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Recent evidence has suggested that conflict between parents and children is not always detrimental to children's well-being; parent-child conflict can be beneficial to children's problem-solving ability and social skills when it occurs in the context of a supportive parent-child relationship. The current study explored the idea that parent-child conflict and parent sensitivity are interrelated behaviors that create a pattern of interaction. Past research has also recognized that parent-child relationships are affected by multiple levels of context. Therefore, a second avenue of exploration in the current study was how stress and vulnerability in the family context was associated with the conflict styles that parents and children use.

Results demonstrated that parent-child conflict and parent sensitivity behaviors can be categorized into three conflict styles. A positive style, demonstrated among mother-child and father-child pairs when children were 54 months old and in 1<sup>st</sup> grade, was characterized by high parent sensitivity and low parent-child conflict. A moderate style, characterized by average sensitivity and low-to-moderate conflict, and an abrasive style, characterized by low sensitivity and high conflict, were identified for both parents at 54 months and mother-child pairs at 1<sup>st</sup> grade. At 1<sup>st</sup> grade, some father-child pairs were also classified as either dynamic, characterized by high sensitivity and moderate-to-high conflict, or disengaged, characterized by low-to-moderate sensitivity and low-to-moderate conflict. Stress originating from the child's behavior tended to be more predictive of a more negative parent-child conflict style in preschool, whereas stress

originating from the parent tended to be more predictive of a more negative conflict style in 1<sup>st</sup> grade. Generally, family stress was related to a more negative conflict style when parents' vulnerability to the negative effects of stress was also high. And finally, the accumulation of child-centered stress for mothers and parent-centered stress for fathers across the transition to elementary school was associated with a more negative parent-child conflict style at 1<sup>st</sup> grade.

PARENT-CHILD CONFLICT STYLE: ASSOCIATIONS WITH FAMILY STRESS  
AND VULNERABILITY

By

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Approved by

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Committee Chair

To my husband, Andrew. Thank you for your support and encouragement, and most of all, for helping me stay balanced throughout this journey.

APPROVAL PAGE

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## TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii
CHAPTER	
I. INTRODUCTION.....	1
II. THEORETICAL FOUNDATIONS AND REVIEW OF LITERATURE.....	10
III. METHODS.....	38
IV. RESULTS.....	50
V. DISCUSSION.....	62
REFERENCES.....	84
APPENDIX A: TABLES AND FIGURES.....	102

## LIST OF TABLES

	Page
Table 1. Summary of Study Measures .....	102
Table 2. Descriptive Properties of Sample Demographic Characteristics .....	103
Table 3. Descriptive Data for Study Variables and Comparisons between Mothers and Fathers.....	104
Table 4. Correlations between Parental Sensitivity and Parent-Child Conflict.....	105
Table 5. Stability of Study Variables Available at 54 Months and 1 <sup>st</sup> Grade.....	106
Table 6. Latent Profile Analysis Fit Statistics for 2- to 5-Class Solutions .....	107
Table 7. Average Latent Class Probabilities for the Three-Class Solution .....	108
Table 8. Demographic Characteristics of Families Predicting Mother-Child Conflict Style .....	109
Table 9. Demographic Characteristics of Families Predicting Father-Child Conflict Style .....	110
Table 10. Stability of Parent-Child Conflict Styles from 54 Months to 1 <sup>st</sup> Grade.....	111
Table 11. Stress Indices Predicting Mother-Child Conflict Style at 54 Months and 1 <sup>st</sup> Grade .....	112
Table 12. Stress Indices Predicting Father-Child Conflict Style at 54 Months and 1 <sup>st</sup> Grade .....	113
Table 13. Stress by Vulnerability Interactions Predicting Mother-Child Conflict Style at 54 Months and 1 <sup>st</sup> Grade.....	114
Table 14. Stress by Vulnerability Interactions Predicting Father-Child Conflict Style at 54 Months and 1 <sup>st</sup> Grade.....	115
Table 15. Accumulated Stress Indices Predicting Parent-Child Conflict Style at 1 <sup>st</sup> Grade .....	116
Table 16. Accumulated Stress by Accumulated Vulnerability Interactions Predicting Parent-Child Conflict Style at 1 <sup>st</sup> Grade.....	117

## LIST OF FIGURES

	Page
Figure 1. Longitudinal Conflict Style Typology Model .....	118
Figure 2. Concurrent Conceptual Model .....	119
Figure 3. Bayesian Information Criterion (BIC) Values Based on Number of Mother-Child Classes at 54 Months .....	120
Figure 4. Bayesian Information Criterion (BIC) Values Based on Number of Father-Child Classes at 54 Months .....	120
Figure 5. Bayesian Information Criterion (BIC) Values Based on Number of Mother-Child Classes at 1 <sup>st</sup> Grade .....	121
Figure 6. Bayesian Information Criterion (BIC) Values Based on Number of Father-Child Classes at 1 <sup>st</sup> Grade.....	121
Figure 7. Three-Class Solution for Mother-Child Conflict Style at 54 Months .....	122
Figure 8. Three-Class Solution for Father-Child Conflict Style at 54 Months.....	123
Figure 9. Three-Class Solution for Mother-Child Conflict Style at 1 <sup>st</sup> Grade.....	124
Figure 10. Three-Class Solution for Father-Child Conflict Style at 1 <sup>st</sup> Grade .....	125
Figure 11. Odds Ratios of Child-Centered Stress Predicting Class Membership at Varying Levels of Maternal Vulnerability at 54 Months.....	126
Figure 12. Odds Ratios of Child-Centered Stress Predicting Class Membership at Varying Levels of Maternal Vulnerability at 1 <sup>st</sup> Grade .....	127
Figure 13. Odds Ratios of Parent-Centered Stress Predicting Class Membership at Varying Levels of Paternal Vulnerability at 1 <sup>st</sup> Grade.....	128

## CHAPTER I

### INTRODUCTION

Parents and children often come into conflict. Generally, research into parent-child conflict has focused on early childhood and adolescence, with relatively little attention paid to the middle childhood years (Dixon, Graber, & Brooks-Gunn, 2008). Conflict is typically defined as arguments and disagreements (Hay, 1984) and as parents' and children's resistant and oppositional behaviors toward one another (Huang, Teti, Caughy, Feldstein, & Genevro, 2007). Research has emphasized the frequency and emotional intensity of parent-child conflict and the outcomes for children when their relationships with parents are conflictual (e.g., Dunn & Slomkowski, 1992; Laursen, Coy, & Collins, 1998; Paikoff & Brooks-Gunn, 1991). In early childhood, high parent-child conflict has been associated with children's relational aggression with peers (Ostrov & Bishop, 2008) and externalizing problems (Rubin, Burgess, Dwyer, & Hastings, 2003). Similarly, parent-adolescent relationships characterized by high conflict have been associated with youth behavior problems, internalizing symptoms, school difficulties, and peer rejection (Smetana, 1996).

Research also suggests that appropriately expressed conflict, as opposed to masked or explosive conflict, may have positive effects on children, especially when it occurs in the context of sensitive parent-child relationships (Laursen & Hafen, 2010; Rubenstein & Feldman, 1993). Adolescent boys whose parents used supportive

childrearing practices were more likely to respond to parent-child conflict with a compromise tactic, which in turn was associated with lower distress and depression and better school functioning (Rubenstein & Feldman, 1993). It has also been suggested that conflict provides opportunities for self-improvement, collaboration, and independence (Dunn, 2004), and empirical work has linked parent-adolescent conflict to greater self-esteem, role-taking skill, and identity development in youth (Cooper & Cooper, 1992; Grotevant & Cooper, 1985). Thus, the expression of parent-child conflict can be adaptive in the context of supportive relationships and may serve a socializing function for children's social and emotional development. As Deutsch (1973) describes, conflict can be constructive for family relationships when parents and children are able to collaborate and negotiate to find common solutions. Parents and children whose relationships have consistently been characterized by sensitive caregiving are more likely to respect one another's perspectives, making the negotiation of agreeable resolutions more likely.

Baumrind's (1971) typology of parenting styles characterized by control and warmth captures a similar idea. She identified parenting styles with qualitative differences in parental control dependent on the degree of parental warmth (Baumrind, 1989). For example, a positive type of parental control, firm control, was identified only in the context of high warmth; Baumrind labeled this the authoritative style. A qualitatively different type of control, identified as restrictive or psychologically manipulative, was found to be present when warmth was low; this pattern of behavior was labeled the authoritarian parenting style. Child outcomes associated with each parenting style have consistently been found to differ; the authoritative style has been

associated with positive attitudes about achievement and academic success (Steinberg, Elmen, & Mounts, 1989), whereas the authoritarian style has been associated with poor school performance (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987).

Baumrind's work, in combination with previous research specific to conflict, suggests that examining parent-child conflict without also considering positive aspects of the parent-child relationship may be misleading. Similar to parental control, parent-child conflict may be qualitatively different in terms of function and meaning depending on parental sensitivity. In the current study, I define parent-child conflict during the preschool and early school years as arguments, disagreements, and opposition between parents and children. I define parent sensitivity during the preschool and early school years as supportive, positive, and non-intrusive behavior during interaction with the child. Conflict and sensitivity may be interdependent features of the parent-child relationship where one cannot be understood separate from the other. Patterns of parent-child interaction characterized by both conflict and sensitivity are described in the current study as a typology of parent-child conflict style.

A typology approach endorses the idea of holism, which suggests that we can only understand certain behaviors by examining the interactions among them. In other words, the individual is an organized totality that cannot be understood by isolating parts of the system (Magnusson, 1998). This principle, derived from Gestalt psychology where the whole is believed to be greater than the sum of the parts, has a long history in the clinical, personality, and biological fields (Magnusson, 1998). Holism provides a theoretical and methodological way of understanding interaction patterns using multiple

behavioral indices. The goal in the proposed study is to identify specific configurations of conflict and sensitivity in order to characterize the interaction pattern of each parent-child dyad (Magnusson, 1998). The approach recognizes that the dyad is a functioning whole system with interdependent processes and behaviors that jointly contribute to relationship quality (Bergman & Trost, 2006). Also called the person-centered approach, this perspective focuses on the central qualitative differences between parent-child dyads that continue over time (Laursen & Hoff, 2006), recognizes that dyads are unique from one another with varying behavioral or developmental paths (Sterba & Bauer, 2010; von Eye & Bogat, 2006), and takes into account the natural multicollinearity that exists between various parenting behaviors (Hoff, 2006). In the current study, I will utilize latent profile analysis to identify unobserved heterogeneity in the sample based on the interdependency between conflict and sensitivity. The groups that emerge based on this analysis will be identified as parent-child conflict styles.

A parallel goal of the current study is to identify patterns of mother-child and father-child conflict style longitudinally across the transition to primary school. A typology of mother-child and father-child pairs will be examined at two time points: the end of the preschool years and the beginning of the school-aged years (see Figure 1). Across this time period, children become increasingly independent as they begin to spend more time outside of the home (Berndt, 2004). Based on previous person-oriented research (Smetana, 1996) and theoretical writing (Laursen & Hafen, 2010) on parent-child conflict, it is expected that the combination of conflict and sensitivity will define three relationship types: sensitive with little conflict, sensitive with moderate to high

conflict, and insensitive with high conflict. Parent-child conflict styles are expected to remain fairly consistent within families over time, but transitions between conflict styles across the two assessments will be explored.

Just as parenting behaviors do not occur in isolation, parent-child interaction patterns are not remote from the events and stressors in the family context. Research from the systems perspective has commonly shown that parent-child relationships cannot be understood without also considering the health of other relationships, or subsystems, in the family (e.g., Cox & Paley, 1997). Thus, another goal of the proposed study is to investigate the effect of family stress on parent-child conflict styles. Parents experience negative emotions from stress on a daily basis stemming from common events and experiences (Helms, Walls, & Demo, 2010). Emotional spillover of negative emotion can occur when family stress negatively affects the quality of family relationships (Erel & Burman, 1995). Family members, and the emotions they experience, are inextricably linked; thus, negative emotions arising from parental stress are likely to affect relationships in the family. Because parents play a dominant role in the transmission of emotion (Larson & Almeida, 1999) and the parent-child relationship is central to children's development, it is important to explore the effects of stress on parent-child relationships.

For the present study, stressors are differentiated as parent-centered or child-centered. Parent-centered stressors, including low marital intimacy between mothers and fathers and high job demands on parents, initiate negative emotions in the parent that can be transferred to other relationships the parent is engaged in. For example, parents that do

not feel connected to their partners may hold feelings of resentment that cause them to be less patient and caring with their children. On the other hand, stressors stemming from the child, including children's disruptive behavior, are likely to initiate a transactional response from parents reflected in their parenting behaviors (Sameroff, 1995; Sameroff & MacKenzie, 2003). For example, parents often become frustrated when their children are aggressive toward peers or family members, increasing the likelihood that future parent-child interactions will be strained and negative. Parent-centered and child-centered stressors are not proposed to have independent effects; in accordance with the transactional model, stressors stemming from each member of the dyad are expected to be reciprocal and recurrent over time with each individual continuously affecting the other (Sameroff, 1995). Although the reciprocal influence between the stressors will not be examined in the current study, I will examine the unique effect of each source of stress. Previous research comparing child-centered and parent-centered contributions to parenting stress found that mothers' greatest parenting stress levels were predicted by child-centered factors, such as a difficult temperament, as opposed to parent-centered stressors, such as marital conflict or social isolation (Gelfand, Teti, & Fox, 1992). Difficult child temperaments led to particularly high parenting stress levels for mothers who experienced depressive symptoms (Gelfand et al., 1992). I predict that the child-centered stress index alone will be more predictive of negative parent-child conflict styles than the parent-centered stress index.

The individual stressors that affect families often co-occur; thus, the use of the systems perspective to understand the joint influence of multiple stressors has been

identified as an important direction for future research (Hetherington, Bridges, & Insabella, 1998). Cumulative risk indices, or counts of present stressors, have been used to account for the fact that the overall level of stress is more influential in family functioning than the effect of each stressor separately (Luthar, 1993; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987). However, identification of a stressor through the use of cutoff points or median splits has been commonly criticized because it truncates continuous data resulting in the loss of valuable information about participants, particularly those with scores just above or below the cutoff point (e.g., Whiteman & Loken, 2006). In the current study, I will use a continuous-variable index that reflects the stress families experience. Similar continuous-variable indices have been used previously in studies of stress and coping (e.g., Masten, Morison, Pellegrini, & Tellegen, 1990).

