Intensity and Resolution of inter-parental conflict, it includes questions such as: "I never see my parents arguing (Frequency); My parents get really angry when they argue" (Intensity) and "When my parents argue they usually make it up right away" (Resolution). Responses for this scale take the form "True", "Sort of True" and "False". Items for this measure were coded such that high scores reflected high levels of conflict. Internal consistency scores for these subscales were good ($\alpha = .80$, $\alpha = .81$ and $\alpha = .75$ respectively). Therefore, these subscales were combined to provide an overall index of children's perceptions of conflict properties ($\alpha = .89$). Child and parent reports of inter-parental conflict were used as two indicators of a latent variable representing inter-parental conflict in the current analyses.

Appraisals of Threat

Children's appraisals of threat relating to inter-parental conflict were assessed using the threat subscale of the CPIC (Grych, et al., 1992). This subscale consists of 12 items and questions include "When my parents argue I worry what will happen to me". One item was omitted from the scale ("When my parents argue I'm afraid one of them will get hurt") because of concerns raised during the process of obtaining ethical approval. Responses for this scale took the form "True", "Sort of True" and "False". Items for this measure were coded such that high scores reflected high levels of threat. The reliability of this subscale was good ($\alpha = .86$).

Appraisals of Self-Blame

Children's perceptions of self-blame in response to inter-parental conflict were measured using the self-blame subscale of the CPIC (Grych et al., 1992). This subscale consists of nine items, which include questions such as: "It is usually my fault when my parents argue" and "I am not to blame when my parents have arguments". Responses took the form "True", "Sort of True" and "False". Again, items were coded such that high scores reflected high levels of self-blame. The reliability of this subscale was good (α = .89).

Perceptions of Negative Parenting Behaviour

Because parental hostility as well as parental rejection and withdrawal have been associated with inter-parental conflict, children's perceptions of parental behaviour were measured using the Rejection and Withdrawal of Relations subscales of the CRPBI (Margolies & Weintraub, 1977). These subscales consisted of seven and five items respectively and included questions such as: "My mum/dad forgets to help me when I need it" (Rejection) and "My mum/dad is less friendly with me if I don't see things his/her way" (Withdrawal of Relations). Responses were of the form "True", "Sort of True" or "Not True". Both subscales showed good internal consistency for mothers (Rejection, α = .86; Withdrawal of Relations, α = .83) and fathers (Rejection, α = .84; Withdrawal of Relations, α = .81). Items were coded so that high scores represented negative parenting behaviour. These subscales were combined to provide an overall index of negative parenting behaviour (α = .93).

Child Externalising Problems

This construct consisted of both child and teacher reports of externalising behaviour. Teachers completed the externalising scale of Teacher Report Form (TRF) of the CBCL (Achenbach, 1991). Example items from this scale are "Argues a lot" and

"Bragging or boasting". The response scales ranged from zero to two (0 = "Not true of the child", 1 = "Somewhat/sometimes true of the child", 2 = "Very/often true of the child"). This variable was positively skewed; therefore a log transformation was applied and the new logged variable was used for all analyses. Children completed the Buss and Durkee (1957) trait measure of antisocial behaviour. Examples of items in this scale are: "If someone hits me first I let them have it and "When I get angry I say nasty things". The measure contained nine items and responses ranged from one to five (1 representing "Not at all", 5 representing "Exactly"). Good reliability estimates were attained for both scales (α = .94 & α = .83 respectively) and these two subscales were employed as two indicators of a latent variable assessing child externalising problems in the current analyses.

Child Internalising Symptoms

As it was hypothesised that different aspects of children's internalising symptoms would inform academic attainment differentially, internalising symptoms were first considered together as a manifest variable and then separately as either depression or anxiety. Depressive symptoms were assessed using the Child Depression Inventory (CDI; Kovacs, 1981). This measure is widely used to assess depressive symptoms. One item concerning suicidal thoughts was omitted for this study. Internal consistency estimates for this scale was good (α = .87).

Symptoms of anxiety were assessed using a subset of items from the Anxious/Depressed subscale of the CBCL (Achenbach, 1991). While this subscale represents both depressive and anxious symptomatology, some attempt has been made in recent years to derive scales from the CBCL that map more directly onto DSM-IV (American Psychiatric Association, 1994) categories for diagnoses (Achenbach, Dumenci, & Rescorla, 2003; Ferdinand, 2007; Lengua, Sadowski, Friedrich, & Fisher,

2001). These studies have adopted a range of methods for extracting items to assess

anxiety, involving the election of items by professionals (Lengua et al., 2001); factor

analysis (Achenbach et al., 2003; Lengua et al., 2001), items predicting anxiety disorder

diagnosis (Ferdinand, 2007) and by correspondence to catalogued anxiety symptoms

(DiLalla et al., 2004). Items were selected for the present study under several criteria:

1) that the item appears in the original CBCL Anxious/Depressed subscale, 2) that the

item was selected as representing anxiety in the Achenbach et al. (2003), the Lengua et

al. (2001) or the DiLalla et al. (2004) study, 3) that the item is associated with diagnosis

of any anxiety disorder as evidenced by either the Ferdinand (2007) or the Lengua et al.

(2001) study. Under these criteria the Anxiety subscale comprised six items: 1) "I feel

I have to be perfect", 2) "I am afraid I might think or do something bad", 3) "I am

nervous, or tense", 4) "I am too fearful or anxious", 5) "I am self-conscious or easily

embarrassed", 6) "I worry a lot". The response scales ranged from zero to two (0 =

"Not true", 1 = "Sometimes true", 2 = "Very true"). Internal consistency estimates for

this scales were adequate (α = .75).

Low Academic Attainment

　　　Key Stage 3 examination grades in English, maths and science were used to

measure academic achievement. Grades for these exams were in the form of numeric

scores between one and seven, seven representing the highest level of attainment and

one representing the lowest. Exam scores were recoded so that high scores reflected

low academic attainment and English, maths and science scores were used as three

indicator of a latent variable representing low academic attainment in the current

analyses.

<u>Results</u>

Preliminary Analysis

Means, standard deviations and correlations among all study variables are provided in Table 1. Table 2 reports correlations separately for boys and girls. Polyserial correlations were calculated in order to estimate the magnitude of bivariate relations between continuous measures of inter-parental conflict, appraisals of threat, appraisals of self-blame, negative parenting, internalising symptoms and externalising problems and ordinal measures of the academic achievement scores (English, maths, science). Correlations among construct indicators generally reflect the theoretical model well. Both measures of inter-parental conflict correlate with measures of threat ($r = .19, p<.05$; $r = .45, p<.01$), self-blame ($r = .21, p<.01$; $r = .26, p<.01$) and negative parenting behaviour ($r = .27, p<.01$; $r = .36, p<.01$), which in turn correlate with indicators of internalising symptoms, eternalising problems and low academic attainment (e.g., threat and depressive symptoms, $r = .46, p<.01$; self blame and aggression, $r = .26, p<.01$; negative parenting behaviour and science scores, $r = .19$, $p<.01$). Correlations between indicators of each construct are generally high, demonstrating the validity of these indicators in representing each latent variable.

Structural Equation Modelling

Structural equation modelling (LISREL 8.50; Joreskog & Sorbom, 1996) based on maximum likelihood estimation was used to test the validity of the theoretical model. Analyses were conducted in several stages: first, testing separately the roles of negative parenting (Time 2) and appraisals relating to conflict (Time 2) in explaining the impact of inter-parental conflict (Time 1) on low academic attainment (Time 3); second, assessing the relative contribution of threat (Time 2), self-blame (Time 2) and negative parenting behaviour (Time 2) to explaining the effects of inter-parental

Table 1: Means, standard deviations and intercorrelations among all indicators of theoretical constructs

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1999												
1. Inter-parental discord and hostility	1.00											
2. Children's appraisals of inter-parental conflict	.37**	1.00										
2000												
3. Children's perceptions of negative parenting	.27**	.36**	1.00									
4. Appraisals of threat	.19*	.45**	.46**	1.00								
5. Appraisals of self-blame	.21**	.26**	.56**	.45**	1.00							
6. Anxiety	-.12	.13	-.01	.30**	-.05	1.00						
7. Depressive symptoms	.18*	.29**	.54**	.46**	.42**	.36**	1.00					
8. Aggression (TRF)	.15*	.07	.21**	.08	.26**	-.29**	.05	1.00				
9. Antisocial behaviour	.23**	.27**	.36**	.13	.31**	-.14*	.29**	.40**	1.00			
2001												
10. English exam scores (recoded)	.15*	-.05	.25**	.10	.27**	-.27**	.13	.41**	.23**	1.00		
11. Math exam scores (recoded)	.16*	.03	.18*	.17*	.27**	-.07	.17*	.32**	.08	.69**	1.00	
12. Science exam scores (recoded)	.17*	-.06	.19**	.12	.26**	-.15*	.13	.32**	.11	.74**	.88**	1.00
Mean	52.61	26.10	34.65	18.38	12.42	3.57	8.98	.65	23.29	2.22	2.04	2.14
Standard Deviation	13.64	6.75	9.58	5.32	4.01	2.66	7.70	.98	6.98	1.00	.98	.97

Note. N = 236. TRF = Teacher Report Form.
[a]$p<.10$. *$p<.05$. **$p<.01$.

Table 2: Means, standard deviations and intercorrelations among all indicators of theoretical constructs for boys (N = 111) and girls (N = 125) separately

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1999												
1. Inter-parental discord and hostility	-	.44**	.22*	.25**	.25**	-.07	.21*	.21*	.31**	.11	.11	.15
2. Children's appraisals of inter-parental conflict	.30**	-	.38**	.45**	.26**	.12	.28**	.28**	.28**	-.05	.00	-.04
2000												
3. Children's perceptions of negative parenting	.33**	.35**	-	.53**	.54**	.21*	.64**	.26**	.46**	.23*	.19*	.22*
4. Appraisals of threat	.12	.47**	.38**	-	.50**	.36**	.50**	.12	.08	.15	.21*	.14
5. Appraisals of self-blame	.18	.30**	.58**	.40**	-	.15	.54**	.24**	.29**	.30**	.31**	.32**
6. Anxiety	-.11	.21*	.04	.38**	-.04	-	.52**	-.27**	-.11	-.09	-.10	-.15
7. Depressive symptoms	.15	.31**	.45**	.41**	.28**	.37**	-	.05	.28**	.25**	.17	.18*
8. Aggression (TRF)	.15	-.09	.11	-.00	.25**	-.25**	.09	-	.45**	.50**	.47**	.46**
9. Antisocial behaviour	.16	.29**	.25**	.19*	.31**	.03	.32**	.35**	-	.25**	.12	.17
2001												
10. English exam scores (recoded)	.21*	-.05	.23*	.07	.22*	-.34**	.02	.38**	.13	-	.78**	.87**
11. Math exam scores (recoded)	.22*	.07	.14	.07	.20*	-.11	.15	.31	.04	.76**	-	.92**
12. Science exam scores (recoded)	.19*	-.08	.16	.09	.19*	-.17	.04	.34**	.07	.70**	.85**	-
Boys' Mean	52.70	25.78	35.67	18.41	12.69	2.97	8.64	.88	24.63	2.49	1.91	2.09
Boys' Standard Deviation	12.68	6.67	9.84	5.03	4.18	2.52	6.88	1.11	7.02	1.03	.94	.93
Girls' Mean	52.53	26.38	33.74	18.35	12.18	4.10	9.29	.44	22.10	1.98	2.16	2.19
Girls' Standard Deviation	14.49	6.92	9.30	5.58	3.85	2.68	8.38	.80	6.74	.92	1.00	1.00

Note. Boys below the diagonal, girls above. TRF = Teacher Report Form.

[a]$p<.10$. *$p<.05$. **$p<.01$.

conflict (Time 1) on children's low academic attainment (Time 3); third, investigating

the impact of inter-parental conflict (Time 1) and children's appraisals of threat (Time

2), self-blame (Time 2) and negative parenting behaviour (Time 2) on low academic

attainment (Time 3) through internalising symptoms (Time 2) and externalising

problems respectively (Time 2); finally repeating this last model but splitting

internalising symptoms (Time 2) into anxiety and depressive symptoms.

1. The Respective Roles of Negative Parenting Behaviour and Children's Appraisals of

Conflict

The first model (Figure 2) tested the relationship between inter-parental conflict,

negative parenting behaviour and low academic attainment. Results revealed a

significant path between inter-parental conflict and perceptions of negative parenting

behaviour ($\beta = .49$, $p<.01$). A significant path was also found between negative

parenting behaviour and low academic attainment ($\beta = .25$, $p<.05$). However, no

significant association was found between inter-parental conflict and low academic

attainment ($\beta = .11$, $p>.05$). The initial direct association between inter-parental

conflict and low academic attainment was not significant ($\beta = .12$, $p>.05$) but the

indirect effect of inter-parental conflict on low academic attainment via negative

parenting was significant ($\beta = .10$, $p>.05$); therefore the relationship between inter-

parental conflict and low academic attainment occurred indirectly through negative

parenting behaviour. Fit statistics demonstrated that this model provided a good fit to

the data ($\chi^2 = 19.16$; RMSEA $= .085$; GFI $= .97$; AGFI $= .92$).

The second model (Figure 3) tested the relationship between inter-parental

conflict, appraisals of threat and self-blame, and low academic attainment. Significant

paths were found from inter-parental conflict to appraisals of threat and self-blame ($\beta =$

$.46$, $p<.01$, $\beta = .27$, $p<.05$). A significant path was also present between self-blame
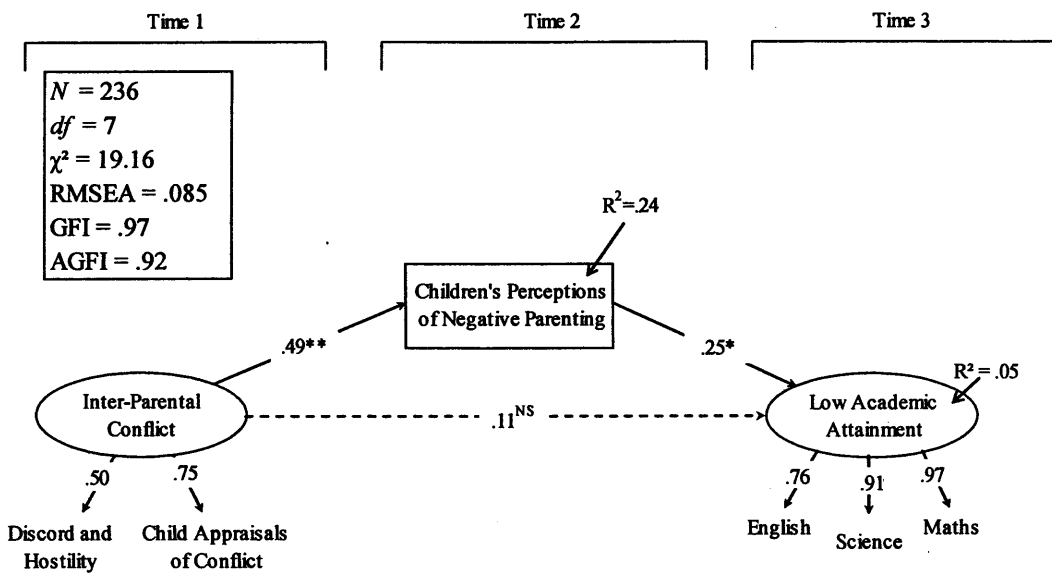
Figure 2: The relationship between inter-parental conflict, negative parenting behaviour and low academic attainment *p<.05, **p<.01
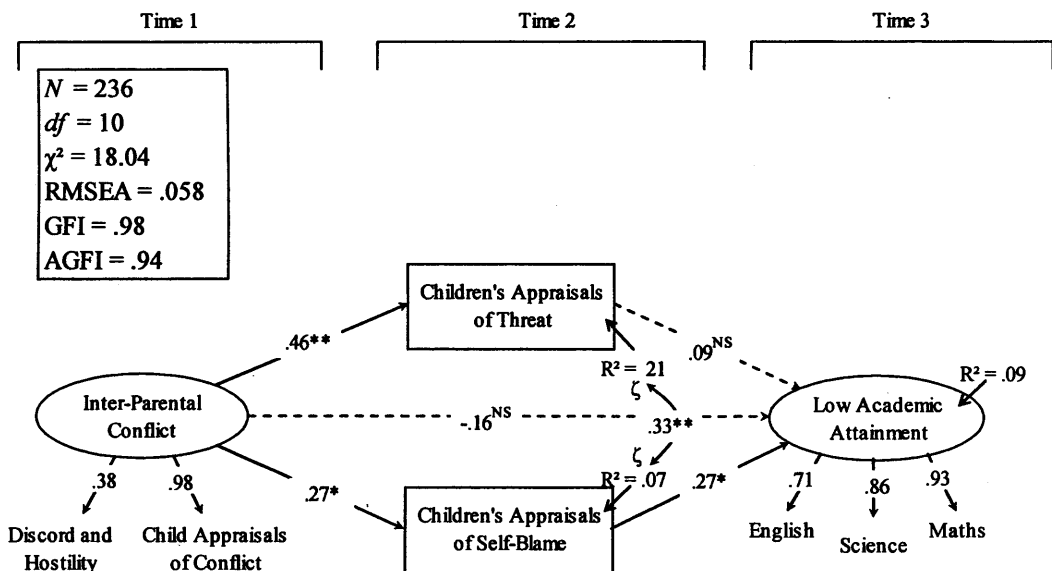
Figure 3: The relationship between inter-parental conflict, children's appraisals of threat, children's appraisals of self-blame and low academic attainment *p<.05, **p<.01

148

and low academic attainment ($\beta = .27, p<.01$). Therefore there was an indirect link between inter-parental conflict and low academic attainment through children's reports of self-blame (significance of indirect path: $\beta = .08, p<.05$). However, there was no significant path between appraisals of threat and low academic attainment so this factor was only related low academic attainment through its association with self-blame. Fit statistics suggested that this model provided a good fit to the data ($\chi^2 = 18.04$; RMSEA $= .058$; GFI $= .97$; AGFI $= .94$).

2. The Relative Roles of Negative Parenting Behaviour and Children's Appraisals of Conflict

The third model (Figure 4) assessed the impact of inter-parental conflict on low academic attainment through appraisals of threat, self-blame and negative parenting. Results revealed paths between inter-parental conflict and negative parenting behaviour ($\beta = .44, p<.01$), inter-parental conflict and appraisals of threat ($\beta = .53, p<.01$), and inter-parental conflict and appraisals of self-blame ($\beta = .33, p<.05$). Similar to the earlier models, a significant path was present between appraisals of self-blame and low academic attainment ($\beta = .23, p<.05$); however, the path between negative parenting behaviour and low academic attainment was no longer significant ($\beta = .06, p>.10$) and there was no significant path between appraisals of threat and low academic attainment ($\beta = .00, p>.05$). Indirect effects tests revealed that there was a significant indirect pathway between inter-parental conflict and low academic attainment through children's appraisals of self- blame ($\beta = .09, p<.05$). GFI and chi-square statistics confirmed that the model provided a good fit to the data ($\chi^2 = 29.45$; RMSEA $= .069$; GFI $= .97$; AGFI $= .92$).

Time 1   Time 2   Time 3

N = 236
df = 14
χ^2 = 29.45
RMSEA = .069
GFI = .97
AGFI = .92

Children's Appraisals
of Threat

R^2 = .28

R^2 = .08

.53**

.22*

.00^{NS}

Inter-Parental
Conflict

.44**

Children's Perceptions
of Negative Parenting

R^2 = .19

.06^{NS}

Low Academic
Attainment

.28**

.44   .84

.42**

.23*   .71   .87   .93

Discord and
Hostility

Child Appraisals
of Conflict

.33*

English   Science   Maths

R^2 = .11

Children's Appraisals
of Self-Blame

Figure 4: The relationship between inter-parental conflict, negative parenting behaviour children's appraisals of threat, children's appraisals of self-blame and low academic attainment *p<.05, **p<.01

150

3. The Roles of Internalising Symptoms and Externalising Problems

Model 4 (Figure 5) tested the impact of inter-parental conflict on low academic attainment through negative parenting, appraisals of threat, appraisals of self-blame and externalising problems. Again, there were significant paths from inter-parental conflict to negative parenting behaviour, appraisals of threat and appraisals of self-blame (β = .44, $p<.01$; β = .53, $p<.01$ and β = .33, $p<.05$ respectively). Both negative parenting and appraisals of self-blame were significantly related to children's externalising problems (β = .33, $p<.05$; β = .33, $p<.05$ respectively) but appraisals of threat were not (β = -.14, $p>.05$). There were no direct effects of threat, self-blame or negative parenting on low academic attainment (β = -.05, $p>.05$; β = .05, $p>.05$; β = .12, $p>.05$ respectively). There was, however, a significant path between externalising problems and low academic attainment (β = .35, $p<.05$), suggesting that eternalising problems mediated the relationship between self-blame and low academic attainment, and provided a linking mechanism through which negative parenting was related to attainment. In support of this, indirect effects tests confirmed indirect pathways between inter- parental conflict and low academic attainment through negative parenting and externalising problems (β = .07, $p<.05$) and through self-blame and externalising problems (β = .06, $p<.05$). GFI and chi-square statistics confirmed that this model provided a good fit to the data (χ^2 = 75.06; RMSEA = .090; GFI = .94; AGFI = .84). Stacked model comparisons (Bollen, 1989) revealed no significant gender differences in the pattern of relations in this model.

Model 5 (Figure 6) tested the impact of inter-parental conflict on low academic attainment through negative parenting, appraisals of threat, appraisals of self-blame and internalising symptoms. There were significant paths from inter-parental conflict to negative parenting behaviour, appraisals of threat and appraisals of self-blame (β = .44,
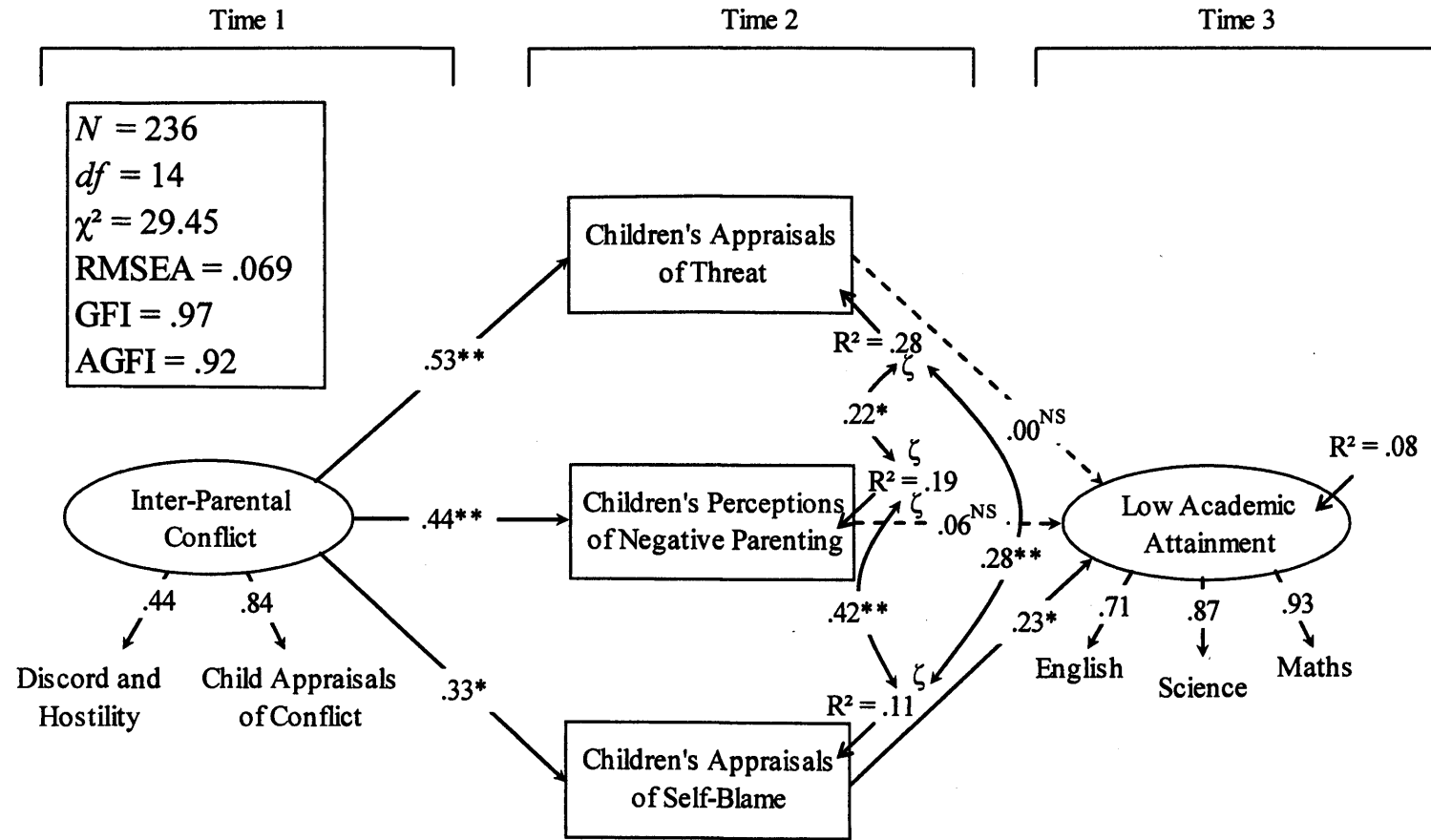
Figure 5: The relationship between inter-parental conflict, negative parenting behaviour children's appraisals of threat, children's appraisals of self-blame, externalising problems and low academic attainment *p<.05, **p<.01

N = 236
df = 18
χ² = 42.44
RMSEA = .075
GFI = .96
AGFI = .90

Children's Appraisals of Threat

.53**

.01^NS

R² = .28
ζ
.23*
ζ
.30**

R² = .19
ζ
.33**

R² = .33

.09^NS

R² = .08

Inter-Parental Conflict

.44**

Children's Perceptions of Negative Parenting

Internalizing Symptoms

Low Academic Attainment

.27**

-.06^NS

.41**

.06^NS

.45   .84

.34*

.25*

.76   .91   .97

Discord and Hostility

Child Appraisals of Conflict

R² = .12

Children's Appraisals of Self-Blame

English   Science   Maths

153

Figure 6: The relationship between inter-parental conflict, negative parenting behaviour children's appraisals of threat, children's appraisals of self-blame, internalising symptoms and low academic attainment *p<.05, **p<.01

$p<.01$; $\beta = .53$, $p<.01$ and $\beta = .34$, $p<.05$ respectively). Both negative parenting and

appraisals of threat were significantly related to children's internalising symptoms ($\beta = $

.33, $p<.05$; $\beta = .30$, $p<.01$ respectively) but appraisals of self-blame were not ($\beta = .06$,

$p>.05$). There were no direct effects of threat, negative parenting or internalising

symptoms on low academic attainment ($\beta = .09$, $p>.05$; $\beta = .01$, $p>.05$; $\beta = -.06$, $p>.05$

respectively). However, there was a significant direct path between self-blame and low

academic attainment ($\beta = .25$, $p<.05$). Indirect tests confirmed an indirect pathway

between inter-parental conflict and low academic attainment through appraisals of self-

blame in this model ($\beta = .10$, $p<.05$). GFI and chi-square statistics suggested that this

model provided a good fit to the data ($\chi^2 = 42.44$; RMSEA $= .075$; GFI $= .96$; AGFI $=$

.90).

4. Assessing Effects Separately for Anxiety and Symptoms of Depression

The literature outlined earlier suggested that depression and anxiety

differentially predict low academic attainment. Specifically, it demonstrated that while

high anxiety might serve to motivate children to perform well academically, depression

might lead to a sense of helplessness that impedes attainment (Fincham et al., 1989).

With this literature as the rationale, the analyses completed in step three were repeated

for model 6 (Figure 7), substituting internalising symptoms with respective assessments

of symptoms of anxiety and depression. As in previous models, inter-parental conflict

predicted appraisals of threat, self-blame and parenting ($\beta = .53$, $p<.01$ and $\beta = .34$,

$p<.05$; $\beta = .44$, $p<.01$ respectively). Children's perceptions of negative parenting

predicted depressive symptoms ($\beta = .38$, $p<.01$) but not symptoms of anxiety ($\beta = -.05$,

$p>.05$). Appraisals of threat predicted both symptoms of anxiety ($\beta = .43$, $p<.01$) and

depressive symptoms ($\beta = .24$, $p<.01$). Appraisals of self-blame did not predict either

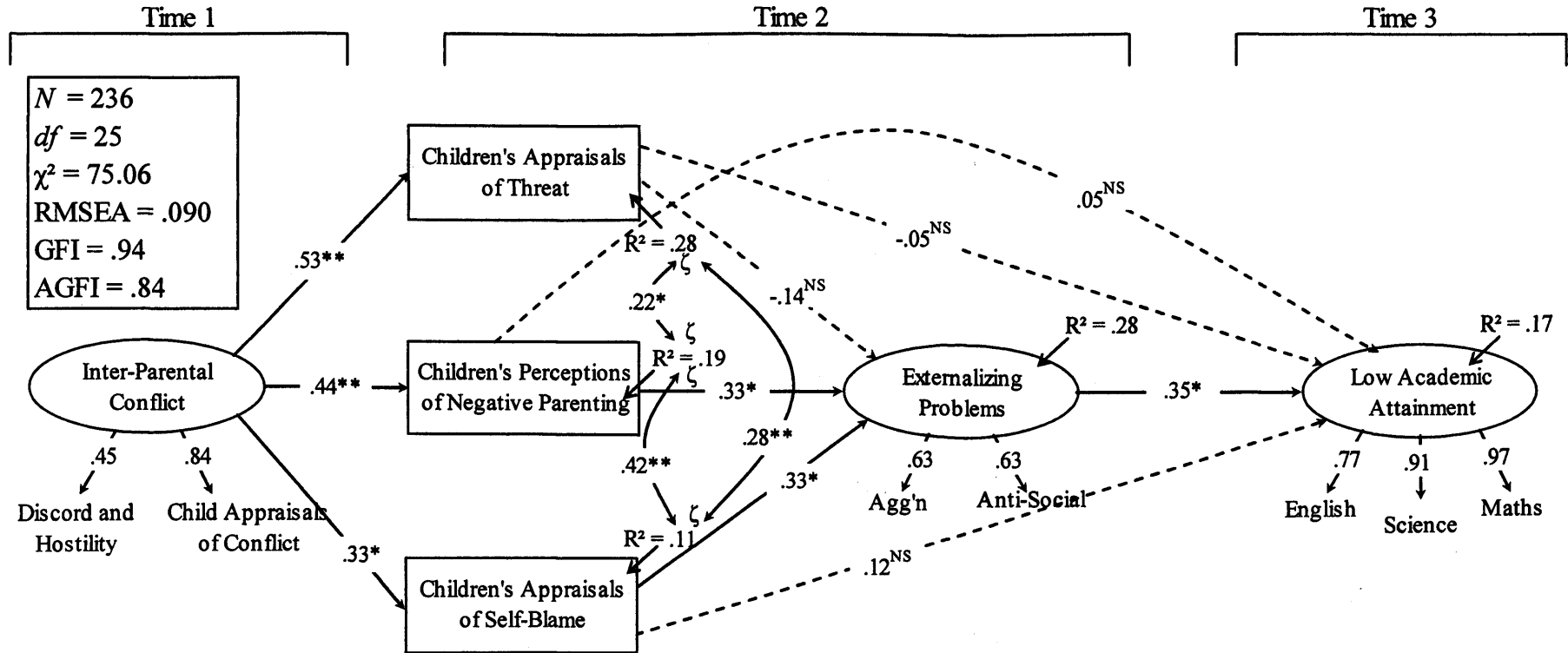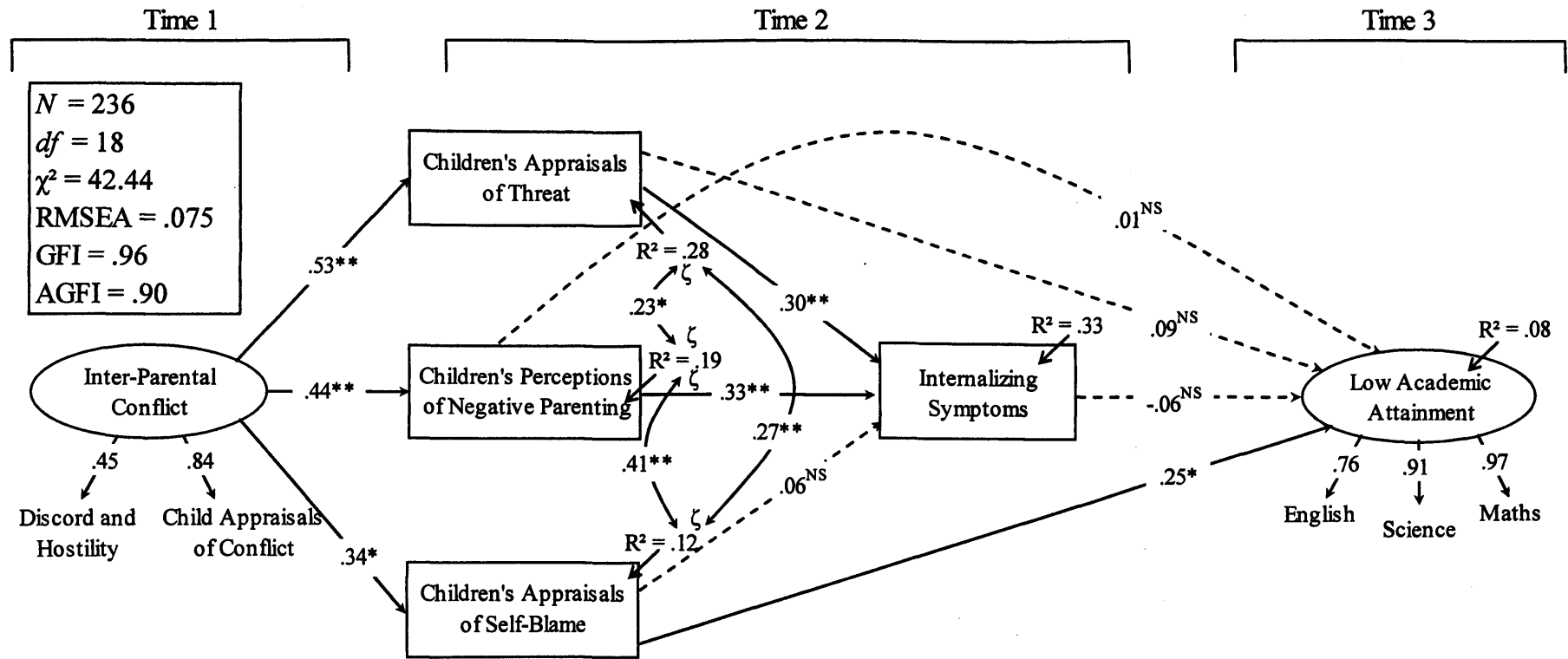depressive symptoms ($\beta = .09$, $p>.05$) or symptoms of anxiety ($\beta = -.08$, $p>.05$).
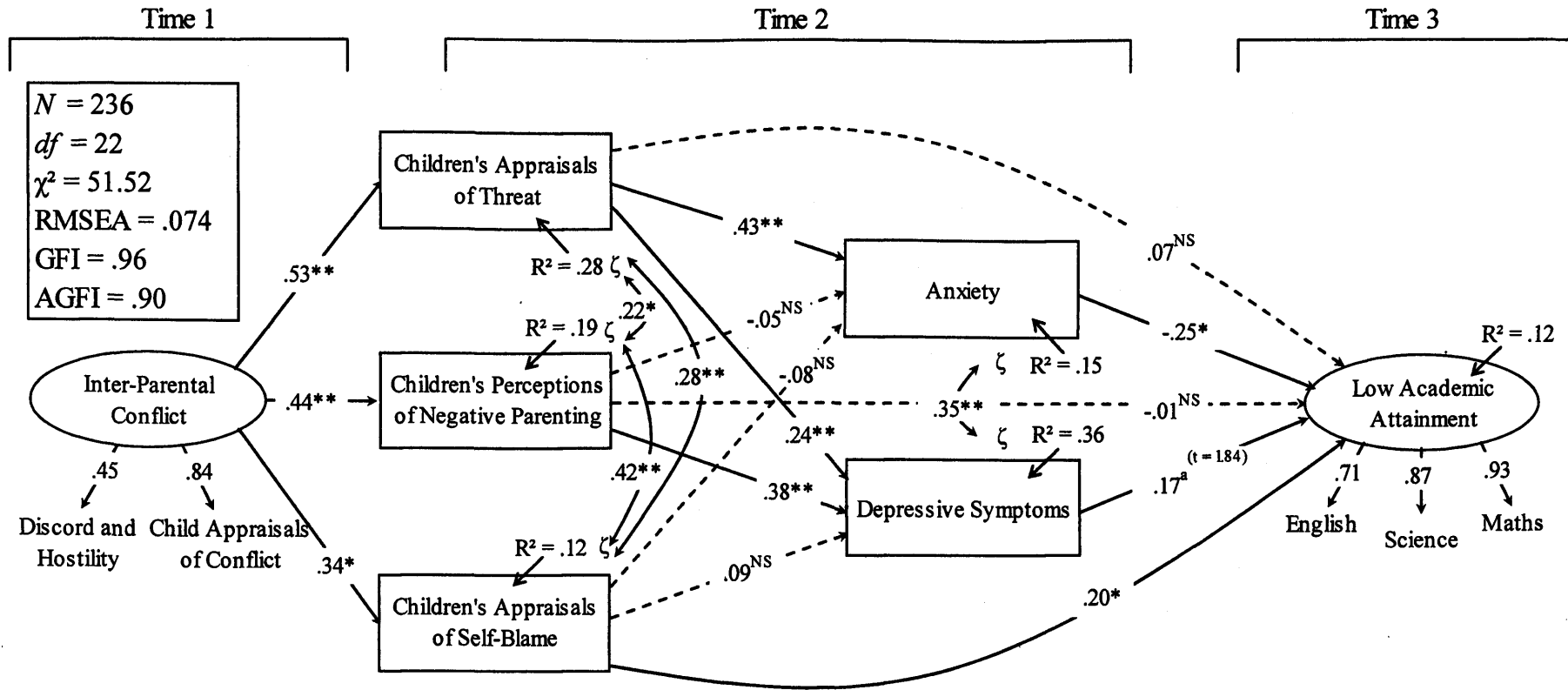
Figure 7: The relationship between inter-parental conflict, negative parenting behaviour children's appraisals of threat, children's appraisals of self-blame, anxiety symptoms, depression symptoms and low academic attainment *p<.05, **p<.01

However, self-blame did have a significant direct effect on low academic attainment (β = .20, $p<.05$). There was a significant negative effect of symptoms of anxiety on low academic attainment, such that high levels of anxiety were associated with high exam scores (β = -.25, $p<.05$). There was also a marginal positive effect of depressive symptoms on low academic attainment such that higher levels of depressive symptoms predicted lower academic attainment (β = .17, $p<.10$). Indirect effects tests demonstrated that inter-parental conflict was significantly indirectly related to low academic attainment through appraisals of threat and anxiety (β = .02, $p<.05$). However, the indirect path between conflict and attainment through threat and depressive symptoms was not significant (β = .00, $p>.10$), nor was the indirect path between conflict and attainment through negative parenting and depression. Furthermore, neither anxiety nor depressive symptoms mediated the influence of self-blame on low academic attainment; therefore the indirect effect of inter-parental conflict on low academic attainment through self-blame observed in the previous model remained. Fit statistics demonstrated that this model provided a good fit to the data (χ^2 = 51.52; RMSEA = .074; GFI = .96; AGFI = .90). Stacked model comparisons (Bollen, 1989) revealed one gender difference in the pattern of relations in this model. The relationship between self-blame and depressive symptoms was significant for girls (β = .23, $p<.05$) but not for boys (β = -.05, $p>.05$; $\Delta\chi^2$ = 4.98, $p<.05$).

Summary

Initial models considering the role of children's perceptions of negative parenting behaviour suggested that there was an indirect relationship between inter-parental conflict and low academic attainment through negative parenting behaviour. Similarly, initial models considering the role of appraisals of self-blame showed an indirect effect of inter-parental conflict on low academic attainment through appraisals

of self-blame. However, when parenting and appraisals of conflict were considered together (i.e., allowing direct and indirect effects mechanisms to compete) negative parenting behaviour was no longer significantly related to low academic attainment, whereas appraisals of self-blame affected achievement directly. The full model assessing the impact of inter-parental conflict on low academic attainment through parenting, conflict appraisals and externalising problems demonstrated that externalising problems provided a mechanism through which both parenting and self-blame appraisals were related to low academic attainment.

Models for internalising symptoms revealed that though both negative parenting and threat appraisals were associated with internalising symptoms, these symptoms did not significantly contribute to low academic attainment. Therefore, only self-blame appraisals predicted low academic attainment in this model. However, when internalising symptoms were spilt into symptoms of anxiety and depression, while self-blame remained a significant predictor of low academic attainment, high anxiety levels predicted high academic attainment but high levels of depressive symptoms were marginally significantly related to lower academic attainment. While depressive symptoms appeared to provide a mechanism through which threat and parenting were related to low academic attainment, indirect pathways between inter-parental conflict and low academic attainment through depressive symptoms were not significant. However, anxiety did provide a mechanism through which threat appraisals and were related to low academic attainment.

Discussion

The present study provides further evidence for the role of children's perceptions of both inter-parental conflict and parenting in understanding adjustment outcomes. By using a longitudinal design, this study extends previous research findings

by showing that inter-parental conflict experienced by children influences their ability to function well across contexts. Such findings suggest that the effects of inter-parental conflict on children are persistent and pervasive.

The aim of the present study was to test the roles of direct and indirect effects mechanisms in explaining the impact of inter-parental conflict on children's academic attainment. Specifically, this study built on the findings of the previous chapter by considering children's perceptions of inter-parental conflict as well as parenting as mechanisms through which inter-parental conflict impacts on academic attainment. It also attempted to provide a clearer explanation of the nature of the influence of internalising symptoms on academic attainment. The findings demonstrated that conflict witnessed by children that was frequent, hostile and poorly resolved impacted on children's appraisals of threat and self-blame, and on their perceptions of parenting behaviour. Appraisals of self-blame and perceptions of negative parenting both informed the degree of externalising problems experienced by the child and externalising problems in turn were associated with low academic attainment. In terms of internalising symptoms, findings indicated that considering anxiety and depression separately provides a clearer understanding of the mechanisms through which conflict informs children's academic attainment. Specifically, the results suggest that inter-parental conflict impacts on academic attainment through children's appraisals in the context of inter-parental conflict and negative parenting, which impact on their symptoms of depression and anxiety, and that these symptoms differentially affect children's subsequent academic attainment.

Initial models found support for the respective roles of parenting and children's appraisals of conflict in linking inter-parental conflict to low academic attainment. However in a second stage of analyses, the relative roles of threat, self-blame and

negative parenting behaviour were assessed simultaneously. When assessed in the context of children's appraisals of threat and self-blame, parenting no longer exerted direct effects on academic achievement. However, consistent with recent research (Harold et al., in press), self-blame continued to exert direct effects on academic achievement. With the addition of externalising problems to this model, findings suggested that both parenting and self-blame informed academic attainment through externalising problems. These findings indicate that both indirect and direct effects explanations are important to understanding the impact of inter-parental conflict on academic achievement. Links between hostile or withdrawn parenting and externalising problems in the context of inter-parental conflict have been well documented (e.g. Erel & Burman, 1995). Research suggests that links may be due to modelling of aggressive or hostile behaviour exhibited by parents (Easterbrooks & Emde, 1988). Studies have also shown that low parental monitoring associated with withdrawn parenting may lead children to act out (Krishnakumar, Buehler, & Barber, 2003; Williams & Kelly, 2005).

The relationship between self-blame and academic attainment through externalising problems has not been documented before but links between self-blame and eternalising problems and between externalising problems and academic attainment are consistent which past research. Previous studies have suggested that self-blame possibly impacts on externalising problems because children who feel responsible for conflict are more likely to take it upon themselves to intervene in conflict; this may require children to act out in order to distract parents. If this strategy is successful it will increase the likelihood that the child will engage in this behaviour again (Grych et al., 2003). Associations between externalising problems and academic attainment have been frequently noted in both cross-sectional and longitudinal research (Mingyue et al.,

2001; Adams et al., 1999; Hinshaw, 1992; Fergusson et al, 1993; Egeland et al., 1990). This relationship is possibly due to children with externalising problems exhibiting more disruptive behaviour in the classroom. This kind of behaviour is likely to affect the child's ability to attend to and concentrate on information given in class and, therefore, make it difficult for them to perform well academically (Fergusson et al, 1993; Egeland et al., 1990). From the present findings, it appears that children's self-blaming appraisals set in motion a chain-reaction in which first children's behaviour and then their academic attainment is affected.

The present study demonstrated that, while both parenting and threat appraisals significantly predict internalising symptoms, internalising symptoms were not related to academic attainment. Inter-parental conflict affected children's low academic attainment via appraisals of self-blame only in this model. The absence of an association between internalising symptoms and academic achievement was proposed to be a consequence of the different symptom profiles that constitute internalising symptoms. Studies have found that, while depression has a detrimental effect on academic attainment, high levels of anxiety may actually improve academic attainment (DiLalla et al., 2004; Eady, 1999). Taking this into consideration, anxiety and depressive symptoms were assessed as distinct constructs. Findings revealed that threat appraisals predicted both anxiety and depressive symptoms; whereas negative parenting was only associated with depressive symptoms and self-blame was related to neither of these factors but did exert direct effects on low academic attainment.

Links between negative parenting and internalising symptoms may occur because children view hostile or negative parent-child relationships as threatening and may have less of a sense of security in the parent-child relationship in the context of negative parent-child relations, leading to feelings of dysphoria and depression (Harold

et al, 1997). With respect to appraisals of inter-parental conflict, recent research has noted more consistent links between threat and internalising symptoms than threat and eternalising problems (Dadds et al., 1999; Grych et al., 2003; Kerig, 1998b). This work suggests that children become sensitised to threatening conflict, leading them to become increasingly anxious or depressed upon witnessing repeated conflicted exchanges. When girls and boys were considered separately, there was a significant link between self-blame and depressive symptoms for girls but not for boys. This was the only gender difference observed in this set of analyses and it is consistent with previous research conducted by Grych et al. (2003), which revealed a significant association between self-blame and internalising symptoms for girls but not for boys. These findings are also consistent with literature considering gender socialisation, which suggests that girls are more likely to internalise in response to conflict, whereas boys are more likely to externalise their distress (Davies & Lindsay, 2001; Zahn-Waxler, 1993). However, given the number of gender comparisons tested this one difference may be a chance finding and, therefore, must be treated with caution.

Consistent with predictions, there was a positive but marginal relationship between depressive symptoms and low academic attainment and a significant negative relationship between anxiety and low academic attainment, suggesting that children with high levels of anxiety fare better academically than children with low levels of anxiety. Previous findings have suggested that, while high levels of depression are typically associated with a deficit in academic attainment, these associations tend to be less robust in community samples (Masten et al., 2005), perhaps explaining why the effect of depression on academic achievement in the present set of analyses was marginal. However, this finding in the present study is consistent with children experiencing high levels of depressive symptoms adopting less effective learning

strategies, perhaps based on a helpless orientation to learning (Miller & Seligman, 1975; Valas, 2001). The negative relationship between symptoms of anxiety and low academic attainment is consistent with the hypothesis that, while clinical levels of anxiety may be detrimental to functioning, high but normative levels of anxiety may actually improve motivation and academic attainment (DiLalla et al., 2004; Yerkes & Dodson, 1908). These findings also provide some explanation of why previous studies have failed to find links between internalising symptoms and academic attainment.

Some limitations of the present study are noteworthy. First, some participants were not included in the present analyses either because they did not belong to a two-parent family (either both biological parents or one biological and one step-parent) or because they did not provide complete data for all the variables used. There were some differences between children who were included in the present analyses and those who were not. Those who were not included had higher scores on the conflict properties scale, teacher reports of aggression and had lower exam grades in two subjects. The exclusion of these children from the analyses may have affected the magnitude of the associations between variables. Second, as in Chapter 3, the measure of academic attainment was children's grades in Key Stage Three exams; exams that only occur once in the child's academic career. Therefore, as in the previous set of analyses, it was not possible to measure attainment in the same way at an earlier time point. This precluded the use of autoregressive techniques, which allow the criterion variable to be considered as an index of change. This means that findings from the present study should be replicated using these techniques before causal conclusions can be drawn with confidence.

Finally, it should be noted that academic attainment is unique in its attributes in comparison to other indices of child adjustment: the factors that precipitate high

academic attainment are not necessarily the optimum conditions for a well adjusted

child. As evidenced here, high levels of anxiety may promote academic achievement in

the short term, but they can be detrimental to long term psychological health.

Therefore, high academic attainment does not represent the ultimate goal for every

child; rather it is important to focus on fostering positive global adaptation of children

academically, socially and psychologically.

Notwithstanding these limitations and qualifications, the present study adds to

current understanding of the impact of family relationships and parenting on children's

school adaptation. To the authors' knowledge it is the first study to longitudinally

assess both indirect and direct explanations of the impact of inter-parental conflict on

children's academic attainment, whilst considering internalising symptoms *and*

externalising problems. Past research has highlighted the importance of children's

perceptions in linking inter-parental conflict with psychological adjustment (Grych &

Fincham, 1990; Grych et al., 2003) but few studies have assessed these perceptions

with respect to academic adaptation (see Harold et al, in press; Sturge-Apple et al.,

2006a, b for exceptions). Furthermore, no previous studies to the author's knowledge

have considered parenting, and threat and self-blame appraisals as mechanisms through

which inter-parental relations affect academic attainment.

Implications for Practice and Policy

The present study has important implications for improving children's

functioning in the school setting. There is increasing recognition that efforts to improve

children's behaviour and attainment in school must be aimed at the family unit (Booth

& Dunn, 1996; Cowan & Cowan, 2001; Cowan, Cowan, Ablow, Johnson, & Measelle,

2005; Ryan et al., 1995). There are a vast range of strategies to address this, which

have focused on parenting and the parent-child relationship (e.g., Webster-Stratton,

1993). However, a small number of researchers have consistently advocated consideration of the inter-parental relationship in these interventions (Cowan et al., 2005). The present study adds weight to this growing body of research, suggesting that programmes designed to improve children's school functioning need to recognise the contribution that the couple relationship makes to children's ability to function well across contexts. Furthermore, findings are consistent with the previous chapter, suggesting that children's appraisals of family relationships are important to understanding children's adjustment across contexts. As such, interventions aimed at addressing the appraisal process may be beneficial, not only for improving children psychological adjustment but also their academic attainment.

Summary

This study has demonstrated that children's appraisals of conflict are important to understanding children's academic attainment. The findings suggested that both the parent-child relationship and children's appraisals of threat and self-blame in response to inter-parental conflict, make an important contribution to children's academic attainment through their psychological adjustment. In particular, externalising problems, anxiety and depressive symptoms appear to differentially inform children's academic attainment; they also provide a mechanism through which negative parenting behaviour and appraisals in the context of inter-parental conflict inform children's performance in Key Stage Three exams. However, there are several issues, which arise from the current analyses. First, as implied above, academic attainment is not sufficient for understanding the extent of children's adjustment in the school setting. Children who achieve high scores in exam results may be experiencing other deficits in functioning, as evidenced by the association between high anxiety and high exam grades in this study. The next study will aim to address this by considering a broader

scope of adjustment indices relevant to the school context. Second, though Chapter 3 provided evidence that aspects of the school environment also inform children's academic adaptation in the context of family conflict, the influence of the school environment was not considered in the present analyses. Chapter 5 will address this by considering how the processes identified in the current chapter affect children experiencing high levels of stress in the school environment, indexed by the transition from primary to secondary school.

CHAPTER 5

The present chapter aims to extend the previous study by considering whether there are sensitive periods in children's educational development, in which the influence of family relationships on children's school adjustment might be particularly pertinent. Previous research has identified school transitions as periods of particular upheaval for children with implications for the trajectory of their academic careers (Lohaus, Elben, Ball & Klein-Hessling, 2004; Zeedyk et al., 2003). The transition from primary to secondary school may be particularly stressful as, in the UK at least, this transition occurs at the age of 11 or 12. As this age group is associated with the beginning of adolescence it may pose particular problems for children (see Brooks-Gunn & Reiter, 1990; Wigfield, Eccles, & Pintrich, 1996). Specifically, transition at this age often coincides with pubertal changes, which represent a potential time of vulnerability or distress for children in the context of other stressors (Buchanan, Eccles, & Becker, 1992). This age is also associated with the onset of cognitive advances associated with formal operational thought for some children. This combination of biological and cognitive changes may exacerbate the potentially stressful experience of moving from one school context to another.

Chapters 3 and 4 have demonstrated that family relationships have the capacity to affect children's academic outcomes via the appraisals children form of these relationships. At times of stress and upheaval, such as school transition, it is possible that these influences are exacerbated. Therefore, the present chapter will consider how the parent-child relationship and children's appraisals of conflict explain the influence of inter-parental conflict on children's psychological adjustment, social adjustment problems and academic application across the transition from primary to secondary school. Based on the

recommendations made in Chapter 4, it will also provide a broader perspective of children's school adjustment by assessing children's psychological, social and academic adjustment at this time.

An Introduction to School Transition

In British schools all children experience at least two school transitions: the transition from the home or nursery to primary school (aged 4 or 5) and the transition from primary school to secondary school (aged 11 or 12). These transitions are typically characterised by a move to a new school site or building, the introduction of new teaching and non-teaching staff, exposure to a new classroom environment and exposure to new peer groups. In addition to this, children are introduced to the educational setting (or a more advanced educational setting), in which they are required to learn new concepts, demonstrate acquired abilities and adhere to new rules. School transitions have been described as times of increased stress in a child's educational career and have even been regarded as critical life events due to their capacity to shape children's academic trajectories (Lohaus et al., 2004; Zeedyk et al., 2003). The success with which children navigate these transitions has documented implications for children's school adjustment, psychological adjustment and overall well-being (Zeedyk et al., 2003).

Research findings have suggested that school transition affects children's adjustment in a range of different domains. Studies have documented heightened depressive symptoms, poor self-esteem and greater externalising problems subsequent to school transition (Collins, 2000; Robinson, Garber & Hilsman, 1995; Wigfield & Eccles, 1994; Wigfield, Eccles, Mac Iver, Reuman, & Midgely, 1991). Furthermore, decreased motivation, academic performance and school attendance post-transition have also been noted (Anderman, Maehr, & Midgley, 1999; Alspaugh, 1998; Gutman & Midgley, 2000;

Reyes, Gillock, Kobus, & Sanchez, 2000; Wigfield et al., 1991).

One explanation of why children experience problems, particularly in the transition from primary to secondary school is that the school transition at age 11 directly contradicts the developmental needs of children (Eccles et al., 1993). At a time when children require increased psychological and behavioural autonomy within a context of continued positive interpersonal relations with adults and peers, they are exposed to a school environment that is less personal and more controlling. In support of this, the co-occurrence of school transitions and perceived differences in the school environment have been associated with reductions in the quality of children's academic, personal and interpersonal functioning (Barber & Olsen, 2004). However, findings relating to the nature of the influence of transition on children are somewhat inconsistent; while the majority of studies suggest negative effects of transition on children, some have failed to find effects and some even suggest positive effects (Lohaus et al., 2004; Nottelman, 1987; Wallis & Barrett, 1998).

In an attempt to investigate why some children manifest adjustment difficulties in the context of school transition and others do not, studies have begun to investigate what factors might determine variation in children's ability to negotiate school transitions. Some literature has demonstrated influences of the school environment on children's adjustment across transitions. Specifically, many of children's anxieties regarding transition relate to the school environment, school rules, bullying, schoolwork and getting lost (Akos, 2002; Zeedyk et al., 2003). There is also evidence that the quality of the teacher-child relationship pre- and post-transition can affect children's psychological adjustment and academic performance at this time (Greene & Ollendick, 1993; Silver, Measelle, Armstrong, & Essex, 2005).

Studies have also considered the role of internal processes such as self-regulatory

beliefs (Rudolph, Lambert, Clark & Kurlakowsky, 2001) and self-concepts (Lord, Eccles, & McCarthy, 1994) in explaining adjustment across transition. These findings suggest that children who adopt more adaptive self-beliefs experience a more successful transition. Children also appear to experience declines in motivation subsequent to transition to a secondary school setting (Eccles et al., 1993). These reductions have been associated with corresponding declines in academic performance (Eccles & Wigfield, 2002, Pintrich, 2003). However, studies have suggested that there may be factors affecting these internal processes that are guided by wider contextual factors. In particular, studies have noted the influence of the family environment on these processes (Marchant et al., 2001; Wentzel, 1998).

Family Influences and School Transition

As the family represents a primary context for child development, both empirical studies (e.g., Cowan, Cowan, & Heming, 2005; Ikason & Jarvis, 1999; Ketsetzis et al., 1998) and interventions aimed at school transition (e.g., Cowan et al., 2005; Ralph & Sanders, 2003) have begun to acknowledge the implications of the family environment for school transition. Studies focusing on the role of family influences in children's ability to negotiate school transitions have paid particular attention to the parent-child relationship. Typically this relationship has been considered as more proximal to children's school outcomes and, therefore, more influential than other family relationships (Ryan et al., 1995). Research has provided evidence for the importance of parental support (Ikason & Jarvis, 1999; Lord et al., 1994; National Institute of Child Health and Human Development Early Child Care Research Network, 2004), positive parental involvement in the child's school and social life (Falbo, Lein, Amador, 2001), positive parenting characteristics (Duchesne, Larose, Guay, Vitaro, & Tremblay, 2005) and authoritative parenting styles

(Cowan et al., 2005; Mattanah, 2005) in informing children's psychological adjustment, social adjustment problems, sense of school membership and academic performance across transition. Research has also provided evidence for the importance of the affective quality of the parent-child relationship for school transition, with negative or hostile parent-child relations predicting poor academic achievement post-transition (Estrada, Arsenio, Hess, & Holloway, 1987) and warm, close parent-child relations being associated with improved psychological and academic adjustment during this period (Mattanah, 2005; National Institute of Child Health and Human Development Early Child Care Research Network, 2004).

Some literature concerning school transition has also considered the implications of the inter-parental relationship for children's adjustment at this time. Similar to research considering the effects of family influences on children's school performance, there is evidence of the influence of divorce and family structure on children's adjustment across transition (Duchesne et al., 2005). Recent research exploring the role of the inter-parental relationship suggests that conflict in this relationship may be particularly potent for children experiencing school transition (Ablow, 2005).

One study conducted by Cowan et al. (2005) has made a compelling case for the importance of the inter-parental relationship in informing children's adaptation to the transition to elementary school. This study used a preventative intervention to test the relative influence of inter-parental and parent-child relations on children's adjustment during this period. Families involved in the study took part in group meetings with either a couples focus or a parenting focus, prior to their child's transition to elementary school. While involvement in either group resulted in changes in parental behaviour and children's subsequent psychological adaptation and academic performance, the couples focus group

reported improvements in their parent-child relationship as well as in their couple

relationship. Conversely, there was no positive effect of parenting training on the inter-

parental relationship. These findings suggest that, as noted previously (Satir, 1972), the

inter-parental relationship orients other relationships within the family. It also affects

children's psychological and academic adjustment during times of transition. In support of

these findings, research by Measelle (2005) has also demonstrated that the inter-parental

relationship, in addition to the parent-child relationship, exerts unique effects on children's

social adjustment during the transition from primary to secondary school.

Few studies, have explored what accounts for effects of inter-parental conflict on

children's adjustment during periods of transition. It is possible that children confronting

the academic and social challenges that accompany school transitions rely on previously

developed attributions, coping strategies and inter-personal skills derived from previous

experiences in the home (Collins et al., 2000; Nasby et al., 1979; Pettit, et al., 1991). Some

support for this explanation is provided by Ablow (2005), who investigated the role of

children's perceptions of marital conflict in determining psychological adjustment

subsequent to the transition to elementary school. In particular, findings demonstrated that

children's self-blaming appraisals in response to conflict predicted variation in children's

internalising symptoms and externalising problems post-transition. Therefore it appears

that, consistent with earlier research (Grych & Fincham, 1990; Grych et al., 2003) outlined

in Chapter 4, children's appraisals derived from experiences of inter-parental conflict

inform their adjustment when negotiating school transitions. However, it is unclear from

these findings whether other appraisals relevant to inter-parental conflict, such as appraisals

of threat, might inform adjustment at this time. Furthermore, this study considered

children's psychological adjustment only, so it is unclear how these processes might affect

other indices of adjustment that are particularly pertinent to school transition, such as school performance or social behaviour.

Indices of Adjustment Across Transition

Literature considering children's successful negotiation of school transitions has investigated a number of indices of adjustment. Studies have considered internalising symptoms and externalising behaviour (Robinson et al., 1995), self-esteem and self-perception (Wigfield & Eccles, 1994; Wigfield et al., 1991), motivation (Eccles et al., 1993) and academic achievement (Alspaugh, 1998). These indices fall into three primary domains: psychological adjustment, social adjustment and academic performance. As outlined above, many studies have noted changes in levels of children's internalising symptoms and externalising problems at times of school transition (Collins, 2000; Robinson et al., 1995; Wigfield et al., 1991). While findings are mixed, on the whole, evidence suggests that transition does affect psychological functioning negatively. Typically, children undergoing transition experience increases in internalising symptoms and externalising problems and lower self-esteem (Robinson et al., 1995; Wigfield & Eccles, 1994; Wigfield et al., 1991).

Additionally, social adjustment is particularly relevant to periods of school transition. Social groups change at this time; children are exposed to new peer groups in the new school environment and may lose touch with their old ones. Also, children's social experiences change vastly during school transition: the transition between primary and secondary school requires them to move from a familiar academic environment, in which they are the oldest pupils, to an unfamiliar and much larger social setting, in which they find themselves the youngest and least experienced. In other words, their experience changes from that of being a 'big fish in a small pond' during the final year of primary

172

school to being a 'small fish in a big pond' during their first year of secondary school.

Transition also has important implications for children's academic application and attainment. Specifically, school transitions often result in reductions in motivation, academic self-concept, school attendance and academic achievement (Anderman et al., 1999; Eccles et al., 1993). These findings suggest that the introduction of new academic material and changes in the nature of the school environment serve to disrupt children's motivation, application and academic self-concepts (Eccles et al., 1993). These factors, in turn, inform children's academic attainment subsequent to transition.

While there is evidence that these three domains of adjustment (psychological, social and academic) are affected by school transition, previous research suggests that such indices of adjustment are often related to one another. Findings demonstrate that deficits in one area of adjustment may cause "spreading activation" or cascades, spilling into other domains of adjustment (see Masten et al., 2005). Therefore, it is important to consider how these three domains of adjustment relevant to school transition are related to each other.

Findings from previous research and from Chapters 3 and 4 suggest that it is likely that psychological adjustment precedes and influences academic performance (Bernstein & Borchardt, 1991; Jimerson et al., 1999). Externalising problems in particular have been consistently linked with children's ability to apply themselves in class and their academic attainment (Chapter 3; Jimerson et al., 1999; Masten et al., 2005). This is because children who act out are less able to attend to and act on information and instructions provided in the classroom. Moreover, some studies have noted that externalising problems contribute to children's social behaviour and their popularity with peers. Findings demonstrate that children displaying high levels of externalising behaviour tend to be less popular with their peers and tend to have fewer friends (Bronstein et al., 1996; Dodge & Feldman, 1990;

Johnson & Foster, 2005; Ladd & Crick, 1989). This evidence indicates that aggressive behaviour is viewed negatively by peers, causing aggressive children to be less popular possibly even resulting in them to be excluded from social groups.

Internalising symptoms have also been associated with academic performance (Bernstein & Borchardt, 1991; Kovacs & Devlin, 1998; Roeser et al., 2000). However, as outlined in Chapter 4, findings in this area have been mixed (Masten et al., 2005). Some studies have documented links between internalising symptoms and low academic performance (see above); whereas others have suggested little or no relationship between these two factors (Strauss, Lahey, & Jacobsen, 1982). The preceding chapter suggested that anxiety and depressive symptoms contribute to academic attainment in different ways, with high levels of anxiety leading to higher exam scores and high levels of depression being marginally associated with lower scores. The relationship between internalising symptoms and academic application is even more unclear. While previous research has demonstrated that learned helplessness, associated with depressive symptoms (Miller & Seligman, 1975; Valas, 2001), is also linked with maladaptive achievement strategies (Diener & Dweck, 1978; Fincham et al., 1989), it is unclear whether these achievement strategies affect the level of academic application invested by children or just the efficacy of their approach to learning.

There is evidence to suggest that internalising symptoms contribute to children's social adjustment problems. In particular, links have been documented between internalising symptoms and children's social competence and popularity with peers (Lillehoj, Trudeau, Spoth, & Wickrama, 2004). Findings also suggest that children who have high levels of internalising symptoms show deficits in social adjustment (Strauss et al., 1986) and that these children tended to be less liked by peers (Strauss, Forehand, Smith,

& Frame, 1988). However, results have been mixed, with some studies failing to find effects of internalising symptoms on social behaviour (Chen, et al., 2005).

Summary

Overall, school transitions represent important periods in a child's life. The negotiation of these transitions has implications for psychological, social and academic trajectories. However, the nature of the influence of transition on children's functioning in these domains remains somewhat unclear, with some research providing mixed findings (Lohaus et al., 2004; Nottelman, 1987; Wallis & Barrett, 1998).

Many studies have made the case for the importance of family relationships in determining children's negotiation of school transition. This research notes the impact of the inter-parental relationship in particular on children's appraisals of inter-parental conflict (Ablow, 2005) and on the parent-child relationship (Cowan et al., 2005) and the effect of these factors in turn on children's psychological and academic adaptation across transition. However, a limited range of processes through which inter-parental conflict impacts on children during transition have been considered. Moreover, studies that do exist in this area mostly consider the transition into the school system in early childhood, and they have mostly been conducted in the US. One further notable shortcoming of research regarding family influences on school transition is that no comparison groups have been employed. In order to capture the distinct processes through which family relations inform children's adjustment across a period of school transition, a comparison group of children not undergoing school transition would be beneficial.

The Present Study

The present study initially aimed to examine differences between pre- and post-transition levels of family functioning, school support and psychological, social and academic

adjustment for children making the transition from primary to secondary school; scores for these children were assessed in comparison to children who were not undergoing school transition. Furthermore, the study aimed to assess the role of negative parenting and children's appraisals of threat and self-blame in response to inter-parental conflict in linking inter-parental conflict to children's social and academic adaptation across the transition from primary to secondary school (see Figure 1). It was also proposed, based on the findings of the previous chapter and the research described above, that children's internalising symptoms and externalising problems might serve as a linking mechanism through which negative parenting and appraisals of threat and self-blame informed children's social adaptation and their application in school. In order to address the lack of use of comparison groups in previous research, the sample was first considered as a whole and then models were assessed separately for two cohorts of children, those moving from year five (aged 9 to 10 years) to year six (aged 10 to 11 years) who would not be making a school transition and those moving from year six to year seven (aged 11 to 12 years) who made the transition from primary school to secondary school during this period. It was hypothesised that negative parenting and children's appraisals in response to conflict would serve as a mechanism through which inter-parental conflict impacted on children's psychological adjustment post-transition, and that children's internalising symptoms and externalising problems, in turn, would differentially predict children's social adjustment problems and academic application. It was also hypothesised that the impact of these processes on children would vary depending on whether they were undergoing school transition or not.
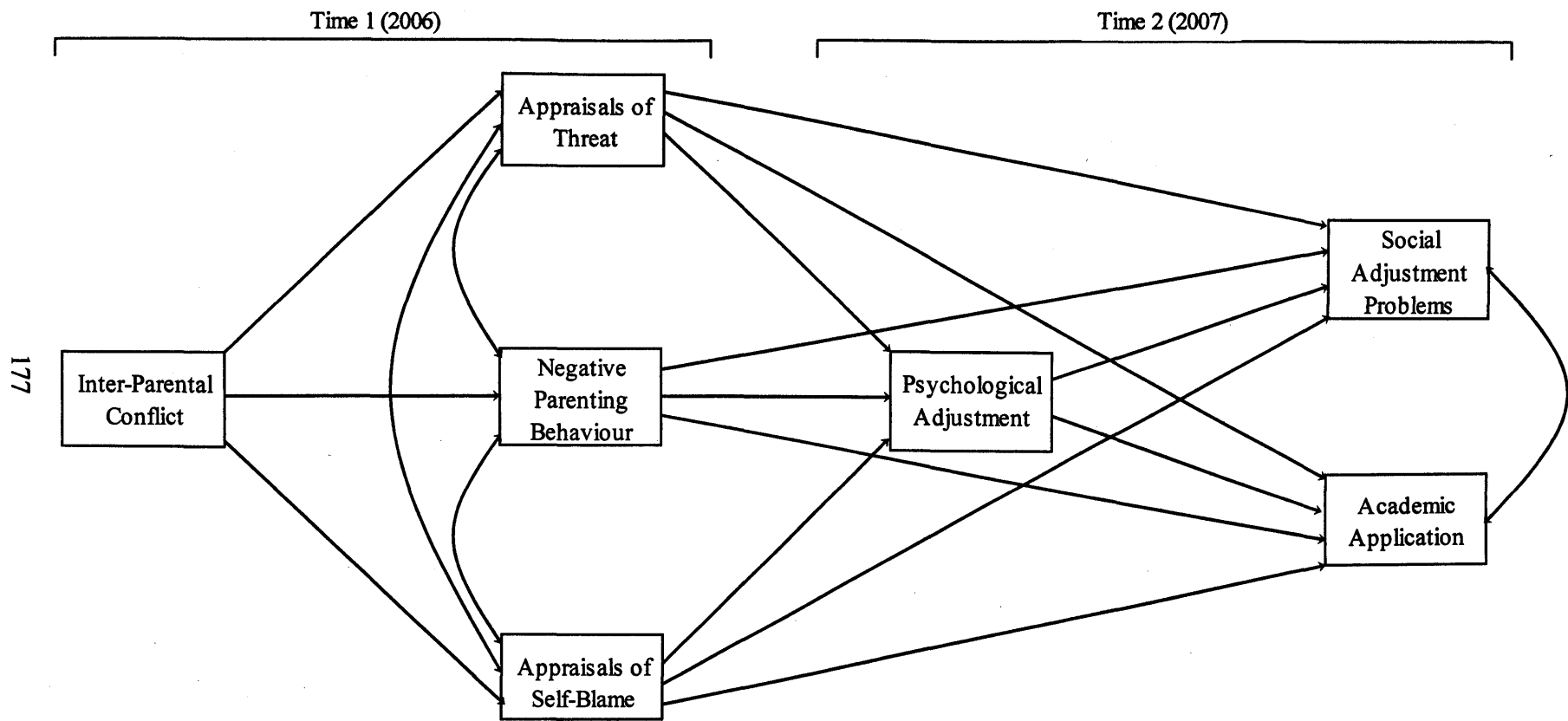
Time 1 (2006) Time 2 (2007)

Figure 1: Theoretical model linking inter-parental conflict to children's social adjustment problems and academic application via appraisals of threat and self-blame, and negative parenting

Method

Sample

Data for these analyses were derived from the South Wales School Transition Study, which focused on how family influences inform children's anticipation and negotiation of transition from primary to secondary school. It followed two cohorts of children across two time points: children from year five (aged 9 to 10 years) in spring 2006 and again in their final year of primary school in year six (aged 10 to 11 years) in spring 2007, capturing the build up to transition and children from year six in spring 2006 to their first year of secondary school in year seven (aged 11 to 12 years) in spring 2007, capturing the period of transition (see Chapter 2 for description of the sample and procedure).

Analyses were conducted in two stages: differences between Time 1 and Time 2 scores for transition and non-transition groups for indices of family functioning and child adjustment were first assessed, and then structural equation modelling was used to assess the theoretical model described above. The first stage of analyses involved t tests on all participants who provided complete data for the study variables. Due to the nature of the study questions, only children in two-parent households, or children who had experience of recent and sustained interaction between both parents were included in the second stage of analysis. Therefore the remaining families comprised both biological parents (71.28 % of the sample) or one biological parent and one stepparent (7.52 % of the sample), one other category was included; children who lived split time between both parents (.02 % of the sample). The combined sample for the current analyses testing theoretical model, containing complete information for children at both time points and complete teacher data for Time 2, consisted of 90 cases (35.6 % girls, 64.4 % boys). Children were between the ages of 9 and 11 years at the first point of data collection, with a mean age of 10.30 years

(SD .68) at this time. Of this sample, 86.26 % of mothers and 83.36 % of fathers had

completed secondary or high-school education only; 32.82 % of mothers and 55.26 % of

fathers completed technical or vocational level training; and 39.00 % of mothers and 34.21

% of fathers completed university education. The study sample had a low ethnic

composition with 98.48 % of mothers and 96.30% of fathers being of White-European

origin. The remaining 1.52% of mothers and 3.70% of fathers were of Asian, Black-

Caribbean or Black-African origin. Children who did not complete both waves had

significantly higher scores for externalising problems than children who were part of the

study sample (t (110) = 2.15, $p<.05$). No other differences were found across study

variables between children with complete versus incomplete data.

Measures

Measures outlined below are included in either the t tests analysis or the analyses

for the theoretical model, or both.

Inter-Parental Conflict:

A subset of questions reflecting inter-parental hostility taken from the IYFP rating

scales (Melby et al., 1993) was employed to assess parents' reports of conflict with their

spouse or partner conflict. This measure consists of four questions, including: "During the

past month, how often did your husband/wife/partner 1) Get angry at you 2) Criticise you

or your ideas". Responses for this scale range between one and seven (representing

"Always" and "Never" respectively). Items for this measure were coded such that high

scores reflected high levels of hostility between parents. Reports from this measure

demonstrated good reliability estimates for both time points for both mothers (Time 1 α

=.90, Time 2 α = .86) and fathers (Time 1 α =.88, Time 2 α = .88); therefore mothers' and

fathers' reports were combined (Time 1 α =.89, Time 2 α = .85).

Child reports of inter-parental conflict were measured using the Conflict Properties subscale of the CPIC (Grych, et al., 1992). This 17 item subscale consists of three smaller subscales, which relate to the Frequency, Intensity and Resolution of inter-parental conflict. Example questions include: "I never see my parents arguing" (Frequency); "My parents get really angry when they argue" (Intensity) and "When my parents argue they usually make it up right away" (Resolution). Responses for this scale take the form "True", "Sort of True" and "False". Items for this measure were coded such that high scores reflected high levels of conflict. Internal consistency scores for these subscales were good ($\alpha = .78$, $\alpha = .79$, $\alpha = .86$ respectively for Time 1 and $\alpha = .84$, $\alpha = .81$, $\alpha = .81$ for Time 2). These three subscales were combined to provide an overall index of children's perceptions of conflict properties for Time 1 and Time 2 ($\alpha = .91$, $\alpha = .91$).

Appraisals of Threat

Children's appraisals of threat relating to inter-parental conflict were assessed using the threat subscale of the CPIC (Grych, et al., 1992). This subscale consists of 12 items and includes questions such as "When my parents argue I worry what will happen to me". One item was omitted from the scale ("When my parents argue I'm afraid one of them will get hurt"). Responses for this scale took the form "True", "Sort of True" and "False". Items for this measure were coded such that high scores reflected high levels of threat . The reliability estimates for this subscale for Time 1 and Time 2 were good ($\alpha = .85$, $\alpha = .84$).

Appraisals of Self-Blame

Children's perceptions of self-blame in response to inter-parental conflict were measured by the self-blame subscale of the CPIC (Grych et al., 1992). This subscale consists of nine items, which include questions such as: "It is usually my fault when my

parents argue" and "I am not to blame when my parents have arguments". Responses took the form "True", "Sort of True" and "False". Again, items were coded such that high scores reflected high levels of self-blame. Again, the reliability of this subscale for both time points was good ($\alpha = .84$, $\alpha = .86$).

Negative Parenting Behaviour

As previous research discussed in the Chapter 3 has highlighted parental hostility or rejection and withdrawal as being linked with inter-parental conflict, negative parenting behaviour was assessed using two subscales of the CRPBI (Margolies & Weintraub, 1977). These subscales and included questions such as: "My mum/dad forgets to help me when I need it" (Rejection subscale, seven items) and "My mum/dad doesn't talk with me very much" (Hostile Detachment subscale, eight items). Responses were of the form "True", "Sort of True" or "Not True". Both subscales showed good internal consistency at both time points (mother reliabilities ranging from $\alpha = .78$ to $\alpha = .87$; father reliabilities ranging from $\alpha = .86$ to $\alpha = .89$). Items for these subscales were coded so that high scores reflected negative parenting behaviour. These scores were combined at each time point to give and overall index of negative parenting behaviour (Time 1 $\alpha = .92$, Time 2 $\alpha = .90$).

Child Externalising Problems

Teachers, parents and children completed the aggression scale of the CBCL (Achenbach, 1991). Cross informant example items from this scale are "Argues a lot" and "Bragging or boasting". The response scales ranged from zero to two (0 = "Not true [of the child]", 1 = "Somewhat/sometimes true [of the child]", 2 = "Very/often true [of the child]"). Good reliability estimates were attained at both time points for these measures (teacher: $\alpha = .94$, $\alpha = .94$; parent: $\alpha = .87$, $\alpha = .83$; child: $\alpha = .87$, $\alpha = .88$ respectively). Children's externalising problems were assessed in the analyses for the theoretical model

by teacher and child reports of the Aggression scale of the CBCL (Achenbach, 1991; combined α = .94).

Child Internalising Symptoms

Internalising symptoms were assessed using child reports of the Anxious/Depressed and Withdrawn subscales of the CBCL (Achenbach, 1991). Example items include "I am afraid I might think or do something bad" (Anxious/Depressed) and "I would rather be alone than with others" (Withdrawn). The response scales ranged from zero to two (0 = "Not true", 1 = "Sometimes true", 2 = "Very true"). Internal consistency estimates for these scales were adequate at both time points (anxious depressed α = .89, α = .87; withdrawn α = .64, α = .65). Internalising symptoms in analyses for the theoretical model were measured using both of these subscales (combined α = .76).

Importantly, while internalising symptoms were assessed separately for depression and anxiety in the analyses in Chapter 4, this method was not used for the current analyses for two reasons. 1) The sample size for the subgroup analyses were not large enough to allow for the number of parameters involved in assessing anxiety and depressive symptoms separately; these analyses would have resulted in a participants to parameters ratio of less than 2:1 (see Bollen, 1989). 2) The previous chapter considered how internalising symptoms would inform academic attainment in Key Stage 3 exam results; whereas the present analyses consider academic application. In contrast to studies investigating academic attainment, there is no evidence to suggest that anxiety and depressive symptoms differentially affect this aspect of school adaptation.

Social Adjustment Problems

Reports of social adjustment problems were provided by children, teachers and parents using the Social subscale of the CBCL (Achenbach, 1991). Cross informant

example items include "[I am] not liked by other kids and [I] act too young for [my] age".

Response scales ranged from zero to two (0 = "Not true", 1 = "Sometimes true", 2 = "Very

true"). Internal consistency estimates at both time points for these scales were adequate

(child: α = .66, α =.66; teacher: α = .69, α = .63; parent: α = .81, α = .83). In order to

reflect social adjustment problems relating primarily to the school setting, social

adjustment problems was assessed as part of the theoretical model using teachers' reports

only.