Although stress poses a risk to family relationships, it does not always have negative effects (Peterson & Hennon, 2005). The effect of family stress on parent-child conflict styles may depend on parents' individual vulnerabilities to the tension and negative affect that accompanies family stress. In the current study, the role of mothers' and fathers' vulnerabilities to the negative effects of stress will be explored at each point in time across the transition to school. Parental vulnerabilities are defined in the present study as parental depressive symptoms, parental anxiety, parental anger, a lack of social support, and parents' beliefs in the importance of child obedience. The conceptual model displaying the relation between the stress indices and parent-child conflict styles moderated by parent vulnerability is shown in Figure 2. Although not displayed in Figure 2, the additive impact of the stress and vulnerability indices summed over the two time

points will also be used to assess the longitudinal accumulation or pile-up of stress and vulnerability that families experience.

One key focus of the proposed study is an exploration of parent gender differences. Qualitative differences between mothering and fathering suggest that sensitive parenting has different meanings depending on parent gender (Grossmann et al., 2002; Parke, 2002). Furthermore, it has been suggested that mothers and fathers react to stress differently (Almeida, 2005; Helms et al., 2010), and previous research has cited parent gender differences in the salience of certain family stressors on parent-child interactions. For example, marital dissatisfaction (Nelson, O'Brien, Blankson, Calkins, & Keane, 2009) and beliefs in the importance of child obedience (Goldberg, Clarke-Stewart, Rice, & Dellis, 2002) have been cited as stronger predictors of negative father-child interactions than negative mother-child interactions, and family-work spillover has been found to be more common among mothers, particularly when they are not able to rely on friends and family for help (Crouter, 1984).

The current study is expected to add to the existing literature in several ways. Most importantly, this study will address two gaps in the parent-child conflict literature. For one, mother-child and father-child conflict will be examined across the transition to school, a developmental period where children gain substantial independence and little is known about conflict between parents and children. Second, I will investigate conflict in the context of parental sensitivity to account for the qualitative differences in the expression and meaning of conflict that are likely to be present in parent-child relationships. I will incorporate an underutilized, holistic approach in order to model

interdependent parenting behaviors. Third, the current study will expand the family stress literature by examining how stressors stemming from parents' and children's behaviors affect parent-child conflict styles when parents vary in their degrees of vulnerability. These associations will be examined separately in mother-child and father-child relationships. Fourth, the longitudinal nature of the design allows me to examine stability and change in parent-child relationships. This is important because the investigation of differences in parenting behaviors based on child age has been identified as a gap in the literature (Karraker & Coleman, 2005). For example, the transition to school may be a time of new behavior demands for children and changing routines and roles for parents; the transition may create additional stress in the family resulting in changes in patterns of interaction between parents and children. Finally, the current study utilizes a large, multi-site dataset with rich and extensive information about family life reported by mothers and fathers. Fathers are often excluded from research on emotions in the family, and yet research on fathers' contributions to emotion socialization and differential relations between mothers' and fathers' stress and emotion socialization suggests they make an important contribution to children's affective environments (McElwain, Halberstadt, & Volling; 2007; Nelson et al., 2009). In sum, the current study aims to explore parent-child conflict in the context of sensitivity with the goal of understanding how the combination of parent-centered and child-centered stress is associated with parent-child conflict style and how parents' vulnerability to stress may amplify the relation between family stress and negative parent-child interaction patterns.

CHAPTER II  
THEORETICAL FOUNDATIONS AND REVIEW OF LITERATURE

Theoretical Foundations

*Family Systems Theory*

The family systems approach provides a useful model for understanding family processes, parental influences on child development, and family change (Cox & Paley, 1997). Within family systems theory, family process is organized around four central concepts: a) wholeness, b) hierarchical structure, c) stability, and d) adaptation.

The concept of wholeness refers to the idea that the family system is an organized, integrated unit. There are interdependent elements within the family system, called subsystems, representing individuals, roles, and relationships. However, the system in its entirety is greater than the sum of individual elements. In research and practice, this concept translates into the idea that the whole family context must be considered to understand behavior and development (Minuchin, 1985).

Subsystems, designating roles or smaller groups within the family, are organized hierarchically. Levels of subsystem complexity increase from the individual level (e.g., mother), to the dyad or triad (e.g., parental), to the larger environment (e.g., community). Reciprocal interactions and interdependencies occur within and between these levels (Cox & Paley, 1997). Therefore, a single subsystem cannot act alone without influencing behaviors, interactions, or affect in other family subsystems. Various subsystem levels

are represented in the current project, including parent-child relationships, the marital relationship, and parents' employment.

Families typically have homeostatic tendencies so that individual behavior and interactions between family members are generally stable. These stable tendencies are usually adaptive in that they help to regulate families by resisting change. However, maladaptive behaviors can also be a stable feature of some families; in such cases, dysfunctional behaviors become incorporated as a regulating part of the system (Minuchin, 1985). In the application of family systems theory to parent-child relationships, we would expect both positive and negative relationship patterns to be fairly stable across time, a finding that has been supported in previous research (Holden & Miller, 1999).

Although families typically maintain stability, change is both functional and necessary as families adapt to changing circumstances. Challenges to existing relationship patterns may arise in the form of changing conditions in the external environment or changes in the existing family system, such as high job demands or increased marital conflict (Cox & Paley, 1997). When challenges are presented, families must adapt by finding alternatives to current behavior patterns and enacting new interaction patterns that fit the changing needs of the family (Minuchin, 1985). Without adaptation to changing circumstance, the disconnect between previous behavior patterns and current system demands can result in negative effects on the system. For example, if a father does not relieve his wife of parenting demands during times of high maternal work stress, the children are likely to experience strained and impatient parenting. In the

current project, multiple aspects of family life will be examined to investigate the influence of stress on parent-child interaction patterns.

With the understanding that family subsystems are interdependent, several processes have been proposed to explain the transfers in affect or behavior that occur between subsystems (Erel & Burman, 1995). One such process is referred to as spillover. The spillover hypothesis suggests that affect or behavior transfers from one setting or relationship to another within the family system. Spillover can include the transfer of positive or negative behaviors from one subsystem to another, as long as the valence is consistent across subsystems. For example, stress from a demanding work environment may result in more conflict in the parent-child relationship, or positive rewards on the job may result in more sensitive parent-child interactions. Although less common in parenting research (Erel & Burman, 1995), the valence can also be inconsistent across subsystem spillover. This process is known as a compensatory effect, which proposes that transfer between subsystems in a family occurs in the opposite valence. A person may seek satisfaction in one relationship to balance shortages in another domain. For example, a parent may compensate for conflict with a partner by providing increased positive attention to the children.

A number of studies have provided support for the spillover process between stress and parenting behaviors. Positive features of both mothers' and fathers' work roles, such as complexity, challenge, and stimulation, have been linked to positive parenting behaviors, such as increased warmth and decreased harsh discipline (Greenberger, O'Neil, & Nagel, 1994). Marital conflict has also been shown to relate to parents' harsh

discipline and lack of acceptance (Krishnakumar & Buehler, 2000). Nelson et al. (2009) explored the moderating role of parent gender on the spillover association between stress and parenting. They found that certain stressors, such as marital dissatisfaction, were more salient for fathers' parenting, and others, such as a chaotic home environment, were more salient for mothers' parenting.

### *Family Stress Theory*

An extension of family systems theory, family stress theory has provided an informative lens to understand how stressors in families are related to individual and relational functioning (Peterson & Hennon, 2005). Staying true to the family systems approach, individual family members and the resources and perceptions they bring to the family are considered interdependent as families react to stressors or crises. Stress is conceptualized not only as it applies to the individual's psychological functioning, but also to the functioning of family relationships. For example, the tension a father experiences at work not only affects his mental and emotional well-being but also the mood of his wife and children as a result of strained interactions. Additionally, stress is viewed from a reciprocal and multidirectional process (Peterson & Hann, 1999); marital stress may affect interactions between parents and children and children may themselves be sources of stress due to their behavior problems.

The original family stress theory concepts were developed by Hill (1958). With his ABC-X Model, Hill proposed that it was not only the stressful event (A) that produced a family crisis (X), but the interaction of the event with the family's resources (B) and perceptions of the stressor (C). In later writings on stress responses over time, the

Double ABC-X Model was proposed (McCubbin & Patterson, 1982; 1983). This extended model identifies the longitudinal nature of family experience. Families are rarely dealing with a single stressor but rather an accumulation or “pile-up” of demands. Thus, each component of the ABC-X Model is doubled to represent current and prior stressors, resources, perceptions, and crises. While Hill’s original work focused on sudden, intense crises, more recent writings within family stress theory have incorporated chronic stressors such as marital conflict and the daily experiences of children (McKenry & Price, 2000; Peterson & Hennon, 2005). The current study incorporates many family stress theory concepts by examining the pile-up of everyday stressors and vulnerabilities.

Typically stress is defined in terms of individual stressful experiences, the number of negative events experienced, or the simultaneous inclusion of multiple stressors (Luthar, 1993). In the latter approach, researchers often find that the cumulative effect of multiple stressors is greater than any one stressor on its own in terms of variance explained, reliability, and predictive power (Carmines & Zeller, 1979; Luthar, 1993; Sameroff et al., 1987). Stress levels are most often examined through the use of an additive index where the presence or absence of individual stressors is counted (e.g., Gerard & Buehler, 2004; Sameroff et al., 1987). However, the disadvantage to using a cutoff score is that much of the information from the continuous scale is lost. In response, a continuous index of stress was adopted (e.g., Masten, Morison, Pellegrini, & Tellegen, 1990) and will be incorporated in the current study.

Family stress has been shown to increase parental control and decrease parents’ accepting behavior toward their children (Putnick, Bornstein, Hendricks, Painter,

Suwalsky, et al., 2008); however, these effects are not inevitable. While stressors can threaten positive parent-child relationship patterns, they do not themselves have inherently positive or negative effects (Peterson & Hennon, 2005). Parents' susceptibility to stressors, by way of their vulnerabilities, is important in determining whether family stress will be reflected in parent-child interaction patterns. Vulnerability may include psychological, emotional, and attitudinal characteristics of family members or characteristics of the family's social context. Families may rely on positive resources to buffer the effects of family stress or may have personal and social vulnerabilities that intensify the negative effects of stress on family relationships (Peterson & Hennon, 2005).

#### *Multidimensional Parenting Perspectives*

Parents' behaviors, styles, and relationships with children are complex. Typically, multiple aspects of parent-child interaction are examined to understand this complexity. Two prominent multidimensional approaches to the study of parenting include a consideration of the interaction between parenting behaviors and the contributions that both parents and children make to the relationship.

#### *Interdependent Parenting Behaviors*

More than five decades ago, early research efforts to capture the emotional nature or "milieu" of the parent-child relationship recognized that individual parenting behaviors could not be disentangled from the influence of other practices (Darling & Steinberg, 1993). Schaefer (1959) factor analyzed a number of parenting practices to develop two

dimensions of the emotional tenor of parent-child relationships: love versus hostility and autonomy versus control.

Similarly, Baumrind (1966; 1971) incorporated both emotional and behavioral parenting processes in her conceptualization of parenting styles. Again, factor analysis was used to organize behaviors, and parenting categories incorporating dimensions of control and warmth were developed based on commonalities in the factors. An important distinction in Baumrind's approach, however, was the specification of qualitative differences in parental control dependent on the warmth dimension. For example, firm control was identified only in the context of high warmth, but restrictive or psychological control was present when warmth was low (Baumrind, 1989). This approach differed from earlier assumptions that each parenting dimension was made up of a linear continuum of low to high quantities. Baumrind's qualitative conceptualization of typological parenting styles was the first of its kind. Maccoby and Martin's (1983) extension of Baumrind's configuration approach combined similar dimensions of demandingness and responsiveness, and explored the application of parenting styles to diverse populations. Overall, each of these early approaches recognizes that parenting is a complex, multivariate phenomenon and that parenting behaviors are often interdependent.

### *Parent and Child Transactions*

Parents and children each contribute to the parent-child relationship. They bring with them individual characteristics and developmental histories that influence the nature of the interaction, the behavior of their partner, and their own subsequent behavior in

future interactions. A number of conceptual models have been introduced over the past four decades that acknowledge each member's individual contribution to parent-child interaction, two of which are Bell's (1968) expanded socialization model and Sameroff's (1975) transactional model.

Bell (1968) is cited as was one of the first to articulate the fact that the parent-child socialization process is bidirectional and interactive. This understanding acknowledges that children and parents are active agents who control their own and others' influence and construct their own meaning regarding their experiences and the behavior of others. The primary goal of the expanded socialization model is to uncover the main effects attributable to children and to parents, as well as their interactions. Support for the model was derived from two main sources. First, there was evidence that animal parents were affected by variations in their offspring's behavior. Parenting in animal models is considered fairly rigid; thus, child effects on human parenting where behaviors are more susceptible to influence are expected to be much greater (Bell, 1968). Second, a number of case studies and empirical reports demonstrated that the same parent often acted differently when interacting with a new child suggesting that parents were influenced by characteristics of the children. Bell's conceptual contribution, in addition to early research on the effects of child temperament on parenting (Thomas, Chess, Birch, Hertzog, & Korn, 1963), led to the development of the transactional model.

In Sameroff's transactional model, the child and the parent continue to bring distinctive characteristics to an interaction. The contribution of the transactional model is that individuals are also proposed to change as a result of the interaction (Sameroff,

1975). Thus, the parent and child then approach the next interaction as changed individuals. Parent effects and child effects are not considered to be separate processes; the transactional model assumes that behaviors from each member are reciprocal and recurrent over time with each individual continuously affecting the other (Sameroff, 1995). Another contribution of the transaction model is the emphasis on the environment. Children not only interact with and are changed by parents, but also by their broader social contexts and their dialectical understanding of those experiences. Changes can be quantitative, with the level of the behavior increasing or decreasing as a result of the first, or qualitative, with the development of a completely new behavior produced as a result of the first (Sameroff & MacKenzie, 2003).

#### *A Holistic Approach to the Study of Parenting*

Often, the combination of parenting behaviors as they create a pattern of family interaction is more informative than examining each behavior in isolation. This represents the idea of holism, or that the totality is greater than the sum of isolated parts (Magnusson, 1998). In the current study, the combination of parent-child conflict and parental sensitivity are predicted to create a parent-child conflict style where the nature and meaning of conflict cannot be fully understood without also considering sensitivity in parent-child relationships.