Attention Problems

Reports of children's attentional capacities were, again, provided by children,

teachers and parents using the Attention subscale of the CBCL. Cross informant items

include "[I have] trouble concentrating or paying attention". Again, response scales ranged

from zero to two (0 = "Not true", 1 = "Sometimes true", 2 = "Very true"). Internal

consistency estimates at Time 1 and Time 2 for these scales were good (Child: α = .71, α =

.73; parent; α = .78, α = .79; teacher: α = .92, α = .91).

School Support

Children's perceptions of support from adults at their school were assessed using

the 'My School' scale from the IYFP Ratings Scales (Melby et al., 1993). The measure

assesses children's attitudes towards adults at their school and their appraisals of the extent

to which adults at their school are dependable, supportive and positive towards them.

Items include: "Most of the adults at my school are interested in me". Responses took the

form "Yes", "Don't Know", "No". Adequate internal consistency estimates were attained

for this scale at Time 1 and Time 2 (α = .61, α = .64).

Academic Application

Reports of children's academic application were assessed by asking teachers to

report on each child's level of application at school compared to other pupils of the same age. This measure contained only two questions: "How hard is s/he working?" and "How much is s/he learning?" The response scale ranged from one ("Much less") to seven ("Much more"). In contrast to Chapter 3, these items were not recoded in the current set of analyses; therefore, high scores reflect high levels of application. A good internal consistency estimate was established for these questions (α = .93, α = .91).

Academic Competence

Academic competence was assessed by teachers' responses to the following statement "please circle the number that indicates this pupil's performance". Separate responses were required for English, maths and science and responses ranged from one ("Far below class average") to five ("Far above class average"). Reliability estimates for this scale at Time 1 and Time 2 were good (α = .94, α = .95).

Results

T-Tests and Preliminary Analyses

In the first stage of analyses, t tests were conducted assessing differences between Time 1 and Time 2 for two groups of children. The first group comprised children in year five at Time 1 (mean age = 9.74 years, SD = .45) who remained in primary school at Time 2, these children were the non-transition group. The second group comprised children in year six at Time 1 (mean age = 10.79 years, SD = .40) who made the transition to secondary school between Time 1 and Time 2, these children were the transition group. Tests were conducted for both groups for parent reports of family functioning and child adjustment (see Table 1), teacher reports of child functioning (see Table 2) and child reports of family functioning, school support and their own adjustment (see Table 3).

184

However, no significant differences were found for any of the parent reported measures for

either group of children (see Table 1).

Table 1: *T* tests results for parent reports of family and child functioning and Time 1 and Time 2
for transition and non-transition groups

| | Parent Non-transition Group | | | | | | Parent Transition Group | | | | | |
| | Time 1 | | Time 2 | | | | Time 1 | | Time 2 | | | |
Variable	*M*	*SD*	*M*	*SD*	*df*	*T*	*M*	*SD*	*M*	*SD*	*df*	*T*
Family functioning												
Inter-parental hostility	22.96	8.14	23.63	6.10	23	-.61	21.55	5.38	22.36	6.80	21	-.65
Child functioning												
Social adjustment problems	2.42	2.22	2.63	3.24	23	-.32	1.68	1.96	2.32	2.19	21	.12
Attention problems	4.46	5.52	4.67	5.61	23	-.26	4.73	4.37	4.64	4.44	21	-.18
Aggression	12.04	8.23	9.38	5.85	23	1.89[a]	9.77	7.52	10.05	6.87	21	.68

Note. [a]*p*<.10.

Teacher reports of child adjustment also revealed several significant differences.

Children in the non-transition group demonstrated a significant reduction in aggression,

delinquency and attention problems from Time 1 to Time 2, while the transition group did

not (see Table 2). Teachers also reported a significant drop in the transition group's

academic competence and academic application post-transition, whereas there was an

increase in competence from Time 1 to Time 2 for the non-transition group.

Table 2: *T* tests results for teacher reports of child functioning and Time 1 and Time 2 for transition and non-transition groups

| | Parent Non-transition Group | | | | | | Parent Transition Group | | | | | |
| | Time 1 | | Time 2 | | | | Time 1 | | Time 2 | | | |
Variable	M	SD	M	SD	df	T	M	SD	M	SD	df	T
Academic application	9.61	2.80	10.39	2.65	37	-1.99[a]	10.54	2.46	9.57	2.52	36	2.57*
Academic competence	10.21	2.62	10.97	3.01	37	-2.60*	11.31	2.62	10.00	2.25	34	3.37*
Social adjustment problems	1.05	1.90	.77	1.39	38	1.22	.62	21	.89	.29	36	-.80
Attention problems	4.41	6.18	2.26	2.26	38	3.03*	2.57	4.88	4.22	6.03	36	-1.44
Aggression	3.74	8.10	1.82	5.03	38	2.13*	2.51	4.46	3.54	5.93	36	-1.05
Delinquency	1.26	2.74	.46	1.57	38	2.33*	.62	1.28	.95	1.65	36	-1.08

Note. [a]$p<.10$. *$p<.05$. **$p<.01$.

Children's reports of family functioning revealed no significant differences for the transition group. However, for the non-transition group, children's perceptions of inter-parental conflict and threat in relation to inter-parental conflict significantly reduced from Time 1 to Time 2. Additionally, children's perceptions of parental rejection and hostile detachment significantly decreased for this group (see Table 3).

Children's reports of their own social, psychological and academic adjustment also revealed some significant differences. There was a significant reduction in withdrawal and social problems from Time 1 to Time 2 for the non-transition but not the transition group. In addition, there was a significant reduction in perceived school support and significant increase in attention problems from Time 1 to Time 2 for the transition group but not for the non-transition group.

Table 3: *T* tests results for child reports of family functioning, school support and their own adjustment at Time 1 and Time 2 for transition and non-transition groups

	Parent Non-transition Group						Parent Transition Group					
	Time 1		Time 2				Time 1		Time 2			
Variable	*M*	*SD*	*M*	*SD*	*df*	*T*	*M*	*SD*	*M*	*SD*	*df*	*T*
Family functioning												
Inter-parental conflict	27.27	8.11	25.33	7.75	77	2.47*	28.49	8.06	27.86	7.70	71	.88
Appraisal of threat	21.04	6.15	19.12	5.89	73	3.01*	20.75	5.62	19.87	5.54	75	1.59
Appraisals of self-blame	11.13	2.97	10.72	2.77	74	1.06	11.94	3.56	12.09	3.91	78	-.42
Parental rejection	19.23	6.37	17.70	4.88	69	2.31*	19.31	5.29	18.70	4.89	70	1.19
Parental hostile detachment	20.28	6.54	18.91	4.96	62	2.29*	20.03	5.28	19.24	4.67	67	1.67
School support	41.07	5.41	41.02	5.10	91	-.08	40.85	4.33	38.91	5.63	93	-3.71*
Child functioning												
Social adjustment problems	2.69	2.38	2.01	1.78	87	3.27*	2.55	2.00	2.22	2.19	90	1.49
Attention problems	3.27	2.52	3.24	2.64	87	.14	3.30	2.78	4.02	2.91	90	-3.20*
Aggression	7.99	.70	7.78	.68	86	.36	9.03	5.48	9.64	6.31	89	-1.08
Withdrawal	4.29	2.70	3.77	2.55	85	2.13*	3.93	2.53	3.67	2.48	89	1.03
Anxiety-depression	7.33	5.99	6.53	5.47	86	1.92[a]	6.21	5.53	6.38	5.12	88	-.37

Note. [a]*p*<.10. *p<.05. **p<.01.

Overall, these results demonstrate first, a general increase in family and child functioning for the non-transition group as these children enter their final year of primary school and, in addition, a general drop in child functioning for the transition group after they move to secondary school.

Preliminary Analysis for the Theoretical Model

Means, standard deviations and correlations among all study variables for transition and non-transition groups together are provided in Table 4. Table 5 reports correlations separately for non-transition and transition groups. Correlations among the variables generally reflect the theoretical model well. Inter-parental conflict correlates with measures of threat ($r = .46, p<. 01$), negative parenting ($r = .52, p<.01$) and self-blame ($r = .39, p<.01$), which in turn correlate with indicators of internalising symptoms, externalising problems, social adjustment problems and academic application (e.g., threat and internalising symptoms, $r = .36, p<.01$; self blame and externalising problems, $r = .36$, $p<.01$; externalising problems and academic application, $r = -.49, p<.01$).

Structural Equation Modelling

Structural equation modelling (LISREL 8.50; Joreskog & Sorbom, 1996) using maximum likelihood estimation was employed to test the validity of the proposed theoretical model. Models were estimated for three different samples 1) the non-transition and transition group together, 2) the non-transition group alone and 3) the transition group alone. For each sample the models were constructed in three stages. The first stage tested the direct effects of inter-parental conflict on social adjustment problems and academic application. The second stage assessed the roles of negative parenting and appraisals of threat and self-blame as mechanisms through which inter-parental conflict impacts on social adjustment problems and academic application. The final stage assessed the impact of inter-parental conflict and children's appraisals of threat, self-blame and negative parenting behaviour on social adjustment problems and academic application through internalising symptoms and externalising problems respectively.

Table 4: Means, Standard Deviations and Intercorrelations Among all Indicators of Theoretical Constructs for the Full Sample

	1.	2.	3.	4.	5.	6.	7.	8.
1. Inter-parental conflict	1.00							
2. Appraisals of threat	.46**	1.00	.					
3. Negative parenting	.52**	37**	1.00					
4.Appraisals of self-blame	.39**	.46**	.41**	1.00				
5. Internalising symptoms	.35**	.36**	.42**	.38**	1.00			
6. Externalising problems	.32**	.25*	.37**	.36**	.50**	1.00		
7. Social adjustment problems	.27**	.25*	.26*	.24*	.30**	.65**	1.00	
8. Academic application	-.085	-.22*	-.18	-.18	-.19	-.49**	-.42**	1.00
Mean	27.37	20.18	39.19	11.61	9.16	10.62	.69	10.28
Standard deviation	7.80	5.34	10.66	3.01	6.62	9.77	1.64	2.67

Note. N = 90.
^{a}p<.10. *p<.05. **p<.01.

Table 5: Means, Standard Deviations and Intercorrelations Among all Indicators of Theoretical Constructs for Transition (N = 48) and Non-Transition (N = 42) Samples

	1.	2.	3.	4.	5.	6.	7.	8.
1. Inter-parental conflict	-	.36*	.34*	.33*	.17	.22	.22	.09
2. Appraisals of threat	.53**	-	.40**	.62**	.54**	.32*	.22	-.23
3. Negative parenting	.60**	.37*	-	.35*	.24	.30*	.46**	.40**
4.Appraisals of self-blame	.45**	.31*	.50**	-	.43**	.46**	.32*	-.25
5. Internalising symptoms	.50**	.21	.54**	.34*	-	.40**	.17	-.22
6. Externalising problems	.42**	.19	.45**	.26	.61**	-	.53**	-.45**
7. Social adjustment problems	.31*	.27	.34*	.18	.40**	.74**	-	-.27
8. Academic application	-.22	-.22	-.23	-.11	-.19	-.51**	-.51**	-
Transition mean	27.00	20.25	37.98	11.71	8.88	11.69	.77	9.88
Transition standard deviation	6.60	4.80	7.64	3.10	6.36	9.04	1.32	2.38
Non-transition mean	27.79	20.10	40.57	11.50	9.48	9.40	.60	10.74
Non-transition standard deviation	9.04	5.94	13.26	2.94	6.96	10.52	1.95	2.94

Note. Transition group values are above the diagonal, non-transition group values are below the diagonal
^{a}p<.10. *p<.05. **p<.01.

Analyses for Transition and Non-Transition Groups Combined

Direct Effects

The first stage of analysis tested the influence of inter-parental conflict on children's social adjustment problems and academic application one year later. Inter-parental conflict was significantly related to social adjustment problems in this model (β = .27, p<.05); however, there was no significant relationship between inter-parental conflict and academic application (β = -.09, p>.05).

The Respective Roles of Negative Parenting, and Appraisals of Conflict

Model 1 (Figure 2) assessed the intervening roles of negative parenting, and appraisals of threat and self-blame in the influence of inter-parental conflict on social adjustment problems and academic application. The influences of inter-parental conflict on negative parenting, threat and self-blame were all significant (β = .52, p<.01; β = .46, p<.01; and β = .39, p<.01 respectively). However, there were no significant relationships between any of these intervening variables and either social adjustment problems (negative parenting: β = .10, p>.10, threat: β = .09, p>.10, and self-blame: β = .09, p>.10) or academic application (negative parenting: β = -.09, p>.10, threat: β = -.16, p>.10, and self-blame: β = -.07, p>.10). This is in contrast to findings in Chapter 3 in which child perceptions of parenting were significantly related to academic application. Further, the relationship between inter-parental conflict and social adjustment problems was no longer significant in this model (β = .17, p>.10). Fit statistics suggested that this model provided a good fit to the data (χ^2 = .57; RMSEA = .00; GFI = 1.00; AGFI = .96).
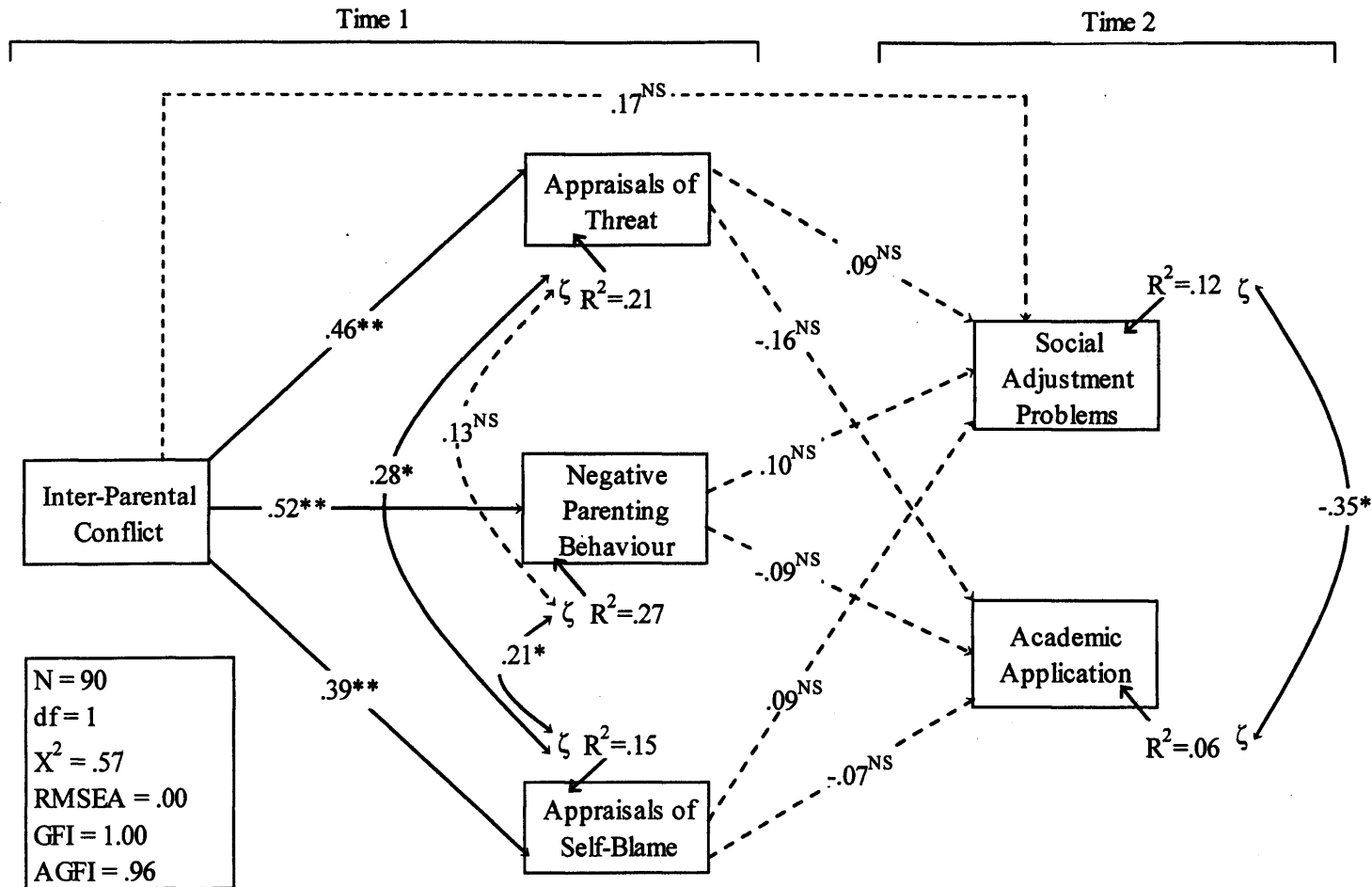
Figure 2: The influence of inter-parental conflict on social adjustment problems and academic application through appraisals of threat, negative parenting and appraisals of self-blame $*p<.05, **p<.01$

The Role of Psychological Symptoms

The final stage of analysis assessed the respective roles of internalising symptoms and externalising problems in linking inter-parental conflict, negative parenting and children's appraisals of threat and self-blame to their social adjustment problems and academic application. Model 2 (Figure 3) tested the impact of inter-parental conflict on academic performance through negative parenting, appraisals of threat, appraisals of self-blame and externalising problems. Again the pathways from inter-parental conflict to negative parenting, threat and self-blame were significant (as in model 1). Consistent with findings from Chapter 4, the relationship between self-blame and externalising problems was also significant ($\beta = .22$, $p<.05$) and the relationship between negative parenting and externalising problems was marginally significant ($\beta = .21$, $p<.10$). However, the pathway between negative parenting and externalising was of a higher magnitude when self-blame was not included in the model ($\beta = .26$, $p<.05$); therefore, self-blame appeared to partially mediate the effect of negative parenting on externalising problems in this model. The relationship between threat and externalising problems was not significant ($\beta = .01$, $p>.10$) so threat was only linked to externalising problems through its association with self-blame. As inter-parental conflict was initially significantly directly related to externalising problems and this path was no longer significant in this model ($\beta = .13$, $p>.10$), according to criteria set out by Baron and Kenny (1986), parenting and self-blame mediated the initial relationship between inter-parental conflict and externalising problems. The pathways from externalising problems to social adjustment problems and academic application were significant ($\beta = .65$, $p<.01$; and $\beta = -.49$, $p<.01$ respectively). Indirect effects tests
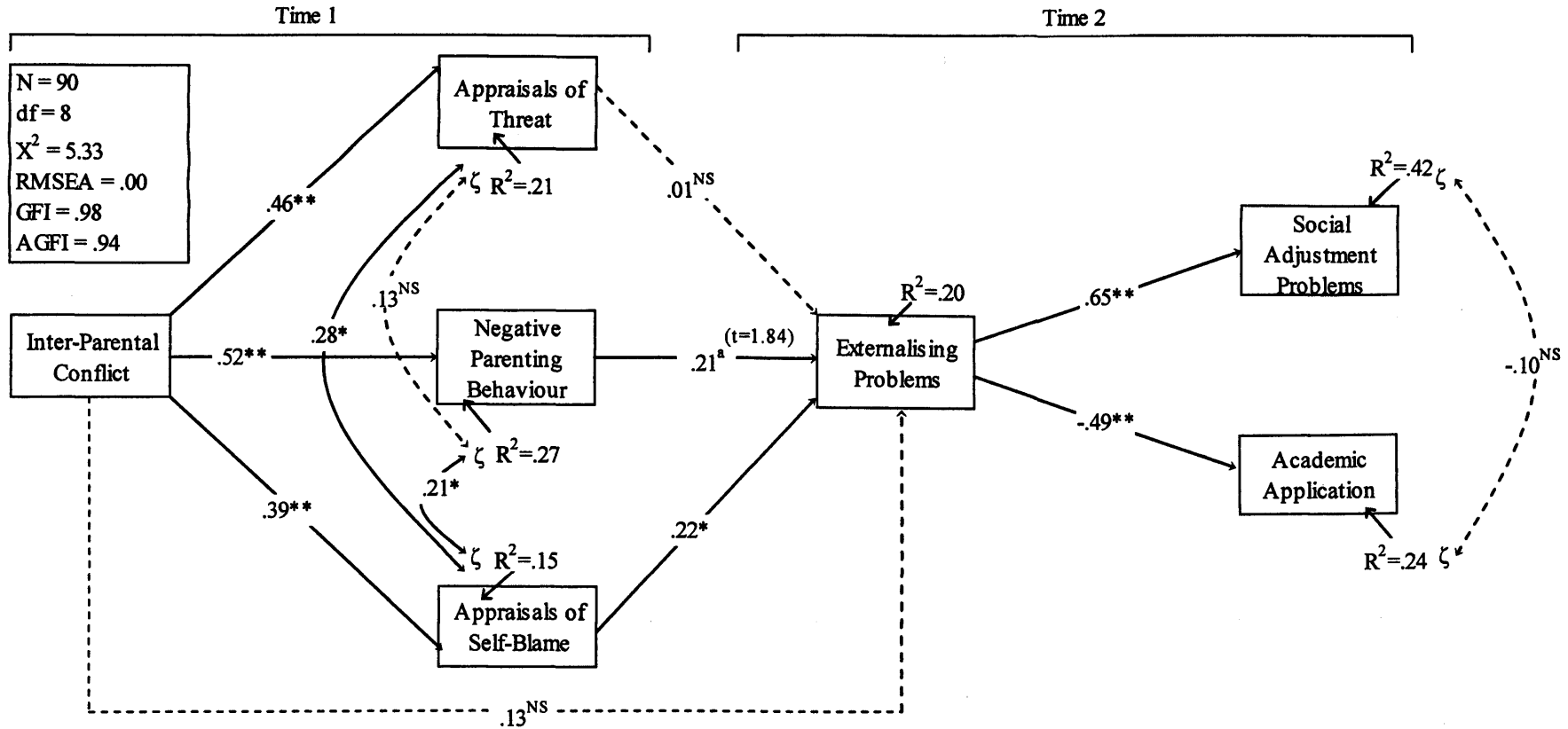
Figure 3: The influence of inter-parental conflict, appraisals of threat, negative parenting and appraisals of self-blame on social adjustment problems and academic application through externalising problems $^ap<.05$, $*p<.05$, $**p<$.

revealed that inter-parental conflict was related to social adjustment problems and

academic application through negative parenting and externalising problems (β = .12,

$p<.05$ and β = .-08, $p<.05$ respectively) and through self-blame and externalising problems

(β = .09, $p<.05$ and β = -.06, $p<.05$ respectively). Therefore, externalising problems

provided an indirect mechanism through which inter-parental conflict, negative parenting

and self-blame were related to social adjustment problems and academic application one

year later. Fit indices suggested that this model provided a good fit to the data (χ^2 = 5.33;

RMSEA = .00; GFI = .98; AGFI = .94).

Model 3 (Figure 4) tested the impact of inter-parental conflict on academic performance

through negative parenting, appraisals of threat and self-blame, and internalising

symptoms. Pathways from inter-parental conflict to negative parenting, threat and self-

blame were all significant (as in model 2 above). There was a significant path between

negative parenting and internalising symptoms (β = .25, $p<.01$) but no significant path

between threat and internalising symptoms (β = .15, $p>.10$) or self-blame and internalising

symptoms (β = .18, $p<.10$). This is in contrast to findings in Chapter 4, which

demonstrated significant pathways from both negative parenting *and* appraisals of threat to

internalising symptoms. Furthermore, the initial direct relationship between inter-parental

conflict and internalising symptoms was no longer significant in this model (β = .10,

$p>.10$) so parenting mediated this initial direct relationship. There was a significant

relationship between internalising symptoms and social adjustment problems in this model

(β = .30, $p<.05$) and a marginal relationship between internalising symptoms and academic

application (β = -.19, $p<.10$). Indirect effects tests revealed that inter-parental conflict was
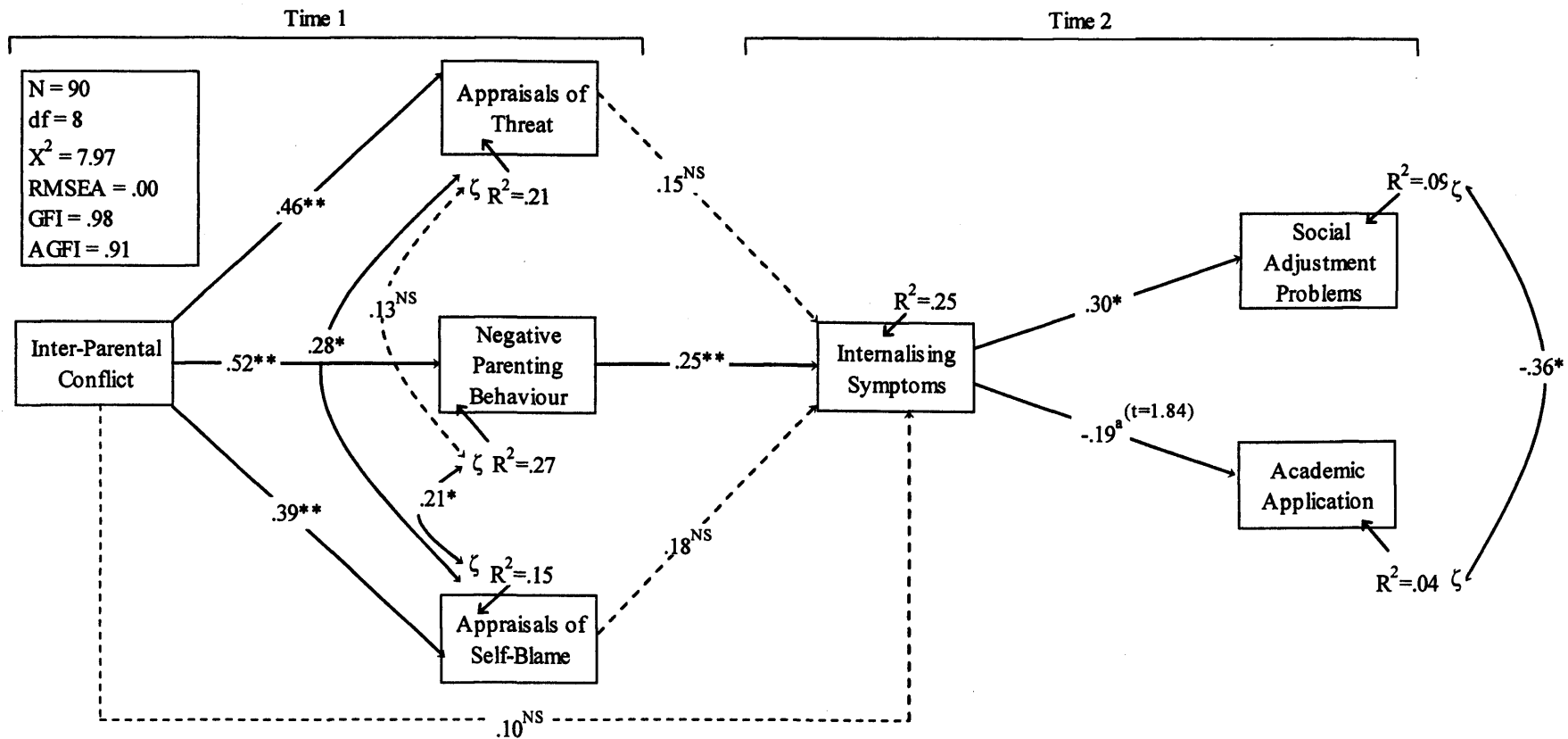
Figure 4: The influence of inter-parental conflict, appraisals of threat, negative parenting and appraisals of self-blame on social adjustment problems and academic application through internalising symptoms [a]$p<.05$, *$p<.05$, **$p<.01$

indirectly related to social adjustment problems through negative parenting and internalising symptoms (β = .05, p<.05). However, the indirect pathway between conflict and academic application via negative parenting and internalising symptoms was not significant (β = -.02, p>.10). Fit statistics suggested that this model provided a good fit to the data (χ^2 = 7.97; RMSEA = .00; GFI = .98; AGFI = .91).

*Comparisons of Non-Transition and Transition Groups*

Direct Effects

Direct effects tests for the non-transition group demonstrated that inter-parental conflict was significantly related to children's subsequent social adjustment problems (β = .31, p<.05) and but not their academic application (β = -.22, p>.10). However, there were no significant direct effects of inter-parental conflict on either social adjustment problems or academic application in the transition group model (β = .22, p>.10 and β = .09, p>.10 respectively).

The Respective Roles of Negative Parenting, and Appraisals of Conflict

Models 4 and 5 (see Figure 5, panels A and B) assessed the roles of negative parenting, and appraisals of threat and self-blame in linking inter-parental conflict to both social adjustment problems and academic application separately for non-transition and transition groups. For the non-transition group inter-parental conflict was significantly related to negative parenting, threat, and self-blame (β = .60, p<.01; β = .53, p<.01; and β = .45, p<.05 respectively). However, as in the combined model, none of these intervening variables were significantly related to either social adjustment problems (negative parenting: β = .25, p>.10, threat: β = .14, p>.10, and self-blame: β = -.02, p>.10) or
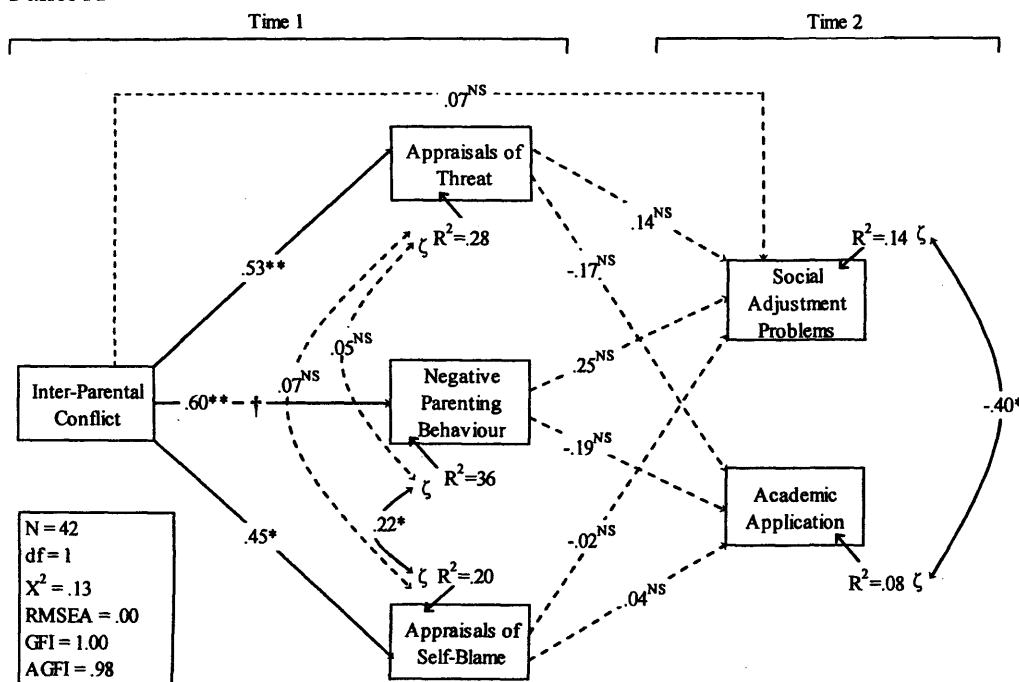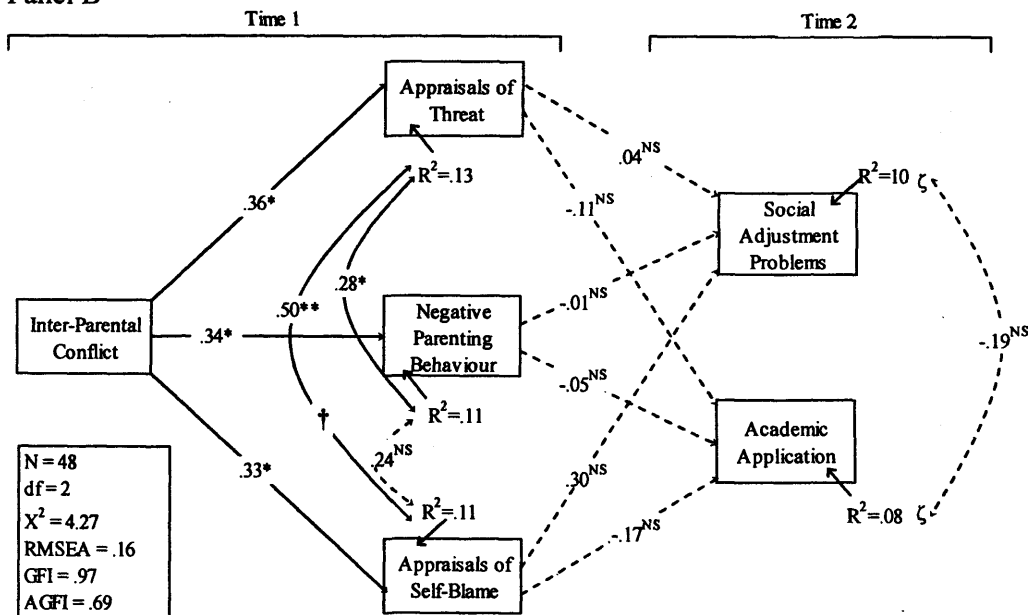
Panel A

Panel B

Figure 5: The influence of inter-parental conflict on social adjustment problems and academic application through appraisals of threat, negative parenting and appraisals of self-blame for the non-transition group (Panel A) and the transition group (Panel B) [a]$p<.05$, *$p<.05$, **$p<.01$

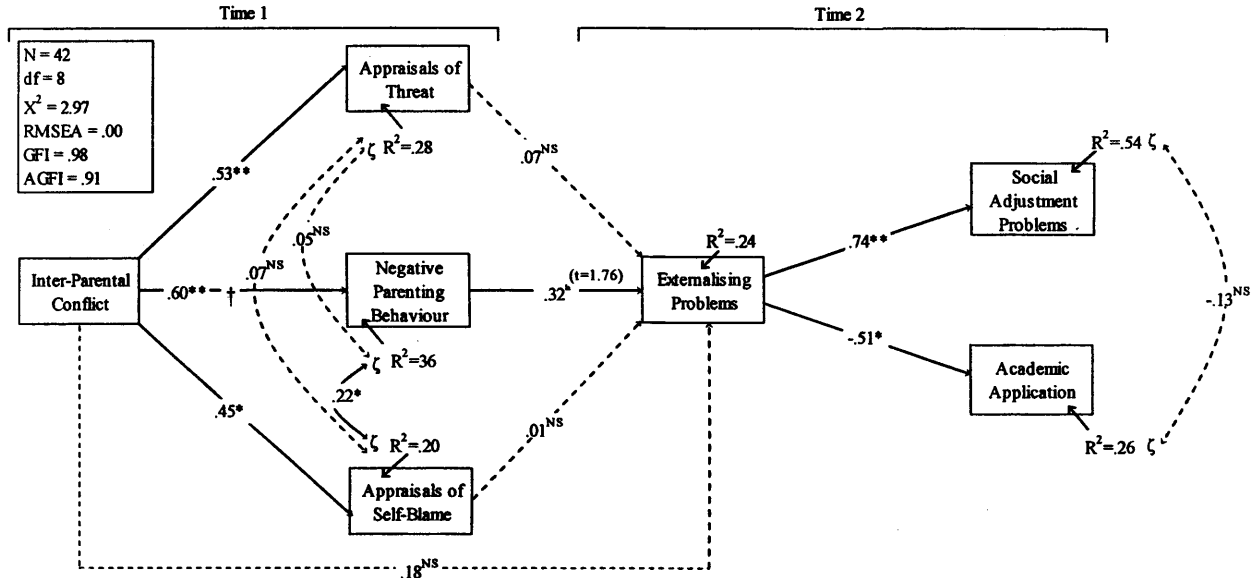Note. † denotes pathways that significantly differ across models.

academic application (negative parenting: $\beta = -.19$, $p>.10$, threat: $\beta = -.17$, $p>.10$, and self-blame: $\beta = .04$, $p>.10$). Further to this, inter-parental conflict was no longer significantly related to social adjustment problems in this model ($\beta = .07$, $p>.10$). Fit statistics demonstrated that this model provided a good fit to the data ($\chi^2 = .13$; RMSEA = .00; GFI = 1.00; AGFI = .98).

For the transition group, pathways from inter-parental conflict to threat, negative parenting and self-blame were all significant ($\beta = .36$, $p<.05$; $\beta = .34$, $p<.05$; and $\beta = .33$, $p<.05$ respectively). As in the non-transition group, there were no significant relationships between any of these intervening variables and either social adjustment problems (negative parenting: $\beta = -.01$, $p>.01$, threat: $\beta = .01$, $p>.10$, and self-blame: $\beta = .30$, $p>.10$) or academic application (negative parenting: $\beta = -.05$ $p>.10$, threat: $\beta = -.11$, $p>.10$, and self-blame: $\beta = -.17$, $p>.10$). GFI and chi-square statistics suggested that this model provided a moderate fit to the data ($\chi^2 = 4.27$; RMSEA = .16; GFI = .97; AGFI = .69). Stacked comparisons, as outlined by Bollen (1989), demonstrated that there was also a significant difference between pathways from inter-parental conflict to parenting, in that the pathway was significantly stronger in the non-transitions group ($\Delta\chi^2 = 4.04$, $p<.05$), than in the transition group.

The Role of Psychological Symptoms

Models 6, 7, 8 and 9 (see Figures 6 and 7) assessed the respective roles of internalising symptoms and externalising problems in linking inter-parental conflict, negative parenting and children's appraisals of threat and self-blame to their social adjustment problems and academic application for non-transition and transition groups separately. Model 6 (Figure 6, panel A) assessed the influence of inter-parental conflict on

Panel A

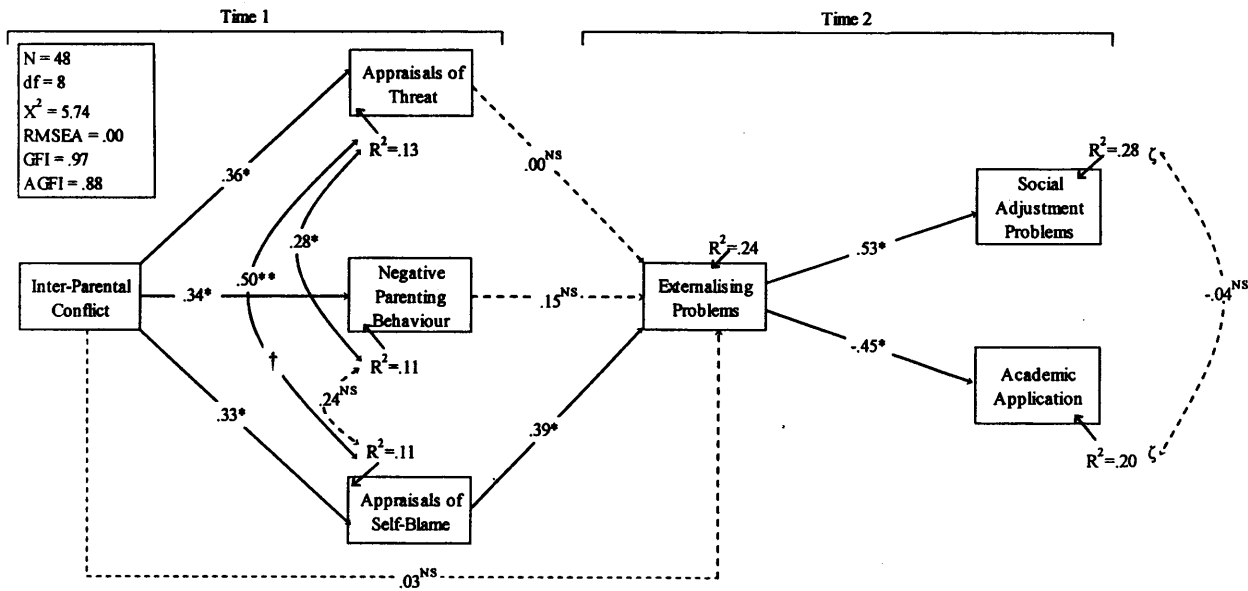

Panel B

Figure 6: The influence of inter-parental conflict, appraisals of threat, negative parenting and appraisals of self-blame on social adjustment problems and academic application through externalising problems for the non-transition group (Panel A) and the transition group (Panel B)
[a]$p<.05$, *$p<.05$, **$p<.01$
Note. † denotes pathways that significantly differ across models.

199

academic application and social adjustment problems through negative parenting, appraisals of threat, appraisals of self-blame and externalising problems for the non-transition group. The pathways from inter-parental conflict to negative parenting, threat and self-blame were significant (as in model 4). Furthermore, there was a marginally significant relationship between negative parenting and externalising problems ($\beta = .32$, $p<.10$) but the relationships between threat and externalising problems and between self-blame and externalising problems were not significant ($\beta = .07$, $p>.10$ and $\beta = .01$, $p>.10$ respectively). As the initial direct path between inter- parental conflict and externalising problems dropped to non-significance in this model ($\beta = .18$, $p>.10$), parenting mediated the initial relationship between inter-parental conflict and externalising problems. Finally, the pathways from externalising problems to social adjustment problems and academic application were significant ($\beta = .74$, $p<.01$; and $\beta = -.51$, $p<.05$ respectively). Indirect effects tests demonstrated a significant indirect pathway between inter-parental conflict and social adjustment problems through negative parenting and externalising problems ($\beta = .19$, $p<.05$) and a marginally significant indirect path between inter-parental conflict and academic application through negative parenting and externalising problems ($\beta = -.09$, $p<.10$). Therefore, externalising problems provided a linking mechanism through which inter-parental conflict, negative parenting were related to social adjustment problems. It also linked inter-parental conflict and negative parenting to academic application. Fit statistics demonstrated that this model provided a good fit to the data ($\chi^2 = 2.97$; RMSEA = .00; GFI = .98; AGFI = .91).
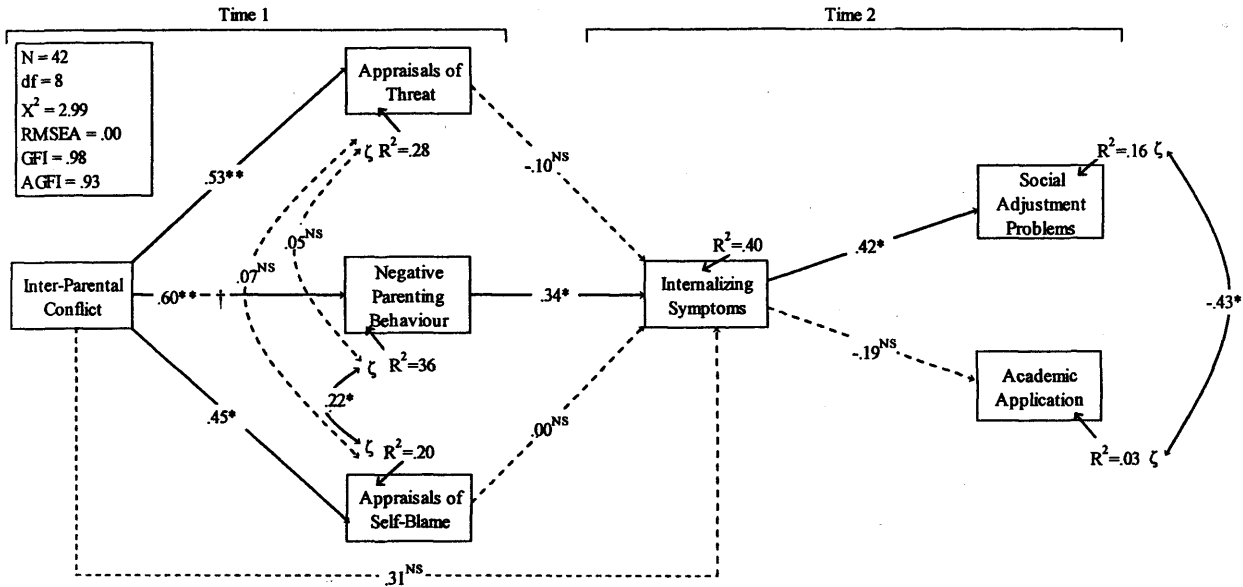
For the transition group (model 7, Figure 6, panel B), again, pathways from inter-parental conflict to negative parenting, threat and self-blame were significant (as in model

5). However, in this model the relationship between negative parenting and externalising problems was not significant ($\beta = .15$, $p > .05$) nor was the relationship between threat and externalising problems ($\beta = .00$, $p > .10$). Conversely, the relationship between self-blame and externalising problems was significant ($\beta = .39$, $p < .05$). However, stacked comparisons did not reveal any significant differences between transition and non-transition models in pathways from self-blame to externalising problems or pathways from parenting to externalising problems.

Externalising problems were significantly related to both social adjustment problems and academic application ($\beta = .53$, $p < .01$; and $\beta = -.45$, $p < .05$ respectively) in this model. As there was no initial significant direct relationship between inter-parental conflict and externalising problems for this group, self-blame appeared to provide a linking mechanism through which inter-parental conflict was related to externalising problems. In turn, externalising problems appeared to provide an indirect mechanism through which negative parenting, threat and self-blame were related to social adjustment problems and academic application one year later. Indirect effects tests confirmed that there were marginally significant indirect pathways from inter-parental conflict to social adjustment problems and academic application through appraisals of self-blame and externalising problems ($\beta = .08$, $p < .10$; and $\beta = -.06$, $p < .10$ respectively). Fit statistics suggested that this model provided a good fit to the data ($\chi^2 = 5.74$; RMSEA = .00; GFI = .97; AGFI = .88).

The last two models (models 8 and 9, Figure 7, panels A and B) assessed the impact of inter-parental conflict on social adjustment problems and academic application through negative parenting, appraisals of threat and self-blame and internalising symptoms. For the

Panel A

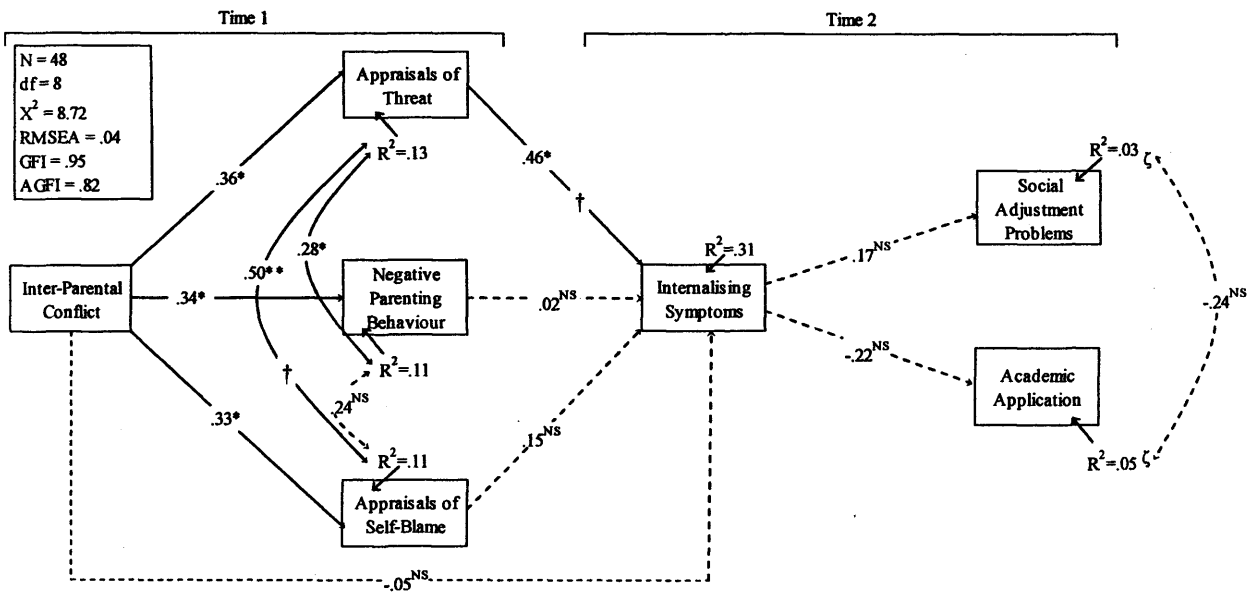## Panel B

Figure 7: The influence of inter-parental conflict, appraisals of threat, negative parenting and appraisals of self-blame on social adjustment problems and academic application through internalising symptoms for the non-transition group (Panel A) and the transition group (Panel B)
[a]$p<.05$, *$p<.05$, **$p<.01$
Note. † denotes pathways that significantly differ across models.

202

non-transition group pathways from inter-parental conflict to negative parenting, threat and self-blame were all significant and of the same magnitude as previous models. There was also a significant path between negative parenting and internalising symptoms (β = .34, p<.05) but no significant paths between threat and internalising symptoms (β = -.10, p>.10) or self-blame and internalising symptoms (β = .00, p>.10). The pathway between internalising symptoms and academic application was also non significant (β = -.19, p>.10) but there was a significant relationship between internalising symptoms and social adjustment problems in this model (β = .42, p<.05). As the initial significant direct path between inter-parental conflict and internalising symptoms was no longer significant in this model (β = .31, p>.10), parenting mediated this initial relationship. Further to this, internalising symptoms provided a mechanism through which parenting (and self-blame through its association with negative parenting) was related to social adjustment problems. Specifically, indirect effects test confirmed a significant indirect pathway between inter-parental conflict and social adjustment problems through negative parenting and internalising symptoms (β = .13, p<.05). Fit statistics suggested that this model provided a good fit to the data (χ^2 = 2.99; RMSEA = .00; GFI = .98;   AGFI = .93).

For the transition group, pathways from inter-parental conflict to negative parenting, threat and self-blame were all significant and identical to those in previous models. However, there was no significant path between negative parenting and internalising for the transition group, nor was there between self-blame and internalising symptoms (β = -.02, p>.10 and β = .15, p>.10 respectively) but there was a significant path between threat and internalising symptoms (β = .46, p<.05).

As there was no significant initial direct path between inter-parental conflict and

internalising symptoms, threat provided a mechanism through which inter-parental conflict was related to internalising symptoms in this model. In confirmation of this, indirect effects tests demonstrated significant indirect paths between inter-parental conflict and internalising symptoms through threat ($\beta = .19$, $p<.05$). However, pathways from internalising symptoms to social adjustment problems and academic application were not significant in this model ($\beta = .17$, $p>.10$ and $\beta = -.22$, $p>.10$ respectively). Again, fit statistics suggested that this model provided a good fit to the data ($\chi^2 = 8.72$; RMSEA = .04; GFI = .95; AGFI = .82). Stacked comparisons showed that the difference between models in the pathway from threat to internalising symptoms was significant ($\Delta\chi^2 = 6.63$, $p<.01$).

Summary

Test of the theoretical model using the combined sample revealed that inter-parental conflict impacted on externalising behaviour primarily through children's appraisals of self-blame and negative parenting. Externalising behaviour, in turn, provided a mechanism through which inter-parental conflict, negative parenting and appraisals of self-blame were related to children's social adjustment problems and academic application. Results for the internalising symptoms model demonstrated that the relationship between inter-parental conflict and internalising symptoms was mediated by negative parenting and that internalising symptoms, in turn, provided a mechanism through which inter-parental conflict and negative parenting were related to children's social adjustment problems. Internalising symptoms were also marginally significantly related to children's application to learning. Results for the non-transition group alone revealed similar findings. In these models, negative parenting provided the mediating mechanism through which inter-

204

parental conflict influenced both internalising symptoms and externalising problems. However, while externalising problems provided a mechanism through which inter-parental conflict and negative parenting were related to social adjustment problems and academic adaptation, internalising symptoms only linked these influences to social adjustment problems, as there was no significant relationship between internalising symptoms and academic application. Results for the transition group indicated that inter-parental conflict was not directly related to internalising symptoms, externalising problems, social adjustment problems or academic application. However, children's appraisals of self-blame provided a mechanism through which inter-parental conflict was related to externalising problems post-transition. Externalising problems, in turn, provided a linking mechanism through which inter-parental conflict and self-blame appraisals were related to children's social adjustment problems and academic application. For the internalising symptoms model for this group, children's appraisals of threat provided the mechanism through which inter-parental conflict was related to internalising symptoms post-transition. However, internalising symptoms were not related to either social adjustment problems or academic application in this model.

The primary differences between non-transition and transition groups in the processes through which inter-parental conflict affected adjustment one year later lie in two different areas. 1) While parenting was the primary mechanism through which inter-parental conflict informed children's psychological adjustment in the non-transition group, appraisals of threat and self-blame respectively were the mechanisms through which inter-parental conflict informed internalising symptoms and externalising problems in the transition group. 2) While children's internalising symptoms were related to their social

adjustment problems in the non-transition group, children's internalising symptoms were not related to their social adjustment problems in the transition group; however, this difference was not significant based on group comparisons.

Discussion

The findings described in this study provide further insight into the changes in psychological, social and academic functioning during the anticipation and negotiation of the transition from primary to secondary school. This is the only British study to consider how inter-parental relations inform adjustment during school transition with a sample of children entering early adolescence. This study represents the first investigation of how family processes inform children's adaptation during the transition from primary to secondary school, specifically considering the role that children's appraisals of inter-parental and parent-child relations play in explaining the effects of inter-parental conflict on psychological, social and academic adjustment during school transition. Furthermore, they provide insight into the distinct processes involved in the transfer of effects from family relations to child adjustment that are specific to transition, by comparing children undergoing the transition from primary to secondary school with those remaining in the primary school setting.

The present study had two aims: first, to assess changes in children's adaptation across a one-year period for two groups; those who made the transition from primary to secondary school during this time and those in the year immediately prior to transition. Second, given findings in recent studies demonstrating the importance of the inter-parental relationship to adjustment during transition (Ablow, 2005; Cowan et al., 2005; Measelle, 2005), the study aimed to assess the processes through which inter-parental conflict

impacted on these two groups in terms of psychological adjustment, social adjustment problems and academic application. It focused specifically on parent-child relations and children's appraisals of inter-parental conflict as mediators of the relationship between inter-parental conflict and children's psychological well-being at this time.

The initial findings provide evidence that the transition from primary to secondary school marks a time of stress and upheaval for children. Comparisons between transition and non-transition groups suggest that children experience marked improvements in psychological and academic functioning as they move into their final year of primary school. They also report reductions in inter-parental conflict and hostile, rejecting parenting during this period. These improvements may be explained in terms of children in this period being confident and comfortable in their school environment; they are also well supported in the school context at this time as teachers begin to prepare them for the transition to secondary school. Conversely, children one year older making the transition from primary to secondary school experience no such benefits. While children's perceptions of family life remain consistent across this period children's delinquent behaviour and attention problems increase subsequent to transition, they also display poorer academic competence. These results are consistent with previous findings, which note the increase of externalising problems during transition (Robinson et al., 1995) and studies that have documented achievement loss in the transition from primary to secondary school (Alspaugh, 1998; Wigfield et al., 1991). This research suggests that transition may serve as a stress factor affecting children's ability to function well at this time. The current results also demonstrate that school support drops off as children enter the secondary school environment. This finding provides some support for the contention that a less

supportive and more authoritarian school climate sometimes associated with secondary

school may serve to negatively affect children's behaviour and performance at this time

(Eccles et al., 1993).

There have been several explanations for what might inform children's behaviour

and performance across transition but recent studies have provided evidence that family

relationships are an important source of support, or conversely stress, during this period

and that children's experiences of family life can shape their ability to negotiate school

transitions successfully (Ablow, 2005; Cowan et al., 2005; Lord, et al., 1994). Several

recent studies have highlighted the inter-parental relationship as an important influence on

children's psychological and academic adjustment at this time (Ablow, 2005; Cowan et al.,

2005; Measelle, 2005). Taking this into consideration, the present study assessed the

influence of inter-parental conflict on children's psychological adjustment, social

behaviour and academic application for children experiencing the transition from primary

to secondary school and children in primary school in the year immediately prior to

transition. In order to further understand how inter-parental conflict impacts on children at

this time, negative parenting and children's threat and self-blame appraisals were

considered as mechanisms through which conflict informs psychological, social and

academic adaptation.

Analyses were first carried out with transition and non-transition groups combined.

Interestingly, analyses considering the impact of inter-parental conflict on social

adjustment problems and academic application revealed no significant effects of negative

parenting on academic application, even though this path was significant in analyses for

Chapter 3. It is possible that this non significant path is due to the difference in ages

between samples. The children in Study 1 (Chapter 3) were between the ages of 12 and 13 years at the time of assessment of their perceptions of the parent-child relationship; the children in the current study were between the ages of 9 and 11 years (non-transition children: aged 9-10 years, transition children: aged 10-11 years). It is possible that the parent-child relationship may be more pertinent to children's academic application as children grow older progress through secondary school. However, further investigation is required before any confident conclusions can be drawn.

Findings for the externalising problems model demonstrated that inter-parental conflict impacted on children's externalising problems through their perceptions of parental hostility and rejection and their feelings of responsibility for parents' arguments. These findings, consistent with previous chapters, demonstrate that conflict impacts on children via the spillover of negative affect into the parent-child relationship, with influences in turn on children's adjustment problems (Erel & Burman, 1986). These findings also suggest that conflict affects children according to their own appraisals of the personal relevance and personal responsibility they derive from witnessing inter-parental disputes. Previous studies have noted the consistent links between self-blame and externalising problems (see Chapter 4; Harold et al., in press; Grych et al., 2003). Children who feel more responsible for their parents' arguments are more likely to intervene in conflict, often acting out in order to distract parents, repetition of this type of behaviour may lead to externalising behaviour patterns over time (see Grych et al., 2003).

Externalising problems for this model were, in turn, related to children's social adjustment problems and academic application. As outlined in Chapter 3, children who display behaviour problems in school tend to be less able to engage with schoolwork.

Furthermore, children who are aggressive tend to have fewer appropriate social skills (Bronstein et al., 1996).

Findings for the combined group relating to internalising symptoms demonstrated that inter-parental conflict was related to internalising symptoms through negative parenting, suggesting that a spillover of hostility from the inter-parental to the parent-child relationship also affects children's internalising symptoms, leading them to feel depressed, anxious and withdrawn (Fauber et al., 1990; Fauber & Long, 1991). Interestingly, appraisals of threat were not related to internalising symptoms in this model, though findings from Chapter 4 provided evidence for the existence of this path. This may be due to the younger age group of the current sample. Research suggests younger children are less able to recognise that conflict in the inter-parental relationships is unrelated to the parent-child relationship; however, children's perceptions of family relationships become more differentiated as they get older (Bretherton, Prentiss & Ridgeway, 1990; Grych & Cardoza-Fernandes, 2001).

Internalising symptoms in turn were related to children's social adjustment problems but were only related to academic application as a trend. As noted in the previous chapter, links between internalising symptoms and academic outcomes are less consistent than those between externalising problems and academic outcomes. It also may be that, while externalising problems affect children's application and engagement with schoolwork, internalising symptoms contribute to academic performance, not by reducing academic application but through other mechanisms such as maladaptive achievement strategies (e.g., Diener & Dweck, 1978). It may also be the case that, as in the previous chapter, different indices of internalising symptoms differentially inform this index of

academic adaptation. However, the small sample size available for these analyses precluded reliable investigation of this.

Comparisons Between Transition and Non-Transition Groups

There were two main differences between the transition and non-transition group for the current analyses. First, the relationship between internalising symptoms and social adjustment problems was significant in the non-transition group but not in the transition group. As described above, research has established a link between externalising behaviour and social adjustment problems. As this is the most overt aspect of psychological adjustment, it is possible that children entering secondary school may accept or reject other children based on this factor and may develop more nuanced social networks and exchanges as secondary school progresses. Children in primary schools in contrast, already have long established relationships based on richer information so more subtle factors, such as internalising symptoms may be more important in these relationships and, therefore, may make a greater contribution to their social success and adaptation at this age. However, further investigation is required in order to explore this contention.

Second, in models for the non-transition group, parenting was the primary mechanism through which inter-parental conflict affected both internalising symptoms and externalising problems; however, in the transition group it was appraisals of inter-parental conflict that provided the mechanism through which inter-parental conflict affected internalising symptoms and externalising problems respectively. This is perhaps because children in the transition group are undergoing stress and disruption associated with school transition. Inter-parental conflict is considered a particularly potent stressor for children (Lewis et al., 1984). Previous research has suggested that when a child is exposed to

several risk factors at once there may be steep increases in their maladjustment (Forehand et al., 1998; Rutter, 1979). The accumulation of family and school stress factors may push children over this threshold of risk factors. Under these conditions inter-parental conflict, which the child construes to be threatening or self-relevant may exert stronger influences on their psychological well-being. In this way school stress appears to activate the appraisal process with respect to inter-parental conflict, leading children to rely on schemata relating to inter-parental relations to guide their sense of well-being under these conditions.

Children in the transition group are also entering an age group associated with the onset of formal operational thinking, though not all children in this age group will have reached this stage. Children who are at the formal operational stage are more adept at abstract thinking, allowing them to be more introspective. While this has its benefits, it can also lead to a form of egocentrism in which the child construes events to be more personally relevant (see Elkind, 1967). This may mean that children view conflict as more threatening to themselves and see themselves as the cause of conflict more often. They may also see inter-parental conflict as more personally relevant and, therefore, more central their psychological well-being than children at the concrete operational stage of development. Findings from Chapter 4, using a sample of older children, in which effects were found for inter-parental conflict affecting child adjustment via both negative parenting *and* appraisals of conflict, provides some support for both explanations. However, it should also be noted that variance of the negative parenting behaviour variable does vary across the transition and the non-transition groups, which could partly account for the difference in pathways between the two models.

There are some limitations to the present set of analyses. First, the sample size for the current study was modest, especially for the subgroup comparisons. The ratio of participants to parameters was quite low but it was still greater than 2:1, suggesting that the power for the current analyses was sufficient (Bollen, 1989). However, small sample sizes such as this may mean that some of the fit indices that are sensitive to sample size, such as the chi square statistic, are less interpretable. Furthermore, the small sample size may explain why some of the pathways with modest magnitudes did not attain significance, or only attained marginal significance compared to pathways of similar magnitudes in the preceding two studies (e.g., in the current chapter Figure 5, panel A, the path between negative parenting and social adjustment problems is not significant though $\beta = .25$; Figure 6, panel A, the path between negative parenting and externalising problems was marginal even though $\beta = .32$).

Second, due to the small number of responses among parents in the study, only children provided responses for measures of family functioning, which may explain the high magnitude of some pathways between conflict and psychological adjustment in several models. Third, autoregressive techniques were ruled out for the present analyses due to the drop in sample size that occurred when teacher reports were provided at Time 1. Therefore, causal relations between pathways should be inferred with caution.

Finally, as in the previous two empirical chapters, there was a difference between children who were part of the study sample and those who were not. Children who were not part of the study sample scored significantly higher on externalising problems than children who were. This may have affected the magnitude of the pathways concerning this variable, perhaps providing a more conservative estimate of effects due the reduced range

213

of scores at the higher end of the externalising problems scale.

Implications for Practice and Policy

In spite of these limitations the current set of analyses provides further insight into the changes children experience when making the transition from primary to secondary school and the processes through which children's experiences of family relationships inform their psychological, social and academic adaptation at this time. Consistent with previous research by Cowan and colleagues (2005), the findings suggest that the inter-parental relationship, and children's appraisals in response to conflict in this relationship, have important implications for children's psychological adjustment and, related to this, their social adjustment problems and academic application during school transition. Furthermore, comparisons between transition and non-transition groups revealed that children's appraisals of inter-parental conflict were particularly pertinent to children's psychological adjustment for children undergoing transition.

Most interventions tailored to school transition that acknowledge the role of family relationships at this time focus solely on the parent-child relationship (e.g., Webster-Stratton, 1990; Webster-Stratton & Hammond, 1997). The present analyses add weight to a small number of studies that have highlighted the importance of the quality of the inter-parental relationship at this time (Ablow, 2005; Cowan et al., 2005; Measelle, 2005) and suggest that, in order to improve children's ability to negotiate school transition successfully, interventions should make provision for the inter-parental relationship also.

They also extend previous findings by demonstrating that children's appraisals relating family relationships play an important role in linking children's experiences of the inter-parental relationship to their adjustment during the period of transition between

primary and secondary school. They make the case that the specific appraisal processes that serve as mechanisms through which conflict affects child adjustment at this time vary based on whether children are concurrently experiencing school transition or not. Therefore, interventions aimed at improving children's functioning during school transition should acknowledge these appraisal processes.

Summary

This chapter has provided evidence for the significance of school transition as a period of stress for children. It has also provided evidence that this period of stress triggers specific processes through which inter-parental conflict impacts on their psychological, social and academic adjustment at this time. In particular, findings suggest that children's appraisals of threat and self-blame play specific roles in determining children's adjustment in the context of family conflict at this time.

Taken together, the empirical chapters of this thesis suggest that inter-parental conflict and parent-child relations, as well as children's appraisals relating to each of these family subsystems have important implications for children's psychological adjustment, academic attainment and their ability to function well during times of school transition. These empirical chapters highlight the importance of understanding the processes through which family experiences inform children's school adjustment and have direct application to policy and practice questions concerning how best to improve children's experiences of school life in the context of problems at home. The specific contribution of these findings to the advancement of policy and practice will be considered in the next chapter.

CHAPTER 6

The empirical chapters of this thesis provide evidence for the importance of familial influences in determining children's psychological adjustment (Chapter 3), academic attainment (Chapters 3 & 4) and their ability to negotiate the transition from primary to secondary school (Chapter 5). These findings advance understanding of the processes through which family relationships inform children's academic development. Importantly, they also have direct application to policy and practice relating to children's adjustment in the school setting.

All three chapters make specific recommendations for improving children's adaptation in this context. First, they suggest that the inter-parental relationship is important to children's behaviour and performance in school and, therefore, attempts to improve children's academic adaptation should also aim to incorporate this relationship. Second, findings from Chapters 3 and 4 demonstrate the importance of children's appraisals of both inter-parental and parent-child relations in explaining variation in children's behaviour problems (Chapters 3, 4 and 5), internalising symptoms (Chapters 4 and 5), academic application (Chapters 3 and 5) and academic attainment (Chapters 3 and 4). In addition to this, Chapter 5 suggests that appraisals of inter-parental conflict are particularly pertinent to children's adjustment at times of increased stress in the school environment, such as school transition. These findings imply that interventions aiming to address this appraisal process would improve children's ability to function across contexts. Chapter 3 also demonstrates that teachers play an important role in children's school adjustment; not only do they directly

216

influence children's behaviour and performance in school, they can also serve as a buffer protecting children against the negative effects of hostility at home on their externalising behaviour, as reported by teachers. These findings suggest that fostering warm, positive relationships between teachers and children might protect children from some negative effects of the family environment on their behaviour in school.

The findings from the current programme of research also provide insight into the nature of the relationship between children's psychological well-being and their ability to function well in school. Chapter 4 provides evidence that both internalising symptoms and externalising problems contribute to children's academic attainment, though the nature of the influence varies according to the particular index of psychological adjustment being considered. Importantly, it suggests that some indices of psychological adjustment that reflect poor psychological well-being actually serve to improve children's academic attainment, with anxiety in particular having a positive effect on children's exam results. This finding implies that over-emphasis on high academic attainment as the overall goal for interventions aimed at the family-school interface could overlook children experiencing high levels of anxiety.

These findings, therefore, make the case for taking a more global assessment of the child's adjustment in the school setting. Chapter 5, in an attempt to address this, assessed the impact of family processes on children's psychological, social and academic adaptation during a period of school transition. Findings from this study revealed that school transition marks a time of pronounced stress for children in which they experience a drop in psychological, social and academic functioning. The results also suggest that, at this time of stress, children's appraisals of the inter-parental

relationship, relative to their assessments of the parent-child relationship, are especially important to understanding variation in children's adjustment post-transition. Therefore, interventions aimed at aiding children's negotiation of school transitions should pay particular attention to the inter-parental relationship and related child appraisals in order to improve children's adjustment at this time.

This chapter will first consider recent policy relevant to these findings and will then discuss the thesis findings in comparison to existing practice relating to children's academic development and interventions aimed at the family-school interface. It will also address deficits in policy and practice and make recommendations for improving these based on the findings of the three empirical chapters of the thesis. Specifically it will consider the need for improvements in policy and practice based on recent assessments of UK children's well-being in the school context compared to other nations.

Child Functioning in the UK: Current Assessments, Current Policy and the Need for Policy and Practice Revision

Recommendations for revisions in policy and practice in the UK are particularly pertinent in the wake of a recent UNICEF report, which ranked the UK bottom of a league of 21 developed countries with respect to child well-being (UNICEF, 2007) with the US only one place above this. The report reveals that children from the UK score poorly on a number of indicators of child well-being including poverty, risk-taking behaviour and their own subjective sense of well-being. They score most poorly in terms of family relationship indicators, with comparatively more children living in single-parent and step-parent families, and children spending less quality time with

parents. The report also demonstrated that children from the UK score amongst the lowest with respect to educational indicators; the UK had fewer children in education between the ages of 15 and 19, and had lower occupational expectations. Many children in the UK also reported being bullied and expressed a greater dissatisfaction with school in comparison to children living in other developed countries.

While some of the data included in the report are several years old and shortcomings in the methodology in terms of the precision and range of questions has been acknowledged in the report, these findings are damning in terms of UK provision for child well-being. They suggest that children in the UK feel disconnected from families and schools and that their own sense of psychological well-being is low. They also suggest that the UK government need to make more effective provision for families and schools in order to support children and improve their quality of life.

International Policy

Notwithstanding the above findings, several shifts in recent policy have marked the onset of a more family-based approach to improving children's academic development. One of the most important pieces of legislation introduced in recent years is the United Nations (UN) Convention on the Rights of the Child (1989). This was the first international, legally binding instrument to set out a full range of fundamental human rights for children. It recognises that children are distinct from adults in their needs for care and protection and, therefore, require distinct legislation. The main focus is rights for children to have life (Article 6), to be safe from harm (Article 19, Article 32, Article 36) and exploitation and to have the right to participate fully in family (Article 5, Article 7, Article 9), culture (Article 14, Article 20),

education (Article 28, Article 29) and social life (Article 15). It aims to achieve these ends by setting standards for education, health, and legal and social services.

Furthermore, the convention places emphasis on the role of the family in informing children's development (article 5, article 10, article 18) and states that children have the right to inform decisions about their own well-being (article 12). This legislation was opened for signature in 1989 and came into force in 1990; it was ratified by the UK in 1991 but has yet to be ratified by the US. The implications of this instrument are that each country that has ratified the convention takes responsibility for ensuring the rights and protection of children; they are required to construct and deliver policies that recognise the best interests of the child. The US has recently stated that it does not intend to ratify the convention, citing concerns relating to entitlements requiring economic, social and cultural rights for children (UN, 2001).

UK Policy

In parallel with the UN Convention on the Rights of the Child, the UK government produced the Children Act (1989), which focused on several main principles. The act states that the needs of the child are paramount and that, wherever possible, children should be cared for by their own families. Related to this, it directs that families with children who have special needs should be assisted to look after their own children. It also states that non-resident parents, where possible, should maintain parental responsibility of their children. In addition, it requires that children are protected from danger using effective intervention; therefore, where courts are involved, decisions should be made in the best interests of the child and the perspective of the child should be considered when making decisions about their future.

A new Children Act was introduced in 2004. This new act made several extra provisions for children. It established a Children's Commissioner, to take responsibility for increasing awareness of the interests of children. It also placed a requirement on Local Authorities that they co-ordinate services for children, improve information sharing between these services and to appoint director of children's services for each authority in order to achieve these ends. This Children Act (2004) also makes provision for children to be represented in family legal proceedings and for families and children to receive support during such proceedings (discussed further later). Importantly, this act provided the legislative basis for the Every Child Matters framework for reform in children's services (see, Department for Education and Skills, DfES, 2004). This strategy places emphasis on preventative interventions, children's service co-ordination and community partnerships in order to improve child welfare (discussed in more detail later).

Several themes emerge from these legislative documents; first, there is increasing recognition that the family unit is the most important influence on children's development and that families should be supported in this role. Further, this legislation is some of the first to recognise the role of the child's perspective. It advises that the child's own experiences and wishes should be taken into consideration when making decisions for the child's future. These themes are both reflected in the literature covered in this thesis. Empirical research has repeatedly demonstrated that the primary source of children's development across family, educational and social settings is the family (Bowlby, 1944; Bronfenbrenner, 1977; Collins et al., 2000). All three empirical chapters, as well as recent research, have stressed the importance of children's

perceptions as a mechanism through which the impact of the family on children's

adjustment can be understood (Davies & Cummings, 1994; Grych & Fincham, 1990;

Harold et al., 1997). However, this research goes much further than legal frameworks

in emphasising the importance of the child's perspective as a mechanism through which

variation in child adjustment in the context of family discord can be understood.

While these documents (UN Convention on the Rights of the Child, 1989;

Children Act, 1989; 2004) demonstrate that government policy is beginning to

recognise themes that have been highlighted in family research, the efficacy of these

policies is dependent on how they filter into practice. Evidence from the UNICEF

report (2007) published nearly 20 years after the first two legislative documents would

suggest that either this legislation does not go far enough in terms of provision for

children, or that it has not been effectively translated into practice.

The Every Child Matters framework, legislated for in the Children Act (2004)

outlines changes to practice with child welfare in mind. This initiative was initially a

response to Lord Laming's recommendations relating to the death of Victoria Climbié

(The Victoria Climbié Inquiry, Lord Laming, 2003), this report documented a catalogue

of failings across children's services, resulting in the death of a small child at the hands

of her guardians. This document makes recommendations for the co-ordination of

children's services and information sharing between health, education and social

services. It speaks to themes common to systemic theories since the 1970s

(Bronfenbrenner, 1977; 1979), which suggest that problems that originate from the

family impact on children across a variety of contexts. In support of this, empirical

chapters presented in this thesis demonstrate that family influences affect children's

222

adjustment across contexts, and that improved efforts in one context (the school) may bolster children against the negative effects of another context (the family, see Chapter 3).Therefore, sharing information between these contexts should allow children experiencing difficulties to be identified earlier and, perhaps, allow professionals and workers in other contexts to make provision for improving their sense of well-being.

In conjunction with the Every Child Matters initiative, a further document was produced to consider how families might be supported in informing their children's psychological and educational development (Every Parent Matters, DfES, 2007a). This document specifically acknowledges the link between family background and children's psychological adjustment and educational attainment. In particular it recognises the influence of divorce, socio-economic status, parental involvement and parents' aspirations for their children as informing children's behaviour and performance in school. These two documents combined make specific provision for services for families aimed at improving children's ability to function across a number of settings – the school being one of the most prominent. Recommendations include children's centres (described later); school transition sessions and information for parents whose children will shortly be attending primary or secondary school for the first time; improving relations between parents and schools; and early interventions for truancy and parenting programmes. On the whole these provisions aim to foster stronger links between families and schools, and greater parental involvement in children's school life (DfES, 2003a).

In comparison to UK practices, US policy is not directly informed by the UN convention. However, similar legislation exists making provision for children's

academic, social and emotional development via children's centres or family centres, parent-school involvement initiatives, school readiness programmes, resources for poorer families and dissemination of information regarding parenting, education and behaviour management to parents (Educate America Act, 1994; Elementary and Secondary Education Act, 1965; Head Start Act, 1998; Leave No Child Behind Act, 2001). Both nations channel the majority of support for families and children through overarching frameworks: Head Start in the US and Sure Start in the UK. Both countries also advocate the use of family centres or children's centres as a base for resources and service delivery.

Frameworks for Service Delivery: Sure Start, Head Start and Children's Centres

Overarching programmes such as Sure Start in England and Wales (with the addition of Cymorth and Flying Start in Wales), and Head Start and Family Resource Centres in the US have been developed to support the delivery of the recommendations of a wide range of initiatives aimed at supporting families. The aim of these programmes is to provide a base from which families can easily access a wide range of facilities including child care, counsellors, health professionals, support networks, parenting programmes and play centres.

US Frameworks

The US operates several over-arching frameworks, which disseminate a range of services and resources. One of the best recognised of these is Head Start, which has been operating since the 1960s (Economic Opportunity Act, 1964; Head Start Act, 1998). Head Start offers a range of children's services for disadvantaged families for children of pre-school age, focusing specifically upon health, social and cognitive

abilities and school readiness. Professionals and Head Start workers provide group-based and home-based delivery of parenting programmes, programmes for improving children's cognitive development and behaviour, preparation for school and information resources. Even Start provides similar services but focuses specifically on improving children's educational attainment in the early years; this also educates parents in order that they may support their children's learning (Leave No Child Behind Act, 2001; Literacy Involves Families Together Act, 2000). Strategies such as Head Start offer a broad range of services, including support and education relating to the quality of the parent-child relationship. However, these frameworks offer a variety of different services and the nature and quality of these can vary widely from State to State.

UK Frameworks

In the UK, as in the US, provisions are largely aimed at young children from disadvantaged backgrounds but the UK government has stated that it aims to make one of the most prevalent of these frameworks, Sure Start, available in every community by 2010 (DfES, 2007a). Sure Start programmes tend to operate from specialised children centres, which can be accessed by each community. The government is also beginning to develop extended schools for access to resources for older children. Sure Start and extended schools are instrumental in fulfilling the aims of Every Child Matters (DfES, 2004) in terms of co-ordinating child services and providing access to a range of child related professionals. They provide a means of distributing extra resources to children such as toy libraries and Bookstart, an initiative to provide children with free books at different developmental stages. These centres focus specifically on child care, parental

support, health services and support for children's emotional development. They also

provide a base from which parents can access integrated services, support, advice and

parenting programmes.

Welsh Provisions for Children and Families

The samples used in this thesis are situated in Wales, within the UK. Wales

itself, while sharing some services in common with England or the rest of the UK (such

as Sure Start) also has its own initiatives with respects to improving children's

educational development and psychological well-being. Two of the main provisions

are Cymorth (Welsh Assembly Government, WAG, 2003) and Flying Start (WAG,

2005a). The first of these provides financial support to areas identified as particularly

deprived. The funds are ear-marked for improvements in health, leisure, training and

mentoring, and childcare provision; though the form that this provision takes is decided

by the Local Education Authority (LEA). Often this extra funding is channelled

through existing frameworks such as Sure Start and Flying Start. Flying Start bears

some similarity to Head Start in that it makes specific provision for deprived families

and focuses on supporting physical, cognitive and socio-emotional development in the

early years. Resources are disseminated based on the deprivation levels of the school

catchment. Flying Start operates both in homes and in specialised centres often based

on school sites. The services provided include child care, access to health visitors,

parenting programmes and a range of resources for both children and parents including

books and toys for children as well as information leaflets for parents. While these

services offer extra provision for Welsh families, they tend to be financial or practical

in nature (e.g., providing literature and resources). Moreover, funds are often

channelled through services similar to those in the rest of the UK: children's centres

and information resources and, therefore, operate in the same manner.

<u>Summary of Policy Frameworks</u>

From the above it appears that frameworks for distributing resources for

children bear many similarities either side of the Atlantic; many of them are aimed at

more socially and economically deprived families and include home- or centre-based

services. Typically services on offer include information in terms of literature on

parenting, education and behaviour management; resources such as free books and toy

libraries; child care; support workers to work with children; access to healthcare or

social care professionals; and parenting programmes. These parenting programmes

range from those aimed at improving parental education and parental support for

children's learning, to those aiming to improve the quality of family relationships.