The holistic person-oriented approach assumes that the individual is unique and populations are heterogeneous with various behavior patterns represented (von Eye & Bogat, 2006). The approach aims to understand process or development at the individual level by considering interdependent components as they make up the undivided whole

person (Bergman & Trost, 2006). Components refer to any behaviors, perceptions, or goals that interact and are interwoven to make up the individual (Bergman & Trost, 2006; Magnusson, 1998). The person-oriented approach is considered a holistic, dynamic, and complex understanding of systems at all levels—in this case, the family system and subsystems (Magnusson, 1998). These theoretical tenets are almost identical to those of the family systems perspective, specifically in that individuals and families are discussed as whole units in which the totality is greater than the sum of the individual parts.

The person-oriented approach has direct implications for how information about individuals and families is analyzed and interpreted. When the individual is the level of analysis, as opposed to the variable, the approach distinguishes individuals based on their set of positions on multiple factors rather than distinguishing individuals based on their relation to other individuals on a single dimension (Magnusson, 1998). Differentiating on a single dimension would not, in fact, be logical from the person-oriented framework because the single factor is inextricably linked to many other characteristics. Interpretation of results using the person-oriented approach can also be tied to the theoretical tenets. Processes are assumed to follow lawful, organized, and predictable patterns (Magnusson, 1998). Individual differences are represented by pattern differences, and only a limited number of functional possibilities exist due to the stability and homogenization that develops within categories (Magnusson, 1998). Thus, a limited number of types are identified based on the interrelated components of an individual or family that are illustrated through patterns of behavior.

The person-oriented and variable-oriented approaches are often compared and contrasted. The variable-oriented approach uses the variable as the level of analysis to identify relations among variables across individuals (Bergman & Trost, 2006; Magnusson, 1998). Researchers have examined the utility of each approach by comparing the two in single studies. In some cases, the approaches are described as complementing one another. For example, Asendorpf and Denissen (2006) used the person-oriented and variable-oriented approaches to compare the predictive power of personality types versus dimensions to aspects of well-being. They concluded that the person-oriented approach tended to be more stable than the use of single variables and that it was more helpful in making long-term predictions than cross-sectional associations. Magnusson (1998) has also demonstrated that both approaches can be useful when the variable-oriented approach is used to initially identify important components, then the person-oriented approach is used to demonstrate the patterns between the significant factors. In other cases, the two approaches have been described as opposites. When determining causality, often change in a single dimension is isolated and linked to change in a second dimension. However, from a person-oriented approach, a single dimension cannot be isolated, as change occurring in one context is interwoven with change in all other dimensions (Bergman & Trost, 2006). Thus, in regards to determining causality, the person-oriented and variable-oriented approaches are in contrast, as one approach directly violates the assumptions of the other.

In response to calls for more holistic analytic approaches in family systems research (Cox & Paley, 1997), more consistency with writings of original family systems

scholars that were focused on *types* of families (Belsky & Fearon, 2004), and a more coherent link between theory and methods (O'Brien, 2005), the current study proposes to utilize a holistic, person-centered approach in examining family subsystems. A typology of mother-child and father-child conflict styles will be created at two time points during the child's development. Also, at each time point indices of parent- and child-centered stress will be used as holistic assessments of the amount of stress a family experiences. And because families respond differently to stress, an index of parent vulnerability will be used to assess the overall degree of vulnerability in a parent-child relationship and will serve as a moderator of the relation between the stress indices and parent-child relationship types. Longitudinal analyses will examine transitions and consistencies in parent-child relationship types, as well as the accumulating effect of high stress and vulnerability over time.

## Literature Review

### *Parent-Child Conflict Style*

Conflict between parents and children is inevitable at all stages of development. It can arise from mundane disagreements about household tasks to power negotiations of family rules (Grieshaber, 2004). Although parent-child conflict has been associated with children's behavior problems, school difficulties, and peer rejection (Smetana, 1996), positive effects of conflict have also been reported. Constructive parent-child conflict that is expressed appropriately and resolved collaboratively has been linked to children's higher self-esteem, greater independence, and identity development (Cooper & Cooper, 1992; Dunn, 2004; Grotevant & Cooper, 1985).

It has been hypothesized that one important characteristic that determines whether parent-child conflict will lead to negative or positive outcomes for children is the quality of the parent-child relationship in which the conflict is embedded (Laursen & Hafen, 2010). Among poor-quality relationships, any amount of parent-child conflict is likely to lead to maladjustment due to the fact that disputes in insensitive environments lead to further hostility and disengagement (Hauser, Power, & Noam, 1991; Laursen & Hafen, 2010). Among good-quality relationships, the presence of conflict (up to a point) provides opportunities for children to practice negotiating and regulating their emotions, and for parents and children to directly address disagreements before they negatively affect children's adjustment (Laursen & Hafen, 2010). These opportunities for positive development in good-quality relationships suggest that moderate conflict is more adaptive than a lack of conflict. Excessive conflict, however, is hypothesized to be maladaptive for children regardless of the quality of the relationship (Laursen & Hafen, 2010).

In the current study, parent sensitivity during parent-child interaction is used as a proxy for the quality of the parent-child relationship. Sensitivity is a broad concept incorporating multiple behavioral and affective dimensions. Little is known about parental sensitivity during the middle childhood years and how it differs conceptually from sensitivity in infancy (Bradley & Pennar, 2011). For school-aged children who have reasonably well-formed capacities for emotion regulation, behavioral control, and sense of self, it has been suggested that parental sensitivity includes "anticipatory guidance and proactive engagement in actions that buffer the child from negative experiences"

(Bradley & Pennar, 2011, p.161). Thus, the parent does not simply react to the child's needs but also arranges positive and cooperative circumstances (Bradley & Pennar, 2011). Parent sensitivity has been associated with a number of positive outcomes for school-aged children, such as higher social competence ratings by teachers at the transition to elementary school (NICHD ECCRN, 2004), better language and cognitive skills (Belsky & Fearon, 2004), and behavioral adjustment (Chen, Liu, & Li, 2000).

The association between sensitivity and conflict, rather than an examination of each dimension separately, can provide a cohesive picture of the parent-child conflict style. Each parent-child interaction occurs in the context of the relationship, thus positive and negative behaviors cannot be understood in isolation. Early research efforts to capture the emotional nature of the parent-child relationship recognized that individual parenting behaviors could not be disentangled from the influence of other practices (e.g., Schaefer, 1959). Similarly, Baumrind (1966; 1971) recognized that parents' behaviors were qualitatively different depending on their relation to other behaviors in her conceptualization of parenting styles. For example, firm control was identified only in the context of high warmth, but restrictive or psychological control was present when warmth was low (Baumrind, 1989). This approach differed from earlier assumptions that each parenting dimension was made up of a linear continuum of low to high. Baumrind's qualitative conceptualization of parenting styles from a person-oriented typological approach was the first of its kind.

A goal of the current project is to extend Baumrind's person-oriented thinking to better understand parent-child conflict. In accordance with Laursen and Hafen's (2010)

theory on adaptive versus maladaptive conflict interactions, I will develop a typology of parent-child conflict styles reflecting conflict in the context of sensitivity. This will lead to a better understanding of qualitatively different types of parent-child conflict, particularly during the early school years when little is known about conflict between parents and children.

#### *A Typology of Parent-Child Conflict Style*

Previous research on parent-child conflict patterns can be used to inform predictions regarding styles of conflict in the context of sensitivity. Smetana (1996) used cluster analysis to characterize conflict frequency and severity in three samples of parent-adolescent pairs. The samples varied in terms of culture (US and Hong Kong) and socioeconomic status. Across the three samples, a three-cluster solution fit the data best. The most common group, the *frequent squabblers*, was characterized by high conflict frequency with low to average severity. The second largest group, the *placid* pairs, was characterized by very little conflict overall with low severity. The third group, the *tumultuous* group, experienced high frequent conflict with high intensity.

Most informative for the current study, Smetana's three conflict clusters were differentially related to important parenting dimensions reflecting degrees of sensitivity. Both placid and frequently squabbling families used a more authoritative parenting style than tumultuous families, suggesting that placid and squabbling parents both tend to be responsive to children despite the vary degrees of conflict. Also, placid parents were rated as warmer than tumultuous parents. Together, these findings suggest that families can be characterized by high sensitivity and low conflict, by low sensitivity and high

conflict, and also, as Laursen and Hafen (2010) would suggest, by high sensitivity and moderate to high conflict. And indeed, links to child outcomes provide a consistent story with Laursen and Hafen's suggestion that conflict patterns characterized by high sensitivity and moderate to high conflict can be adaptive for children; Smetana found that adolescent academic performance was higher in placid and frequently squabbling families than tumultuous families, and that youth from tumultuous families were more emotionally detached than those from placid families.

Drawing from Smetana (1996), it is hypothesized that three relationship quality types will emerge from the person-centered analyses: *positive*, *dynamic*, and *abrasive*. Positive families will be high on sensitivity and low on conflict; dynamic families will be high on sensitivity and moderate to high on conflict; and abrasive families will be low on sensitivity and high on conflict. Because mothers tend to be more responsible for the emotion work in the family (Erickson, 2005), all mother-child pairs will likely have higher levels of sensitivity than comparable father-child pairs.

#### *Stability and Change in Parenting*

A central consideration when examining sensitivity and conflict across time is the amount of stability and change generally observed in parenting behaviors. Two theoretical perspectives have been set forth regarding the stability of parenting practices (review by Holden & Miller, 1999). The more prominent view of stability conceptualizes child-rearing as a continuous, habitual interaction pattern between parents and children (Bowlby, 1977; Maccoby, 1984; Minuchin, 1985). From this viewpoint, the family, as a self-stabilizing unit, is more likely to continue with the status quo, regardless of whether

the interactions are adaptive or not. From this perspective, the history and durability of experience is thought to influence children's development. Methodologically, this approach assumes that parenting assessed at one point in time can provide a reliable estimate of parent-child experience (Holden & Miller, 1999). Social learning, family systems, and attachment theories all support the view that family interactions are likely to be stable over time.

An alternate view of parenting examines the circumstances under which variation and change in parenting occurs. Researchers operating from this perspective examine the origins, change circumstances, and modifying strategies of parenting behaviors. This view of change is the focus of stress theories and intervention research (Kazdin, 1987; Webster-Stratton, 1990). Clinicians and therapists often use changes in parenting practices as a strategy when working with children.

There are many factors that can influence the conclusions researchers will draw when examining parenting stability versus change (Holden & Miller, 1999). Conclusions of stability are more likely to be drawn when researchers take a trait approach to parenting, examine a few stable determinants, use a methodology of global ratings as opposed to discrete behaviors, or study the role of culture such as race, social class, or religion. Conclusions of parenting change are more likely when researchers examine multiple external influences, study developmental transitions, or consider the active and changing influence of children in parent-child interactions. In their meta-analytic test of stability effect sizes, Holden and Miller (1999) found considerable stability within families across time in parenting constructs, although effect sizes were smaller and less

clear for emotion-related constructs, dyadic constructs, longer time spans, observational assessments, and younger children. The current study incorporates many of these dimensions where effect sizes were found to be smaller; thus, it is likely that changes in parenting types will be seen.

Another examination of the stability of positive and negative parenting behaviors over children's first six years utilized data from the NICHD Study of Early Child Care and Youth Development (Dallaire & Weinraub, 2005). The authors showed that sensitivity displayed considerable stability over time with Pearson product moment correlations ranging from .26 to .47 (average of .36). Negative aspects of parenting, such as detachment and hostility, did not display as much stability with Pearson product moment correlations ranging from .12 to .38 (average of .22). With the examination of both positive and negative parenting behaviors in the current study, it is predicted that a fair amount of stability will be demonstrated over time, although some changes are also likely to occur.

Change in parenting behaviors can be driven by changes in children. As children experience new stages and developmental transitions, they have new developmental needs and make new demands on parents. Parents must also shift their own routines, roles, and expectations in response to children's development. Parent-child relationships are often altered as family members respond and adapt to the challenges that accompany children's transitions (Peterson & Hennon, 2005). The current study will follow families starting in the late preschool years over the transition to school. During the preschool period, children tend to spend a large amount of time with parents and parent-child

relationships are generally warmer, more stimulating, and less restrictive than during middle childhood (Baldwin, 1946). Most families are expected to be categorized as having a positive relationship type during this time. Before the next assessment, children in the current study will have started elementary school. The transition to school presents behavioral and academic demands that many children have not previously experienced. This can create strains in the parent-child relationship as both parents and children struggle to adjust. As children enter the early school years, conflict with parents usually increases (McGue, Elkins, Walden, & Iacono, 2005) and children begin to focus on their relationships with friends (Berndt, 2004). It may be that there is a shift toward more negative parent-child interaction patterns in the second assessment.

### *Stress*

#### *Parental Stress Environments and Parent-Child Relationships*

The process within families by which affect is transferred from one subsystem to another is referred to as emotional spillover. In the current study, spillover from stress to parent-child conflict styles will be tested. The accumulation of stress will also be examined as it relates to family relationships. Among infant-mother dyads, changes in maternal employment status and care arrangements were associated with qualitative shifts in mother-child attachment relationships (Thompson, Lamb, & Estes, 1982). Similarly, Vaughn, Egeland, Sroufe, and Waters (1979) found that more unstable, stressful home environments, indicated by the occurrence of more stressful life events, produced qualitative changes in parent-child relationships. In the proposed study, stressors of a persistent nature will be examined. Two stressors, low marital intimacy between mothers

and fathers and high demands from parents' jobs, are considered parent-centered as they originate from the parents' roles. Children's externalizing behavior problems is considered a child-centered stressor.

### *Parent-Centered Stressors*

*Low marital intimacy.* A lack of closeness and intimacy in mothers' and fathers' marital relationship is a common source of stress among families. The negativity associated with marital problems often permeates other family relationships. It has been proposed that the parent-child relationship is negatively influenced by marital problems through several mechanisms, including children's emotional insecurity (Davies & Cummings, 1994) and emotional distance from parents (Sobolewski & Amato, 2007), and through impaired parenting with higher marital conflict leading to more harsh discipline and lower parental involvement in children's lives (Buehler & Gerard, 2002).

Although women tend to be more emotionally reactive to marital conflict (Almeida, McGonagle, Cate, Kessler, & Wethington, 2002), marital tensions are more likely to influence the parent-child relationship for fathers than mothers suggesting that marital to parenting spillover is more likely among men (Almeida, Wethington, & Chandler, 1999; Kerig, Cowan, & Cowan, 1993; Nelson et al., 2009). Parke (2002) explains this finding by suggesting that the fathering role is less well defined in families; thus, men look to their satisfaction in other relationships to define the quality of their parenting. Research has demonstrated low paternal sensitivity (NICHD ECCRN, 2000), less affection (Goldberg et al., 2002), and fewer positive responses (Nelson et al., 2009) during father-child interaction in homes with less marital intimacy.

*Job demands.* The work role is also a common source of stress for mothers and fathers. Employment demands can include long working hours, high stress, and inflexibility, all of which have been shown to affect the quality of parent-child relationships through less parent-child time and disturbances in parent-child activities (Roeters, van der Lippe, & Kluwer, 2010). Job-related stress has been linked to more parenting withdrawal among mothers of preschool-aged children (Repetti & Wood, 1997) and to less sensitive interactions with infants among fathers (Goldberg et al., 2002). Similarly, Nelson et al. (2009) reported that job role dissatisfaction was associated with fewer supportive responses to preschool-aged children's negative emotions among both mothers and fathers. Long-term effects of a negative work environment include a less positive and more negative emotional tone during father-child interactions (Repetti, 1994).

#### *Child-Centered Stressor*

*Child behavior problems.* Children's externalizing behavior problems have been identified as one characteristic of children that can make them more difficult for parents to care for (Belsky, 1984), and in the presence of additional parental stressors, children's behavior problems may further deplete parents' emotional resources and availability. Behavior problems in children have been linked to a number of problems that parents must attend to, such as children's low academic performance and poor social skills (Efrati-Virtzer & Margalit, 2009), rejection and victimization by peers, and negative relationships with teachers (Ladd & Burgess, 1999). In addition to the many negative social and academic consequences for children with behavior problems which are likely

to cause stress for families, children's behavior problems may also directly affect and be affected by the quality of the parent-child relationship. Children's externalizing behavior problems have been shown to elicit decreases in parental support, increases in parents' psychological control, and increases in parents' use of physical punishment over time (Verhoeven, Junger, van Aken, Deković, & van Aken, 2010). Patterson (1982) describes a transactional model of parent-child coercion where child behavior problems result in the child's refusal to comply with parental requests, which increases the parent's intrusive demands for child compliance, thus further escalating the child's behavior problems.

#### *Parental Vulnerabilities*

Some parents are more prone to the effects of stress than others (Almeida, 2005). Vulnerabilities have been found to affect parents' reactivity, or the emotional reaction they have, to a family stressor (Almeida, 2005). For example, a mother with few supportive friends and family members may have a more difficult time coping with marital problems. In the current study, five parental vulnerability factors—depressive symptoms, anxiety, anger, lack of social support, and parental beliefs in the importance of child obedience—are included to create an overall index of the degree of vulnerability. This index has the potential of attenuating or amplifying the effects of stress on parent-child conflict style.

#### *Parental Depressive Symptoms*

Depressive symptoms often lead parents to disengage from family life and have an overall more negative outlook. Symptoms include sadness, irritability, hopelessness,

fatigue, and loss of interest. Depressive symptoms may also affect an individual's ability to cope with stress, defined as the cognitive and behavioral efforts used to minimize or tolerate stressful situations (Lazarus & Folkman, 1984). The presence of depressive symptoms in adults has been directly related to the use of less adaptive coping methods during stressful situations such as denial, a focus on negative emotion, and disengagement (Walker, Zona, & Fisher, 2006), suggesting that depressive symptoms may impede a parent's ability to deal with stress. Low levels of depressive symptoms have been shown to serve as a buffer against negative mother-child interactions on high stress workdays (Repetti & Wood, 1997). Depressive symptoms are predicted to affect parents' reactivity to family stress by increasing the negative effects of stress on parent-child relationships.

#### *Parent Anxiety*

Another vulnerability factor examined in the current study is parental anxiety. Characteristics of anxious parents can include excessive worrying, restlessness, and irritability. Similar to depressive symptoms, high anxiety may impede a parent's ability to minimize distress, as it has been linked to the use of maladaptive, avoidant strategies in coping with stressful situations (Sigmon, Whitcomb-Smith, Rohan, & Kendrew, 2004). Anxious parents have also been known to create a family environment that is less cohesive than less anxious parents (Turner, Beidel, Roberson-Nay, & Tervo, 2003), which has been found to be an important dimension of mothers' susceptibility to stress (Margalit & Kleitman, 2006). The moderating effect of anxiety has been demonstrated in previous research with high anxiety in parents relating to more negative mother-child

interactions on highly stressful workdays (Repetti & Wood, 1997), suggesting that this psychological state may make parents more vulnerable to the negative effects of stress.

### *Parent Anger*

Some parents experience persistent anger, typically described as agitation, arousal, and negative emotion (Stith et al., 2009). Parental anger has been shown to influence parents' perceptions of family interactions, with clinically angry parents making more negative attributions for their children's behavior and being more likely to blame their children for their own negative parenting behaviors than non-angry parents (Pidgeon & Sanders, 2009). Parents' angry emotions have also been discussed in relation to stress management within the family (Dreman & Shemi, 2004). Whereas previous research has found that parents' perceptions of stress are related to negative parent-child communication because of high parental anger (Dreman & Shemi, 2004), it is also possible that high parental anger makes parents more vulnerable to the negative spillover of stress to parent-child relationships.

### *Lack of Social Support*

Psychological, emotional, and material assistance from parents' social networks is frequently examined as a buffering effect of stress. The moderating role of social support on the relation between parental stress and parenting behaviors has been well established. Parents with few support resources are more vulnerable to the harmful effects of stress, such as the spillover of negative affect into other family relationships. However, parents that can rely on their social networks for emotional and instrumental support during stressful experiences are less likely to react in a negative manner. Social support has been

found to alleviate the negative impact family stress has on lowering parenting satisfaction and efficacy (Koeske & Koeske, 1990), increasing rejecting parenting behaviors (Rogers, 1998), and decreasing sensitive parenting (Crnic & Greenberg, 1990). Unfortunately, receiving assistance from friends and family is not always positive; social networks can also be problematic by creating excess conflict. Among very young parents, family and friends can be judgmental, critical, and excessively controlling (Miller-Johnson et al., 1999). Thus, social networks can have a protective or intensifying effect on the possibility that family stress will influence parent-child conflict interactions depending on the nature of the support provided. In the current study, low social support is defined as the lack of acceptance and support parents feel in their close relationships.

#### *Parenting Beliefs Emphasizing Child Obedience*

Parents' beliefs that their child should always be obedient encourage rigid parenting that minimizes children's exploration and initiative (Schaefer & Edgerton, 1985). These restrictive characteristics of parent-child relationships create an atmosphere of inflexibility and intolerance for child independence, in addition to less parental support and more punishment (Luster, Rhoades, & Haas, 1989). As early school-aged children develop their own sense of self and test limits of their autonomy (Berndt, 2004), parents' traditional beliefs emphasizing child obedience may make parent-child relationships vulnerable to the negative effects of family stress due to the fact that the rigidity in these parents' practices make coping with the unstable nature of family stress particularly difficult.

### *Parent Gender*

Father-child and mother-child relationships are qualitatively different, and interactions with fathers and mothers provide different experiences for children (Parke, 2002; Stolz, Barber, & Olsen, 2005). Attachment research suggests that fathers and mothers also provide support for their children in different ways, with fathers encouraging independence and mothers providing emotional support in times of distress (Grossmann et al., 2002). Although both respect for the child's autonomy and a supportive presence are included in the current study's measure of parent sensitivity, the present focus on *emotional* quality may result in differences between mother-child and father-child relationship types. Mothers have been rated as more emotionally available during play sessions with their children than fathers (Lovas, 2005), consistent with previous research suggesting that mothers tend to be more responsible for the emotion work in the family (Erickson, 2005).

### *The Current Study*

Four research questions and hypotheses are presented for the current study. Predictions address, 1) how parent-child conflict styles will be categorized, 2) how conflict styles will change over time, 3) how stress will relate to conflict styles, and 4) how stress will relate to conflict styles over time.

1) How do parent-child conflict and parental sensitivity combine into conflict styles? Do these differ for mothers and fathers?

It is anticipated based on prior research that three conflict styles will be found that represent patterns of conflict in the context of sensitivity in the parent-child relationship:

*positive, dynamic, and abrasive.* Positive families will be high on sensitivity and low on conflict; dynamic families will be high on sensitivity and moderate to high on conflict; and abrasive families will be low on sensitivity and high on conflict. Mother-child classes will likely be characterized by higher average levels of sensitivity than comparable father-child styles but the overall patterns are expected to be similar. Figure 1 displays the conceptual typology model over time. An additional exploratory goal was to describe and differentiate the conflict styles based on relevant demographic characteristics.

2) How stable are parent-child conflict styles from preschool to first grade?

Across the transition to school, parent-child conflict style will show a high degree of stability, although, it is expected that more conflict will be represented in 1<sup>st</sup> grade interaction styles. At the second assessment (1<sup>st</sup> grade), more relationships will be categorized as dynamic or abrasive than at the first assessment (54 months). The same pattern is expected for mother-child and father-child pairs.

3) How does parent-centered and child-centered stress relate to parent-child conflict style, and are these relations moderated by parental vulnerability?

At each time point, parents who report more stress will be more likely to be categorized as abrasive. Higher child-centered stress will be more predictive of the abrasive categorization among parent-child pairs than higher parent-centered stress. The relations between stress and conflict style will be moderated by the degree of parental vulnerability such that more vulnerable parents, characterized by higher depressive symptoms, higher anxiety, higher anger, less social support, and stronger beliefs emphasizing child obedience, will be more likely to experience spillover of high stress to

the abrasive conflict style. Figure 2 displays the moderating effect of parent vulnerability on the relation between each source of stress and parent-child conflict style concurrently.

4) How does the accumulation of parent-centered and child-centered stress and parental vulnerability over time relate to conflict style at 1<sup>st</sup> grade?

The accumulation of parent-centered and child-centered stress added over the two time points will be related to an abrasive parent-child conflict style categorization at 1<sup>st</sup> grade. The accumulation of stress will be more strongly related to 1<sup>st</sup> grade parent-child conflict style among parents with accumulated vulnerability added over the two time points.

## CHAPTER III

### METHODS

#### Sample

Participants included two-parent families who participated in the NICHD Study of Early Child Care and Youth Development (SECCYD), a longitudinal study conducted at 10 sites across the U.S. beginning in 1991. The initial sample was drawn from all women giving birth during selected 24-hour periods at each site. Mothers were screened for eligibility and willingness to be contacted. Families were excluded if the mother was younger than age 18, admitted substance abuse, or did not speak English; the infant had a known disability, was of a multiple birth, or needed to remain in hospital care; or the family planned to move or lived more than an hour from the research site. Of the 8,986 mothers who gave birth during the sampling period, 5,416 (60%) met eligibility requirements and agreed to be contacted. A conditionally random sample was then selected to increase participant diversity based on marital status, educational attainment, and ethnicity resulting in a final sample of 1,364 families that completed home interview when infants were one month old. The recruited sample consisted of 52% boys, 24% children of color, 45% first-born children, 11% mothers without high school completion, and 14% single-parent families.

The current sample consisted of 729 families that had two parents living in the home at the 54-month assessment and had observed play interactions available from both

mothers and fathers. Compared to the 1,364 recruited families, families in the current subsample had higher incomes at 54 months,  $t(1071) = 7.51, p < .01$ , and children were more likely to be European American,  $\chi^2(1, N = 1364) = 69.23, p < .01$ . Data at 1<sup>st</sup> grade from a father figure different than the 54-month participant was deleted, but the family was retained in the overall sample. This occurred for 10 families. Families with different father-figures present at the 54-month and 1<sup>st</sup> grade assessments were different from the study sample in the following ways: fathers reported higher depressive symptoms at 54 months,  $t(607) = -2.07, p < .05$ , higher job demands at 54 months,  $t(571) = -2.77, p < .01$ , more traditional obedience-oriented parenting beliefs at 1<sup>st</sup> grade,  $t(607) = -2.23, p < .05$ , and lower income-to-needs ratios at 54 months,  $t(603) = 2.00, p < .05$ . Among the 729 families at the 54-month wave, the average income-to-needs ratio was 4.08, with 20% at ratios below 2.0. The median household size was 4 members. Of children, 50% were female, 16% were ethnic minorities, and 44% were first-borns. Mothers' average age was 33 years at the 54-month wave, average education was 14.83 years, 94% of mothers were married, and 71% were employed. Fathers had 15 years of education and 95% were employed.

### Procedure

Participating families reported demographic information and completed questionnaires during a home visit when the child was approximately 1 month old. Additional assessments at 54-months and 1<sup>st</sup> grade took place at home, in the child care setting, at school, and in the laboratory where participants updated demographic information, completed questionnaires, and engaged in observational tasks.

## Measurement

### *Parent-Child Conflict Style*

#### *Sensitivity*

Mothers' and fathers' sensitivity with their child was coded during separate 15-minute structured play interactions at each time point; interactions were videotaped and later coded by trained observers. Two of the three tasks parents and children completed were designed to be too difficult for the children to complete on their own, thus requiring direction from parents. The third task was designed to encourage play between parents and children. Sensitivity was calculated as a composite of the parent's supportive presence with the child, respect for the child's autonomy, and parent hostility with the child (reflected), all coded from 1 (*very low*) to 7 (*very high*). The sensitivity composite had a possible range of 3 to 21, with higher scores indicating higher sensitivity. Interrater reliability of the three scales across the two time points ranged from .75-.78 for mothers and .68-.77 for fathers. See Table 1 for internal reliability.

#### *Conflict*

Mothers and fathers completed the Parent-Child Relationship Scale, adapted from the Student-Teacher Relationship Scale (STRS; Pianta, 1994), at each assessment point. Twelve items rated on a 5-point Likert scale were used to assess parents' feelings and beliefs regarding the amount of conflict in their relationship with the study child (e.g., *my child and I always seem to be struggling with each other*; 1 = *definitely does not apply*, 5 = *definitely applies*). Scores could range from 12 to 60, with higher scores indicating more parent-child conflict. At the 1<sup>st</sup> grade assessment, the Parent-Child Relationship

Scale Short Form was used as opposed to the full questionnaire administered at the 54-month assessment. The short form included 7 items with a possible range on the conflict scale of 7 to 35. Scores from 1<sup>st</sup> grade were multiplied by 12/7 to set them on a common scale with the 54-month data. See Table 1 for internal reliability.