Though the programmes and services are consistent with recommendations made in the

preceding empirical chapters, most of these focus solely on the parent-child relationship

or practical support for families. There is little evidence of consideration of the inter-

parental relationship in these services, or any strategies aimed at directly addressing the

child's perspective. In addition to this, though these services are broadly similar,

emphasis varies between countries and the nature, quality and quantity of services on

offer varies widely from one community to another. The amount of funding, the choice

of services and the quality of training all determine the overall efficacy of the

framework and the resources provided therein. This makes comparisons across nations

and assessments on a global level difficult to achieve. It also means that there has been

little rigorous assessment of the quality and efficacy of the services provided. In

particular, few parenting programmes employed in children's centres have been assessed effectively. Furthermore, some recent findings from Sure Start evaluations suggest that these services have done little to improve children's development (Merrell, Tymms, & Jones, 2006). In order to provide effective services to improve children's psychological, academic and social adjustment there needs to be a more effective integration of research and practice. This requires that 1) policy and practice is developed based on an existing empirical evidence base and that 2) programmes and services that are provided are rigorously evaluated. Therefore, recent research considering family functioning and child adjustment will be considered below. This will be assessed in conjunction with evidence based on existing programmes for improving child functioning.

Implications of Research for Policy and Practice

The empirical findings outlined in this thesis collectively suggest that children's experiences at home have pervasive effects on their ability to function well at school. Chapter 1 provided research evidence and theoretical rationale for the effects of inter-parental and parent-child relations on child adjustment. Chapter 2 provided evidence for links between these two aspects of family life and children's adjustment in the school context. In particular this chapter observed that, though previous studies had demonstrated that children's appraisals are an important mechanism through which family relationships inform children's psychological adjustment, there has been little application of this research to children's school-related outcomes. In order to remedy this, Chapter 3 considered children's perceptions of the parent-child relationship as a mechanism through which inter-parental and parent-child relations informed children's

228

behaviour and performance in school. Findings from this chapter provided evidence to support the family-wide explanation, which states that children's specific experiences of either inter-parental or parent-child relations contribute to their understanding of relationships in general and that inter-parental conflict in particular provides a context for disrupted appraisals of both inter-parental and parent-child relations (Harold & Conger, 1997; Harold et al., 1997). In particular, results from Chapter 3 demonstrated that both inter-parental and parent-child relations contribute to children's perceptions of the parent-child relationship. Moreover, these perceptions inform children's behaviour and application in school, which in turn affect their academic performance. This study also considered the influence that adults at school can have on children. It demonstrates that not only are adults at school able to directly affect children's behaviour and performance in school, they also appear to buffer children against the effects of hostility at home on their behaviour in school.

Chapter 4 demonstrated that both parenting and children's appraisals of conflict contribute to children's psychological symptoms and that these differentially inform academic attainment. While previous studies have demonstrated that inter-parental conflict impacts on children's psychological adjustment through these two pathways there are very few studies that link these mechanisms to academic achievement. This study demonstrated that both indirect (parenting) and direct (appraisals of conflict) pathways inform academic achievement. They also suggest that children's psychological symptoms differentially inform academic performance, such that while increased levels of depressive and aggressive symptoms have detrimental effects on academic performance, heightened levels of anxiety are associated with higher

academic performance. These findings suggest that mechanisms identified as important to understanding children's psychological adjustment are also relevant to academic performance. However, the nature of the relationship between psychological symptoms and academic performance is more complicated, varying according to symptom profiles.

Chapter 5 extended findings from Chapter 4 by considering school transition as a sensitive period in which the influence of family relationships on children's psychological, social and academic adjustment might be more pronounced. Results for this study suggested that, while effects of inter-parental conflict on children's adjustment prior to transition were explained by their perceptions of the parent-child relationship, inter-parental conflict prior to transition was linked to children's adjustment after transition through children's appraisals relating to inter-parental conflict. These findings suggest that at times of increased stress, the inter-parental relationship, and appraisals of this relationship in particular, are important to understanding children's social, psychological and academic functioning.

Together these findings emphasise several issues with respect to improving children's functioning in the context of discordant family relationships and also make specific recommendations of direct relevance to policy and practice. First and foremost they make the case that family relationships inform children's development not only within the family but also in school, and the nature of these influences on children range from psychological to social to academic. They highlight the importance of the inter-parental relationship in orienting other relationships within the family and in informing children's psychological adjustment and academic attainment. They also

emphasise the importance of the role of the child's perspective in understanding the effect of familial influences on children. Additionally, they provide evidence of how family and school influences might combine to inform children's behaviour and performance in school. Finally, they make the case that school transitions mark a sensitive period in children's academic development; as such families can provide a vital source of support at this time. Each of these issues will be discussed in detail below.

Family Influences on School Adjustment

The current set of analyses demonstrates that the family unit is an important influence in a child's academic development. Findings from Chapters 3 and 4 in particular show that the inter-parental and parent-child relationships exert unique effects on children's psychological adjustment and their effort and performance in school. Moreover, these influences are enduring, demonstrating effects across several years. Empirical research has repeatedly demonstrated that the primary source of children's development across home, school and social settings is the family (Collins et al., 2000). Ecological theories (e.g., Bronfenbrenner, 1977) argue that children's experiences in one system, in this case the family system, affect their ability to function well in other systems, such as the school system. This is partly due to these systems providing some overlap in terms of social rules, expectations and even people that are common to both contexts. Additionally, most of children's early experiences originate in the home so many of their early social cognitions and attributions are derived from this setting (Collins et al., 2000; Crick & Dodge, 1994). As children grow older, these social rules become more ingrained, such that early experiences will inform

interpretations of subsequent social exchanges. As these early experiences are the most enduring with respect to children's understanding of their social world, attributions may be a mechanism through which family experiences influence children's behaviour and performance in school (Crick & Dodge, 1994).

Literature making links between family influences and children's school performance have repeatedly identified parental involvement in school as an important factor. Findings suggest that children with parents who are supportive, involved and have high aspirations for children's achievement tend to fare better academically (Beyer, 1995; Bronstein et al., 1993; 1996; Eccles & Harold, 1996). With this in mind many strategies have been developed in order to improve parental involvement in children's education and to foster stronger links between families and schools.

This body of evidence has fed directly into provisions in schools in both the US and the UK for encouraging parents to take an active role in their child's schooling. In the UK, attempts to foster greater parental involvement with school have focused on parental literacy, involvement with homework, taking an interest in schoolwork and increased contact with the school. These strategies have typically been delivered in terms of school-based programmes aimed at fostering partnerships between families and schools, information packs as well as extended schools and Parental Involvement Networks offering services for wider sections of the community (DfES, 2003b; DfES, 2007).

In the US in particular, however, a lot of attention has been given to developing collaboration between researchers, practitioners and policy makers in order to achieve this (Epstein, 1996). Research in this area has suggested that children's behaviour and

performance in school could be improved by encouraging family members to volunteer to help with school activities, helping parents to support their child's learning at home and involving parents in decisions regarding the school (Epstein, 1996). In conjunction with this US legislation has sought to encourage closer partnerships between families and schools (Educate America Act, 1994; Leave No Child Behind Act, 2001; Strong Families, Strong Schools, U.S. Department of Education, 1994). Many programmes have been developed to achieve this end but these vary state by state. Examples include the Utah Center for Families (Lloyd, 1996), which provides parents with visits pre-kindergarten; hotlines for parents to gain information about home work and other issues affecting their child; skill development for parents; and meetings with teachers, parents, counsellors and students. Head Start initiatives and family resource centres have often provided a basis from which training programmes to improve parents' academic skills and assist parents' in preparing their children for school can be administered.

Alongside work encouraging parents to become actively involved with children's schooling, there has been increasing recognition that the quality of relationships within the family impact on children's ability to function well at school. There is evidence for the influence of the parent-child relationship on children's motivation (Moss & St-Laurent, 2001), attention (Jacobson & Hoffmann, 1997) and academic achievement (Feldman & Wentzel, 1990; Harrist et al., 1997; Jacobson & Hofmann, 1997; Noom et al., 1999) and poor classroom behaviour (Morrison et al., 2002; Pianta et al., 1997). With a view to improving these aspects of academic functioning, intervention programmes have been designed aimed at improving the

quality of the parent-child relationship. Programmes can vary widely in nature, from government developed information leaflets to programmes aimed at improving parenting strategies requiring several months of attendance (Cowan et al., 2005; Patterson, Reid, Jones, & Conger, 1975; Sanders, 1999; Webster-Stratton, 1990; Webster-Stratton & Hammond, 1997).

The latter form of intervention (sometimes called behavioural family interventions) is becoming increasingly popular. These types of programme are widely acknowledged as the most rigorously empirically tested, the most effective and the most cost-effective strategies aimed at improving children's behaviour (Edwards, Ceilleachair, Bywater, Hughes, & Hutchings, 2007; McTaggart & Sanders, 2003; Taylor & Biglan, 1998). These programmes typically require commitment from parents to attend either group-based or individual parenting training. The emphasis is on promoting positive parenting and prosocial behaviour in children in order to steer the emphasis away from blaming parents or children and towards supporting them (Sanders, 1999; Webster-Stratton, 1990; Webster-Stratton & Hammond, 1997).

One of the most well used parenting programmes was developed by Webster-Stratton (Webster-Stratton, 1990; Webster-Stratton & Hammond, 1997). The central premise of this parenting programme is that fostering more effective parenting skills and more positive parent-child relations will have a positive effect on children's behaviour. Parents are required to attend twelve weekly group sessions, which use a combination of videotapes, role-play and discussion to develop strategies to improve parenting and deal with challenging behaviour in children. Unlike most other parenting programmes, the effectiveness of this intervention has been empirically validated.

Results from several studies suggest that completion of the programme predicts improvements in the parent-child relationship and improvements in children's behaviour in the school setting (Reid & Webster-Stratton, 2001; Reid, Webster-Stratton, & Hammond, 2003). This programme has become so popular that it is now recommended in several government papers (Every Child Matters, DfES, 2004; Every Parent Matters, DfES 2007; Parenting Action Plan, WAG, 2005b).

Another successful parenting programme was developed in Australia, named Triple P (McTaggert & Sanders, 2003; Ralph & Sanders, 2003; Sanders, 1999). The intervention focuses on improving the parent-child relationship, reducing inter-parental conflict and improving child behaviour. This programme is delivered by a number of different methods including multimedia information, consultations, skills training and behaviour management strategies, and guidance on parent-child and inter-parental relations. The programme is quite intensive, typically running for at least two months. Empirical investigations of the efficacy of this programme have suggested it is associated with improvements in levels of parent-child conflict and inter-parental conflict on child-related matters as well as reduced child behaviour problems (McTaggert & Sanders, 2003; Ralph & Sanders, 2003).

For the purpose of employing parenting programmes as part of the Every Child Matters (DfES, 2004) initiative, local authorities and Sure Start centres can now access the Commissioners' Toolkit (Parenting UK, 2007), this is a database of parenting programmes, which have been assessed as effective and developed based on evidence. Though the quality of evidence for programmes varies widely, it is a step toward acknowledging the valuable contribution such interventions can make and makes

parenting programmes accessible to a wide range of workers and professionals. Further

to this, the Welsh Assembly's Parenting Action Plan (2005b) makes recommendation

of two programmes aimed at improving child well-being: the Webster-Stratton

Incredible Years programme described above (Webster-Stratton, 1990; Webster-

Stratton & Hammond, 1997) and a programme developed by Harold (see Harold &

Murch, 2004). The latter of these programmes (discussed in more detail later) is less

prescriptive than most family interventions. The emphasis is on reflection on positive

and negative family events, allowing parents to come to their own conclusions about

how their behaviour affects their children.

In summary, increasing efforts have been made to acknowledge the importance

of the family in determining children's social, emotional and academic development.

Recent policy provisions reflect current research suggesting that, in order to improve

children's behaviour and performance at home and in school, increasing efforts must be

made to support the family unit and parents in particular (Chapters 3, 4 & 5; Booth &

Dunn, 1996; Ryan et al., 1995). The most effective of these attempts to support parents

and children, with a view to improving child outcomes, have been programmes

involving behavioural family interventions. These programmes appear to be cost-

effective (e.g., Edwards et al., 2007) and have a body of empirical support

demonstrating their effectiveness in improving parent-child relations and child

outcomes. However, problems still remain with these types of programmes.

Many evaluations of parenting programmes take the form of consumer

satisfaction questionnaires rather than rigorous controlled trials (Carlson &

Christenson, 2005; Harold & Murch, 2004). Those that have been more rigorously

investigated show evidence of improvements in parent-child relations and home-based child behaviour but only a handful of studies have demonstrated effects of such programmes on children's behaviour and performance in school (Breiner & Forehand, 1981; McTaggart & Sanders, 2003; Webster-Stratton, 1993; 1998). Furthermore, the success of such programmes is dependent on the quality of training received by the programme deliverers. Failure by deliverers and parents to complete full training has implications for the cost-effectiveness of the programme and the quality of programme delivery (Seng, Prinz, & Sanders, 2006).

It appears then that behavioural family interventions can provide useful strategies from which to improve family-functioning, and child behaviour as a result. However, further efforts should be made to ensure that these programmes are delivered by practitioners who are well trained and competent in programme delivery and that the effectiveness of the interventions should be evaluated on the basis of improvements in parent-child relations and child outcomes, not just in terms of consumer satisfaction. In addition, these programmes do not provide a panacea for family discord and subsequent child adjustment problems. As these interventions are not accessed by all families who may require support a more flexible approach is required and more effort needs to be directed at providing support for a wider range of families. Finally, these intervention programmes tend to focus almost exclusively on the parent-child relationship. By focusing solely on this relationship, interventions of this kind miss out an important source of influence on children: the inter-parental relationship.

<u>The Inter-Parental Relationship</u>

The findings from all three empirical chapters suggest that the inter-parental relationship is an important aspect of family life. The findings presented are consistent with at least two decades of family socialisation literature, which suggests that the inter-parental relationship operates as the architect of the family system (Satir, 1972). While direct effects are not always apparent between inter-parental relations and child adjustment the present set of analyses, and many studies conducted previously, provide evidence that this relationship acts as the foundation for other relationships within the family and guides children's self-perceptions and social cognitions (Chapter 3; Grych et al., 2003; Harold & Conger, 1997; Harold et al., 1997). Though there is an increasing body of research highlighting the importance of the inter-parental relationship, there is little evidence that this has permeated into practice and policy. Many of the government provisions that exist focus on family resources (Every Child Matters, DfES, 2004; Every Parent Matters, DfES, 2007a) and bolstering the parent-child relationship. One area where the inter-parental relationship is beginning to be acknowledged as an important factor in a child's life, however, is in the instance of divorce proceedings.

Divorce Proceedings

Recent statistics note that divorce is an increasingly common feature of modern life, with rates of divorce rising sharply in the 1960s and 1970s and levelling off in recent years (National Statistics, 2007), with current statistics showing that 28 percent of children in the UK experience their parents divorcing by the time they are 16 (Harold & Murch, 2005). While many of these divorces will be settled without the intervention

of the court services some of the most acrimonious break-ups – especially those where

child custody, child residency and parental visitation rights are disputed – will

necessitate use of the family court services. As discussed earlier in this thesis, there is a

vast body of research providing evidence that children who experience their parents'

divorce are at a disadvantage to their peers with respects to social, psychological and

academic adaptation (see Amato, 2001; Amato & Keith, 1991). Additionally, this

research suggests that the more hostile and acrimonious exchanges are between parents

before, during and after divorce, the more adversely affected children become (Amato

& Keith, 1991; 2001; Demo & Acock, 1996). Cases of divorce that do reach the courts

tend to represent the most fractious break-ups, as these are cases where parents have

been unable to resolve issues surrounding the divorce without legal intervention. Often

the adversarial systems employed by both UK and US legal systems can exacerbate

conflict at this time (Grych, 2005). Therefore, children embroiled in these types of

divorce proceedings may be at heightened risk for adjustment problems.

Recent papers have been published in both the UK and the US considering how

legal and practitioner-based intervention might be designed with conflict management

and the best interests of the child as the central premises (US: Grych, 2005; UK and

Ireland: Harold & Murch, 2004; 2005). Importantly, these papers draw on the wealth

of literature identifying the processes through which pronounced inter-parental conflict

impacts on children in order to provide strategies for protecting children from adverse

effects in this period.

Grych (2005) notes that divorces marked by overt, hostile conflict between

parents that centres on the child is most disruptive and upsetting for children and that

conflict of this kind impacts on children according to their interpretations of it and according to the effect this conflict has on the parent-child relationship. This paper also highlights that while thousands of intervention programmes are offered across the US in order to ameliorate the impact of divorce upon children, few of these have been rigorously evaluated. These programmes tend to be assessed according to consumer satisfaction rather than empirical consideration of the impact of the programme on parental behaviour or on children's outcomes. Most of these intervention programmes take the form of education programmes for parents that aim to reduce conflict between divorcing couples, improve parent-child relations and encourage parents to consider the best interests of the child (e.g., Garber, 2004; Arbuthnot & Gordon, 1996; Wolchik et al., 1993).

Grych (2005) does highlight two programmes that have been empirically evaluated and appear to be efficacious in altering either parents' behaviour or children's psychological adjustment: Children in the Middle (Arbuthnot & Gordon, 1996; Arbuthnot, Kramer, & Gordon, 1997) and New Beginnings (Wolchik et al., 1993). The former of these interventions is a one-off three-hour intervention that focuses on two factors: reducing children's exposure to acrimonious conflict and lessening the extent to which children become entangled in conflict between parents (Grych, 2005). While this programme has demonstrated improvements in inter-parental communication, further evidence is required to assess whether it improves child adjustment. The latter programme (New Beginnings) is more intensive, requiring parents to take part in group and individual sessions focusing on parenting and inter-parental relations over an extended period of time. Not only did this programme appear to affect parents'

behaviour, it also had a positive effect on children's adjustment (Grych, 2005).

Grych (2005) also acknowledges the use of programmes directed at children rather than parents in order to allow them to express their feelings surrounding the divorce and to help them to cope with the experience. However, the paper notes that these studies are fewer in number than the parenting programmes and there is little evidence of their efficacy. The paper suggests that, in order to provide effective interventions in this stressful period of family transition more rigorous empirical evaluation of existing programmes is required.

Overall, there is a wealth of intervention programmes developed in the US in order to reduce the impact of divorce upon children. However, the availability and nature of these programmes varies not only from state to state but also from county to county (Grych, 2005). This makes systematic evaluation even more problematic. UK practices are comparatively less variable, though fewer programmes have been developed or implemented with families experiencing divorce (Harold & Murch, 2004; 2005).

Two papers by Harold and Murch (2004; 2005) concerning divorce in the UK and Ireland, focus specifically on representing the voice of the child in divorce and custody proceedings. As outlined previously, the ratification by the UK (1991) of the UN Convention on the Rights of the Child (1989) requires this nation to make specific provision for children to have their opinions taken into account on decisions concerning them (Article 12). This legislation provides a mechanism through which children may be allowed a voice during divorce proceedings. This recognition of the importance of the child's perspective is consistent with literature concerning family socialisation

(Davies & Cummings, 1994; Grych & Fincham 1990; Harold & Conger, 1997) and the findings of the empirical chapters of this thesis. Collectively these suggest that inter-parental conflict impacts on children according to their own appraisals of conflict. Therefore, it is these appraisals that provide the mechanism through which variation in children's psychological, social and academic adjustment can be understood. However, Harold and Murch (2005) note that there is some ambivalence about representing children in inter-parental disputes involving the court system. Most services provided by the judiciary are aimed at mediating the parents' interactions rather than providing children with a voice to participate in the mediation process or allowing them to be independently represented (except in exceptional circumstances). Though some information leaflets and brief interventions are aimed at fostering parental awareness of children's understanding of the divorce and the concerns identified by children at this time (see Harold & Murch, 2004), most of these services do not recognise the child's perspective as a mechanism through which children are affected by parental divorce and hostile inter-parental exchanges. The authors highlight that in light of UN legislation and research over the last two decades, court services need to provide mediators or officers of the court who are better trained and better equipped to ensure that children's views and wishes are represented.

Non-Divorce-Based Interventions

As described previously, the majority of family interventions aimed at improving child adjustment focus on the parent-child relationship, even those used during divorce proceedings. However, a small number programmes have been developed that also aim to address family discord at the inter-parental level, focusing

on factors such as communication, conflict resolution and individual issues arising in couples' inter-parental relationships (Shifflett & Cummings, 1999; Cowan et al., 2005). One intervention developed by Cowan et al. (2005) described in Chapter 5 compared parenting focused and couple focused interventions programmes. Findings revealed that, while the parenting focused intervention appeared to improve both parental behaviour and children's adjustment, it did not affect the inter-parental relationship; whereas the couples focus intervention resulted in improvements in the inter-parental relationship, the parent-child relationship and child functioning. These findings suggest that couples training has more pervasive effects than parenting training and, therefore, may represent a more efficient intervention.

Other programmes which also include a component addressing the inter-parental relationship have had positive effects on children. Triple P (Sanders, 1999) in particular includes a component addressing the inter-parental relationship. It has also been associated with improvements in inter-parental and parent-child relations as well as reductions in child behaviour problems (McTaggart & Sanders, 2003; Ralph & Sanders, 2003). One further, less prescriptive intervention aimed at the inter-parental relationship was developed by Harold (see Harold & Murch, 2004). This programme required parents to reflect on positive and negative events between themselves and their spouses and record how these events affect themselves, their spouse, their child, their relationship with their child and the family in general in a weekly diary. The emphasis is on allowing parents to reflect on how their own actions, and those of their spouse, affect their children in positive and negative ways. Therefore parents are able to make their own conclusions on how best to change their behaviour and the tone of their

relationships in order to reduce the effect on their children. Early findings suggest that parents found this process beneficial in understanding how conflict between parents can affect children.

Overall, some progress has been made in policy makers and practitioners recognising the impact of the inter-parental relationship on children, though most of this recognition is confined to cases of divorce. Legislation has made provision for making decisions in the best interests of the child and allowing the child to have a voice in matters concerning their own future. However, the success with which this has filtered into legal practice has been limited, with legal professionals being hesitant in allowing children access to advocates and mediators who represent the child's wishes.

With respect to provision for children's well-being in the context of discordant inter-parental relations, some attempt has been made to provide intervention programmes aimed at ameliorating the effect of disrupted inter-parental relations on children's well-being. However, these programmes are more prevalent in the US than the UK and tend to only be offered at the stage of marital separation. If programmes are to be effective in reducing the negative impact of this relationship on children, research suggests that attempts to improve inter-parental and parent-child relations must be made long before marital break-down occurs (Harold & Murch, 2004). Only a handful of interventions have been developed for this purpose (Cowan et al., 2005; Harold & Murch, 2004; Sanders, 1999).

Furthermore, as noted with behavioural family interventions described above, the majority of effective programmes are prescriptive and intensive in nature, taking the form of parenting training or advice over a number of weeks (Grych, 2005; Harold &

Murch, 2004). The time consuming and intrusive nature of these programmes can deter parents from taking part or lead to high attrition in participant groups. Harold and Murch (2004) suggest that the use of non-prescriptive interventions might address this problem. Interventions like those proposed by Harold (Harold & Murch, 2004) provide one possible answer to this. Interventions where the emphasis is on parents' reflection in their own time rather than active participation in intensive sessions might encourage greater take-up by parents. Though findings relating to this form of intervention are preliminary, they provide one solution to the demanding nature of intervention programmes.

One other issue raised when considering the impact of the inter-parental relationship on children is the role of children's own perceptions in informing whether and how effects are conveyed. Literature highlighted above suggests that, while policy is beginning to acknowledge the voice of the child, the role of the child's perspective as a means of explaining variation in children's responses to family discord requires further consideration.

The Child's Perspective

The findings presented in this thesis and the body of family socialisation literature described in Chapters 1, 3, 4 and 5 demonstrate that the child's perspective is vital to understating the impact of discordant family relationships on children's development. They suggest that the child's perspective is not just a means to access the child's viewpoint relating to different aspects of family life, it operates as a mechanism through which the impact of family relationships on children can be understood. Therefore, children are affected by familial exchanges according to the degree that they

245

perceive these exchanges to be negative (Davies & Cummings, 1994; Grych & Fincham, 1990). In terms of inter-parental conflict children are most adversely affected by conflict that they view as threatening or that they feel responsible for or unable to cope with emotionally (Davies & Cummings, 1994; Grych & Fincham, 1990).

As mentioned above, recent UN and UK legislation has begun to recognise the importance of the child's perspective in family and school life (Children Act, 2004; UN convention on the Rights of the Child, 1989). Further, these documents are among first to recognise that the child's own experiences and wishes should be taken into consideration when making decisions for the child's future. As has been outlined above in the case of divorce proceedings, this concept is beginning to filter through to practice.

Though these changes in practice and policy allow increasing provision for the child's perspective to be considered, the emphasis in these two domains is different from that of the research concerning family socialisation. Most of the efforts directed at considering the child's perspective in terms of practice and policy has focused on professionals aiming to assess what is in the best interests of the child in given situations (e.g., Department for Constitutional Affairs, 2004) or on children being permitted to openly express their wishes with respect to their own future (Children Act, 1989; UN Convention on the Rights of the Child, 1989). While this is a significant step forward in addressing problems relating to children's global well-being, the emphasis in the empirical literature is placed on the child's perspective as a mechanism through which the impact of negative family events on children is explained (Davies & Cummings, 1994; Grych & Fincham, 1990; Harold & Conger, 1997).

This research suggests that children actively attempt to understand social exchanges and that this understanding is shaped by previous experience. While this literature does make the recommendation that children should be consulted in matters which concern their future or current circumstances, such as in the case of child advocates and mediators (Harold & Murch, 2005), it also implies that efforts to improve children's emotional, social and academic development should be directed at shaping their understanding and attributions relating to family events and that this can reduce the impact of negative family experiences on children's ability to function in these contexts. If this is to be fully assimilated into practice, concrete efforts should be made to intervene in this appraisal process.

Overall, this thesis has made a range of recommendations for improving children's adjustment by focusing on improving experiences within the family. The findings from the thesis and the practice and policy strategies detailed above suggest that a range of approaches may be effective. However, emphasis has been placed, in particular, on interventions aimed at inter-parental and parent-child relations and addressing children's own perceptions of these relationships as important to improving their well-being across contexts. There are also other areas of inquiry not central to this thesis, which provide useful strategies for improving child welfare.

One further recent area of investigation relating to the design of effective intervention programmes for use with children and families concerns the junction of biological and family-environment influences on children. Specifically, studies have placed emphasis on the roles of the interaction between genes and environment and neurobiological factors as important considerations for intervention strategies.

Recent literature considering evidence from molecular genetic and behavioural genetic research has noted the potential benefits of identifying children at genetic risk of psychopathology (Reiss & Leve, in press; Thapar et al., in press). These studies suggest that the influence of genes on child adjustment is partially socially mediated. Moreover, this social mediation may play an enhanced role in instances where children belong to a family environment marked by inter-parental conflict, economic pressure and parental psychopathology, such that these environmental influences put children at increased genetic risk of maladjustment (Reiss & Leve, in press). Therefore, interventions aimed at improving children's social experiences may serve to interrupt genetic mechanisms, reducing the incidence of genetic expression of adjustment difficulties. Effective interventions aimed at achieving these ends, therefore, rely on the identification of both specific genetic risk *and* specific environmental stressors, which may activate these genetic mechanisms.

Studies considering neurobiological influences have suggested that familial factors lead to adjustment problems through, and in interaction with, neurobiological deficits (see van Goozen & Fairchild, in press). These studies have particularly identified aspects of the stress response system (e.g., the hypothalamic-pituitary-adrenal axis and the autonomic nervous system) as important to understanding behavioural problems in childhood. Findings suggest that investigation of these factors may allow practitioners to identify children who will be most responsive to therapeutic intervention. Particularly, children whose behaviour problems have an inherent neurobiological basis appear to be less responsive to therapeutic interventions, instead they show more pronounced improvements based on pharmacological intervention,

whereas children with comparatively normally functioning stress response systems respond more effectively to therapeutic interventions (van Goozen & Fairchild, in press).

Both gene-environment research and neurobiological research recommendations for interventions are in the early stages; the effectiveness of some of these strategies is yet to be tested. However, findings so far suggest that these two facets of biological influence may offer important directions for improving child functioning in the future. The implications of each of these approaches are for a more targeted approach to employing interventions, rather than a blanket approach, perhaps allowing a more cost-effective approach to family interventions.

One further source of influence on children's social emotional and academic development that has been considered in the present thesis is the role of the school environment. Findings from Chapter 3 demonstrate that family influences can combine with school influences to inform children's behaviour and performance in school. Specifically, the results suggested that teachers might be well positioned to improve children's behaviour and performance in school, even when children are experiencing a hostile family environment. The implications relating to these findings will be discussed next.

School Influences

The empirical chapters of this thesis emphasise the importance of both family *and* school influences, recognising that family and school domains *both* contribute to children's psychological and academic development. They note that positive relations with adults at school may be able to reduce the impact of some negative experiences at

home on children's behaviour and performance in school. They also suggest that positive relationships with adults at school can have a direct effect on children's behaviour and application in this environment.

Previous research has demonstrated that the teacher-child relationship can be an important source of support for children. Supportive relations between teachers and children have been associated with improved social, emotional and academic functioning (Birch & Ladd, 1997; Marchant et al., 1997; Roeser et al., 2000). Furthermore, authoritative teaching styles that are high in control and responsiveness have positive effects on children's school achievement (Marchant et al., 1997; Wentzel, 2002).

The importance of the school setting has long been acknowledged by US and UK policy, and the right to education has been supported in both nations. However, with the onset of facilities such as extended schools, emphasis on fostering emotional intelligence and engaging and supporting parents (DfES, 2004; DfES, 2007a; DfES, 2007b), the teacher's remit has widened considerably in recent years. There is widening empirical and political recognition that schools and teachers are well placed to bolster children's social and emotional as well as academic capacities and that they may also be a source of support and resources for the family (Birch & Ladd, 1997; DfES, 2004; Hamre & Pianta, 2001).

There is a wide range of initiatives based in the school context, which attempt to improve children's behaviour and performance in school. At the resource level free school meals for children from poorer families, breakfast clubs, and provision of electronic equipment and literary resources are common in both UK and US schools

(e.g., Every Child Matters, 2003). Programmes aimed at bolstering teachers' efficacy in improving classroom behaviour and academic achievement have also been developed. Typically these programmes focus on strategies of classroom management (Canter & Canter, 1992; Webster-Stratton, 1990).

One particularly popular model first developed in the US but also used in the UK is Assertive Discipline (Canter & Canter, 1992). This programme uses a system of rewards and consequences based on behaviour that are incremental, based on the number and extremity of instances of good or bad behaviour. Rewards range from praise to special activities and positive phone calls to parents, consequences range from verbal warnings to meetings with the principal and negative letters and phone calls to parents. There is some evidence that this programme can be effective in reducing rates of aggressive or antisocial behaviour within school (Allen, 1984; Bauer, 1982; Ward, 1984); however the reception from teachers and students has been mixed (Moffett, Jurenka, & Kovan, 1982). Further, the programme has received mixed reception from education professionals and researchers, some supporting the programme for its emphasis on rewards as well as consequences (Wood, Hodges, & Aljuned, 1996) while other scathing reports have suggested that this technique of classroom management requires mindless obedience from children and puts teachers' needs before the needs of children (Crockenberg, 1982; Robinson & Maines, 1994).

Other intervention programmes have aimed to foster more supportive and warm relations between teachers and children. Webster-Stratton's Incredible Years programme (Webster-Stratton, 1990; Webster-Stratton & Hammond, 1997) has been adapted for use by teachers in order to improve the classroom environment and teacher-

child relations. The aim of the programme is to improve children's socio-emotional and behavioural adjustment with a view to also improving academic engagement and performance. It focuses on the use of praise, incentives to motivate children, reduction of behaviour problems and fostering positive relationships between teachers and children. The programme also focuses on promoting links between parents and teachers. While this programme does emphasise the importance of rule compliance, it also promotes the development of skills within the child such as concentration and self-regulation (Webster-Stratton & Reid, 2007). Empirical studies testing the effectiveness of the Incredible Years programme suggest that training teachers in this manner has positive effects on children's behaviour at home and in school (Reid et al., 2003). However, the nature of the intervention means that there has been no consideration of the effect of teacher training on children in absence of interventions also directed at either the parent or the child. Findings do suggest, though, that the addition of the teacher-based intervention to either the parenting programme or the child programme results in improvements in teachers' classroom management and children's behaviour in school (Reid et al., 2003).

The UK government also has begun to acknowledge the importance of developing children's self-regulation and socio-emotional capacities with the development of curriculum resources such as Social and Emotional Aspects of Learning (SEAL, DfES, 2005). This is a school-wide framework that aims to target difficulties that children might experience relating to motivation, emotion regulation, social skills, self-awareness and empathy. This initiative trains teachers to foster these skills through teacher instruction, the teacher-child relationship and relations with other

children.

Both the Incredible Years and the SEAL programme emphasise the role of the teacher as a facilitator not just of children's learning capacities but also their socio-emotional and behavioural development. These initiatives are consistent with empirical findings, which suggest that teachers are well positioned to have positive effects on children's behaviour (Chapter 4; Hamre & Pianta, 2001), motivation (Harter, 1996), social relationships (Chang, 2003) and attitudes to school (Birch & Ladd, 1997). However, it is important to note that as teachers' roles widen to encompass more and more duties, they may become over-stretched and ill equipped to fulfil all these requirements. It should be recognised that with this increasingly wide remit should come further support and further training, possibly introducing workers within schools that take responsibility for family connections and the social and emotional well-being of children, distinct from staff members addressing children's educational needs.

One other major area of school influence on children relevant to the family-school interface, which has been considered in this thesis, is school transition. Increasing recognition has been given in recent years to the role of families in informing children's negotiation of these periods in children's academic development.

School Transition

Findings from Chapter 5 and from previous research suggest that educational transitions are particularly sensitive periods in children's educational development (Lohaus et al., 2004; Zeedyk et al., 2003). These times mark periods of upheaval in the child's life, in which they are expected to adjust to a new school site or building, become familiar with new teaching and non-teaching staff and settle in to new

classroom environment, with new peer groups and more advanced educational

concepts. The transition from primary to secondary school is also a time when relations

between teachers and children tend to become less involved and less supportive (Eccles

et al., 1993). Parental involvement in school also appears to drop off when children

make the transition to secondary school (Epstein, 1986).

Research findings suggest that educational transitions are particularly important

milestones in children's educational development because once children enter

educational systems, following an initial period of adjustment, children tend to move

along the same rank order throughout the school with respect to academic performance

and incidence of behaviour problems (Alexander & Entwisle, 1988; Campbell, 1995;

Cowan et al., 2005). Therefore transitions between schools offer opportunities to

intervene in order to attempt to improve child trajectories before or at the beginning of

the entrance to the new school environment. Family influences may be particularly

potent at these times because any effects on children's psychological and academic

adjustment during this period of transition may determine the trajectory of their

educational development in subsequent years.

School transitions have been associated with heightened depressive symptoms,

poor self-image and externalising problems (Collins, 2000; Robinson et al., 1995) as

well as reductions in motivation, academic performance and school attendance

(Anderman et al., 1999; Asplaugh, 1998; Gutman & Midgley, 2000; Reyes et al.,

2000). Some explanations of why children experience problems in response to this life

change argue that the school transition at age 11 directly contradicts the developmental

needs of children. At a time when children require increased autonomy coupled with

positive and supportive relations with adults and peers, they are exposed to a school environment that is more controlling and impersonal (Eccles et al., 1993).

Additional research has suggested that school transitions represent risk factors that interact with other life events to increase vulnerability in children for psychological adjustment problems (see Chapter 5). So school transition can exacerbate factors that may already pose a potential problem for children. Therefore, family influences may be especially important at this time.

Several studies have investigated the influence of family factors on children's overall adjustment to the transition process (Ablow, 2005; Hsu, 2005; Johnson, 2005; Lord et al., 1994; Mattanah, 2005). Findings reveal that children who perceived their parents to be authoritative, attuned to them and supportive of autonomous decision making demonstrated more positive adjustment and gains in self-esteem, social competence and academic performance subsequent to transition (Lord et al., 1994; Mattanah, 2005). Some evidence has also been provided for the influence of the inter-parental relationship on children during transition periods. Results from Chapter 5 demonstrate that the inter-parental relationship and appraisals related to this are particularly important for understanding children's psychological, social and academic adjustment post-transition. These findings suggest that, at times of heightened school stress, children may interpret conflict between parents as more of a threat to their own well-being. Previous studies also provide evidence for the importance of the inter-parental relationship for children's adjustment during school transitions. This research demonstrates that high levels of either overt or disengaged conflict between parents prior to school transition inform children's feelings of self-blame and subsequent

teacher reports of higher levels of internalising symptoms and externalising problems (Ablow, 2005). Furthermore, inter-parental interactions prior to transition have been directly associated with children's internalising symptoms and externalising problems (Cowan, Bradburn, & Cowan, 2005). This study also noted indirect effects of inter-parental conflict on children's psychological adjustment post-transition through levels of authoritative parenting. Collectively these findings emphasise the importance of inter-parental and parent-child relations prior to transition informing children's post-transition adaptation.

Though the literature described above suggests that school transition periods are marked by stress and upheaval, they also offer a unique opportunity for interventions aimed at improving school adjustment and academic achievement (Bronfenbrenner, 1977; Cowan et al., 2005). Intervention studies aimed at improving the quality of family relationships at this time have demonstrated significant improvements in children's behaviour, psychological adjustment and academic achievement at this time. The Triple P parenting programme, described earlier, has been used immediately prior to school entry (McTaggart & Sanders, 2003) and before the transition from primary to high school (Ralph & Sanders, 2003) with Australian children. Findings from the former study demonstrated that children who belonged to the treatment group had significantly lower levels of conduct problems than those in the control group did after making the transition into school. The latter study did not provide any measures of child outcomes subsequent to transition but did report improvements in parental self-efficacy and improvement in the parent-child relationship. More intensive programmes, delivered over a two-year period have also been delivered to kindergarten

children with disruptive behaviour, such as those based on the Oregon Social Learning Center Model (see Patterson et al., 1975) assessed by Tremblay et al. (1995). This programme was based on similar principles to that of Triple P (Sanders, 1999) and Incredible Years (Webster-Stratton, 1990) programmes, incorporating home-based parent training as well as social skills training in schools. Research findings demonstrated that this intervention had positive effects on children's social development, behaviour problems and the retention of the children in normal, age appropriate classes throughout elementary school (Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995).

Further to these interventions primarily addressing the effects of the parent-child relationship across transition, one study by Cowan et al., (2005) demonstrated that aspects of family life such as inter-parental and parent-child stressors act as risk factors predicting children academic achievement, internalising symptoms and externalising problems during the transition from kindergarten to elementary school. As described earlier, these findings demonstrated that interventions aimed at the inter-parental relationships produced marked improvements in the inter-parental relationship, the parent-child relationship and children's psychological and academic adaptation post-transition. This research suggests that attention should be directed at addressing the inter-parental as well as the parent-child relationship when attempting to improve positive effects of family factors on children's psychological and academic adjustment during sensitive periods of academic development such as school transition.

While there has been some recognition that interventions aimed at improving the process of school transition should incorporate the family, most of these strategies

are aimed at the child's transition into the school system at the beginning of their

formal education (making the transition from home or nursery to school), few

programmes considering the transition from primary to secondary school have the same

focus. By the time children reach the transition from primary to secondary school (or

in the case of the US elementary to middle school or junior high school) most efforts

are aimed at introducing children to the secondary school environment and the work

that they will be expected to engage with.

Many government recommendations involve improving co-ordination between

primary and secondary school in terms of curriculum and joint initiatives (e.g., DfES,

2001). Further programmes have focused on providing children and parents with

information relating to curriculum, teaching and school environment (Smith, 1997).

While many schools provide parents with information about the new secondary school

and invite parents to participate in introductory evenings or early parents' evenings,

there are few intensive programmes aimed at involving parents in this transition

process. Interventions that have been developed are based on transition clubs,

informing children of what to expect post transition and attempting to allay any

anxieties they might have about the transition process (e.g., Humphrey & Ainscow,

2006). The strategies adopted typically operate through the use of peer support and

counselling (Slater & McKeown, 2004); teacher support and guidance (Smith, 1997) or

professionals working directly with children (Greene & Ollendick, 1993; Smith, 1997;

Snow, Gilcrist, Schilling, Schinke, & Kelso, 1986). Programmes that have

incorporated a parental component to transition programmes during this period have

suggested that parenting training has as beneficial effects on children's transition at this

time as it does at the onset of formal education (Ralph & Sanders, 2003).

Overall, there are a wide range of programmes available for the purposes of improving children's experience of the transition process. While many of these focus solely on the education process and preparing children for the academic work expected, there are an increasing number of programmes that focus on how families can improve children's ability to negotiate this sensitive period. Consideration of children's adjustment across transition in these programmes has extended to consider not just children's school attendance and academic performance, but also their psychological well-being, self-esteem and peer relationships (Cowan et al., 2005; McTaggart & Sanders, 2003; Ralph & Sanders, 2003). One shortfall of the current range of provisions is that there has been little policy or practice recognition of the importance of family influences not just at entry into the school system but also when children make the transition from early years schooling to secondary or high school contexts. As this is a time when parental involvement in school tends to drop off (Epstein, 1986), it is important that parents are encouraged to take more positive steps to assist their children in making transitions at this time.

Summary

Since the UN Convention on the Rights of the Child (1989), children's needs have been placed firmly in the spotlight with respect to political agenda and the development of practice. In the wake of this legislation, further UK policy has been developed to make specific provision for children in terms of health, socio-economic conditions, education and psychological well-being. The Children Act (1989; 2004) and papers such as Every Child Matters (DfES, 2004) have placed increasing emphasis

on providing support for the family in order to improve children's global welfare. They have taken some steps towards recognising the importance of the child's own perspective in cases such as child custody and divorce proceedings (Harold & Murch, 2004; 2005) and have emphasised the importance of providing support, information and intervention programmes for parents across a wide range of contexts. Though the US is one of only two countries out of 193 not to ratify the convention (Somalia being the only other), US policy has made similar provisions for ensuring children's well-being, providing a wide range of strategies in order to improve children's social, emotional and academic development. US practice also highlights the utility of interventions and family-based programmes in achieving this end.

As has been demonstrated above, a vast number of intervention programmes have been developed and delivered in these two nations. However, there is increasing recognition from political and research forums that policy and practice must have a strong evidence base (Coalition for Evidence-Based Policy, 2003; Performance Innovation Unit, 2000; Strategic Policy Making Team, 1999). While some of the widely recognised programmes do have some empirical validation (Reid & Webster-Stratton, 2001; Reid et al., 2003; McTaggert & Sanders, 2003; Ralph & Sanders, 2003), most of the evidence base is provided by the US, not the UK. Furthermore, a large number of programmes still remain that have yet to be evaluated in a satisfactory manner, with most of these programmes only providing information on consumer satisfaction rather than changes in child outcomes.

The alternative aspect of evidence-based policy is that political provision for children should be based on the wealth of research evidence that exists suggesting how

children are adversely affected by experiences in family life and what factors may improve conditions in order for children to function well socially, emotionally and academically. For example, the Every Child Matters (DfES, 2004) green paper was published in response to a report on systemic failings in child services brought to the public's attention through the death of a child. However, the same recommendations of service co-ordination and child provisions could have been made earlier based on ecological theories of child development developed in the 1970s (Bronfenbrenner, 1977; 1979).

In order to provide more effective support for families and children, policy and practice development based on this needs to be better informed by empirical evidence. This requires efforts on the part of researchers, practitioners and policy makers to collaborate to these ends. Previous collaborations of this kind have provided improvements in the way research has been designed and disseminated (Epstein, 1996; Moles, 1996). Specific areas that would warrant further evidence-based contribution include recent recognition on the political agenda of the voice of the child. There are 20 years of research that speak to this and provide specific recommendations on how the voice of the child can be enabled and how the child's perspective can inform their levels of psychological well-being. The present set of analyses complement this by suggesting that these perceptions also inform children's school performance.

The findings of the empirical chapters of this thesis also suggest that wider recognition should be given to the inter-parental relationship as important influence on family life and child adjustment. While some interventions developed in the US have begun to acknowledge the importance of supporting this relationship (Cowan et al,

2005; Shifflett & Cummings, 1999), further efforts are required to strengthen this relationship as well as the parent-child relationship in order to benefit children.

Further, the findings of this thesis demonstrate that family influences are important in determining children's social, psychological and academic adjustment across the transition from primary to secondary school. Though many early years programmes exist aimed at supporting parents immediately prior to children's entry into the school system, few concrete efforts have been aimed at improving the quality of the family environment during later school transitions. The little evidence that does exist suggests that efforts to bolster the family unit during this period would be effective (Ralph & Sanders, 2003).

Overall, recent steps in policy towards recognising the needs of children and how they might be addressed constitute an advance in the understanding of the conditions and the processes through which children are affected by experiences derived from the family and how these might be addressed. However, well established empirical research findings in this area are yet to percolate through to inform policy and practice in this area. Efforts by all three areas of professionals should be directed at bridging the gaps between research and practice in this respect.

CHAPTER 7

The primary aim of this thesis was to consider effects of family influences on children's adaptation in the school environment and the processes through which these effects are conveyed. Research contained within the thesis attempted to explore how hostile inter-parental and parent-child relations contributed to children's academic attainment by considering a range of mechanisms through which these effects might be explained. Specifically, analysis considered the role of children's appraisals of inter-parental conflict and parent-child relations as potential mechanisms through which effects were transferred from the family context to children's school-related outcomes. Using data available from two large-scale longitudinal studies, this programme of research also considered children's psychological adjustment and their application in the academic setting as intervening factors through which these appraisals might affect children's academic attainment. Furthermore, from a systems perspective, the empirical chapters examined how factors in both family and school environments served to inform children's adaptation in the school setting by considering how relationships with adults at school and relationships at home jointly informed behaviour and performance in school, and by assessing the influence of family relationships on children's adjustment at times of pronounced school stress, namely, the transition from primary to secondary school.

The opening two chapters of the thesis provided a theoretical and empirical foundation from which to explore the questions outlined above. Chapter 1 reviewed literature assessing the influence of family relationships on child adjustment and

theories considering the processes through which these influences occur. Specifically, it highlighted family socialisation literature that identifies child appraisals as an important mechanism through which inter-parental conflict and parent-child relations inform children's psychological adjustment. Chapter 2 assessed literature considering the influence of family and school influences on children's academic adaptation. This chapter also noted the relative absence of research considering children's appraisals in this family-school interface literature. Jointly, these chapters provided a basis from which to consider the nature of the influence of family relationships on children's school-related outcomes, paying particular attention to the appraisal process.

The three subsequent empirical chapters aimed to provide insight into the processes through which inter-parental and parent-child relations informed children's behaviour and performance in school. The first empirical chapter, in an attempt to provide an integrated perspective of the family-school interface, considered the influence of both inter-parental conflict and parent-child relations on children's academic attainment. Recognising that exam performance is partly determined by factors proximal to the school environment, this chapter also assessed the role of children's behaviour, reported by teachers, and their level of academic application in explaining initial direct effects between family relationships and academic attainment. In order to introduce the role of child appraisals to the family-school interface, this chapter examined the role of children's appraisals of the parent-child relationship as a mechanism linking inter-parental conflict and parent-child relations to children's behaviour and application in school. Finally, in order to understand how family and school influences might combine to inform children's behaviour and performance in

school, this chapter also considered supportive relations with adults at school as a potential moderator of the effects of hostility at home on behaviour and performance in school. The findings from this first study provided evidence for the role of child appraisals in conveying effects from the family context to children's school related outcomes. Specifically, children's appraisals of parent-child relations provided a mechanism through which both inter-parental conflict and parent-to-child hostility were related to children's behaviour problems in school and their academic application. These factors, in turn linked child appraisals to academic attainment. Importantly, the results from Study 1 also demonstrated that supportive relationships with adults at school not only informed children's behaviour and application in this setting; they also buffered children against the effects of parental hostility on their behaviour problems. Findings also varied according to child gender, with effects of inter-parental and parent-child relations having a more direct effect on boys and effects of these relationships on girls being explained through their appraisals of the parent-child relationship.

Study 1 provided clear evidence that children's appraisals, though largely overlooked by research assessing the family-school interface, provide an important mechanism through which children's school adaptation is affected by family relationships. Moreover, findings relating to school support suggest that family and school influences can combine to inform children's adjustment in this context. Specifically, positive and warm relationships with adults at school may serve to reduce the impact of hostility at home on behaviour in school.

This chapter, overall, represents an important step towards understanding the role of appraisals in explaining the influence of family relationships on children; it also

provides insight into how family and school domains combine to influence child adjustment. However, there were some important issues that were not addressed in this chapter. First, Study 1 assessed the combined influence of inter-parental and parent-child relations on academic outcomes; however, research has suggested that discordant inter-parental relationships often precede, and fuel, discord in the parent-child relationship. Second, this study only assessed children's appraisals of the parent-child relationship. There is a large body of research suggesting that children's appraisals of inter-parental conflict are also important to understanding children psychological adjustment (Davies et al., 2002; Davies & Cummings, 1994; Grych & Fincham, 1990); these appraisals may be important to understanding children's academic attainment. Finally, there is a large body of research suggesting links between eternalising problems and academic attainment but little evidence of links between internalising symptoms and academic outcomes; therefore, Study 1 only considered children's psychological adjustment in terms of their eternalising behaviour problems. However, further investigation of the importance of internalising symptoms in this context, or reasons why few studies had found links between internalising symptoms and academic achievement was required.

In order to address these issues, Study 2 examined the influence of inter-parental conflict on children's academic attainment via their appraisals of threat and self-blame in response to inter-parental conflict, and negative parenting. In order to also address the relative lack of clear findings relating to internalising symptoms and academic achievement, this study considered the contribution of internalising symptoms and eternalising problems to children's academic performance, paying

particular attention to the nature of the relationship between internalising symptoms and attainment. The findings provided evidence for the role of appraisals of parent-child relations *and* appraisals of threat and self-blame in response to inter-parental conflict in explaining links between conflict and academic attainment. These findings add credence to research suggesting that conflict serves to inform children's adjustment by the compliment of two mechanisms: 1) the parent-child relationship and 2) appraisals relating to inter-parental conflict (Fincham et al., 1994; Harold & Conger, 1997; Harold et al., 1997). Consistent with some recent studies (e.g., Grych et al., 2003), findings also suggested that appraisals of conflict differentially inform internalising symptoms versus eternalising problems such that, while appraisals of threat were associated with children's internalising symptoms, appraisals of self-blame were not; conversely, appraisals of self-blame were associated with eternalising problems but appraisals of threat were not. In addition to this, the results suggested that while eternalising problems provided a mechanism through which both negative parenting and appraisals of self-blame informed variation in academic attainment, internalising symptoms were not related to this outcome. To explore this finding further, and building on previous research demonstrating differential effects of anxiety and depression on academic achievement, internalising symptoms were split into two distinct constructs: anxiety and depressive symptoms. Separation of these indices demonstrated that both anxiety and depressive symptoms provided mechanisms through which negative parenting and appraisals of threat were related to academic attainment. Interestingly, while depressive symptoms served to reduce academic attainment, high levels of anxiety were actually associated with improved attainment in this model. This finding not only

provides an explanation for the lack of evidence for links between internalising symptoms and academic achievement in previous studies, it also suggests that the optimum conditions for academic achievement are not necessarily the optimum conditions for children's psychological well-being.

There were some limitations to Study 2. First, Study 2 does not consider how any aspect of the school environment might affect children's academic outcomes, even though Study 1 suggests that the school environment is an influential factor. Second, academic attainment perhaps provides too narrow a consideration of children's school adaptation; as is implied by the relationship between anxiety and academic attainment, academic attainment does not represent the optimum outcome for a well adjusted child. Therefore, in order to assess children's ability to function well in school a broader range of adjustment indices must be considered.

Study 3 extended the findings of the previous study by considering how the processes outlined in Study 2 might be affected when children are undergoing pronounced school stress in terms of school transition. In particular, this study made comparisons between a school transition and a non-school transition group in order to assess how links between inter-parental conflict and children's academic outcomes, via negative parenting and appraisals of conflict, differ for these two groups. Moreover, this study broadened the consideration of academic adaptation by considering how inter-parental conflict, appraisals relating to this and negative parenting contribute to children's psychological and social adjustment, and their academic application one year later. Notably, the study assessed psychological adjustment as an intervening variable linking negative parenting and conflict appraisals to social adjustment and academic

application. Comparisons between transition and non-transition groups suggested that while negative parenting served as the mechanism through which inter-parental conflict impacted on children's internalising symptoms and eternalising problems in the non-transition group, in the transition group appraisals of conflict were the intervening mechanism linking pre-transition conflict to psychological adjustment post-transition. These findings suggest that at times of pronounced school stress, such as the transition from primary to secondary school, appraisals relating to inter-parental conflict are a particularly pertinent to understanding children's psychological adjustment. Consistent with Study 2, there was also evidence for differential roles of threat and self-blame appraisals in the transition group with threat appraisals linking conflict to internalising symptoms and self-blame linking conflict to externalising problems. Analyses for both groups also demonstrated links between children's experiences of family relationships and their social adjustment and academic application through their eternalising problems. These findings are consistent research discussed in Study 1 (Adams et al., 1999; Jimerson et al., 1999), suggesting that children's behaviour problems affect their ability to attend to material in class and focus on academic tasks. The also suggest that children displaying aggressive behaviour tend to be less socially appropriate and less liked by peers than other children.

Results linking internalising symptoms to social adjustment and academic application were less consistent across groups. In the non-transition group, internalising symptoms were directly related to social adjustment but not academic application. However, in the transition group internalising symptoms were related to neither of these factors. These findings perhaps imply that children in the non-

transition group, who have been part of the same academic environment for a number of years have more nuanced social interactions, where peer group membership and social acceptance is based on richer information derived from years of experience of individuals in the primary school environment. Social interactions in the group who have made the transition to secondary school, on the other hand, may be more rudimentary than this. Children in this environment have limited information from which to select peer group membership and determine social acceptance; these factors may, instead, be determined by more overt aspects of the individual's nature, such as their eternalising behaviour.

Collective Findings and Implications for Policy and Practice

Collectively the findings from the three empirical chapters demonstrate that family influences exert significant effects on children's ability to function well in the school context. These findings make important advances to previous research addressing the family-school interface by providing a process-oriented approach, considering the mediating and moderating conditions through which family relationships inform a range of adjustment indices relevant to the school context. As discussed in Chapter 6, the findings presented in this thesis have direct implication for policy and practice aimed at improving children's behaviour and performance in school.

First and foremost the findings from this programme of analyses portray the inter-parental relationship as a foundation and an orienting factor for other relationships within the family as well as children's appraisals relating to family relationships. Recognition of the importance of this relationship for children's academic achievement

270

has direct implications for interventions concerning the family-school interface. Most interventions aimed at improving children's performance in school by bolstering the family environment have focused primarily on the parent-child relationship. However, the programme of analyses presented in this thesis adds weight to a small number of studies suggesting that in order to address effects of family influences on children, efforts must also be directed at the inter-parental relationship (Cowan et al., 2005; Sanders, 1999).

The findings presented in these empirical chapters also suggest that children's appraisals provide a crucial mechanism through which effects are conveyed from the family environment to children's adjustment in the school setting. In particular, children's perceptions of inter-parental and parent-child relations collectively serve to inform children's behaviour problems in the school context, their academic application and, subsequently, their academic attainment. These findings suggest that research to date investigating family influences on children's school adjustment essentially misses out this important mechanism through which effects are conveyed. They also recommend that family socialization literature that has already identified the importance of these mechanisms with respect to children's psychological adjustment should extend to consider other contexts of development that are important to children.

This appraisal process also offers a point of intervention for practitioners attempting to improve children's school adaptation. Specifically, the results suggest that effects are conveyed from the family context to the school context via these appraisals. Therefore, efforts aimed at addressing these appraisals should benefit children not just in terms of their psychological adjustment but also in terms of their

behaviour and performance in school. This finding is particularly timely, given the recent recognition of the importance of the child's perspective and the voice of the child in recent government documents (see The Children Act, 1989; 2004; Harold & Murch, 2005). These documents emphasise the importance of making recommendations in the best interests of the child and taking the child's wishes into account when making decisions that affect them directly. However, these provisions fall substantially short of the emphasis placed on the child's perspective in the current thesis. Importantly, as noted recently by Harold and Murch (2004), the government stipulations that do exist relating to the child's perspective are often by-passed during legal proceedings due to a lack of provision of services allowing the child to be represented.

The findings contained in this thesis suggest that children's own subjective evaluations of family relationships are instrumental in informing their psychological, social and academic adjustment. Such evidence suggests that legislation needs to make much more specific provision for addressing the child's perspective. In particular, services offering a means for children to have their views represented should be provided during legal proceedings concerning families where the decisions made have implications for children. Additionally, interventions aimed at improving children's well-being by focusing on the family unit need to recognise the child's perspective as an important source of influence on children's well-being.

The thesis also makes some concrete advances on the understanding of links between children's internalising symptoms and their academic attainment. The results suggest that the lack of evidence for links between these two factors may be because

children's symptoms of anxiety and depression differentially inform academic performance, such that while depressive symptoms are detrimental to attainment, symptoms of anxiety actually enhance attainment. These findings have implications for the use of internalising symptoms and eternalising problems as means of assessing psychological symptoms. They suggest that while these broad indices of adjustment provide a useful representation of children's global psychological adjustment, they may be too broad when considering psychological symptoms as predictors of other outcomes such as academic performance. They also indicate that, when considering other domains of adjustment such as academic attainment, optimum functioning of the child is not necessarily represented by the extreme end of the spectrum. That is, while the best example of child well-being in psychological terms may be represented by the lowest levels of psychological symptoms, the highest levels of academic performance do not necessarily represent the most well adjusted child in the school context. Rather, children's adjustment in this setting relies on a constellation of social, psychological and academic adaptation.

This finding suggests that efforts to improve children's ability to function well at school should avoid focusing on narrow indicators of school adjustment such as academic attainment. Many government assessments of educational success focus on exam league tables. Findings from Chapters 4 and 5 together imply that this index is not sufficient for assessing children's school adaptation or the relative success of government developed practice. Rather, a much broader consideration of children psychological, social and academic adjustment is required.

Empirical findings from this thesis also draw specific conclusions about the

combined effect of family and school contexts on child adjustment. They suggest that family relationships and relationships with adults at school combine to inform children's behaviour in this setting such that, while a combination of hostile parent-child relations and teacher-child relations lacking in warmth and support lead to high levels of behaviour problems in school, warm and supportive teacher-child relations moderate the influence of parental hostility on children's behaviour in the school context. These findings attest to the importance of the teacher-child relationship as a source of support and warmth for children experiencing hostility at home. Therefore, where families might be considered 'hard to reach' in terms of interventions, some improvements in child behaviour may be achieved by focusing on improving school relationships.

Study 5 shows that the processes through which family discord impacts on children's psychological, social and academic adjustment vary according to whether the child is experiencing stress in the school context. Notably, this study demonstrated that the transition from primary to secondary school represented a time of stress in children's academic development, with mean comparisons indicating reductions in perceptions of school support and academic performance as well as increases in behaviour problems, attention problems and social adjustment problems. Such declines at this time are proposed to be a result of major upheaval in the school context, which may coincide with cognitive changes that mark the beginnings of formal operational thought. Moreover, comparisons of transition and non-transition groups suggested that, while effects of inter-parental discord on non-transition children was conveyed through negative parenting, inter-parental conflict affected the children in the transition

group through their appraisals of threat and self-blame relating to that conflict. These findings suggest that at this time of school stress, children's appraisals of conflict between parents are particularly pertinent to their psychological, social and academic adaptation. In particular, it was proposed that a combination of school stress and the onset of formal operational thought might provide an explanation of the pronounced effects of appraisals relating to inter-parental conflict on children's psychological adjustment subsequent to this transition.

These findings are especially important given that, in comparison to interventions aimed at the transition into primary school, there are few programmes aimed at improving children's negotiation of the transition from primary to secondary school that target family relationships, and hardly any that consider the inter-parental relationship. They suggest that increased efforts at both the family and the school level need to be aimed at supporting children at this time. With respect to the family, efforts should be directed in particular towards the inter-parental relationship, and children's appraisals of it, during this period.

Collectively, this thesis provides clear directions for future policy and practice provisions for children experiencing adjustment difficulties in the school context. It suggests that efforts should be directed towards improving children's experiences of family life, especially in terms of the quality of inter-parental and parent-child relations. The findings also provide compelling evidence that the child's perspective, emphasised in recent legislation, has specific implications for their psychological, social and academic functioning. Therefore, efforts to incorporate 'the voice of the child' should go beyond simply providing an outlet for children's thoughts concerning family events

and attempt to target children's perceptions of family relationships as a means to improving their well-being across contexts. The thesis also pin-points school transitions as periods of marked upheaval for children. In particular, findings from this thesis demonstrate that the transition from primary to secondary school, also coinciding with cognitive and biological changes, presents a period of heightened stress in children, in which increasing effort needs to be directed towards improving levels of support from both family and school contexts.

There are several challenges for interventions aimed at the family-school interface. Presently in the UK many children experience periods of family disruption and discord, evidenced by the increased number of children in recent years belonging to single-parent and step-parent families (Social Trends, 2007). These family break-ups and transitions bring with them elevated levels of family conflict, leaving children in the position of negotiating periods of family stress. Moreover, families experiencing these high levels of conflict and discord, and families whose children are experiencing psychological and academic problems may also be the families that are hard to reach in terms of intervention. Even findings from the empirical chapters from this thesis support this contention by demonstrating that children or parents who either did not provide complete data or dropped out of the studies before the end tended to be the families evidencing the highest levels of conflict (Chapter 4) and were the families where children were showing the highest levels of behaviour problems and academic failure (Chapters 3, 4 and 5).

Notwithstanding these challenges, recent research has offered some promising strategies for improving children's psychological and academic functioning by

targeting family relationships – especially inter-parental and parent-child relationships (Cowan et al., 2005; Harold & Murch, 2004). These studies demonstrate that programmes aimed at improving the quality of these relationships result in tangible improvements in children's psychological and academic adjustment. Some of this research also offers possible ways of including a wider scope of families in interventions by using less intrusive and prescriptive methods (see Harold & Murch 2004). In order to further improve children's adjustment in the school context by the use of similar interventions three specific factors must be addressed. First the evidence base must be broadened with respect to understanding how and under what conditions family relationships impact on children's ability to function well in school. Second, this evidence must feed directly into the development of policy provisions and intervention strategies aimed at improving children's school-related outcomes. Finally, these interventions must be rigorously tested to assess their efficacy.

Limitations and Future Directions

There are several limitations to the programme of analysis presented in this thesis. First, the families involved in both of the studies used for this thesis were limited in terms of ethnic diversity. In all three empirical chapters over 96% of families described themselves as white, British. This demographic composition was partly due to the ethnic composition of the geographical region. South Wales itself has a very low ethnic mix, with 96% of its residents being of white, British origin (Office for National Statistics, 2001). Therefore, the samples used are representative of this area. However, the findings should perhaps be applied to areas with higher levels of ethnic diversity with caution.

Second, previous literature suggests that one of the benefits of longitudinal designs is that the criterion variable of interest can be controlled for at an earlier time point, meaning that the outcome variable of interest can be considered as an index of change (Harold & Conger, 1997). This is beneficial because predictor variables can be said to predict changes in the criterion variable over time, this allows causal conclusions to be drawn with more confidence. It was not possible to use these techniques in the analyses used in this thesis for two reasons: first, the criterion variable for the first two studies was Key Stage 3 exam results. This measure was used because, as they are nationally administered and centrally marked exams, they are free from reporter bias. Results from these exams also have practical implications for children's future academic development as they may be used to guide classroom streaming, where children are allocated to classes based on their ability level, they may also determine children's final selections of subjects to study in their final two years of secondary school. However, these exams only occur once in a child's academic development, at the end of the child's third year in secondary school. Therefore, it was not possible to control for children's scores on this specific measure at an earlier time point. The final empirical study used different criterion variables, which were assessed at Time 1 as well as Time 2. However, this study had a small sample size, controlling for the criterion variables at Time 1 in this study would have rendered the sample size too small to reliably test the proposed theoretical model.

The sample size of this last empirical study (N = 90) was another limitation. Compared to the other two empirical chapters (N = 208 and N = 236), this is a considerably smaller sample size. There were several reasons for this small sample.

First, the initial sample for the South Wales school transition study was less than half that of the Welsh family study. Second, of families who agreed to take part in the study, a number of parents and teachers did not return their questionnaires. This may have been partly due to the short time frame within which questionnaires were required to be completed. Questionnaires were not sent out until near the end of the academic year because many of the activities surrounding transition do not take place until this period, also it is in this period when the build up to transition is most successfully captured. However, this meant that parents and teachers only had a short amount of time to complete their questionnaires before the summer holidays began. Moreover, this short period represents one of the most busy for parents and teachers as they engage in activities aimed at preparing children for transition. It is also a period in which the children take part in many extra-curricula activities, which often take children out of the classroom during the school day. This also left fewer children available to complete the questionnaires on designated days. It would be possible to remedy this shortcoming to some extent by allowing a longer period prior to transition for children, teachers and parents to complete their questionnaires. However, it is possible that moving the point of data collection further away from the transition itself would have meant that the anticipation of transition would not have been captured.

In addition to this, some of the analyses in the thesis relied on the use of manifest rather than latent variables when assessing the theoretical models. Chapters 3 and 5 in particular relied solely on manifest variables. These were employed in the first empirical study (Chapter 3) for two reasons. First, interaction terms are difficult to estimate using latent variables (Bollen, 1989). Second, interaction effects are often

difficult to detect so in this study, manifest variables were employed to reduce the number of parameters and maximise the statistical power. The rationale for using manifest variables in the final empirical study (Chapter 5) was similar. The sample size for this study was considerably smaller than in the previous two studies and latent variable estimation would have required a number of parameters higher than that which could be reliably estimated with this sample size.

The use of manifest variables has its shortcomings because observed values incorporated in manifest variables are treated as directly equivalent to the underlying construct of interest. Therefore, in contrast to latent variables, estimates of "true" variance and error variance are combined, meaning that the true nature of the variables in question, and the relationships between them, may have been distorted to some extent. Particularly with respect to Study 5, analyses should be replicated using a larger sample that enables the use of latent variable estimation.

Another area that warrants consideration in the empirical chapters is the measurement of children's academic application. This measure was used to assess children's level of effort or efficacy relating to schoolwork. However, the measure used only consisted of two questions relating to how hard the child was working and how much the teacher felt they were learning. A fuller measure of orientation to learning or goal-directed behaviour might have provided more insight into the relationship between children's learning strategies and their subsequent academic attainment. In particular, research has identified helpless, mastery and achievement orientations as differentially predicting effective goal-directed behaviour and academic performance (e.g., Diener & Dweck, 1978). There is some evidence to suggest that

these orientations are derived from cognitive styles that originate from children's experiences of family life (Hokoda & Fincham, 1995). Therefore, these types of learning or achievement strategies may explain how cognitions relating to inter-parental and parent-child relations inform children's goal-directed behaviour with respect to academic attainment. This relationship between family derived social cognitions and cognitions relating to motivation and achievement should be investigated further.

Another area requiring further investigation is in the results comparing transition and non-transition groups in Study 5. As described above, results for the non-transition group suggest that inter-parental conflict is linked to children's adjustment through negative parenting; however, findings for the transition group demonstrate effects of inter-parental conflict on child adjustment post-transition through their appraisals relating to conflict. While these findings demonstrate clear differences in processes between groups, it is not clear whether these differences are a result of children in the transition groups undergoing a time of stress and upheaval or a result of these children being one year older than the non-transition group and, therefore, entering the age associated with the onset for formal operational thinking or whether differences are a result of both of these factors. Further research comparing children of the same age some of whom make a school transition and some of whom do not would be necessary in order to clarify this.

One further point for consideration is that, though this thesis has focused primarily on the role of two family subsystems in informing children's academic adaptation, other familial and wider social factors are significant influences on children. Genetic research has demonstrated that some forms of psychopathology are heritable,

and that genetic risks may be activated by environmental influences (Rice et al., 2006; Thapar et al, in press). These findings suggest that a combination of genetic and family environment factors put children at increased risk for adjustment problems. Substantial evidence has also been provided for siblings and peers as influential factors in children's lives (Criss & Shaw, 2005; Ladd, 2006; Slomkowski et al., 2001; Troop & Ladd, 2005). While recognising the influence of family effects on each of these factors, studies have demonstrated the capacity of these relationships to shape children's behaviour, achievement and emotional well-being.

<u>Summary</u>

Overall, the current thesis makes important advances in understanding the nature of the family school interface by bridging the gap between two previous areas of research. The thesis used findings from studies considering children's appraisals as a mechanism through which family relationships inform children's psychological adjustment to build on research addressing family influences on children's school-related outcomes to propose specific mechanisms through which inter-parental and parent-child relations inform children's school-related outcomes.

Based on the findings from three empirical studies based on two multi-informant, longitudinal datasets, this thesis argues that children's appraisals are an important mechanism through which family relationships inform children's psychological, social and academic adjustment in the school context. Findings from this thesis also revealed that children's psychological adjustment and their academic application explained the effects of these appraisals on children's academic attainment. Moreover, the thesis contends that this appraisal process, especially appraisals relating

to inter-parental conflict, is particularly important when attempting to understand the influence of family relationships on children at times of school transition.

Collectively these findings provide the basis for further investigation of the role of children's appraisals in understanding links between family influences and children's school-related outcomes. They also recommend that development of future practice and policy concerning children's school adaptation acknowledges the importance of both inter-parental and parent-child relationships and the critical role that children's appraisals relating to these relationships play in determining their adjustment in the school context.

REFERENCES

Ablow, J. C. (2005). When Parents Conflict or Disengage: Children's Perceptions of
Parents' Marital Distress Predict School Adaptation. In P. A. Cowan, C. P.
Cowan, J. Albow, V. K. Johnson & J. Measelle (Eds.), *The Family Context of
Parenting in Children's Adaptation to Elementary School* (pp. 335-357).
Mahwah, NJ: Lawrence Erlbaum Associates.

Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4-18, YSR, and TRF
profiles.* Burlington, VT: University of Vermont, Department of Psychiatry.

Achenbach, T.M., Dumenci, L., & Rescorla, L.A. (2003). Are American children's
problems still getting worse? A 23-year comparison. *Journal of Abnormal
Child Psychology, 31,* 1-11.

Adams, G. R., Ryan, B. A., Ketsetzis, M., & Keating, L. (2000). Rule compliance and
peer sociability: A study of family process, parent-child school- focused
interactions and children's classroom behavior. *Journal of Family Psychology,
14,* 237-250.

Adams, J. W., Snowling, M. J., Hennessy, S. M., & Kind, P. (1999). Problems of
behaviour, reading and arithmetic: Assessments of comorbidity using the
Strengths and Difficulties Questionnaire. *British Journal of Educational
Psychology, 69 (4),* 571-585.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting
interactions.* Newbury Park, CA: Sage.

Ainsworth, M. D. S., Blehar, M. C., Walters, E. & Wally, S. (1978). *Patterns of
Attachment: A psychological study of the strange situation.* Hillsdale, N. J.:
Erlbaum.

Akos, P. (2002). Student perceptions of the transition from elementary to middle

school. *Professional School Counseling, 5,* 339-345.

Alexander, K. L., & D. R. Entwisle. 1988. Achievement in the first two years of

school: Patterns and processes. *Monographs of the Society for Research in*

Child Development, serial 218, 53 (2).

Allen, J. P., Hauser, S. T., Eikholt, C., Bell, K. L., & O'Connor, T. G. (1994).

Autonomy and relatedness in family interactions as predictors of expressions

of negative adolescent affect. *Journal of Research on Adolescence, 4,* 535-

552.

Allen, R. D. (1984). *The effectiveness of assertive discipline on the number of junior*

high school disciplinary referrals. Unpublished manuscript.

Alspaugh, J.W. (1998). Achievement loss associated with the transition to middle

school and high school. *Journal of Educational Research, 92(1),* 20–25.

Amato, P. R. (1993). Children's adjustment to divorce: Theories, hypotheses, and

empirical support. *Journal of Marriage and the Family, 55,* 23-38.

Amato, P. R. (1994). Life-span adjustment of children to their parents' divorce. *The*

Future of Children, 4, 141-164.

Amato, Paul R. (2001). Children of Divorce in the 1990s: An Update of the Amato

and Keith (1991) Meta-Analysis. *Journal of Family Psychology, 15,* 355-370.

Amato, P. R., & Keith, B. (1991). Parental divorce and the well being of children: A

meta-analysis. *Psychological Bulletin, 110,* 26-46.

Amato, P. R., & Ochiltree, G. (1986). Family resources and the development of

children. *Journal of Marriage and the Family, 48,* 48-56.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: American Psychiatric Association.

Anderman E. M., Maehr M. L., Midgley C. (1999). Declining motivation after the transition to middle school: schools can make a difference. *Journal of Research and Development in Education, 32, 131-147.*

Angold, A., & Rutter, M. (1992). Effects of age and pubertal status on depression in a large clinical sample. *Development and Psychopathology, 4,* 5-28.

Anguiano, R. P. V. (2004). Families and schools: The effect of parental involvement on high school completion. *Journal of Family Issues,* 25(1), 61-85.

Arbuthnot, J., & Gordon, D. A. (1996) Does mandatory divorce education for parents work? A six-month outcome evaluation. *Family and Conciliation Courts Review, 30(1),* 60-81.

Arbuthnot, J., Kramer, K., & Gordon, D.A. (1997). Patterns of relitigation following divorce education. *Family and Conciliation Courts Review, 35(3),* 269-279.

Aunola, K., Stattin, H. & Nurmi, J. (2000). Parenting styles and adolescents' achievement strategies. *Journal of Adolescence, 23,* 205-222.

Astone, N. M., & McLanahan, S. S. (1991). Family structure, parental practices and high school completion. *American Sociological Review, 56,* 309-320.

Aunola, K., Stattin, H., & Nurmi, J. (2000). Parenting styles and adolescents' achievement strategies. *Journal of Adolescence, 23,* 205-222.

Babad, E. (1993). Teachers' differential behavior. *Educational Psychology, 5,* 347-376.

Bakeman, R., & Brown, J. V. (1980). Early interaction: Consequences for social and mental development at three years. *Child Development, 51,* 437-47.

Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.

Bankston, C. L., & Caldas, S. J. (1998). Family structure, schoolmates, and racial inequalities in school achievement. *Journal of Marriage and the Family, 60,* 715-723.

Barber, B. K., & Olsen, J. A. (2004). Assessing the transitions to middle and high school. *Journal of Adolescent Research, 19,* 3-30.

Barber, B. K., Olsen, J.E., & Shagle, S.C. (1994). Association between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development, 65,* 1120-1136.

Bardone, A. M., Moffitt, T. E., Caspi, A., Dickson, N., & Silva, P. (1996). Adult mental health and social outcomes of adolescent girls with depression and conduct disorder. *Development and Psychopathology, 8,* 811-829.

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

Barrett, P.M., Rapee, R. M., Dadds, M. R., & Ryan, S. M. (1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology, 37,* 187-203.

Battle, J. J. (1998). What beats having two parents? Educational outcomes for African American students in single-versus dual-parent families. *Journal of Black Studies, 28,* 783-801.

Bauer, R. L. (1982). *A quasi-experimental study of Assertive Discipline*. Unpublished manuscript.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75,* 43-88.

Baumrind, D. (1978). Parental disciplinary patterns and social competence in

children. *Youth and Society, 9,* 239-276.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and

substance use. *Journal of Early Adolescence, 11(1),* 56-95.

Belsky, J. (1999). Infant-parent attachment. In Tamis-LeMonda C and Balter L (eds.),

Child psychology: A handbook of contemporary issues (pp. 45-63). New York:

Garland.

Belsky, J., & Fearon, R. M. (2002). Infant-mother attachment security, contextual

risk, and early development: A moderational analysis. *Development and*

Psychopathology, 14, 293-310.

Belsky, J. & Fearon, R. M. (2004). Exploring marriage-parenting typologies, their

contextual antecedents and developmental sequelae. *Development and*

Psychopathology, 16, 501-524.

Bernstein, G. A., & Borchardt, C. M. (1991). Anxiety disorders of childhood and

adolescence: A critical review. *Journal of the American Academy of Child and*

Adolescent Psychiatry, 30, 519-532.

Bertalanffy, L. von. (1973). *General system theory: Foundations development*

applications. Middlesex: Penguin University Books.

Beyer, S. (1995). Maternal employment and children's academic achievement:

Parenting styles as mediating variable. *Developmental Review, 15,* 212-253.

Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's

early school adjustment. *Journal of School Psychology, 35,* 61-79.

Blackson T. C., Butler T., Belsky J., Ammerman R. T., Shaw D. S., & Tarter R. E.

(1999). Individual traits and family contexts predict sons' externalizing

behavior and preliminary relative risk ratios for conduct disorder and

substance use disorder outcomes. *Drug & Alcohol Dependence, 56(2)*, 115-31.

Block, J. (1971). *Lives through time*. Berkeley, CA: Brancroft Books.

Block, J. H., Block, J., & Morrison, A. (1981). Parental agreement-disagreement on childrearing orientations and gender-related personality correlates in children. *Child Development, 52*, 965-974.

Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.

Booth, A., & Dunn, J. F. (1996). *Family-School Links: How Do They Affect Educational Outcomes?* New York: Lawrence Erlbaum Associates.

Bowlby, J. (1944) Forty-four juvenile thieves: their characters and home life. *International Journal of Psycho-Analysis*, 25, 19-52.

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

Bowlby, J. (1973). *Attachment and loss. Vol 2: Separation: Anxiety and anger*. New York: Basic Books.

Bradshaw, J. and Miller, J. (1991). *Lone parent families in the UK*. London: HMSO.

Breiner, J. L., & Forehand, R. (1981). An assessment of the effects of parent training on clinic referred children's school behavior. *Behavioral Assessment, 3*, 31-42.

Bretherton, I. (1985). Attachment theory: Retrospect and prospect. *Monographs of the Society for Research in Child Development*, serial 209, 5, (1-2).

Bretherton, I., Prentiss, C. & Ridgeway, D. (1990). Family relationships as represented in a story-completion task at thirty-seven and fifty-four months of age. *New Directions for Child Development, 48*, 85-105.

Brody, G. H., Stoneman, Z., & McCoy, K. (1994). Forecasting sibling relationships in early adolescence from childhood temperaments and family processes in middle childhood. *Child Development, 65,* 771-784.

Bronfenbrenner, U. (1977). Toward and ecology of human development. *American Psychologist, 32,* 513-531.

Bronfenbrenner, U. 1979. *The Ecology of Human Development: Experiments by Nature and Design.* Cambridge, Mass.: Harvard University Press.

Bronstein, P., Clausen, J., Stoll, M. F., & Abrams, C. L. (1993). Parenting behavior and children's social, psychological, and academic adjustment in diverse family structures. *Family Relations: Interdisciplinary Journal of Applied Family Studies, 42,* 268-276.

Bronstein, P., Duncan, P., D'Ari, A., Pieniadz, J., Fitzgerald, M., Abrams, C. L., Frankowski, B., Franco, O., Hunt, C., & Oh Cha, S. Y. (1996). Family and parenting behaviors predicting middle school adjustment: A longitudinal study. *Family Relations, 45,* 415-426.

Brookes-Gunn, J., Klebanov, P., Liaw, F., & Duncan, G. J. (1995). Toward an understanding of the effects of poverty upon children. H. E. Fitzgerald, B. M. Lester, B. S. Zuckerman (Eds.). *Children of poverty: Research, health, and policy issues* (pp. 3-41). New York, NY, US: Garland Publishing.

Brooks-Gunn, J., & Reiter, E. O. (1990). The role of pubertal processes in the early adolescent transition. In S. Feldman & G. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 16-53). Cambridge: Harvard University Press.

Brophy, J. E., & Good, T. L. (1974). *Teacher-student relationships: Causes and consequences.* New York: Holt, Rinehart & Winston.

Buchanan, C., Eccles, J., & Becker, J. (1992). Are adolescents the victims of raging

hormones? Evidence for activational effects of hormones on moods and

behavior at adolescence. *Psychological Bulletin, 111,* 62-107.