### *Stressors*

#### *Parent-Centered*

*Low marital quality.* The intimacy subscale from the Personal Assessment of Intimacy in Relationships questionnaire (PAIR; Schaefer & Olson, 1981) was completed at each assessment by mothers and fathers to assess intimacy with a spouse or partner living in the home. Six statements describing relationships were presented to mothers and fathers (e.g., *my (spouse/partner) listens to me when I need someone to talk to*). Parents were asked to indicate on a 5-point Likert scale the extent to which they agreed or disagreed with the relationship statements (1 = *strongly disagree*, 5 = *strongly agree*). For the current study, total scores were reflected so that higher scores indicated lower marital intimacy. Reflected scores ranged from -5 to -1. See Table 1 for internal reliability.

*Work demands.* Mothers and fathers who were employed at least 8 hours per week completed the Job Role Quality Scale (Barnett & Marshall, 1991) at each assessment. The scale assessed parents' perceptions of their job conditions. Individuals who indicated that they were not working, on leave, or on extended vacation did not complete the questionnaire. The questionnaire included 12 statements related to job demands (e.g., *there is little chance for the advancement you want or deserve*) and 16 statements related to job rewards (e.g., *you get recognition for your work*). Parents indicated whether or not

each statement applied to their current job situation (0 = *false*, 1 = *true*). For items marked 1 (*true*), parents then rated the extent to which they considered the item to be a concern or reward on a 4-point scale (1 = *not at all a concern/reward*, 4 = *of extreme concern/reward*). For the current study, total job rewards were subtracted from total job concerns; higher scores indicate higher job demands. See Table 1 for internal reliability.

*Parent-centered stress index.* A continuous index of parent-centered stress was created by adding the standardized work demands and low marital intimacy values together to create a continuous index of parent-centered stress. Longitudinal accumulated stress was assessed by adding the continuous index of parent-centered stress from the two time points.

#### *Child-Centered*

*Child behavior problems.* Mothers and fathers reported on their perceptions of the child's behavior problems at each assessment using the externalizing subscale of the Child Behavior Checklist (CBCL; Achenbach, 1991). Parents responded to 118 items indicating how well a range of behavioral problems describes the child currently or within the last six months (0 = *not true*, 1 = *somewhat or sometimes true*, 2 = *very true or often true*). The Cross-Informant Program for the CBCL/4-18, purchased from the Child Behavior Checklist, University Medical Education Associates, Inc., was used to score the raw data. The child's externalizing problem behaviors standardized score (t-score) had a possible range of 30 to 100 and consisted of syndrome scale responses designated as aggressive behavior and delinquent behavior. See Table 1 for internal reliability. For

longitudinal analyses, accumulated child-centered stress was calculated by adding the scores at the two time points.

### *Parental Vulnerabilities*

#### *Parent Depressive Symptoms*

At both time points mothers and fathers completed the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) to assess parental depressive symptoms. After being presented with 20 statements of self-descriptive feelings (e.g., *I felt irritated*), parents were asked to indicate how often they themselves experienced similar feelings during the past week on a 4-point scale (0 = *rarely or none of the time [less than once a week]*, 3 = *most or all of the time [5-7 days a week]*). Four items were reflected prior to summing the scores, and higher scores indicate higher levels of depressive symptomology. The possible range of scores is 0 to 60. See Table 1 for internal reliability.

#### *Parent Anxiety*

At the 1<sup>st</sup> grade assessment mothers and fathers reported on their anxiety by completing a shortened version of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). Ten of Spielberger et al.'s (1983) original 20 items were included. Parents were asked to report on a 4-point scale (1 = *not at all*, 4 = *very much*) the extent to which they felt specific ways (e.g., *I felt nervous*). The questionnaire was originally designed to assess state-dependent anger; it was adapted for the current study to assess a more stable trait quality. Instructions were re-worded so that participants rated the extent to which they felt specific ways “over the past week” instead

of “right now”. Four items were reflected prior to summing the items. The possible range of scores was 10 to 40 with higher scores indicating higher levels of anxiety. See Table 1 for internal reliability.

#### *Parent Anger*

At the 1<sup>st</sup> grade assessment mothers and fathers reported on their anger by completing a modified State-Trait Anger Scale (Spielberger, Jacobs, Russell, & Crane, 1983). Parents were asked to respond to 10 items on a 4-point scale (1 = *not at all*, 4 = *very much*) assessing the extent to which they felt anger, irritation, or hostility (e.g., *I was furious*). Similar to the State-Trait Anxiety Inventory, the questionnaire was re-worded to assess stable, trait anger “over the past week”, as opposed to state-dependent anger “right now”. The possible range of scores was 10 to 40 with higher scores indicating higher levels of anger. See Table 1 for internal reliability.

#### *Low Parental Social Support*

At 54 months, mothers reported on their own social support by completing the Relationships with Other People questionnaire (adapted from Cohen & Wills, 1985; Marshall & Barnett, 1993). They rated how they felt about their relationships over the past month. The questionnaire consists of 11 items on a 6-point scale (e.g., *the people important to me accept me as I am*, 1 = *none of the time*, 6 = *all of the time*). Mean social support values ranged from 1 to 6. For the current study, total scores were reflected ranging from -6 to -1.73 with higher scores indicating lower perceived social support. See Table 1 for internal reliability.

### *Obedience-Oriented Parenting Beliefs*

At the 1<sup>st</sup> grade assessment, mothers and fathers completed the Parental Modernity Scale of Child-Rearing and Educational Beliefs (Schaefer & Edgerton, 1985). The questionnaire measures traditional/authoritarian beliefs about parenting, reflecting rigid beliefs that children should follow adult direction (e.g., *children generally do not do what they should unless someone sees to it*). It includes 22 items scored on a 5-point scale (1 = *strongly agree*; 5 = *strongly disagree*). The possible range of scores is 22 to 110 with higher scores indicating a stronger emphasis on obedience-oriented beliefs about raising children. See Table 1 for internal reliability.

### *Parent Vulnerability Index*

A continuous index of parent vulnerability at each age was created by standardizing scores on each measure and summing them. For longitudinal analyses, the 54-month and 1<sup>st</sup> grade vulnerability indices were added.

### *Covariates*

Family income-to-needs ratio, child sex, child ethnicity, and child birth order were examined as possible covariates by investigating the associations between these demographic characteristics and study variables. Family income-to-needs ratio was assessed at the time point of interest; all other covariates were assessed through demographic reports at the 1-month wave.

## Data Analysis

### *Preliminary Analyses*

Preliminary analyses were conducted to examine the descriptive properties and frequencies of each variable. Relations between variables were also examined. Intercorrelations between parent sensitivity and parent-child conflict were investigated, as were intercorrelations between variables that made up each stress and vulnerability index. And finally, intercorrelations within constructs across time were examined to assess the degree of stability.

### *Missing Data*

Although the sample was restricted based on eligibility criteria, participants were not excluded based on missing data or attrition subsequent to the 54-month assessment. Full information maximum likelihood (FIML), a modeling method that estimates parameters based on available and implied values without actually imputing missing data (Schlomer, Bauman, & Card, 2010), was used in the current analyses. However, FIML was not useful in estimating missing data from stress or vulnerability variables, as scores were computed prior to analyzing the data in the Mplus version 5 software. Thus, multiple imputation was conducted in SPSS version 18 on the stress and vulnerability variables using information from the full dataset prior to creating the stress and vulnerability indices. With large amounts of missing data, it is advisable to create multiple imputed datasets, run analyses on all datasets, and report the median estimate (Marshall, Altman, Holder, & Royston, 2009). Overall, there was 10.46% of missing data among the stress and vulnerability variables; creating five imputed datasets was

appropriate for this amount of missingness (Rubin, 1987). When testing the role of stress and vulnerability in the current study, analyses were run 5 times, once for each imputed dataset.

### *Analyses Addressing Research Questions*

The Mplus Version 5 software package (Muthén & Muthén, 1998) was used for the current analyses. The analyses proceeded in four steps in accordance with the four research questions and hypotheses. First, a typology of parent-child conflict style was determined for mother-child and father-child pairs separately. Second, the stability in conflict styles between Time 1 and Time 2 was examined. Third, the stress indices were used to predict conflict styles among mother-child and father-child pairs, and the moderating effect of the vulnerability index on the relations was examined concurrently. Finally, the effect of the accumulation of stress and vulnerability over the two time points was examined in relation to the Time 2 conflict styles.

### *A Typology of Parent-Child Conflict Style*

Parent sensitivity and parent-child conflict at the 54-month and 1<sup>st</sup> grade assessments were included in latent class analyses. Separate models were run for mother-child and father-child pairs at each age point (see Figure 1). Models were examined based on theoretical meaning and statistical fit. The Bayesian information criteria (BIC), which considers parsimony in the estimate, was used as the primary indicator of model fit, along with other fit statistics. Latent class models can change over time; therefore, the number and structure of classes were expected to vary at each time point. Sensitivity and conflict class means were compared at each time point.

Conflict styles were examined on a number of demographic characteristics. Demographic characteristics were used to predict conflict style membership for mother-child and father-child pairs using logistic regressions. Statistically meaningful differences in demographic characteristics between classes were interpreted based on odds ratios.

#### *Stability of Parent-Child Conflict Classes*

The stability of and transitions between parent-child conflict styles was evaluated using latent transition analysis, a longitudinal extension to latent profile analysis. Individuals had the potential to move from one classification to another over the two assessments, and latent transition analysis describes this movement through transition probabilities (Guo, Aveyard, Fielding, & Sutton, 2009). A transition probability refers to the probability of transitioning from one class to another, as classification at the second time point is conditional, or dependent, on membership at the previous assessment (Guo et al., 2009). Sensitivity and conflict class means were compared for each group across time.

#### *Stress Predictors of Conflict Styles and the Moderating Effect of Vulnerabilities*

Logistic regression analyses were used to test if the stress indices were significantly associated with the parent-child conflict typology (as seen in Figure 2), such that parents with a higher stress index were more likely to be categorized into one particular parent-child conflict pattern. First, parent-centered and child-centered stress was entered in the same logistic regression analysis predicting the conflict typology to test if higher parent-centered or child-centered stress was significantly associated with a specific conflict pattern above and beyond the other source of stress. Whether these

proposed associations are stronger among parents with a high vulnerability index was also tested with logistic regression analyses. Interaction terms between the standardized stress indices and the standardized vulnerability index were created and entered into the analysis. A significant interaction term in predicting conflict style was followed up with graphical procedures and tests of simple slopes outlined by Aiken and West (1991).

#### *Stress Predictors, Conflict Styles, and Moderating Vulnerabilities Over Time*

A longitudinal analysis investigated the effects of the accumulation of stress and vulnerability over time. Analyses examined whether the accumulation of parent-centered and child-centered stress (added over two time points) predicted 1<sup>st</sup> grade parent-child conflict style. Moderation was examined through the accumulation of vulnerability (again, added over the two time points). An interaction between the longitudinal stress index sum scores and the longitudinal vulnerability sum score was used to predict 1<sup>st</sup> grade conflict style for mother-child and father-child pairs. Significant interactions were followed up with graphs and simple slope tests (Aiken & West, 1991).

## CHAPTER IV

### RESULTS

#### Preliminary Analyses

Descriptive data for study variables are shown in Table 3, along with paired-sample t-tests and correlations comparing mothers and fathers in the same families. When children were 54 months old, fathers were rated as significantly more sensitive and reported less parent-child conflict, better marital quality, and fewer depressive symptoms than mothers. At 1<sup>st</sup> grade, fathers were rated as significantly less sensitive; reported less parent-child conflict, more work demands, and more child behavior problems; and scored higher on obedience-oriented parenting beliefs than mothers.

Relations between variables used to make up the latent classes, the stress indices, and the vulnerability indices were also examined. As seen in Table 4, correlations between parent sensitivity and parent-child conflict were low in magnitude although statistically significant given the large sample size. Correlations among parents' perceptions of stress at each time point were also significant and low in magnitude, ranging from .09 to .24 for mothers and .08 to .27 for fathers. Relations among perceptions of vulnerability ranged from low to high in magnitude. Parents' depressive symptoms, anxiety, and anger were highly correlated for mothers,  $r = .42 - .77$ , and fathers,  $r = .59 - .69$ , whereas obedience-oriented parenting beliefs was only modestly

correlated with the other vulnerability factors for mothers,  $r = .13 - .15$ , and fathers,  $r = .08 - .20$ .

The final preliminary analysis explored the stability of each measure over time. Table 5 shows the stability coefficients of variables available at both the 54-month and 1<sup>st</sup> grade waves for mothers and fathers. Overall, stability coefficients were moderate to high in magnitude and were similar for mothers and fathers with two exceptions. Fathers' work demands tended to be more stable across time than mothers',  $r_1(489) = .53$ ,  $r_2(368) = .35$ ,  $z = 3.25$ ,  $p < .01$ .

#### A Typology of Parent-Child Conflict Style

Four sets of latent class analyses were run in Mplus version 5. Different sets of analyses were run for mother-child and father-child pairs when children were 54 months old and in 1<sup>st</sup> grade. In order to determine the appropriate number of classes, models ranging from 1 class to 5 classes were run for mother-child and father-child pairs. Table 6 displays all relevant fit statistics for the 2- through 5-class solutions at each time point for mother-child and father-child pairs. The Bayesian information criterion (BIC), which considers parsimony in the estimate, was used as a way to compare how well the models with varying classes fit the data. Recent simulation research found that the BIC was the best indicator of model fit among latent class models with continuous data (Yang, 2006). Models with lower BIC values fit the data better. Figures 3 and 4 display graphs of the BIC values for different class solutions at 54 months for mother-child and father-child pairs, respectively. Figures 5 and 6 display graphs of BIC values at 1<sup>st</sup> grade for mother-child and father-child pairs, respectively. At 54 months, either a 3- or 4-class solution fit

the data best for mothers and fathers. At 1<sup>st</sup> grade, a 3-, 4-, or 5-class solution fit best for mothers and fathers. Another statistic, entropy, can be used to further distinguish between the class solutions. Entropy is a measure of how well the latent class variables are able to classify the data (Henson, Reise, & Kim, 2007). Entropy values greater than .80 are considered satisfactory (Celeux & Soromenho, 1996). As seen in Table 6, the 3-class solution produced better entropy values than the 4-class solution for both mothers and fathers at 54 months, and it also produces better entropy values than the 4- or 5-class solution at 1<sup>st</sup> grade.