Buehler, C., & Gerard, J. M. (2002). Marital conflict, ineffective parenting, and

children's and adolescents' maladjustment. *Journal of Marriage and the*

Family, 64 (1), 78-92.

Buss, A., & Durkee, A. (1957). An inventory for assessing different kinds of

hostility. *Journal of Consulting Psychology, 21,* 343-349.

Bying-Hall, J. (1995). Creating a secure family base: Some implications of

attachment theory for family therapy. *Family Process, 34,* 45-58.

Caldas, S. J., & Bankston, C. (1997). Effect of school population socioeconomic

status on individual academic achievement. *The Journal of Educational*

Research, 90, 269-283.

Caldas, S. J., & Bankston, C. L. (1999). A multilevel examination of student, school,

and district-level effects on academic achievement. *Journal of Educational*

Research, 93, (4) pp. 91-100.

Campbell, S. B. (1995). Behavior problems in preschool children: A review of recent

research. *Journal of Child Psychology and Psychiatry, 36,* 113-149.

Cannon, M. F., & Weems, C. F. (2006). Do anxiety and depression cluster into

distinct groups?: A test of tripartite model predictions in a community sample

of youth. *Anxiety and Depression, 23(8),* 543-460.

Canter, L., & Canter, M. (1992). *Assertive discipline: Positive behaviour*

management for today's classroom. Santa Monica, CA: Lee Canter and

Associates

Carlson, C., & Christenson, S. L. (2005). Evidence-based parent and family interventions in school psychology: Overview and procedures. *School Psychology Quarterly, 20*(4), 345–351.

Carlson, E., & Sroufe, L. A. (1995). The contribution of attachment theory to developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental processes and psychopathology: Volume 1. Theoretical perspectives and methodological approaches* (pp. 581-617). New York: Cambridge University Press.

Chang, L. (2003). Variable effects of children's aggression, social withdrawal, and prosocial leadership as functions of teacher beliefs and behaviors. *Child Development, 74,* 535-348.

Chen, X., Liu, M., Rubin, K. H., Li, D., Li, Z., Cen, G., & Li, B. (2003). Parental reports of externalizing and internalizing behaviors in Chinese children: Relevancy to social, emotional and school adjustment. *The Journal of Psychology in Chinese Societies, 3,* 233-259.

Children Act 1989 (1989).

Children Act 2004 (2004).

Chorpita, B. F., Albano, A. M., & Barlow, D. H. (1996). Cognitive processing in children: Relationship to anxiety and family influences. *Journal of Clinical Child Psychology, 25,* 170-176.

Chung, T., & Asher, S. R. (1996). Children's goals and strategies in peer conflict situations. *Merrill-Palmer Quarterly, 42,* 125-147.

Clarke-Stewart, K.A., & Hayward, C. (1996). Advantages of father custody and contact for the psychological well-being of school age children. *Journal of Applied Developmental Psychology, 17,* 239-270.

Coalition for Evidence-Based Policy. (2003). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide* [Electronic version]. Washington, DC: Coalition for Evidence-Based Policy.

Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., Ramey, S. L., Shure, M. B., & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist, 48,* 1013-1022.

Cole, D. A., Martin, J. M., Powers, B., & Truglio, R. (1996). Modeling causal relations between academic and social competence and depression: A multitrait-multimethod longitudinal study of children. *Journal of Abnormal Psychology, 105,* 258-270.

Colin, V. L. 1996. *Human attachment.* New York: McGraw-Hill.

Collins, J. (2000). Are you talking to me? The need to respect and develop a pupil's self-image. *Educational Research, 42,* 157-166.

Collins, W. A., Maccoby, E. E., Steinberg, L., Hetherington, E. M., & Bornstein, M. H. (2000). Contemporary research on parenting: The case for nature and nurture. *American Psychologist, 55,* 218-232.

Colman, B., Hardy, S. A., Albert, M., Raffaelli, M., & Crockett, L. (2006). Early predictors of self-regulation in middle childhood. *Infant and Child Development, 15(4),* 421-437.

Compas, B. E., Hinden, B. R., & Gerhardt, C. A. (1995). Adolescent Development: Pathways and processes of risk and resilience. *Annual Review of Psychology, 46,* 265-293.

Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development, 63,* 526-541.

Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons R. L., & Whitbeck, L. B. (1993). Family economic stress and adjustment of early adolescent girls. *Developmental Psychology, 29,* 206-219.

Considine, G., & Zappala, G. (2002). The influence of social and economic disadvantage in the academic performance of schools in Australia. *Journal of Sociology, 38,* 129-148.

Cooksey, E. C., & Fondell, M. M. (1996). Spending time with his kids: Effects of family structure on fathers' and children's lives. *Journal of Marriage and the Family, 58,* 693-707.

Coon, H., Carey, G., Fulkner, D. W., & DeFries, J. C. (1993). Influences of school environment on the academic achievement scores of adopted and nonadopted children. *Intelligence, 17,* 79-104.

Covell, K., & Abramovitch, R. (1987). Understanding emotion in the family: Children's and parents' attributions of happiness, sadness, and anger. *Child Development, 58,* 985-991.

Covell, K. C., & Miles, B. (1992). Children's beliefs about strategies to reduce parental anger. *Child Development, 63,* 381-390.

Cowan, P.A., Bradburn, I., & Cowan, C.P. (2005). Parents' working models of attachment: The intergenerational context of parenting and children's adaptation to school. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson & J. Measelle (Eds.), *The Family Context of Parenting in Children's*

Adaptation to Elementary School (pp.209-236). Mahwah, NJ: Lawrence Erlbaum Associates.

Cowan, C. P., & Cowan, P.A. (2001). Preventive intervention: a couple perspective on the transmission of attachment patterns. In C. Clulow (Ed.) *Adult attachment and couple psychotherapy: The secure base in practice and research* (pp.62-82). London: Brunner-Routledge.

Cowan, P. A., Cowan, C. P., Ablow, J. C., Johnson, V. K., & Measelle, J. R. (2005). *The family context of parenting in children's adaptation to elementary school.* Mahwah, NJ: Lawrence Erlbaum Associates.

Cowan, P. A., Cowan, C. P., & Heming, G. (2005). Two variations of a preventative intervention for couples: Effects on parents and children during the transition to school. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson & J. Measelle (Eds.), *The Family Context of Parenting in Children's Adaptation to Elementary School* (pp.277-314). Mahwah, NJ: Lawrence Erlbaum Associates.

Cowen, E. L., Pedro-Carroll, J. L., & Alpert-Gillis, L. J. (1990). Relationships between support and adjustment among children of divorce. *Journal of Child Psychology and Psychiatry, 31,* 727-735.

Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48,* 243-267.

Cox, M. J., Paley, B., & Harter, K. (2001). Interparental conflict and parent-child relationships. In J. H. Grych & F. D. Fincham (Eds.), *Interparental conflict and child development: Theory, research, and applications (pp. 249-272).* Cambridge, UK: Cambridge University Press.

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social

information-processing mechanisms in children's social adjustment.

Psychological Bulletin, 115, 74-101.

Crick, N. R., & Ladd, G. W. (1990). Children's perceptions of the outcomes of

aggressive strategies: Do the ends justify being mean? *Developmental*

Psychology, 26, 612–620.

Criss, M., & Shaw, D. S. (2005). Sibling relationship quality as a context for

delinquency training in low-income families. *Journal of Family Psychology,*

19, 592-600.

Criss, M. M., Pettit, G. S., Bates, J. E., Dodge, K. A., & Lapp, A. L. (2002).

Family adversity, positive peer relationships, and children's externalizing

behavior: A longitudinal perspective on risk and resilience. *Child*

Development, 74(4), 1220-1237.

Crockenberg, V. (1982). Assertive Discipline: A dissent. *California Journal of*

Teacher Eduction, 9(4), 59- 74.

Cummings, E.M. (1994). Marital conflict and children's functioning. *Social*

Development, 3(1), 16-36.

Cummings, E. M., & Cummings, J. L. (1988). A process-oriented approach to

children's coping with adults' angry behavior. *Developmental Review, 8,* 296-

321.

Cummings, E. M., & Davies, P. T. (1994). *Children and marital conflict: The impact*

of family dispute and resolution. New York: Guilford Press.

Cummings, E. M., & Davies, P. T. (2002). Effects of marital discord on children:

Recent advances and emerging themes in process-oriented research. *Journal*

of Child Psychology and Psychiatry, 43, 31-63.

Cummings, E. M., Davies, P. T., & Campbell, S. B. (2000). *Developmental psychopathology and family process: Theory, research, and clinical implications*. New York: Guilford.

Cummings, E. M., Schermerhorn, A. C., Davies, P. T., Goeke-Morey, M. C., & Cummings, J. S. (2006). Interparental discord and child adjustment: Prospective investigations of emotional security as an explanatory mechanism. *Child Development, 77*, 132-152

Cummings, E. M., Vogel, D., Cummings, L S., & El-Sheikh, M. (1989). Children's responses to different forms of expression of anger between adults. *Child Development, 60*, 1392-1404.

Dadds, M. R., Atkinson, E., Turner, C., Blums, G. J., & Lendich, B. (1999). Family conflict and child adjustment: Evidence for the cognitive-contextual model of intergenerational transmission. *Journal of Family Psychology, 13*, 610-628.

Daleiden E. L., & Vasey M. W. (1997). An information processing perspective on childhood anxiety. *Clinical Psychology Review, 17*, 407–29.

Datcher, L. (1982). Effects of community and family background on achievement. *The Review of Economics and Statistics, 64*, 32-41.

Davies, P. T., & Cummings, E. M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin, 116*, 387-411.

Davies, P. T., Harold, G. T., Goeke-Morey, M. C., & Cummings, E. M. (2002). Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development, serial 270, 67*.

Davies, P. T., & Lindsay, L. L. (2001). Does gender moderate the effects of marital conflict on children? In J. H. Grych & F. D. Fincham (Eds.), *Interparental*

conflict and child development: Theory, research, and applications. (pp. 64-97). New York: Cambridge University Press.

Davies, P. T., & Lindsay, L. L. (2004). Interparental conflict and adolescent adjustment: Why does gender moderate early adolescent vulnerability? *Journal of Family Psychology, 18,* 170-180.

Davis, A. (1943). Child training and social class. In Barker, R.G., Kounin, J.S. & Wright, H.F. (Eds.). *Child behavior and development.* New York, US: McGraw-Hill.

Demo, D., & Acock, A. C. (1988). The impact of divorce on children: an assessment of recent evidence. *Journal of Marriage and the Family, 50,* 619-649.

Demo, D. H., & Acock, A. C. (1996). Family structure, family process, and adolescent well being. *Journal of Research on Adolescence, 6,* 457-488.

Dennis, T. (2006). Emotional self-regulation in preschoolers: The interplay of child approach reactivity, parenting, and control capacities. *Developmental Psychology, 42,* 84-97.

Department for Constitutional Affairs (2004*). Parental separation: Children's needs and parents' responsibilities.* London: The Stationery Office.

Department for Education and Skills. (2003a). *The impact of parental involvement on children's education.* London: Department for Education and Skills.

Department for Education and Skills. (2003b). *Schools building on success.* London: Department for Education and Skills.

Department for Education and Skills. (2004). *Every child matters: Change for children.* London: Department for Education and Skills.

Department for Education and Skills. (2007a). *Every parent matters*. London: Department for Education and Skills.

Department for Education and Skills. (2007b). *Social and emotional aspects of learning...improving Behaviour...improving learning*. London: Department for Education and Skills.

Diener, C. I., & Dweck, C. S. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology, 36,* 451-462.

DiLalla, L. F., Marcus, J. L., & Wright-Phillips, M. (2004). Longitudinal effects of preschool behavioral styles on early adolescent school performance. *Journal of School Psychology, 42,* 385-401.

Dodge, K. A. (1985). Attributional bias in aggressive children. In P. C. Kendall (Ed.), *Advances in cognitive and behavioral research and therapy* (Vol. 4, pp. 73–110). San Diego, CA: Academic Press.

Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), *The Minnesota Symposium on Child Psychology* (Vol. 18, pp. 77–125). Hillsdale, NJ: Erlbaum.

Dodge, K. A. (1993). Social-cognitive mechanisms in the development of conduct disorder and depression. *Annual Review of Psychology, 44,* 559-584.

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

Dodge, K. A., & Feldman, E. (1990). Issues in social-cognition and sociometric status. In S. R. Asher, & J. D. Coie (Eds.), *Peer rejection in childhood.* New York: Cambridge University Press.

Dodge, K. A., & Newman, J. P. (1981). Biased decision making processes in

aggressive boys. *Journal of Abnormal Psychology, 90,* 375-379.

Dodge, K. A., & Pettit, G. S. (2003). A biopsychosocial model of the development of

chronic conduct problems in adolescence. *Developmental Psychology, 39,*

349-371.

Dodge, K. A., Pettit, G. S., Bates, J. E., & Valente, E. (1995). Social information

processing patterns partially mediate the effect of early physical abuse on later

conduct problems. *Journal of Abnormal Psychology, 104,* 632-643.

Dodge, K. A., Pettit, G. S., McClaskey, C. L., & Brown, M. M. (1986). Social

competence in children. *Monographs of the Society for Research in child

Development,* Serial 213 51(2).

Dodge, K. A., & Price, J. M. (1994). On the relation between social information

processing and socially competent behaviour in school-aged children. *Child

Development, 65,* 1385-1397.

Dodge, K. A., & Tomlin, A. M. (1987). Utilization of self-schemas as a mechanism

of interpretational bias in aggressive children. *Social Cognition, 5,* 280–300.

Downey, G. & Coyne, J.C. (1990). Children of depressed parents: An integrative

review. *Psychological Bulletin, 108(1),* 50-76.

Doyle, A. B., & Markiewicz, D. (2005). Parenting, marital conflict and adjustment

from early-to mid-adolescence: Mediated by adolescent attachment style?

Journal of Youth and Adolescence, 34, 97–110.

Dubois, D. L., Eitel, S. K., & Felner, R. D. (1995). Effects of family environment

and parent-child relationships on school adjustment during the transition to

early adolescence. *Journal of Marriage and the Family, 56,* 405-414.

Duchesne, S., Larose, S., Guay, F., Tremblay, R. E., & Vitaro, F. (2005). The

transition from elementary to high school: The pivotal role of family and child

characteristics in explaining trajectories of academic functioning.

International Journal of Behavioral Development, 29, 409-417.

Dunn, J. (2002). The adjustment of children in stepfamilies: Lessons from

Community Samples. *Child and Adolescent Mental Health, 4,* 154-161

Dunn, J. (2003). Contact and children's perspectives on parental relationships. In A.

Bainham, B. Lindley, M. Richards, & L. Trinder (Eds.), *Children and their*

families: Contact, rights and welfare. Oxford: Hart Publishing

Dunn, J., & Davies, P. T. (2001). Sibling relationships and interparental conflict. In

J. H. Grych & F. D. Fincham (Eds.), *Interparental conflict and child*

development: Theory, research, and applications (pp. 249-272). Cambridge,

UK: Cambridge University Press.

Dunn, J., Deater-Deckard, K., Pickering, K., Beveridge, M., & the ALSPAC Study

Team. (1998). Siblings, parents and partners: Family relationships within a

longitudinal community study. *Journal of Child Psychology and Psychiatry,*

40, 1025-1037.

Dunn, J., & Plomin, R. (1990). *Separate lives: Why siblings are so different.* New

York: Basic Books.

Dweck, C. S., & Repucci, N. D. (1973). Learned helplessness and

reinforcement responsibility in children. *Journal of Personality*

and Social Psychology, 25, 109-116.

Eady, S. (1999). An investigation of possible correlation of general anxiety with

performance in eleven-plus scores in Year 6 primary school pupils.

Educational Psychology, 19(3), 347-359.

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

Eccles, J.S., & Harold, R. D. (1996). Family involvement in children's and adolescents schooling. In A. Booth & J. F. Dunn. *Family-school links. How do they affect educational outcomes?* (pp. 3-34). Mahwah, N.J.: Lawrence Erlbaum Associates.

Eccles, J. S., & Wigfield, A. (1995). In the mind of the achiever: The structure of adolescents' academic achievement related-beliefs and self-perceptions. *Personality and Social Psychology Bulletin, 21,* 215–225.

Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values and goals. *Annual Review of Psychology, 53,* 109-132.

Eccles, J., Midgley, C., Wigfield, A., Buchanan, C., Reuman, D., Flanagan, C., & MacIver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist, 48,* 90-101.

Economic Opportunity Act of 1964, Pub. L. No. 88-452 (1964).

Educate America Act of 1994, Pub. L. No. 103-227 (1994).

Edwards, R. Ceilleachair, A., Bywater, T., Hughes, D., & Hutchings, J. (2007). Parenting programme for parents of children at risk of developing conduct disorder: cost effectiveness analysis. *British Medical Journal, 334,* 682-682

Egeland, B., Kalkoske, M., Gottesman, N., & Erickson, M. F. (1990), Preschool behaviour problems: Stability and factors accounting for change, *Journal of Child Psychology and Psychiatry, 31,* 891-909.

Egeland, B., Pianta, R. C., & O'Brien, M. (1993). Maternal intrusiveness in infancy

and child maladaptation in early school years. *Development and*

Psychopathology, 5, 359-370.

Ek, E., Sovio, U., Remes, J., & Jarvelin, M. R. (2005) Social predictors of

unsuccessful entrance into the labour market - A socialization process

perspective. *Journal of Vocational Behavior, 66,* 471-486.

Elementary and Secondary Education Act of 1965, Pub. L. No. 89-10 (1965).

Elkind, D. (1967). Egocentrism in adolescence. *Child Development, 38,* 1025-1034.

El-Sheikh, M., Buckhalt, J. A., Mize, J., & Acebo, C. (2006). Marital conflict and

disruption of children's sleep. *Child Development, 77(1),* 31-43.

Emery, R. E. (1982). Inter-parental conflict and children of discord and divorce.

Psychological Bulletin, 92, 310-330.

Emery, R. E., Fincham, F. D., & Cummings, E. M. (1992). Parenting in context:

Systemic thinking about parental conflict and its influence on children.

Journal of Consulting and Clinical Psychology, 60, 909-912.

Emery, R. E., & Forehand, R. (1994). Parental divorce and children's well-being: A

focus on resilience. In R. J. Haggerty, L. R. Sherrod, N. Garmezy, & M.

Rutter (Eds.), *Stress, risk, and resilience in children and adolescents:*

Processes, mechanisms, and interventions. (pp. 64-99). New York:

Cambridge University Press.

Emery, R. E., Hetherington, E. M., & DiLalla, L. F. (1984). Divorce, children, and

social policy. In H. W. Stevenson & A. E. Siegel (Eds.), *Child development*

research and social policy. Chicago: University of Chicago Press.

Emery, R., & O'Leary, K. D. (1984). Marital discord and child behavior problems in a

non-clinic sample. *Journal of Abnormal Child Psychology, 12,* 411-420.

Engfer, A. (1988). The interrelatedness of marriage and the mother-child relationship. In R. A. Hinde & J. Stephenson-Hinde (Eds.), *Relationships within families*. Oxford, England: Clarendon Press.

Englund, M., Luckner, A., Whaley, G., & Egeland, B. (2004). Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology, 96*, 723-730.

Entwisle, N., Kozeki, B., & Tait, H. (1989). Pupils' perceptions of school and teachers II – Relationships with motivation and approaches to learning. *Journal of Education Psychology, 59*, 340-350.

Entwisle, D. R., & Alexander, K. L. (1995). A parent's economic shadow: Family structure versus family recourses as influences on early school achievement. *Journal of Marriage and the Family, 57*, 399-409.

Epstein, J. L. (1996). Perspectives and previews on research and policy for school, family, and community partnerships. In A. Booth & J. F. Dunn (Eds.), *Family-school links: How do they affect educational outcomes?* (pp. 209-246). Mahwah, NJ: Lawrence Erlbaum.

Epstein, J. L. (1986). Parents' reaction to teacher practices of parent involvement. *Elementary School Journal, 86*, 277-294.

Epstein, J. L. (2005). Attainable goals? The spirit and letter of the No Child Left Behind Act on parental involvement. *Sociology of Education, 78*, 179-182.

Erath, S. A., & Bierman, K. L. (2006). Aggressive marital conflict, maternal harsh punishment, and child aggressive-disruptive behavior: evidence for direct and mediated relations. *Journal of Family Psychology, 20(2)*, 217 - 226.

302

Erdley, C. A, & Asher, S. R. (1998). Linkages between children's beliefs about the legitimacy of aggression and their behavior. *Social Development, 7(3)*, 321-339.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.

Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin, 118*, 108-132.

Estrada, P., Arsenio, W. F., Hess, R. D., & Holloway, S. D. (1987). Affective quality of the mother-child relationships: Longitudinal consequences for children's school relevant cognitive functioning. *Developmental Psychology, 23*, 210-215.

Falbo, T., Lein, L., & Amador, N. A. (2001). Parental involvement during the transition to high school. *Journal of Adolescent Research, 16(5)*, 511-529.

Fan, X. (2001). Parental involvement and students' academic achievement: A growth modeling analysis. *Journal of Experimental Education, 70*, 27-61.

Fan, X. T., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*, 1–22.

Fang, P., Xiong, D., & Guo, C. Y. (2003). The effect of parenting styles on children's academic achievement. *Psychological Science, 26*, 78-81.

Farkas, G., Grobe, R. P., Sheehan, D., & Shaun, Y. (1990). Cultural resources and school success: Gender, ethnicity and poverty groups within an urban school district. *American Sociological Review, 55*, 127-142.

Farrington, D. P. (1995). The development of offending and antisocial behavior from childhood: Key findings from the Cambridge study in delinquent development. *Journal of Child Psychology and Psychiatry, 36*, 929-964.

Fauber, R., Forehand, R., Thomas, A., & Wierson, M. (1990). A mediational model

of the impact of marital conflict on adolescent adjustment in intact and

divorced families: The role of disrupted parenting. *Child Development, 61,*

1112-1123.

Fauber, R. L., & Long, N. (1991). Children in context: The role of the family in child

psychotherapy. *Journal of Consulting and Clinical Psychology, 59,* 813-820.

Feinberg M. E., Reiss D., Neiderhiser J. M., & Hetherington E. M. (2005).

Differential association of family subsystem negativity on siblings'

maladjustment: using behavior genetic methods to test process theory. *Journal*

of Family Psychology, 19(4), 601-610.

Feldman, S.S., & Wentzel, K.R. (1990). The relationship between family interaction

patterns, classroom self -restraint, and academic achievement. *Journal of*

Educational Psychology, 82, 813-819.

Feldman, F. S., Wentzel, K. R., Weinberger, D. A., & Munson, J. A. (1990). Marital

satisfaction of parents of preadolescent boys and its relationship to family and

child functioning. *Journal of Family Psychology, 4,* 213-234.

Ferdinand, R. F. (2007). Predicting anxiety diagnoses with the youth self-report.

Depression and Anxiety, 24(1), 32-40.

Fergusson, D. M., Horwood, J., & Lynsky, M. T. (1993). The effects of conduct

disorder and attention deficit in middle childhood on offending and scholastic

ability ay age 13. *Journal of Child Psychology and Psychiatry, 34,* 899-916.

Fincham, F. D. (1994). Cognition in marriage: Current status and future challenges.

Applied and Preventive Psychology, 3, 185-198.

Fincham, F. D., Grych, J. H., & Osborne, L. N. (1994). Does marital conflict cause

child maladjustment? Directions and challenges for longitudinal research.

Journal of Family Psychology, 8, 128-140.

Fincham, F. D., Hokoda, A. J., & Sanders, R. Jr. (1989). Learned helplessness, test

anxiety, and academic achievement: A longitudinal analysis. *Child*

Development, 60, 138-145.

Fiske, S. T., & Taylor, S. E. (1991). *Social cognition.* (2ⁿᵈ ed.). New York: McGraw-

Hill Inc.

Forehand, R., Armistead, L., & Klein, L. (1995). Children's school performance: The

roles of interparental conflict and divorce. In B. A. Ryan, G. R. Adams, T. P.

Gullotta, R. P. Weissberg, & R. L. Hampton (Eds.), *The family-school*

connection: Theory, research and practice (pp. 250-269). Thousand Oaks,

CA: Sage Publications.

Forehand, R., Biggar, H., & Kotchick, A. A. (1998). Cumulative risk across family

stressors: short and long-term effects for adolescents. *Journal of Abnormal*

Child Psychology, 26, 119-128.

Forehand, R., McCombs, A., Long, N., Brody, G., & Fauber, R. (1988). Early

adolescent adjustment to recent parental divorce: The role of interparental .

conflict and adolescent sec as mediating variables. *Journal of Consulting and*

Clinical Psychology, 56, 624-627.

Forehand, R., Neighbors, B., Devine, D., & Armistead, L. (1994). Interparental

conflict and divorce: The individual, relative and interactive effects on

adolescents across four years. *Family Relations, 43,* 387-393.

Forehand, R., & Wierson, M. (1993). The role of developmental factors in

planning behavioral interventions for children: Disruptive behavior as an

example. *Behavior Therapy, 24,* 117-141.

Freud, S. (1914). *Psychopathology of everyday life.* New York: Macmillan

Publishing.

Frome, P. M. & Eccles, J.S. (1998). Parents' influence on children's achievement-

related perceptions. *Journal of Personality and Social Psychology, 74(2),* 435-

452.

Frosch, C. A., Mangelsdorf, S. C., & McHale, J. L. (2000). Marital behavior and the

security of preschooler-parent attachment relationships. *Journal of Family

Psychology, 14,* 144-161.

Furstenberg, F. J., Cook, T., Eccles, J., Edler, G., & Sameroff, A. J. (1999). *Urban

families and adolescent success.* Chicago: University of Chicago Press.

Garber, B. (2004). Directed co-parenting intervention: Conducting child centered

interventions in parallel with highly conflicted co-parents. *Professional

Psychology: Research and Practice,* 35(1), 55-64.

Garber, J., Quiggle. N. L., Panak, W., & Dodge, K. A. (1991). Aggression and

depression in children: Comorbidity, specificity, and cognitive processing. In

D. Cicchetti & S. Toth (Eds.), *Internalizing and externalizing expressions of

dysfunction* (pp. 225-264). Hillsdale, NJ: Erlbaum.

Ge, X., Conger, R. D., Cadoret, R. J., Neiderhiser, J. M., Yates, W., Troughton, E., &

Stewart, M. A. (1996). The developmental interface between nature and

nurture: A mutual influence model of child antisocial behavior and parent

behaviors. *Developmental Psychology, 32,* 574–589.

Gerard, J., Krishnakumar, A., & Buehler, C. (2006). Marital conflict, parent-child relations, and Youth maladjustment: A longitudinal investigation of spillover effects. *Journal of Family Issues, 27,* 951-975.

Goldberg, M., & Cornell, D. (1998). The influence of intrinsic motivation and self-concept on academic achievement in 2nd/3rd grade students. *Journal for the Education of the Gifted, 21,* 179-205.

Gonzales, N.A., Pitts, S.C., Hill, N.E., & Roosa, M.W. (2000). A mediational model of the impact of interparental conflict on child adjustment in a multi-ethnic low-income sample. *Journal of Family Psychology, 14,* 365-379.

Gottfried, A. E. (1985). Academic intrinsic motivation in elementary and junior high school students. *Journal of Educational Psychology, 77,* 631-645.

Graham, S., & Hudley, C. (1994). Attributions of aggressive and nonaggressive African-American early adolescent boys: A study of construct accessibility. *Developmental Psychology, 30,* 365-373.

Greene, R.W., & Ollendick, T. H. (1993). Evaluation of a multidimensional program for sixth-graders in transition from elementary to middle school. *Journal of Community Psychology, 21,* 162-176.

Grych, J. H. (1998). Children's appraisals of interparental conflict: Situational and contextual influences. *Journal of Family Psychology, 12,* 437-453.

Grych, J.H. (2001). Increasing specificity in the study of interparental conflict and child adjustment. In A. Booth, A. Crouter, & M. Clements (Eds.). *Couples in conflict (*pp. 173-182). Mahwah, N.J.: Lawrence Erlbaum Associates.

Grych, J.H. (2005): Inter-parental conflict as a risk factor for child maladjustment: implications for the development of prevention programs. *Family Court Review 43(1),* 97-108.

Grych, J. H., & Cardoza-Fernandes, S. (2001). Understanding the impact of marital conflict on children: The role of social cognitive processes. In J. H. Grych & F. D. Fincham (Eds.). *Interparental conflict and child development. Theory, research and application.* (pp. 157-187). Cambridge: Cambridge University Press.

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

Grych, J. H., & Fincham, F. D. (1993). Children's appraisals of interparental conflict: Initial investigations of the cognitive-contextual framework. *Child Development, 64,* 215-230.

Grych, J. H., Fincham, F. D., Jouriles, E. N., & McDonald, R. (2000). Interparental conflict and child adjustment: Testing the mediational role of appraisals in the cognitive contextual framework. *Child Development, 71,* 1648-1661.

Grych, F. D., Harold, G. T., & Miles, C. J. (2003). A prospective investigation of appraisals as mediators of the link between interparental conflict and child adjustment. *Child Development, 74,* 1176-1193.

Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective. *Child Development, 63,* 558-572.

Guay, F., Larose, S., & Boivin, M. (2004). Academic self-concept and educational attainment level: A ten-year longitudinal study. *Self and Identity, 3(1),* 53-68.

Guerra, N. G., Huesmann, L. R., & Hanish, L. (1995). The role of normative beliefs in children's social behavior. In N. Eisenberg (Ed.) *Review of personality and social psychology: Vol. 15. Social development.* (pp. 140-158). Thousand Oaks, CA: Sage.

Gutman, L. M., & Eccles, J. S. (1999). Financial strain, parenting behaviors, and

adolescents' academic achievement: Testing model equivalence between

African American and European American single- and two-parent families.

Child Development, 70, 1464-1476.

Gutman, L. M., & Midgley, C. (2000). The role of protective factors in supporting the

academic achievement of poor African American students during the middle

school transition. *Journal of Youth and Adolescence, 29,* 223-248.

Haines, M. E., Norris, M. P., & Kashy, D. A. (1996). The effects of depressed mood

on academic performance in college students. *Journal of College Student

Development, 37,* 519-526.

Ham, B., D. (2004). The effects of divorce and remarriage on the academic

achievement of high school seniors. *Journal of Divorce & Remarriage, 42,*

159-178.

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the

trajectory of children's school outcomes through eighth grade. *Child

Development, 72,* 625-638.

Harold, G. T., Aitken, J. A., & Shelton, K. H. (in press). Inter-parental Conflict and

Children's Academic Attainment: A Longitudinal Analysis. *Journal of Child

Psychology and Psychiatry.*

Harold, G. T., & Conger, R. D. (1997). Marital conflict and adolescent distress: The

role of adolescent awareness. *Child Development, 68,* 333-350.

Harold, G. T., Fincham, F. D., Osborne, L. N., & Conger, R. D. (1997). Mom and

dad are at it again: Adolescent perceptions of inter-parental conflict and

adolescent psychological distress. *Developmental Psychology, 33,* 333-350.

Harold, G. T., & Murch, M. A. (2004). Children of separated and divorced parents: Theory, research and future directions. *Irish Journal of Family Law*, 3, 16-28.

Harold, G. T., & Murch, M. A. (2005). Interparental Conflict and children's adaptation to separation and divorce: Theory, research and implications for family law, practice and policy. *Child and Family Law Quarterly, 17(2)*, 185-205.

Harold, G., Pryor, J., & Reynolds, J. (2001). *Not in front of the children? How conflict between parents affects children*. London: One Plus One Marriage & Partnership Research.

Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, E. M. (2002). Relations between inter-parental conflict, child emotional security, and adjustment in the context of cognitive appraisals (in Davies, Harold, Goeke-Morey & Cummings). Child Emotional Security and Inter-parental Conflict. *Monographs of the Society for Research in Child Development, Serial 270, 67(3)*.

Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, E. M. (2004). Marital Conflict, Child Emotional Security about Family Relationships and Child Adjustment. *Social Development, 13*, 350-376.

Harrist, A. W., Pettit, G. S., Dodge, K. A., & Bates, J. E. (1994). Dyadic synchrony in mother-child interaction: Relation with children's subsequent kindergarten adjustment. *Family Relations, 43*, 417-424.

Harris, J. R. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review, 102*, 458-489.

Harris, J. R. (1998). *The nurture assumption: Why children turn out the way they do*. New York: Free Press.

Harrist, A. W., Zaia, A. F., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1997).

Subtypes of social withdrawal in early childhood: Sociometric status and

social-cognitive differences across four years. Child Development, 68, 278-

294.

Harter, S. (1996). Teacher and classmate influences on scholastic motivation, self-

esteem, and level of voice in adolescents. In J. Juvonen & K. R. Wentzel

(Eds), *Social motivation: Understanding children's school adjustment* (pp.11-

42). New York: Cambridge University Press.

Hazan, C., & Shaver, P. R. (1990). Love and work: An attachment-theoretical

perspective. *Journal of Personality and Social Psychology 59*, 270-280.

Head Start Act of 1998, Pub. L. No. 105-285. (1998).

Heard, H. E. (2007). The family structure trajectory and adolescent school

performance: Differential effects by race and ethnicity. *Journal of Family

Issues, 28(3)*, 319-354.

Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: Wiley.

Herman, M. R., Dornbusch, S. M., Herron, M. C., & Herting, J.R. (1997). The

influence of family regulation, connection, and psychological autonomy on

six measures of adolescent functioning. *Journal of Adolescent Research, 12*,

34-67.

Hess, R. D., & Holloway, S. D. (1984). Family and school as educational institutions.

In R. D. Parke (Ed.), *Review of child development research* (Vol. 7, pp. 179-

222). Chicago: University of Chicago Press.

Hetherington, E. M. (1993). An overview of the Virginia Longitudinal Study of

Divorce and Remarriage with a focus on early adolescence. *Journal of Family

Psychology, 7*, 39-56.

Hetherington, E. M., Bridges, M., & Insabella, G. M. (1998). What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist, 53,* 167-184.

Hetherington, E. M., & Clingempeel, G. W. (1992). Coping with marital transitions. *Monographs of the Society for Research in Child Development,* Serial 227, *57.*

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

Hetherington, M., & Stanley-Hagan, M. (1997). The effects of divorce on fathers and their children. In M. Lamb (Ed.), *The role of the father in child development.* (pp. 191-211). New York: Wiley.

Hinshaw, S. P. (1992). Externalizing behaviour problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin, 111,* 127-155.

Hokoda, A., & Fincham, F. D. (1995). Origins of children's helpless and mastery achievement patterns in the family. *Journal of Educational Psychology, 87,* 375-385.

Holden, G., & Ritchie, K. (1991) Linking extreme marital discord, child rearing and child behaviour problems: Evidence from battered women. *Child Development, 62(2),* 311-327.

Hope, T. L., & Bierman, K. L. (1998). Patterns of home and school behavior problems in rural and urban settings. *Journal of School Psychology, 36,* 45-58.

Hsu, J. (2005). Marital quality, sex-typed parenting, and girls' and boys' expression of problem behaviors. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson

& J. Measelle (Eds.), *The Family Context of Parenting in Children's Adaptation to Elementary School* (pp 139-162). Mahwah, NJ: Lawrence Erlbaum Associates.

Hubbard, R. M., & Adams, C. F. (1936). Factors affecting the success of child guidance clinic treatment. *American Journal of Orthopsychiatry, 6,* 81-103

Humphrey, N., & Ainscow, M. (2006). Transition Club: Facilitating learning, participation and psychological adjustment during the transfer to secondary school, *European Journal of Psychology of Education, 21(3),* 319-331.

Isakson, K., & Jarvis, P. (1999). The adjustment of adolescents during the transition into high school: A short-term longitudinal study. *Journal of Youth and Adolescence, 28(1),* 1-26.

Jacobs, J. E., Davis-Kean, P. E., Bleeker, M., Eccles, J. S., & Malanchuk, O. (2005). "I can do it but I don't want to." The impact of parents, interests, and activities on gender differences in math. In A. Gallagher & J. Kaufman (Eds.), *Gender difference in mathematics* (pp. 246–263). New York: Cambridge University Press.

Jacobson, D.S. (1978). The impact of marital separation/divorce on children, II. Interparent hostility and child adjustment. *Journal of Divorce, 3,* 3-19.

Jacobson, T., & Hofmann, V. (1997). Children's attachment representations: Longitudinal relations to school behaviour and academic competency in middle childhood and adolescence. *Developmental Psychology, 33,* 703-710.

Jacobvitz, D., & Sroufe, L. A. (1987). The early caregiver child relationship and Attention Deficit Disorder with Hyperactivity in kindergarten: A prospective study. *Child Development, 58,* 1488-1495.

313

Jaffee, S.R., Caspi, A., Moffitt, T.E., Dodge, K.A., Rutter, M., Taylor, A., & Tully, L.A. (2005). Nature x nurture: Genetic vulnerabilities interact with physical maltreatment to promote conduct problems. *Development and Psychopathology, 17,* 67-84.

Jeynes, W. H. (1999). Effects of remarriage following divorce and the academic achievement of children. *Journal of Youth and Adolescence, 28,* 385-393.

Jeynes, W. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education, 40(3),* 237-269.

Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education, 42(1),* 82-110.

Johnson, D. R., & Foster, S. L. (2005). The relationship between relational aggression in kindergarten children and friendship stability, mutuality, and peer liking. *Early Education and Development, 16,* 141-160

Jimerson, S. Egeland, B., & Teo, A. (1999). A longitudinal study of achievement trajectories: Factors associated with change. *Journal of Educational Psychology, 91,* 116-126.

Johnson, P. L., & O'Leary, K. D. (1987). Parental behaviour patterns and conduct disorder in girls. *Journal of Abnormal Child Psychology, 15,* 573-581

Johnson, V. K. (2005). Family process and family structure in children's adaptation to school. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson & J. Measelle (Eds.), *The Family Context of Parenting in Children's Adaptation to Elementary School* (pp. 255-276). Mahwah, NJ: Lawrence Erlbaum Associates.

Johnston, J. R., Gonzalez, R., & Campbell, L. E. (1987). Ongoing post-divorce

conflict and child disturbance. *Journal of Abnormal Child Psychology, 15,*

165-173.

Joreskog, K. G., & Sorbom, D. (1996). *LISREL 8: Structural equation modelling*

with a SIMPLIS command language. Mahwah, NJ: Erlbaum.

Jouriles, E. N., Barling, J., & O'Leary, K. D. (1987). Predicting child behaviour

problems in martially violent families. *Journal of Abnormal Child*

Psychology, 15, 165-173.

Jussim, L., & Eccles, J. S. (1992). Teacher expectations II: Construction and

reflection of student achievement. Journal of Personality and Social

Psychology, 63, 947-961.

Jussim, L., Eccles, J., & Madon, S. J. (1996). Social perception, social stereotypes,

and teacher expectations: Accuracy and the quest for the powerful self-

fulfilling prophecy. *Advances in Experimental Social Psychology, 29,* 281-

388.

Juvonen, J., & Wentzel, K. R. (1996), *Social Motivation: Understanding Children's*

School Adjustment. New York: Cambridge University Press.

Katz, L.F. (2001). Physiological processes and mediators of the impact of marital

conflict on children. In J.H. Grych & F.D. Fincham (Eds.), *Interparental*

conflict and child development: Theory, research and applications (pp. 188-

212). New York: Cambridge University Press

Katz, L. F., & Gottman, J. M. (1996). Spillover effects of marital conflict: In search

of parenting and co-parenting mechanisms. In J. P. McHale & P. A. Cowan

(Eds.), *New directions in child development: Understanding how family-level*

dynamics affect children's development: Studies of two parent families (pp. 57-76). San Francisco: Jossey-Bass.

Kelly, J. B., & J. S. Wallerstein (1977). Brief interventions with children in divorcing families. *American Journal of Orthopsychiatry, 47,* 23-39.

Kerig, P. K. (1996). Assessing the links between marital conflict and child development: The Conflicts and Problem-Solving Scales. *Journal of Family Psychology, 10,* 454-473.

Kerig, P. K. (1998a). Moderators and mediators of the effects of inter-parental conflict on children's adjustment. *Journal of Abnormal Child Psychology, 26,* 199-212.

Kerig, P. K. (1998b). Gender and appraisals as mediators of adjustment on children exposed to interparental violence. *Journal of Family Violence, 13(4),* 345-363.

Kerig, P. K. (1999). Gender issues in the effects of exposure to violence on children. *Journal of Emotional Abuse, 2,* 87-105.

Kerig, P. K. (2001). Children's coping with interparental conflict. In J. H. Grych & F. D. Fincham (Eds.). *Interparental conflict and child development. Theory, research and application.* (pp. 213-248). Cambridge: Cambridge University Press.

Ketsetzis, M., Ryan, B. A., & Adams, G. R. (1998). Family processes, parent-child interactions, and child characteristics influencing school-based social adjustment. *Journal of Marriage and the Family, 60,* 374-387.

Kinard, E. M., & Reinherz, H. (1986). Effects of marital disruption on children's school aptitude and achievement. *Journal of Marriage and the Family, 48,* 285-293.

King, C. A., Radpour, L., Naylor, M. W., Segal, H. G., & Jouriles, E. N. (1995). Parents' marital functioning and adolescent psychopathology. *Journal of Consulting and Clinical Psychology, 63*, 749-753.

Kliewer, W. (1991). Coping in middle childhood: Relations to competence, Type A behavior, monitoring, blunting, and locus of control. *Developmental Psychology, 27*, 689-697

Kosterman, R., Graham, J. W., Hawkins, J. D., Catalano, R. F., & Herrenkohl, T. I. (2001). Childhood risk factors for persistence of violence in the transition to adulthood: A social development perspective. *Violence and Victims, 16(4)*, 355-370.

Kovacs, M. (1981). Rating scales to assess depression in preschool children. *Acta Paedopsychiatry, 46*, 305-315.

Kovacs, M., & Devlin, B. (1998). Internalizing disorders in childhood. *Journal of Child Psychology and Psychiatry, 39*, 47-63.

Krishnakumar, A., Buehler, C., & Barber, B. K. (2003). Youth perceptions of interpersonal conflict, ineffective parenting, and youth problem behaviors in European-American and African-American families. *Journal of Social and Personal Relationships, 20*, 239-260.

Kurdek, L. A., & Sinclair, R. J. (1988). Relation of eighth graders' family structure, and family environment with academic performance and school behavior. *Journal of Educational Psychology, 80*, 90-94.

Ladd, G. W. (2006). Peer rejection, aggressive or withdrawn behavior, and psychological maladjustment from ages 5 to 12: An examination of four predictive models. *Child Development, 77*, 822-846.

Ladd, G. W., & Crick, N. R. (1989). Probing the psychological environment:

Children's cognitions, perceptions and feelings in the peer culture. In C. Ames

& M. Haehr (Eds.), *Advances in motivation and achievement* (pp. 1-44).

Greenwich: JAJ.

Ladd, G. W., Herald, S. L., & Andrews, R. K. (2006) Young Children's Peer

Relations and Social Competence In: B. Spodek & O. N. Saracho (Eds.)

Handbook of Research on the Education of Young Children (pp. 23-54).

Mahwah, N.J./London, UK: Erlbaum

Ladd, G. W., & Mize, J. (1983). A cognitive-social learning model of social-skill

training. *Psychological Review, 90(2),*127-157.

Laird, R. D., Jordan, K. Y., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2001). Peer

rejection in childhood, involvement with antisocial peers in early adolescence,

and the development of externalising behaviour problems. *Development and*

Psychopathology, 13, 337-354.

Lamb, M. (1999). *Parenting and child development in nontraditional families.*

Mahway, NJ: Erlbaum.

Lamborn, S. D., Mounts, N. S., Steinberg, N. L., & Dornbush, S.M. (1991). Pattern of

competence and adjustment among adolescents from authoritative,

authoritarian, indulgent and neglectful families. *Child Development, 62,* 1049-

1065.

Laming, W. (2003). *The Victoria Climbie: Inquiry report of an inquiry by Lord*

Laming. London: Department of Health and The Home Office.

Laszlo, E. (1972). *Introduction to systems philosophy: Toward a new paradigm of*

contemporary thought. New York: Harper & Row.

Leave No Child Behind Act of 2001, Pub. L. No. 107-110 (2001).

Lengua, L. J., Sadowski, C. A., Friedrich, W. N., & Fisher, J. (2001). Rationally and empirically derived dimensions of children's symptomatology: Expert ratings and confirmatory factor analyses of the CBCL. *Journal of Consulting & Clinical Psychology, 69,* 683-698.

Lewis, C. E., Siegel, J. M., & Lewis, M. A. (1984). Feeling bad: Exploring sources of distress among pre-adolescent children. *American Journal of Public Health, 74,* 117-122.

Lillehoj, C., Trudeau, L. Spoth, R., & Wickrama. K.A. S. (2004). Internalizing, social competence, and substance initiation: influence of gender moderation and a preventive intervention. *Substance Use and Misuse, 39,* 963-991.

Lindsey, E. W., MacKinnon-Lewis, C. E., Campbell, J. J., Frabutt, J. M., & Lamb, M. E. (2002). Marital conflict and boys' peer relationships: The mediating role of mother-son reciprocity of positive affect. *Journal of Family Psychology, 16,* 466-477

Literacy Involves Families Together Act of 2000, Pub. L. No. 106-554 (2000).

Lloyd, G. Research and practical application for school, family, and community partnerships. In A. Booth and J. Dunn (Eds.), *Family-School Links: How Do They Affect Educational Outcomes?* (pp. 255-264). Hillsdale, NJ: Lawrence Erlbaum Associates

Lobato, D., Kao, B., & Plante, W. (2005). Latino sibling knowledge and adjustment to chronic disability. *Journal of Family Psychology, 19,* 625-632.

Loeb, R. C., Horst, L., & Horton, P. J. (1980). Family interaction patterns associated with self-esteem in preadolescent girls and boys. *Merrill-Palmer Quarterly, 26,* 203-217.

Lohaus, A., Elben, C.E., Ball, J., & Klein-Hessling, J. (2004). School transition from

    elementary to secondary school: Changes in psychological adjustment.

    Educational Psychology, 24 (2), 161-173.

Long, N., Forehand, R., Fauber, R., & Brody, G. (1987). Self-perceived and

    independently observed competence of young adolescents as a function of

    parental marital conflict and recent divorce. *Journal of Abnormal Child*

    Psychology, 15, 15-27.

Long, N., Slater, E., Forehand, R., & Fauber, R. (1988). Continued high or reduced

    interparental conflict following divorce: relation to young adolescent

    adjustment. *Journal of Consulting and Clinical Psychology, 56,* 467-469.

Lord, S. E., Eccles, J. S., & McCarthy, K. A. (1994). Surviving the junior high school

    transition; Family processes and self-perceptions as protective and risk

    factors. *Journal of Early Adolescence, 14,* 162-199.

Loukas, A., & Robinson, S. (2004). Examining the moderating role of perceived

    school climate in early adolescent adjustment. *Journal of Research on*

    Adolescence, 14, 209-233.

Lynn, D.B. (1974). *The father: His role in child development.* Monterey, CA:

    Brooks/Cole.

Maccoby, E. E. (1992). The role of parents in the socialization of children: An

    historical overview. *Developmental Psychology, 28,* 1006-1017.

Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family:

    Parent–child interaction. In P. H. Mussen (Ed.) & E. M. Hetherington (Vol.

    Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and*

    social development (4th ed., pp. 1-101). New York: Wiley.

MacKinnon-Lewis, C., & Lofquist, A. (1996) Antecedents and consequences of boys' depression and aggression: Family and school linkages. *Journal of Family Psychology, 10,* 490-500.

MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test the significance of the mediated effect. *Psychological Methods, 7(1),* 83-104.

Marchant, G. J., Paulson, S. E. & Rothlisberg, B. A. (2001). Relations of middle school students' perceptions of family and school contexts with academic achievement. *Psychology in the Schools, 38,* 505-519.

Marcus, N. E., Lindahl, K. M., & Malik, N. M. (2001). Interparental conflict, children's social cognitions, and child aggression: A test of a mediational model. *Journal of Family Psychology, 15,* 315-333.

Margolies, P. J., & Weintraub, S. (1977). The revised 56-item CRPBI as a research instrument: Reliability and factor structure. *Journal of Clinical Psychology, 33,* 472-476.

Marks, C. R., Glaser, B. A., Glass, J. D., & Horne, A. M. (2001). Effects of witnessing violence on children's competence and behavioral problems. *The Family Journal: Counseling and Therapy for Couples and Families, 9,* 94-101.

Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (pp. 137-229), 3rd Edition. New York: Random House.

Marotz-Baden, R., Adams, G. R., Bueche, N., Munro, B & Munro, G. (1979). Family form or family process? Reconsidering the deficit family model approach. *The Family Coordinator, 28,* 5-14.

Martinez, C. R., & Forgatch, M. S. (2002). Adjusting to change: Linking family

structure transitions with parenting and boys' adjustment. *Journal of Family

Psychology, 16,* 107-117.

Masten, A. S., Hubbard, J. J., Gest, S. D., Tellegen, A., Garmezey, N., & Ramirez, M.

(1999). Competence in the context of adversity: Pathways to resilience and

maladaptation from childhood to late adolescence. *Development and

Psychopathology, 11,* 143-169.

Masten, A. S., Roisman, G. I., Long, J. D., Burt, K. B., Obradovic, J., Roberts, J. M.,

Boelcke, K., & Tellegen, A. (2005). Developmental Cascades: Linking

Academic Achievement, Externalizing and Internalizing Symptoms Over 20

Years. *Developmental Psychology, 41,* 733-746.

Mattanah, J. F. (2005). Authoritative parenting and the encouragement of children's

autonomy. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson & J.

Measelle (Eds.), *The Family Context of Parenting in Children's Adaptation to

Elementary School* (pp.119-138). Mahwah, NJ: Lawrence Erlbaum

Associates.

Maughan, B., Rowe, R., Loeber, R., & Stouthamer-Loeber, M. (2003). Reading

problems and depressed mood. *Journal of Abnormal Child Psychology, 31,*

219-229.

McCombs, A., & Forehand, R. (1989). Adolescent school performance following

parental divorce: Are there family factors that enhance success? *Adolescence,

96,* 871-880.

McCord, J., & McCord, W. (1959). A follow-up report on the Cambridge-

Somerville Youth Study. *Annals of the American Academy of Political and

Social Science, 32(2),* 89-96.

McEvoy, A., & Welker, R. (2000). Antisocial behavior, academic failure, and school climate: A critical review. *Journal of Emotional and Behavioral Disorders, 8(3),* 130-140.

McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53,* 185-204.

McTaggart, P., & Sanders, M. R. (2003). The transition to school project: Results from the classroom. *Australian e-Journal for the Advancement of Mental Health, 2(3).* Retrieved February 8, 2007, from http://www.auseinet.com/journal/vol2iss3/mctaggart.pdf

Measelle, J. R. (2005). Children's Self-Perceptions as a Link Between Family Relationship Quality and Social Adaptation to School. In P. A. Cowan, C. P. Cowan, J. Albow, V. K. Johnson & J. Measelle (Eds.), *The Family Context of Parenting in Children's Adaptation to Elementary School* (pp.163-188). Mahwah, NJ: Lawrence Erlbaum Associates.

Melby, J. N., & Conger, R. D. (1996). Parental behaviors and adolescent academic performance: A longitudinal analysis. *Journal of Research on Adolescence, 6,* 113-137.

Melby, J. N., Conger, R. D., Book, R., Rueter, M., Lucy, L., Repinski, D., Ahrens, K., Black, D., Huck, S., Mutchler, L., Rogers, S., Ross, J., & Stavros, T. (1993). *The Iowa family interaction rating scales,* (2nd edn.). Unpublished manuscript. Iowa State University Center for Family Research in Rural Mental Health.

Merrell, C., Tymms, P., & Jones, P. (2006). *Changes in children's cognitive development at the start of school in England 2000-2006.* Unpublished manuscript.

Miller, P., & Plant, M. (1999). Truancy and perceived school performance: An

alcohol and drugs study of UK teenagers. *Alcohol and Alcoholism, 34 (6)*,

886-893.

Miller, W.R., & Seligman, M.E.P. (1975). Depression and learned helplessness in

man. *Journal of Abnormal Psychology, 84,* 228-238.

Milne, A. M., Myers, D. E., Rosenthal, A. S., & Ginsburg, A. (1986). Single parents

working mothers, and the educational achievement of school children.

Sociology of Education, 59, 125-139.

Mingyue, S., Rengang, L., & Jian, W. (2001). Controlled study on behavior

problems, family factors and parental rearing styles in students with poor

academic achievement. *Chinese Mental Health Journal, 15,* 391-393.

Minuchin, P. (1985). Families and individual development: Provocations from the

field of family therapy. *Child Development 56,* 289-302.

Moffett, K. L., Jurenka, D.J., & Kovan, J. (1982). Assertive discipline. *California

School Board Journal, 40,* 24-27.

Moffitt, T. E., Caspi, A., Harrington, H. L., & Milne, B. J. (2002) Males on the life-

course persistent and adolescence-limited antisocial pathways: follow-up at

age 26. *Development and Psychopathology, 14,* 179-207.

Moffitt. T.E. (1993). Life-course-persistent and adolescence-limited antisocial

behavior: A developmental taxonomy. *Psychological Review, 100,* 674-701.

Moles, O. C. (1996). New national directions in research and policy. In A. Booth & J.

F. Dunn (Eds.), *Family-school links: How do they affect educational

outcomes?* (pp. 247-254). Mahwah, NJ: Lawrence Erlbaum.

Morgan, G. A., & Yang, R. K. (1995). Toward a multifaceted conceptualization of

mastery motivation: An organized summary of research. In R. B. MacTurk &

G. A. Morgan (Eds.), *Mastery motivation: Origins, conceptualizations, and*

applications. Norwood, NJ: Ablex.

Morrison, E. F., Rimm-Kauffman, S., & Pianta, R. C. (2003). A longitudinal study of

mother-child interactions at school entry and social and academic outcomes in

middle school. *Journal of School Psychology, 41,* 185-200.

Moss, E., & St-Laurent, D. (2001). Attachment at school age and academic

performance. *Developmental Psychology, 37,* 863-874.

Nasby, W., Hayden, B., & dePaulo, B. M. (1979). Attributional bias among

aggressive boys to interpret unambiguous social stimuli as displays of

hostility. *Journal of Abnormal Psychology, 89,* 459-468.

National Institute of Child Health and Human Development Early Child Care

Research Network. (2004). Father's and mother's parenting behavior and

beliefs as predictors of child social adjustment in the transition to school.

Journal of Family Psychology, 18(4), 628-638.

Nelson, D. A., & Crick, N. R. (1999). Rose-colored glasses: examining the social

information-processing of prosocial young adolescents. *Journal of Early*

Adolescence, 19, 17-38.

Noam, G., Chandler, M.J., & LaLonde, C.E (1995). Clinical-Developmental

Psychology: Constructivism and Social Cognition in the Study of

Psychological Dysfunctions. In D. Cicchetti & D. Cohen (Eds.),

Developmental Psychopathology, Volume 1: Theory and Methods. (pp 424-

464). New York: Wiley.

Noom, M. J., Dekovic, M., & Meeus, W. H. J. (1999). Autonomy, attachment and

psychological adjustment during adolescence: A double edged sword?

Journal of Adolescence, 22, 771-783.

Nottelman, E. D. (1987). Competence and self-esteem during transition from

childhood to adolescence. *Developmental Psychology, 23,* 441-450.

O'Brien, M., Bahadur, M., Gee, C., Balto, K., & Erber, S. (1997). Child exposure to

marital conflict and child coping responses as a predictor of child adjustment.

Cognitive Therapy and Research, 21, 39-59.

O'Connor, T. G., Hetherington, E. M., & Reiss, D. (1998). Family systems and

adolescent development: Shared and nonshared risk and protective factors in

nondivorced and remarried families. *Development and Psychopathology, 10,*

353-375.

Office for National Statistics. (2001). *The census in England and Wales.* Retrieved

August 24, 2007, from http://www.statistics.gov.uk/census/default.asp

Office for National Statistics. (2002). *Social Trends 32.* London: The Stationary

Office.

Office for National Statistics. (2007). *Social Trends 37.* London: The Stationary

Office.

Owen, M. T. & Cox, M. J. (1997). Marital conflict and the development of infant-

parent attachment relationships. *Journal of Family Psychology, 11,* 152-164.

Parenting UK (2007). Commissioners Toolkit: Database of replicable parenting

programmes. Retrieved May 10, 2007, from

http://www.toolkit.parentinguk.org

Parish, T. S., & Dostal, J. W. (1980). Evaluations of self and parent figures by

children from intact, divorced, and reconstituted families. *Journal of Youth

and Adolescence, 9(4),* 347-351.

Parish, T. S., & Nunn, G. D. (1981). Children's self-concepts and evaluations of

parents as a function of family structure and process. *The Journal of

Psychology, 107,* 105-108.

Parke, R. D., & Ladd, G.W. (1992). *Family-peer relationships: Modes of linkage.*

Hillsdale, NJ: Erlbaum

Parsons, J., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., &

Midgley, C. (1983). Expectancies, values, and academic behaviors. In J. T.

Spence (Ed.), *Achievement and achievement motivation* (pp. 75-146). San

Francisco, CA: W. H. Freeman

Parsons, T., & Bales, R. F. (1955). *Family Socialization and Interaction Process.*

Glencoe, IL: Free Press.

Patterson, G. R. (1982). *Coercive family process.* Eugene, OR: Castalia.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental

perspective on antisocial behavior. *American Psychologist, 44,* 329-335.

Patterson, G. R., Reid, J. B., Jones, R. R., & Conger, R. E. (1975). *A social learning

approach to family intervention: Families with aggressive children.* Eugene,

OR: Castalia.

Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family

management practices and delinquency. *Childhood Development, 55,* 1299-

1307.

Pelkonen, M., Marttunen, M., & Aro, H. (2003). Risk for depression: a 6-year follow-up of Finnish adolescents. *Journal of Affective Disorders, 77(1)*, 41-51.

Performance and Innovation Unit (2000). *Adding it up.* London: The Cabinet Office.

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

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

Pianta, R. C., Nimetz, S. L., & Bennett, E. (1997). Mother-child relationships, teacher-child relationships, and school outcomes in preschool and kindergarten. *Early Childhood Research Quarterly, 12*, 263-280.

Pianta, R. C., & Stuhlman, M. W. (2004). Teacher-Child Relationships and Children's Success in the First Years of School. *School Psychology Review, 33(3)*, 444-458.

Pintrich, P. R. (2003). A motivational science perspective ob the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*, 667-686.

Platt, C. (1988). Effects of causal attributions for success on first-term college performance: A covariance structure model. *Journal of Educational Psychology, 80*, 569-578.

Plomin, R. (1994). *Genetics and experience: The developmental interplay between nature and nurture.* Newbury Park CA: Sage.

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

Quiggle, N., Garber, J., Panak, W., & Dodge, K. A. (1992). Social-information processing in aggressive and depressive children. *Child Development, 63,* 1305-1320.

Radke-Yarrow, M., Zahn-Waxler, C., & Chapman, M. (1983). Prosocial dispositions and behavior. In P. Mussen (Ed.), *Manual of child psychology. Vol. 4; Socialization, personality, and social development* (pp. 469-545). New York: Wiley.

Ralph, A., & Sanders, M.R. (2003). Preliminary evaluation of the Group Teen Triple P program for parents of teenagers making the transition to high school. *Australian e-Journal for the Advancement of Mental Health 2(3).* Retrieved February 8, 2007, from

http://www.auseinet.com/journal/vol2iss3/ralphsanders.pdf

Ratelle, C. F., Larose, S., Guay, F., & Senécal, C. (2005). Perceptions of parental involvement and support as predictors of college students' persistence in a science curriculum. *Journal of family Psychology, 19*(2), 286-293.

Reid, J., & Webster-Stratton, C. (2001). *Cognitive and Behavioral Practice, 8,* 377-386.

Reid, M. J., Webster-Stratton, C., & Hammond, M. (2003). Follow-up of children who received the Incredible Years intervention for oppositional-defiant disorder: maintenance and prediction of 2-year outcome. *Behavior Therapy 34,* 471-491.

Reiss, D., & Leve, L. D. (in press). Gene expression outside the skin: Clues to

    mechanisms of genotype x environment interaction. *Development and*

    Psychopathology.

Reyes, O., Gillock, K. L., Kobus, K., & Sanchez, B. (2000). A longitudinal

    examination of the transition into senior high school for adolescents from

    urban, low-income statuses, and predominately minority backgrounds.

    American Journal of Community Psychology, 28, 519-44.

Rice, F., Harold, G. T., Shelton, K. H., & Thapar, A. (2006). Family conflict interacts

    with genetic liability in predicting childhood and adolescent depression.

    Journal of the American Academy of Child and Adolescent Psychiatry, 45(7),

    841-848.

Rice, F., Harold, G., & Thapar, A. (2002a). Assessing the effects of age, sex, and

    shared environment on the genetic aetiology of depression in childhood and

    adolescence. *Journal of Child Psychology and Psychiatry and Allied*

    Disciplines. 43(8), 1039-1051.

Rice, F., Harold, G., & Thapar, A. (2002b). The genetic aetiology of childhood

    depression: A review. *Journal of Child Psychology and Psychiatry and Allied*

    Disciplines, 43(1), 65-79.

Rist, R.C. (1970). Student social class and teacher expectations. *Harvard Educational*

    Review, 40, 411-451.

Robinson, G., & Maines, B. (1994). Assertive Discipline: Jumping on a dated wagon.

    Educational Psychology in Practice, 9(4), 195-200.

Robinson, N. S., Garber, J., & Hilsman, R. (1995). Cognitions and stress: Direct and

    moderating effects on depressive versus externalising symptoms during the

    junior high school transition. *Journal of Abnormal Psychology, 104,* 453-463.

Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (2000). School as a context of early

adolescents' academic and social-emotional development: A summary of

research findings. *The Elementary School Journal, 100,* 443-471.

Rudolph, K. D., Lambert, S. F. Clark, A. G., & Kurlakowsky, K. D. (2001).

Negotiating the transition to middle school: The role of self-regulatory

processes. *Child Development, 72,* 929-646.

Rutter, M. (1970). Sex differences in children's responses to family stress. In E. J.

Anthony & C. Koupernik (Eds.) *The child and his family* (pp. 165-196). John

Wiley and Sons: New York.

Rutter, M. (1979). Protective factors in children's responses to stress and

disadvantage. In M. W. Kent & J. E. Rolf (Eds.), *Primary prevention of*

psychopathology. Social competence in children (Vol. 3, pp. 49-74). Hanover,

NH: University Press of New England.

Rutter, M. (1983). School effects on pupil progress: Research findings and policy

implications. *Child Development, 54,* 1-29.

Rutter. M. (2000). Resilience reconsidered: Conceptual consideration, empirical

findings and policy implication. In J. P. Shonkoff & S. J. Meisels (Eds.),

Handbook of Early Childhood Intervention (2nd edn., pp 651-682)

Cambridge: Cambridge University Press.

Rutter, M. (2003). Genetic influences on risk and protection: Implications for

understanding resilience. In S. S. Luthar (Ed.), *Resilience and vulnerability:*

Adaptation in the context of childhood adversities (pp. 489-509). Cambridge:

Cambridge University Press.

Rutter, M. (2003). Implication of resilience concepts for scientific understanding.

Annals of the New York Academy of Sciences, 1094, 1-12.

Rutter, M., & Silberg, J. (2002). Gene-environment interplay in relation to emotional

and behavioral disturbance. *Annual Review of Psychology, 53*, 463-490.

Rutter, M., Tizard, J., & Whitmore, K. (1970). Education, health and behavior.

London: Longmans.

Ryan, B. A., & Adams, G. R. (1995). The family school relationships model. In B.

A. Ryan, G. R. Adams, T. P. Gullotta, R. P. Weissberg & R. L. Hampton,

(Eds). *The family-school connection: Theory, research and practice.*

Thousand Oaks: SAGE Publications.

Ryan, B. A., Adams, G. R, Gullotta, T. P., Weissberg, R. P., & Hampton, R. L.

(1995). *The family-school connection: Theory, research and practice.*

Thousand Oaks: SAGE Publications.

Sameroff, A. J. (1989). Developmental systems: Contexts and evolution. In P. H.

Mussen & W. Kessen (Eds.) *Handbook of child psychology: History, theory,*

and methods. (Vol. 1, pp 237-294). New York, NY: Wiley

Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development*

and Psychopathology, 12, 297-312.

Sanders, M. R. (1999). Triple P-Positive Parenting Program: Towards an empirically

validated multilevel parenting and family support strategy for the prevention

of behavior and emotional problems in children. *Clinical Child and Family*

Psychology Review, 2, 71-90.

Satir, V. (1972). *Peoplemaking.* Palo Alto, CA: Science & Behavior Books.

Schaps, E., Battistich, V., & Solomon, D. (1997). School as a caring community: A

key to character education. In A. Molnar (Ed.), *The Construction of Children's*

Character, Part II, 96th Yearbook of the National Society for the Study of

Education. Chicago: University of Chicago Press.

Schnabel, K.U., Alfeld, C., Eccles, J.S., Koller, O., & Baumert, (2002). Parental

influence on students' educational choices in the U.S.A. and Germany:

Different ramifications- same effect? *Journal of Vocational Behavior, 60,* 178-

198.

Schwartz, D., & Gorman, A. H. (2003). Community violence exposure and children's

academic functioning. *Journal of Educational Psychology, 95,* 163-173.

Seng, A. C., Prinz, R. J., & Sanders, M. R. (2006). The role of training variables in

effective dissemination of evidence-based parenting interventions. *The*

International Journal of Mental Health Promotion, 8(4), 20-28.

Shahar G., Henrich C. C., Winokur A., Blatt S. J., Kuperminc G. P., & Leadbeater B.

J. (2006). Self-criticism and depressive symptomatology interact to predict

middle school academic achievement. *Journal of Clinical Psychology, 62(1),*

147-55.

Sharma, S. (1970). Manifest anxiety and school achievement of adolescents. *Journal*

of Consulting and Clinical Psychology, 34, 403-407.

Shifflett, K., & Cummings, E. M. (1999). A program for educating parents about the

effects of divorce and conflict on children: An initial evaluation. *Family*

Relations, 48, 79-89.

Shred, R, McDonnell, R.M., Church, G., & Rowan, J. (1991, April). *Infants'*

cognitive and emotional responses to adults' angry behaviour. Paper

presented at the biennial meeting of the Society for Research in Child

Development, Seattle, WA.

Shure, M. B., & Spivack, G. (1980). Interpersonal problem solving as a mediator of

behavioral adjustment in preschool and kindergarten children. *Journal of*

Applied Developmental Psychology 1, 29-43.

Silver, R., Measelle, J.R., Armstrong, J, & Essex, M.J. (2005). Trajectories of

classroom externalizing behavior: Contributions of child characteristics,

family characteristics, and the teacher-child relationship during the school

transition. *Journal of School Psychology, 43*, 39-60.

Skinner, B.F. (1938). *The behavior of organisms*. New York: Appleton-Century-

Crofts.

Slaby, R. G., & Guerra, N. G. (1988). Cognitive mediators of aggression in adolescent

offenders: I. Assessment. *Developmental Psychology, 24*, 580-588.

Slater, P., & McKeown, M. (2004). The role of peer counselling and support in

helping to reduce anxieties around transition from primary to secondary

school. *Counselling and Psychotherapy Research, 4*, 72-79.

Slomkowski, C., Rende, R., Conger, K. J., Simons, R. L., & Conger, R. D. (2001).

Sisters, brothers, and delinquency: Evaluating social influence during early

and middle adolescence. *Child Development, 72*, 271-283.

Smith, J. B. (1997). Effects of eighth-grade transition programs on high school

retention and experiences. *Journal of Educational Research, 90(3)*, 144–152.

Snow W. H., Gilchrist L., Schilling R. F., Schinke S. P., & Kelso C. (1986)

Preparing students for junior high school. *Journal of Early Adolescence, 6*,

127-37.

Stayton, D. J., Hogan, R., & Ainsworth, M. D. S. (1971). Infant obedience and

maternal behavior: The origins of socialization reconsidered. *Child

Development, 42*, 1057-1069.

Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting,

psychosocial maturity, and academic success among adolescents. *Child

Development, 60*, 1424-1436.

Stormshak, E.A., Bierman, K.L., & the Conduct Problems Prevention Research Group. (1998). The implications of different developmental patterns of disruptive behaviour problems for school adjustment. *Development and Psychopathology, 10,* 451-467.

Strage, A., & Brandt, T. S. (1999). Authoritative parenting and college students' academic adjustment and success. *Journal of Educational Psychology, 91,* 146-156.

Strategic Policy Making Team (1999). *Professional policy making for the twenty first century.* London: The Cabinet Office.

Strauss, C. C., Lahey, B. B., Frick, P., Frame, C. L., & Hynd, G. W. (1988). Peer social status of children with anxiety disorders. *Journal of Consulting and Clinical Psychology, 56,* 137-141.

Strauss, C. C., Forehand, R., Smith, K., & Frame, C. L. (1986). The association between social withdrawal and internalizing problems of children. *Journal of Abnormal Child Psychology, 14,* 525-535.

Strauss, C. C., Lahey, B. B., & Jacobson, R. H. (1982). The relationship of three measures of childhood depression to academic underachievement. *Journal of Applied Developmental Psychology, 3,* 375-380.

Sturge-Apple, M. L., Davies, P. T., & Cummings, E. M. (2006a). Hostility and withdrawal in marital conflict: Effects on parental emotional unavailability and inconsistent discipline. *Journal of Family Psychology, 20,* 227-238.

Sturge-Apple, M. L., Davies, P. T., & Cummings, E. M. (2006b). Impact of hostility and withdrawal in interparental conflict on parental emotional unavailability and children's adjustment difficulties. *Child Development, 77(6),* 1623-1641.

Taylor, T. K., & Biglan, A. (1998). Behavioral family interventions for improving

child-rearing: A review of the literature for clinicians and policy makers.

Clinical Child & Family Psychology Review. 2(3), 169-182.

Thapar, A., Harold, G. T., Rice, F., & Langley, K. (2007). *The contribution of gene-*

environment interaction to psychopathology. Manuscript submitted for

publication.

Tolman, E.C. (1932). *Purposive behavior in animals and men.* New York: Appleton-

Century-Crofts.

Tremblay, R. E. Pagani-Kurtz, L. Masse, L. C., Vitaro, F., & Pihl, R. O. (1995). A Bi-

modal preventive intervention for disruptive kindergarten boys: Its impact

through mid-adolescence. *Journal of Consulting and Clinical Psychology,*

63(4), 560-568.

Troop, W., & Ladd, G. W. (2005). Trajectories of peer victimization and perceptions

of the self and schoolmates: Precursors to internalizing and externalizing

problems. *Child Development, 76,* 1072-1091.

Turner, H. A., & Kopiec, K. (2006). Exposure to interparental conflict and

psychological disorder among young adults. *Journal of Family Issues, 27(2),*

131-158.

Unger, D. G., Brown, M. B., Tressell, P. A., & Ellis-McLeod, L. E. (2000a).

Interparental conflict and adolescent depressed mood: The role of family

functioning. *Child Psychiatry and Human Development, 31(1),* 23-41.

Unger, D. G., McLeod, L. E., Brown, N. B., & Tressell, P. A. (2000b). The role of

family support in interparental conflict and adolescent academic achievement.

Journal of Child and Family Studies, 9(2), 191-202.

UNICEF (2007). *Child poverty in perspective: An overview of child well-being in rich countries. Innocenti report card 7.* Florence: UNICEF Innocenti Research Centre.

United Nations (1989). Convention on the Rights of the Child (1990).

United Nations (2001). *Report of the preparatory committee for the special session of the general assembly on the children's world summit.*

U.S. Department of Education. (1994). *Strong families, strong schools: Building community partnerships for learning.* Washington: U.S. Department of Education.

Valas, H. (2001). Learned helplessness and psychological adjustment: Effects of age, gender and academic achievement. *Scandinavian Journal of Educational Research, 45,* 71-91.

Van Goozen, S. H. M., & Fairchild, G. (2007). *How can the study of biological processes help design new interventions for children with severe antisocial behaviour?* Manuscript submitted for publication.

Vitaro, F., Brendgen, M., Pagani, L., Tremblay, R. E., & McDuff, P. (1999). Disruptive behavior, peer association, and conduct disorder: Testing the developmental links through early intervention. *Development and Psychopathology, 11,* 287-304.

Vogel, E. F., & Bell, N. W. (1960). The emotionally disturbed child as the family scapegoat. In: N. W. Bell and E. F. Vogel (Eds.), *A modern introduction to the family* (pp. 382-397). New York: Free Press.

Volling, B. L., & Belsky, J. (1991). Multiple determinants of father involvement during infancy in dual-earner and single-earner families. *Journal of Marriage and the Family, 53,* 461-474.

Waas, G. A. (1988). Social attributional biases of peer-rejected and aggressive

   children. *Child Development, 59,* 969-992.

Waldman, I. D. (1996). Aggressive boys' hostile perceptual and response biases: The

   role of attention and. impulsivity. *Child Development, 67,* 1015–1033.

Wallace, R. (1935). A study of the relationship between emotional tone in the home

   and adjustment status in cases referred to a travelling child guidance clinic.

   Journal of Juvenile Research, 19, 205-220.

Wallis, J., & Barrett, P. (1998) Adolescent adjustment and the transition to high

   school. *Journal of Family Studies, 7(1),* 43-58.

Ward, L. R. (1984). *The effectiveness of Assertive Discipline as means to reduce*

   classroom disruptions. Unpublished manuscript.

Waters, E. & Cummings, E. M. (2000). A secure base from which to explore close

   relationships. *Child Development, 71(1),* 164-172. Webster-Stratton, C.

   (1990). Long-term follow-up of families with young conduct problem

   children: From preschool to grade school. *Journal of Clinical Child*

   Psychology, 19(2), 144-149.

Webster-Stratton, C. (1993). Strategies for helping early school-aged children with

   oppositional defiant and conduct disorders: The Importance of Home-School

   Partnerships. *School Psychology Review, 22,* 437-457.

Webster-Stratton, C. (1998). Preventing problems in Head Start children:

   Strengthening parent competencies. *Journal of consulting and clinical*

   psychology, 66, 715-730

Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset

   conduct problems: a comparison of child and parent training interventions.

   Journal of Consulting and Clinical Psychology, 65, 93-109

Webster-Stratton, C., & Hammond, M. (1999). Marital conflict management skills, parenting style, and early onset conduct problems: Processes and pathways. *Journal of Child Psychology and Psychiatry, 40,* 917-927.

Webster-Stratton, C., & Reid, M. J. (2007). Incredible Years and Teachers Training Series: A Head Start partnership to promote social competence and prevent conduct problems. In P. Tolin, J. Szapocznick & S. Sambrano (Eds.), *Preventing youth substance abuse* (pp. 67-88). Washington D.C.: American Psychological Association.

Weiner, B. (1972). *Theories of motivation: From mechanism to cognition.* Chicago: Markham.

Weiner, B. (1974). *Achievement motivation and attribution theory.* Morristown, NJ: General Learning Press.

Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71,* 3-25.

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

Welsh Assembly Government (2003). *Children and youth support fund guidance.* Cardiff: Welsh Assembly Government.

Welsh Assembly Government (2005a). *Flying start.* Cardiff: Welsh Assembly Government.

Welsh Assembly Government (2005b). *Parenting Action Plan: Supporting mothers, fathers and carers with raising children in Wales.* Cardiff: Welsh Assembly Government.

Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived

pedagogical caring. *Journal of Educational Psychology, 89,* 411-419.

Wentzel, K. R. (1998). Social relationships and motivation in middle school: The

role of parents, teachers, and peers. *Journal of Educational Psychology, 90,*

202-209.

Wentzel, K. R. (1999). Social motivational processes and interpersonal relationships:

Implications for understanding motivation at school. *Journal of Educational*

Psychology, 91, 76-97.

Wentzel, K. R. (2002). Are effective teachers like good parents? Teaching styles and

student adjustment in early adolescence. *Child Development, 73(1),* 287-301.

West, C. A. (1986). Effects of school climate and school social structure on student

academic achievement in selected urban elementary schools. *Journal of*

Negro Education, 54, 451-461.

Westerman, M. A., & La Luz, E. J. (1995). Marital adjustment and children's

academic achievement. *Merrill-Palmer Quarterly, 41,* 453-470.

Wigfield, A., Eccles, J. S., Mac Iver, D., Reuman, D. A., & Midgley, C. (1991).

Transitions during early adolescence: Changes in children's domain-specific

self-perceptions and general self-esteem across the transition to junior high

school. *Developmental Psychology, 27,* 552-565.

Wigfield, A., & Eccles, J. S. (1994). Children's competence beliefs, achievement

values, and general self-esteem: Change across elementary and middle school.

Journal of Early Adolescence, 14, 107-138.

Wigfield, A., Eccles, J., & Pintrich, P. (1996). Development between the Ages of

Eleven and Twenty-Five. In D. Berliner & R. Calfee (Eds.), *The handbook of*

educational psychology (pp. 148-185). New York: Macmillan.

Williams, S. K., & Kelly, F. D. (2005). Relationships among involvement, attachment, and behavioral problems in adolescence: Examining father's influence. *Journal of Early Adolescence, 25,* 168-196.

Williams, S. & McGee, R. (1994). Reading attainment and juvenile delinquency. *Journal of Child Psychology and Psychiatry, 35,* 441-461.

Windle, R., Mun, E.Y., & Windle, M. (2005). Adolescent-to-young adulthood heavy drinking trajectories and their prospective predictors. *Journal of Studies on Alcohol, 66,* 313-322.

Wolchik, S. A., West, S. G., Westover, S., Sandler, I. N., Martin, A., Lustig, J., Tein, J., & Fisher, J. (1993). The Children of Divorce Parenting Intervention: Outcome evaluation of an empirically based program. *American Journal of Community Psychology, 21,* 293-331.

Wood, S., Hodges, C., & Aljuned, M. (1996). The effectiveness of Assertive Discipline training. *Educational Psychology in Practice, 12(3),* 175-181.

Wood, J.J., Repetti, R. L., & Roesch, S.C. (2004). Divorce and children's adjustment problems at home and school: The role of depressive/withdrawn parenting. *Child Psychiatry and Human Development, 35(2),* 121-142.

Wright, S., & Cowen, E. L. (1983). Student perception of school environment and its relationship to mood, achievement, popularity, and adjustment. *American Journal of Community Psychology, 10,* 687-703.

Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology, 18,* 459-482.

Zady, M. F., & Portes, P. R. (2001). When low-SES parents cannot assist their

children in solving parents cannot assist their children in solving science

problems. *Journal of Education for Students Placed at Risk, 6(3)*, 215-229.

Zahn-Waxler, C. (1993). Warriors and worriers: Gender and psychopathology.

Development and Psychopathology, 5, 79-89.

Zeedyk, M. S., & Gallacher, J., Henderson, M., Hope, G., Husband, B. & Lindsay, K.

(2003).Negotiating the transition from primary to secondary school:

Perceptions of pupils, parents and teachers. *School Psychology International,*

24, 67-79.

Zill, N. (1996). Family change and student achievement: What we have learned,

what it means for schools. In A. Booth and J. Dunn (Eds.), *Family-school*

links: How do they affect educational outcomes? (pp. 139–174). Mahwah, NJ:

Lawrence Erlbaum Associates.

Zimet, D. M., & Jacob, T. (2001). Influences of marital conflict on child adjustment:

Review of theory and research. *Clinical Child and Family Psychology*

Review, 4(4), 319-335.