Figures 7 through 10 illustrate the latent classes for mother-child and father-child pairs at 54 months and 1<sup>st</sup> grade. At 54 months, mother-child and father-child conflict styles were structurally similar. A positive style, characterized by high parent sensitivity and low parent-child conflict, and an abrasive style, characterized by low parent sensitivity and high parent-child conflict, were evident. A dynamic conflict style with high parent sensitivity and moderate-to-high parent-child conflict was not seen at 54 months; instead, a moderate conflict style was apparent with average parent sensitivity and low-to-moderate parent-child conflict. The positive conflict style represented a large majority of the sample with 82% ( $n = 597$ ) of mother-child pairs and 92% ( $n = 669$ ) of father-child pairs classified as positive. The next most common conflict style was the moderate style with 16% ( $n = 114$ ) of mother-child pairs and 8% ( $n = 55$ ) of father-child pairs. And finally, the abrasive conflict style was uncommon in the sample with only 18 mother-child pairs (2%) and 5 father-child pairs (1%). Because there were so few

abrasive father-child pairs, this class was excluded from all additional analyses at 54 months.

Sensitivity and conflict means at 54 months were compared across classes for mother-child and father-child pairs using independent samples *t*-tests to better describe and differentiate the groups. For mother-child pairs, all groups were significantly different from one another on mean sensitivity. Positive mothers were more sensitive than moderate mothers,  $t(709) = 26.84, p < .01$ , and abrasive mothers,  $t(613) = 29.17, p < .01$ , and moderate mothers were more sensitive than abrasive mothers,  $t(130) = 17.21, p < .01$ . Mother-child classes at 54 months were not as different when it came to mean conflict. Positive pairs had less conflict than abrasive pairs,  $t(613) = 2.19, p < .05$ ; moderate pairs had marginally less conflict than abrasive pairs,  $t(130) = 1.93, p = .06$ ; and positive and moderate pairs did not differ on mean conflict,  $t(709) = .39, p = ns$ . For father-child pairs, all groups were significantly different from one another on mean sensitivity and mean conflict. Positive fathers were more sensitive than moderate fathers,  $t(722) = 20.48, p < .01$ , and had less conflict with their children,  $t(722) = 2.95, p < .01$ .

At 1<sup>st</sup> grade, father-child conflict styles were structurally different than at the previous assessment, whereas mother-child styles were more similar. As at 54 months, positive mother-child pairs were characterized by high sensitivity and low conflict, moderate pairs were characterized by average sensitivity and low-to-moderate conflict, and abrasive pairs were characterized by low sensitivity and high conflict. Among father-child pairs, a positive conflict style included high sensitivity and low conflict, a dynamic style included high sensitivity and moderate-to-high conflict, and a disengaged style

included low-to-moderate sensitivity and low-to-moderate conflict. The positive style was most common for mother-child pairs at 76% ( $n = 531$ ) of the sample, followed by the moderate style at 20% ( $n = 143$ ) and the abrasive style at 4% ( $n = 26$ ). For father-child pairs, the positive style was the most common at 76% ( $n = 500$ ) of the sample, followed by the dynamic style at 17% ( $n = 111$ ) and the disengaged style at 7% ( $n = 44$ ).

Sensitivity and conflict means at 1<sup>st</sup> grade were compared across classes for mother-child and father-child pairs using independent samples  $t$ -tests to better describe and differentiate the groups. For mother-child pairs, all groups were significantly different from one another on mean sensitivity. Positive mothers were more sensitive than moderate mothers,  $t(672) = 28.73, p < .01$ , and abrasive mothers,  $t(555) = 30.30, p < .01$ , and moderate mothers were more sensitive than abrasive mothers,  $t(156) = 15.95, p < .01$ . Again, mother-child classes at 1<sup>st</sup> grade were not as different when it came to mean conflict. Moderate pairs had less conflict than positive pairs,  $t(672) = 2.50, p < .05$ , and abrasive pairs,  $t(156) = 2.84, p < .01$ ; and positive pairs had marginally less conflict than abrasive pairs,  $t(555) = 1.84, p = .07$ . For father-child pairs, only some groups were significantly different from one another on mean sensitivity and all were different from one another on mean conflict. Disengaged fathers were less sensitive than positive fathers,  $t(542) = 17.82, p < .01$ , and dynamic fathers,  $t(153) = 16.34, p < .01$ ; positive and dynamic fathers were equally sensitive,  $t(609) = .40, p = ns$ . Positive pairs had less conflict than disengaged,  $t(542) = 18.23, p < .01$ , and dynamic pairs,  $t(609) = 41.29, p < .01$ , and disengaged pairs had less conflict than dynamic pairs,  $t(153) = 7.27, p < .01$ .

The 3-class entropy value for father-child pairs at 1<sup>st</sup> grade was slightly low (see Table 6); therefore, I explored this problem further by looking at the probability that people within each of the 3 classes in the 3-class latent class solution were reliably categorized by their most likely membership (see Table 7). These probabilities are provided in the latent profile analysis output, and probabilities of 80% to 90% are considered reliable classifications (Nylund, Asparouhov, & Muthén, 2007). From Table 7, one can see that the problem with the 1<sup>st</sup> grade 3-class solution for father-child pairs seemed to lie with class 2. This refers to the dynamic father-child conflict style, with high sensitivity and high conflict. Results pertaining to this group should be interpreted with caution.

#### *Demographic Characteristics of Parent-Child Conflict Styles*

Next, I investigated whether parent-child pairs differed on key demographic characteristics. Family income-to-needs ratio, child gender, child ethnicity, and child birth order were entered in separate logistic regression analyses as predictors of conflict style group membership at each age. Table 8 shows whether demographic characteristics significantly predict mother-child group membership and the odds ratio pertaining to being classified in one group over another. At 54 months, mother-child pairs with higher family incomes were 1.28 times more likely to be classified as positive than moderate and 2.29 times more likely to be classified as positive than abrasive. Additionally, European American mother-child pairs were 3.94 times more likely to be classified as positive than moderate and 5.58 times more likely to be classified as positive than abrasive as compared to ethnic minority pairs. At 1<sup>st</sup> grade, family income and child

ethnicity were again significant predictors of mother-child conflict style. Pairs with higher incomes were 1.25 times more likely to be classified as positive than moderate and 1.65 times more likely to be classified as positive than abrasive. European American mother-child pairs were 3.49 times more likely to be classified as moderate than positive and 8.41 times more likely to be classified as positive than abrasive as compared to ethnic minority pairs.

Father-child conflict style also differed as a function of demographic characteristics (see Table 9). At 54 months, European American father-child pairs were 4.95 times more likely to be classified as positive than moderate compared to ethnic minority pairs. At 1<sup>st</sup> grade, European American father-child pairs were 2.25 times more likely to be classified as positive than disengaged and 6.11 times more likely to be classified as dynamic than disengaged compared to ethnic minority pairs.

#### *Stability of Parent-Child Conflict Style*

Parent-child conflict styles were not entirely the same across time; therefore, it was not possible to assess the stability of group membership for all conflict styles. However, it was possible to assess the probability that a pair would transition from each classification at 54 months to each classification at 1<sup>st</sup> grade using latent transition analysis in Mplus. Table 10 displays the transition probabilities for mother-child and father-child pairs. Positive mother-child pairs at 54 months had a 97% probability of being classified as positive at 1<sup>st</sup> grade; moderate pairs at 54 months had an 83% probability of being classified in the same way at 1<sup>st</sup> grade; and abrasive pairs at 54 months had a 70% probability of being classified as abrasive at 1<sup>st</sup> grade. Positive father-

child pairs had a 95% probability of later having the same classification, and moderate pairs at 54 months had a 94% probability of being classified as dynamic at 1<sup>st</sup> grade. All 5 abrasive pairs at 54 months were classified as disengaged at 1<sup>st</sup> grade.

After understanding the transitions, sensitivity and conflict class means were again compared to better explain patterns across time using paired samples *t*-tests. On average, mother-child pairs classified as positive at 54 months had lower sensitivity,  $t(530) = 3.75, p < .01$ , and higher conflict,  $t(530) = 2.22, p < .05$ , than pairs classified as positive at 1<sup>st</sup> grade; pairs classified as moderate at 54 months had marginally lower sensitivity,  $t(113) = 1.41, p < .08$ , and higher conflict,  $t(113) = 6.19, p < .01$ , than pairs classified as moderate at 1<sup>st</sup> grade; and pairs classified as abrasive at 54 months had lower sensitivity,  $t(17) = 2.26, p < .01$ , and similar conflict,  $t(18) = .55, p = ns$ , than those classified as abrasive at 1<sup>st</sup> grade. For father-child pairs, those classified as positive at 54 months were more sensitive,  $t(471) = 6.48, p < .01$ , and had more conflict,  $t(471) = 36.30, p < .01$ , than those classified as positive at 1<sup>st</sup> grade. Father-child pairs classified as moderate at 54 months were most likely to be classified as dynamic at 1<sup>st</sup> grade, which resulted in higher sensitivity,  $t(74) = 16.55, p < .01$ , and higher conflict,  $t(74) = 16.62, p < .01$ , at the 1<sup>st</sup> grade classification. However, some moderate pairs also transitioned into the disengaged classification at 1<sup>st</sup> grade, a transition characterized by lower sensitivity,  $t(43) = 7.40, p < .01$ , and equal amounts of conflict,  $t(43) = .45, p = ns$ .

#### Stress Predictors of Conflict Style

Logistic regression analyses were conducted to examine the relations between parent-centered and child-centered stress and parent-child conflict styles. Both variables

were entered into the same regression analysis to determine if parent-centered or child-centered stress was associated with conflict style above and beyond the effect of the other. All analyses control for family income-to-needs ratio and child sex, ethnicity, and birth order. Among mother-child pairs at 54 months, parent-centered stress was associated with one comparison, and child-centered stress, indexed by child externalizing behavior problems, was significantly associated with all group comparisons (see Table 11). With higher parent-centered stress, mother-child pairs were 1.40 times more likely to be classified as moderate than positive. With higher child-centered stress, mother-child pairs were 12.06 times more likely to be classified as moderate than positive, 4.57 times more likely to be classified as abrasive than positive, and 2.59 times more likely to be classified as moderate than abrasive. Among mother-child pairs at 1<sup>st</sup> grade, parent-centered stress was associated with two group comparisons, and child-centered stress was unrelated to group membership (see Table 11). With higher parent-centered stress, mother-child pairs were 2.25 times more likely to be classified as positive than moderate and 2.46 times more likely to be classified as abrasive than moderate.

A similar pattern was found for father-child pairs as seen in Table 12. Among father-child pairs at 54 months, parent-centered and child-centered stress were each significantly associated with one group comparisons. With higher parent-centered stress, pairs were 2.05 times more likely to be classified as moderate than positive. With higher child-centered stress, father-child pairs were 10.18 times more likely to be classified as moderate than positive. Among father-child pairs at 1<sup>st</sup> grade, parent-centered stress was significantly associated with all three comparisons, and child-centered stress was

unrelated to group membership. Father-child pairs experiencing higher parent-centered stress were 3.82 times more likely to be classified as dynamic than positive, 1.68 times more likely to be classified as disengaged than positive, and 2.16 times more likely to be classified as disengaged than dynamic.

### *The Moderating Effect of Family Vulnerability*

Moderation analyses were conducted to determine if associations between stress and conflict style were stronger among parents with a high vulnerability to stress. Interaction terms were created by multiplying the standardized parent-centered index and child externalizing behavior problems with the standardized vulnerability index. Again, both parent-centered and child-centered main effects and interaction terms were entered into the same analysis controlling for family income-to-needs ratio and child sex, ethnicity, and birth order. Among mother-child pairs, the child-centered stress by parent vulnerability interaction significantly distinguished group membership with two group comparisons at the 54-month and 1<sup>st</sup> grade assessments (see Table 13). As seen in Figure 11, child-centered stress was more predictive of less-positive mother-child group membership at 54 months as parent vulnerability increased. Higher child-centered stress was significantly associated with a 6.96 times greater likelihood of being classified as moderate versus positive when vulnerability was low, a 15.03 times greater likelihood when vulnerability was moderate, and a 32.14 times greater likelihood when vulnerability was high. Higher child-centered stress was not predictive of being classified as abrasive versus positive when vulnerability was low, but that classification was 4.76 times more likely when vulnerability was moderate and 12.94 times more likely when vulnerability

was high. Figure 12 illustrates the significant interactions predicting mother-child conflict style at 1<sup>st</sup> grade. The interactions are difficult to interpret as none of the simple slopes is significant and odds ratios for all levels of vulnerability are close to 1. With more vulnerability, child-centered stress appears to be more predictive of membership in the moderate style versus the positive style. From moderate to high vulnerability, child-centered stress appears to be less predictive of membership in the positive group versus the abrasive group. None of the parent-centered stress by parent vulnerability interactions were significant.

The pattern of interactions was different for father-child pairs (see Table 14). At 54 months, there were no parent-centered or child-centered interactions with parent vulnerability. At 1<sup>st</sup> grade, the parent-centered stress by parent vulnerability interaction significantly distinguished one group membership comparison. As shown in Figure 13, higher parent-centered stress was significantly related to a higher likelihood of being classified as disengaged versus positive when parent vulnerability was low and when it was high. Parent-centered stress did not distinguish between these conflict styles when vulnerability was moderate.

#### The Accumulation of Stress Over Time in Predicting Conflict Style

Longitudinal analyses were conducted to investigate the role of stress that accumulates over time. Accumulated parent-centered and child-centered stress indices were computed by adding stress across the 54 month and 1<sup>st</sup> grade assessments. The accumulated stress indices were then entered in the same analysis and used to predict 1<sup>st</sup> grade parent-child conflict style controlling for family income-to-needs ratio and child

sex, ethnicity, and birth order. Among mother-child pairs, the accumulation of child-centered stress was significantly associated with two group membership comparisons (see Table 15). With higher child-centered stress across time, mother-child pairs were 4.01 times more likely to be classified as positive than moderate and 3 times more likely to be classified as abrasive than moderate at 1<sup>st</sup> grade. The accumulation of parent-centered stress was not associated with mother-child conflict styles. Among father-child pairs, the accumulation of parent-centered stress was related to two group comparisons, and the accumulation of child-centered stress was significantly related to one group membership comparison (see Table 15). With higher parent-centered stress across time, father-child pairs were 1.25 times more likely to be classified as dynamic than positive and 1.31 times more likely to be classified as disengaged than positive at 1<sup>st</sup> grade. With higher child-centered stress across time, father-child pairs were 2.75 times more likely to be classified as dynamic than positive at 1<sup>st</sup> grade.

#### *The Moderating Effect of Accumulated Vulnerability*

The final step of the analyses was to examine whether the accumulation of stress was more predictive of 1<sup>st</sup> grade parent-child conflict style when parents experienced an accumulation of vulnerability over time. Interaction terms were created by multiplying the standardized parent-centered and child-centered accumulated stress indices with the standardized accumulated vulnerability index. Both accumulated parent-centered and accumulated child-centered stress main effects and interaction terms were entered into the same analysis controlling for family income-to-needs ratio and child sex, ethnicity, and birth order. As shown in Table 16, none of the interactions was significant.

## CHAPTER V

### DISCUSSION

The goal of the current study was to improve our understanding of qualitative differences in parent-child conflict styles. Previous theoretical work has suggested that parent-child conflict can be a valuable experience for children when it occurs in a supportive context (Dunn, 2004; Laursen & Hafen, 2010). It is likely that this type of democratic interaction allows children the opportunity to problem-solve and negotiate, as these parents are more likely to value their children's perspectives. Few empirical studies have been conducted to explore whether the nature and meaning of parent-child conflict varies depending on parent sensitivity. The few that are available have tested main effects, such as the relation between parent-child disagreement communication and child identity exploration (Grotevant & Cooper, 1985), or indirect effects, such as links from parent sensitivity to child conflict resolution to child behavior problems (Rubenstein & Feldman, 1993). In the current study, I used a holistic approach to study parent-child conflict and parent sensitivity, and identified meaningful patterns of interaction, or parent-child conflict styles for both mother-child and father-child pairs.

#### Parent-Child Conflict Styles

For the most part, the association between parent-child conflict and parent sensitivity was significant and low in magnitude, suggesting that these are two separate dimensions of parenting that are interrelated to some extent. As expected, parent-child

conflict and parent sensitivity were moderately to highly stable from when children were 54 months old to when they were in 1<sup>st</sup> grade. Interestingly, fathers were rated during a play observation as being significantly more sensitive than mothers at 54 months, whereas mothers were rated as significantly more sensitive than fathers at 1<sup>st</sup> grade. But it is important to note that these differences were actually quite small and may have been significant due to the large sample size. Similarly, there was a small but significant difference in parent-child conflict with mothers reporting more conflict in their relationship with their 54-month-old children than fathers. At 1<sup>st</sup> grade, this difference was larger and more robust with mothers again reporting more conflict with their children than fathers. This is consistent with previous research suggesting that mothers tend to be more involved in daily caregiving tasks with their children than fathers and tend to have more conflict with their children as a result (Collins & Russell, 1991).

As was predicted, the parent-child conflict typology encompassed three groups. At 54 months, a positive conflict style, characterized by high sensitivity and low conflict, and an abrasive conflict style, characterized by low sensitivity and high conflict, were present for both mother-child and father-child pairs. Contrary to my expectations, the third conflict style that appeared for mother-child and father-child pairs was a moderate style, characterized by moderate sensitivity and low-to-moderate conflict. All groups were different from one another on parent sensitivity; however, the positive and moderate mother-child conflict styles did not differ on the degree of parent-child conflict. This finding could mean that almost all mother-child pairs in the current sample at 54 months experienced low-to-moderate conflict, or it could mean that the conflict measure was not

particularly useful in differentiating families on the common disagreements that occur between mothers and their children.

It is interesting that the structure of parent-child conflict styles was strikingly similar across parent gender and that a very large majority of participants (82% of mothers and 92% of fathers) were classified as having a positive conflict style with their 54-month-old children. Little research on parent-child conflict has been conducted during the preschool years (Dixon, Graber, & Brooks-Gunn, 2008), and it is possible that the preschool period is a time when little conflict arises between parents and children. However, it is also possible that the current sample was not diverse enough to see the full range of conflict that exists between parents and children during the preschool period. This was a relatively low-risk sample of two-parent families who were predominantly middle-income and European American. And indeed, at 54 months families in the positive conflict style characterizing the majority of the sample were highly likely to be European American and high-income. An examination of more diverse families, such as low-income, ethnic minority, single-parent, or blended family structures may produce a different class structure or a more even distribution of conflict styles.

After the transition to elementary school, the structure of parent-child conflict styles changed as compared to conflict styles when children were 54 months old. Mother-child and father-child conflict styles also differed at this assessment, and there was a slightly more even distribution of participants across the three groups. The positive, moderate, and abrasive styles were again present among mother-child pairs, although the structure of the groups varied slightly. Interestingly, all groups were characterized by

higher maternal sensitivity at 1<sup>st</sup> grade than at 54 months. This is consistent with previous research on increases in maternal sensitivity across the first 7 years of children's lives among mentally healthy mothers (Campbell, Matestic, von Stauffenberg, Mohan, & Kirchner, 2007). Additionally, at 1<sup>st</sup> grade the moderate mother-child conflict style was characterized by significantly less conflict than the positive style, a differentiation that occurred due to a significant decrease in conflict among moderate pairs after the transition to school. This is a peculiar finding considering previous research has typically found that parent-child conflict tends to increase over the school-aged years (McGue et al., 2005); it is possible that for some families, children's increased independence and time spent away from home compared to the preschool years decreases opportunities for disagreements with mothers.

There were more structural differences among father-child classes across the two time points. The positive style was the only group replicated among father-child pairs, and this group was characterized by significantly less sensitivity and much less conflict than at 54 months. It is possible that these fathers are responding to the changing caregiving demands of a more independent child without becoming involved in disciplining, managing, or monitoring the child's activities. Another interesting structural change from 54 months to 1<sup>st</sup> grade was the emergence of the disengaged conflict style. The disengaged style was characterized by low-to-moderate sensitivity and low-to-moderate conflict. This style was different than the moderate style at 54 months in that the disengaged style was characterized by lower sensitivity; however, the 54-month moderate style and the 1<sup>st</sup> grade disengaged style were characterized by the same amount

of conflict. And although we cannot make transition comparisons with the 54 month abrasive group due to the small sample size, the disengaged group very clearly has much higher sensitivity and much lower conflict. It is possible that the disengaged fathers have withdrawn from the relationship with their child, but it is important to note that this group represents a small percentage of the sample.

At 1<sup>st</sup> grade, the hypothesized dynamic conflict style, characterized by high sensitivity and moderate-to-high conflict, appeared among father-child pairs. Although this was not the most common father-child conflict style at this time point, it still included a sizable 17% of fathers and children. The presence of the dynamic conflict style is not surprising given the theoretical, and to a lesser extent empirical, justification that this is a valid and meaningful interaction pattern between parents and children. It is surprising, however, that it did not appear in this sample until after the transition to school and only among father-child pairs. As children start elementary school they tend to spend more time outside of the home, interact with a variety of different children and adults, and are socialized in ways that may or may not be consistent with parents' expectations for their children. Although this time spent away from the home means that there may be fewer opportunities for frequent conflict between parents and children, it also means that there may be a greater need for parents to manage and monitor children's activities. In contrast to the positive father-child pairs, fathers with a dynamic conflict style may be actively engaging in these new parenting demands associated with children spending more time outside of the home, in addition to maintaining high sensitivity with the child. It is also likely that frequent conflict in the context of high sensitivity is more

likely to occur once children have greater independence and cognitive ability, making them developmentally able to participate in conflict discussions. Although it is not entirely clear why the dynamic conflict style only appeared among father-child pairs, this may be due to traditional parent gender differences in the disciplinarian role. This group of fathers may be responsible for disciplining the child, resulting in a high degree of conflict in the relationship particularly as children gain independence outside of the home following the transition to school. It is important to note that these fathers are also highly sensitive; it may be that they are involved, conscientious caregivers, and a disciplinarian is one part of their fathering role. Parke (2002) discusses the difficulties fathers face in defining their parenting role as traditional fathering expectations merge with modern ideas of sensitive and involved caregiving.

Stability and transition in conflict style membership across time revealed intriguing information about the history of pairs included in 1<sup>st</sup> grade classifications. The majority of all mother-child pairs maintained similar interaction styles over time. The majority of positive, moderate, and abrasive mother-child pairs were classified in the same way at both time points, although very few pairs were classified as abrasive at either assessment. This suggests that the majority of parents in the current sample reported and were observed to have positive interactions with their children.

Transitions among father-child pairs were somewhat different than mother-child pairs. The majority of father-child pairs were classified as positive at both 54 months and 1<sup>st</sup> grade. Classification in a more negative conflict style (abrasive at 54 months and disengaged at 1<sup>st</sup> grade) was also stable, although very few pairs were classified in this

way at 54 months. Interestingly, moderate pairs at 54 months were highly likely to be classified as dynamic at 1<sup>st</sup> grade. This classification transition is unique in that it reflects increases in both conflict and sensitivity. Although an increase in conflict over time is expected among parent-child pairs, parents' expressions of affect, one component of sensitivity, usually *decreases* from preschool to middle childhood (Roberts, Block, & Block, 1984). This finding highlights the reason why the person-centered approach can be an advantage over the variable-centered approach. When examining father sensitivity alone, we did not observe an average increase in sensitivity over time; however, when examining the pattern of sensitivity and conflict, we find that some father-child pairs experienced a qualitative shift in their interaction pattern over the transition to school. This may capture a change in a select group of fathers that possibly become more involved in their school-aged child's caregiving. Previous research has suggested that a shift toward higher father involvement does occur as children get older, sometimes due to the fact that mothers are devoting more time to younger siblings (Bailey, 1994) or that fathers enjoy a more active style of play that is possible with older children (Parke, 2002).

Overall, the transition findings suggest that mother-child and father-child interaction styles are highly stable. When changes in parent-child interaction did occur, they may have been in response to the changing demands of children transitioning to elementary school. The mothers experienced increases in sensitivity with their children and some reported decreases in conflict, possibly due to children's greater independence and increased time away from parents. Most fathers experienced decreases in conflict and

sensitivity, while some experienced increases in both, possibly due to variations in paternal involvement.

As a whole the latent class findings were theoretically and statistically meaningful, as evidenced by the fact that parent-child conflict and parent sensitivity were able to classify participants in a useful way, and participants within conflict styles were very similar in their interaction patterns to other pairs within the same group. There was one exception; the dynamic father-child conflict style at 1<sup>st</sup> grade was slightly less reliable. These dynamic father-child pairs had a 76% probability that they were classified in the correct group. And while we expect to see some flexibility in correct classifications due to the complexities of non-experimental data, a more reliable standard is around an 80% to 90% probability (Nylund et al., 2007). This group had a high conflict level in addition to very high sensitivity; it is possible that this unique combination may have been somewhat difficult to capture accurately in the current sample. Additional work is needed on father-child relationships where fathers are highly involved with their children, provide sensitive caregiving, and also have a highly conflictual relationship with children, possibly due to the fact that they serve as the primary disciplinarian in the home. It is noteworthy that one advantage of the latent class model-based approach as opposed to a clustering approach is that these participants' slightly lower probability of belonging to this group is accounted for in all analyses (Magidson & Vermunt, 2002). In other words, I have not forced the father-child pairs into this group just because they are most likely to belong to this group versus the other groups; by statistically taking into account their slightly lower membership probability in all analyses, I have reduced bias

associated with dichotomizing grouped continuous data (MacCallum, Zhang, Preacher, & Rucker, 2002). Regardless, findings for the dynamic father-child conflict style at 1<sup>st</sup> grade should be interpreted with caution.

### Family Stress and Parent-Child Conflict Styles

A second goal of the current study was to examine family processes that may be related to conflict styles between parents and children. The spillover of negative affect between family subsystems is a commonly studied process (Cox & Paley, 1997). I was specifically interested in how family stress stemming from both parents' and children's behaviors spilled into parent-child conflict interaction.

Two aspects of parental stress were examined: low marital quality between parents and high work demands for parents. Also, one child-focused source of stress, children's externalizing behavior problems, was included. At 54 months, mothers reported significantly lower marital quality than fathers, a common finding among parents with young children (Twenge, Campbell, & Foster, 2003). At 1<sup>st</sup> grade, fathers reported significantly more work demands and more child behavior problems than those reported by mothers. Low marital quality and perceptions of children's behavior problems were highly stable across time for both mothers and fathers. Work demands were highly stable among fathers but moderately stable for mothers. There are a few reasons why this might have occurred. It is possible that mothers experienced more job change over children's transition to school than fathers, as the job demands measure does not necessarily refer to the same job at each time point. It is also possible that mothers

became more committed to their work role after children started school, or that they fluctuated between part-time and full-time work.

The combined effect of family stress was of interest in the current study, as opposed to examining each stressor separately. Stress and risk factors have been found to be more predictive of family functioning when they are combined as an index (Luthar, 1993; Sameroff et al., 1987). The stressors in the current study were significantly correlated at each time point for mothers and fathers, providing evidence that they tended to co-occur. A parent-centered stress index was created from low marital quality and work demands, and was tested with child externalizing behavior problems in the same analysis in light of previous research on the salience of child-centered factors above and beyond parent-centered factors in predicting mothers' parenting stress (Gelfand et al., 1992).

As expected, different results were found for parent-centered and child-centered stress in predicting parent-child conflict style. Child-centered stress was more predictive of mother-child and father-child conflict style at 54 months, whereas parent-centered stress was more predictive of conflict style at 1<sup>st</sup> grade. It is possible that child behavior problems are more salient in families when children are younger. Parents reported fewer child behavior problems at 1<sup>st</sup> grade than they reported at 54 months, and previous research has suggested that behavior problems decrease over time for most children (Owens & Shaw, 2003). This finding may also be due to the fact that 54-month-olds simply tend to spend more time at home than school-aged children, thus increasing the opportunity for their misbehaviors to affect family interactions. As child behavior

problems become less of a prominent feature of family life after the school transition, the relative salience of stress in parents' roles may become more pronounced.

Family stress predicted specific group membership comparisons in the current study. For mother-child pairs, higher child-centered stress at 54 months distinguished all conflict styles. Positive pairs experienced the least child-centered stress, followed by abrasive pairs, then moderate pairs. To a lesser extent, parent-centered stress was also predictive of a higher likelihood of belonging to the moderate conflict style versus the positive style. As a whole, children with more behavior problems tended to experience more dysfunctional parent-child conflict interactions. It is possible that at least some of the arguments between these parents and children are about the child's aggressive and disruptive behavior. Parents are probably less willing to negotiate sensitively with a child when the disagreement is about the child's own troublesome behavior. It is unclear why high child-centered stress was related to a higher likelihood of being classified as moderate versus abrasive. There may be other characteristics that distinguish these two types of families that explain the link between children's behavior and parent-child conflict patterns. For example, children in the abrasive style were highly likely to be ethnic minority. The cultural emphasis on parental authority among many ethnic minority groups in the US (García Coll, Meyer, & Brillón, 1995; Willis, 1992) might decrease the likelihood that the child's behavior would permeate other interactions in the family. African American and Latino children are expected to be obedient, respect parental authority, and not disrupt family life (García Coll et al., 1995; Willis, 1992). Therefore, ethnic minority parents may be more likely to immediately discipline children for

troublesome behaviors. By not allowing the child's misbehavior to change the emotional nature of future interactions, this may send the message that the misbehavior will no longer be acknowledged.

At 1<sup>st</sup> grade, parent-centered stress distinguished two mother-child group comparisons. Higher parent-centered stress was related to a greater likelihood of being classified as positive or abrasive versus moderate. It is reasonable to expect a moderate conflict style to be related to lower stress in the family than abrasive parent-child pairs characterized by higher conflict and lower sensitivity; with low parental stress there may be fewer opportunities for parents' negative affect to decrease patience and increase frequent conflict. However, it is important to note that the moderate conflict style was also characterized by lower sensitivity than the positive style. Why might higher stress be related to a greater likelihood of belonging to a conflict style characterized by both higher conflict and higher sensitivity? It is possible that parent-child conflict discussions may actually create more opportunities for parents and children to experience growth and closeness in their relationship. The fact that higher parent-centered stress can be related to both high and low parent sensitivity speaks to the usefulness of the person-centered approach in examining qualitatively different conflict styles. The idea that some family stress may be helpful in developing positive relationships should be explored in future research.

A similar pattern of stress predicting class membership was present among father-child pairs. At 54 months, higher child-centered stress was related to a very high likelihood of having a moderate conflict style versus a positive conflict style. When

children were more aggressive and disruptive, their relationships with their fathers tended to be less sensitive. Again, it is possible that fathers are less interested in sensitive conflict discussions with their children when the arguments are a result of the child's misbehavior. Father-child pairs classified as moderate were also more likely to experience more parent-centered stress in the family compared to positive pairs.

At 1<sup>st</sup> grade, all father-child conflict style groups were distinguished based on the amount of parent-centered stress experienced in the family. Positive father-child pairs experienced the lowest parent-centered stress, followed by dynamic pairs, then disengaged pairs. It is possible that paternal stress leads to more negative affect in the family, creating more opportunities for parents and children to become upset and disagree. Some fathers may still engage in sensitive interactions with their children in the face of frequent disagreements; however, sensitive father-child interactions are probably less likely to occur when negativity from fathers' marriages and work environments is excessive.

Although previous work on the benefits of conflict in the context of sensitive relationships suggests that we might expect the dynamic conflict style to be related to better outcomes for children than the other styles, the current study shows that the dynamic style is also related to more stress among parents. Higher stress among these families may be the reason why conflict interactions are more frequent. It is also possible that more parent-child conflict creates higher stress, including more family-to-work spillover, more marital disagreements about family interactions, and increased child problem behaviors in response to problems with parents. Stressors such as low marital

quality and work demands have been shown to directly and indirectly relate to poorer child outcomes (Buehler & Gerard, 2002; Davies & Cummings, 1994; Repetti & Wood, 1997). Therefore, it is of interest to investigate whether adaptive child outcomes are related to the dynamic style in spite of higher parent-centered stress experienced by these families.

### The Role of Parent Vulnerability to Stress

Stress affects families to varying degrees (Peterson & Hennon, 2005); therefore, parents' individual vulnerabilities to the tension and negative affect that accompanies stress were examined as potential moderators in the present study. At 54 months, maternal vulnerabilities included depressive symptoms and low social support, and paternal vulnerability was indicated by depressive symptoms. At 1<sup>st</sup> grade, measures of additional parent vulnerabilities were available including depressive symptoms, anxiety, anger, and beliefs in the importance of child obedience. Mothers reported significantly higher depressive symptoms at 54 months than fathers, consistent with previous findings on the higher occurrence of depression among women (Kessler, 2000). Fathers reported significantly higher obedience-oriented parenting beliefs at 1<sup>st</sup> grade than mothers, a finding that is also consistent with previous work (O'Brien & Peyton, 2002). Among the parent vulnerabilities, only the depressive symptoms measure was assessed at both the 54-month and the 1<sup>st</sup> grade waves. Depressive symptoms were highly stable for mothers and fathers. Overall, parent vulnerabilities were significantly correlated, suggesting that these vulnerabilities to stress tended to co-occur. The only nonsignificant relation was between fathers' obedience-oriented parenting beliefs and anger at 1<sup>st</sup> grade. Again the

combination of factors that make parents more vulnerable to the negative effects of stress was expected to be more informative than each vulnerability factor alone; thus, a vulnerability index was computed for mothers and fathers at each time point.

Significant interactions between the stress indices and the vulnerability index revealed that child-centered stress was not associated with mother-child conflict style in the same way for all mothers. At 54 months, moderate and abrasive pairs experienced more child externalizing behavior problems than positive pairs, especially as mothers' vulnerability to stress increased. In other words, when mothers were more vulnerable to the negative effects of stress as indexed by depressive symptoms and a lack of social support, children's behavior problems increased the likelihood that they would have less positive conflict interactions with their children. With few emotional and social resources to rely on, it is possible that these mothers had difficulty separating the negative affect associated with their child's misbehaviors from the way they interacted with them during disagreements. At 1<sup>st</sup> grade, increases in maternal vulnerability slightly increased the likelihood that higher child-centered stress would relate to a moderate versus a positive classification. Additionally, as mothers experienced more vulnerability, higher child externalizing behavior problems slightly decreased the likelihood that pairs would be classified as positive versus abrasive. However, results from interactions at 1<sup>st</sup> grade should be interpreted with caution as none of the slopes were significantly different from zero. This means that all odds ratios approached 1; child-centered stress was not particularly informative in predicting group membership at any level of maternal vulnerability.

A significant interaction between fathers' vulnerability and parent-centered stress at 1<sup>st</sup> grade revealed that parent-centered stress did not predict membership in the disengaged versus the positive father-child conflict style in the same way for all fathers. Parent-centered stress was more likely to predict membership in the disengaged conflict style over the positive conflict style when paternal vulnerability was low or high, but not when vulnerability was moderate. Although the reason behind this finding is not completely clear, it is possible that there may be heterogeneity in the disengaged father-child conflict style. Some father-child pairs may focus their attention away from parenting when they experience stress in other domains, such as at work or in their marriages. Other fathers may make an effort to cope with their personal stressors and are able to do an adequate job of sheltering the child up until a point. When fathers' vulnerability to stress becomes too high, even fathers that make an effort to cope with their stress may be unable to prevent themselves from withdrawing from parenting interactions and behaving in a more negative way.

There are two additional noteworthy findings related to parental stress by vulnerability interactions. First, parent vulnerability changed the way child-centered stress related to group membership for mothers and the way parent-centered stress related to group membership for fathers. Because mothers spend more time in caregiving tasks with their children than fathers, it is possible that mothers are more aware of how children's behaviors are affecting their daily interactions with them. This mindfulness may cause mothers to make a conscious effort—one that is less effective when mothers experience high vulnerability to stress—not to let children's behavior problems

negatively influence their parenting practices. On the other hand, fathers have been known to be affected by other family relationships when interacting with their children, specifically the marital relationship (Nelson et al., 2009; Parke, 2002). It is possible that this tendency may be more or less exaggerated depending on fathers' mental and emotional resources. Second, there were no significant interactions predicting father-child conflict style at 54 months. This suggests that parent-centered and child-centered stress were associated with father-child conflict styles in the same way for all fathers at 54 months regardless of fathers' vulnerability to stress. However, it is important to note that the only paternal vulnerability factor that was available at the 54-month time point was paternal depressive symptoms. Depressive symptoms were significantly lower among fathers than mothers at 54 months and may not have had a strong influence on fathers' lives and the ways they handled stress.

#### The Accumulation of Stress and Vulnerability Over Time

Longitudinal analyses were conducted to examine stress and vulnerability among families that builds over time. The negative effects of stress may be particularly strong when the problems are persistent. When families experience this type of accumulation of stress, they may feel especially worn down emotionally and less able or willing to cope with the negativity. Parental vulnerability to stress can also build over time, as the vulnerability factors examined in the current study are known to be stable and persistent. Accumulating vulnerability to stress may mirror a snowball effect; an initial vulnerability enhances the negative effects of stress, and a more stressful environment depletes parents' personal and social resources thus increasing stress vulnerability further.

In the current study, I added stress and vulnerability over the two time points to test their accumulation over a period of two years. Accumulated child externalizing behavior problems was associated with mother-child conflict style at 1<sup>st</sup> grade. Both positive and abrasive pairs experienced higher child behavior problems over time than moderate pairs, which were characterized by significantly less conflict than the other groups at 1<sup>st</sup> grade. Interestingly, previous analyses showed that child-centered stress was not associated with 1<sup>st</sup> grade conflict style concurrently, except among mothers that were highly vulnerable to stress. It is possible that child behavior problems only continue to play a salient role in mother-child conflict interactions during the school-aged years for families that are vulnerable to stress or experience persistent child behavior problems over time; otherwise, child behavior problems may not typically be an especially salient stressor for mother-child conflict interactions by the time children are in 1<sup>st</sup> grade.

Among father-child pairs, accumulated stress originating from both fathers and children was related to 1<sup>st</sup> grade conflict style. Dynamic pairs were more likely to experience a persistence of all family stressors than positive pairs, and disengaged pairs were more likely to experience parents' persistent work demands and low marital intimacy across time than positive pairs. Whereas parent-centered stress was the only salient stressor related to father-child conflict style at 1<sup>st</sup> grade concurrently, any family stress that built-up over time regardless of its origin was associated with conflict interactions between fathers and children. This finding has important implications for low-income and working-class families where stress often accumulates due to a lack of

personal, social, and financial resources (Shipler, 2005). Father-child pairs in these families may be at an especially high risk for maladaptive interactions related to conflict.

Finally, I tested whether the accumulation of stress over time was more strongly related to parent-child conflict style among families that also experienced an accumulation of parent vulnerability to stress. None of the interactions predicting mother-child or father-child conflict style at 1<sup>st</sup> grade were significant. When stress builds over time, associations with parent-child conflict interactions are apparent for all families regardless of the persistent vulnerability to stress that parents may experience.

#### Strengths, Limitations, and Future Directions

The current study had a number of noteworthy strengths. First, a large sample size was utilized from families living at 10 sites across the US. A large national sample increases the likelihood that the current findings are replicable. Additionally, the study considered the broader family system in the conceptualization. Mother-child, father-child, and mother-father relationships were examined, as well as parents' work roles and support from friends. The inclusion of multiple family subsystems within a study often more accurately reflects the complexities of family life. Moreover, I incorporated a holistic analytic approach that uniquely tested current theoretical interests on qualitative differences in parent-child conflict. Testing theories enhances our understanding of children and families, particularly when the methods are appropriate in their level of analysis (O'Brien, 2005).

That being said, the study is not without limitations. To start, only two-parent families were included in the sample. Although this was necessary in order to assess

marital quality, this criterion limited the economic and ethnic diversity within the study sample. An important consideration for future research is the inclusion of low-income, ethnic minority, single-parent, and blended families' parent-child conflict styles and associations with family stress. Second, three specific stressors were chosen for the current study. Low marital quality, work demands, and child behavior problems have been frequently identified as stress-inducing aspects of family life. However, these are not the only sources of stress for families. There are many other stressors that could be examined in the future, including financial strain, sibling rivalry, or caring for a child with a disease or disability. A third limitation is that not all vulnerability factors that were of interest in the current study were measured at both time points for mothers and fathers. Although this is a common problem with secondary data analysis, it limits the conclusions I can draw regarding parents' vulnerability to stress. I am also not able to make comparisons between the moderating effects of parent vulnerability at preschool versus 1<sup>st</sup> grade, nor am I able to compare the moderating effects of vulnerability between mothers and fathers. Future research should strive to utilize datasets that have measured these factors at consecutive assessments from the entire sample. Fourth, conflict and sensitivity were not measured in the same way or within the same interaction. Although we have reason to believe that these parenting behaviors are reasonably stable (Holden & Miller, 1999), it is possible that a parent who is sensitive in a structured play interaction may not be sensitive to the same degree in a conflict discussion with his or her child. Future research should incorporate multi-method, multi-informant designs including

observations of parents and children discussing conflict topics and children's reports of parent-child conflict frequency.

In addition to the future research directions previously mentioned, there are two primary goals for subsequent studies. The first is to examine the relations between parent-child conflict style and children's emotional, social, and academic well-being. The current study has taken the first step in defining parent-child conflict styles, but we do not yet know how beneficial or detrimental each conflict style may be for children's development. As hypothesized by Laursen and Hafen (2010), a dynamic conflict style characterized by high sensitivity and moderate conflict may be somewhat more beneficial for children than a positive or moderate conflict style, as children are given the opportunity to improve their problem-solving skills which may result in more successful peer interactions. Longitudinal analyses of children's well-being are also needed to determine if there are certain times during the school-aged child's development where a dynamic conflict style with a parent is especially beneficial. The second goal is to examine a conflict style typology at the family level. Previous research suggests that children's conflict strategies with peers are related to marital conflict strategies between parents (Du Rocher Schudlich, Shamir, & Cummings, 2004). Thus, mother-child, father-child, and mother-father interactions may be similar on dimensions of conflict and sensitivity. Future research should explore the possibility of classifying an entire family based on a common conflict style.

Overall, the current study provides an interesting look at parent-child conflict interactions. It incorporates a unique, holistic way of classifying parent-child pairs into

specific conflict styles based on a pattern of interaction, examines how these conflict styles vary based on parent gender and the age of the child, explores relations with family stress, and investigates how family stress relations may differ depending on parents' vulnerability to stress. The study has important implications for family well-being and emphasizes a systems approach to understanding children and families.

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APPENDIX A  
TABLES AND FIGURES

Table 1.

*Summary of Study Measures.*

Construct	Measure	Wave	Reporter	$\alpha$
Parent Sensitivity	Structured interactions	54 mo, 1 <sup>st</sup>	Observational	M/F: .84/.71, .82/.79
Parent-Child Conflict	Parent-Child Relationship Scale	54 mo, 1 <sup>st</sup>	Mothers, Fathers	M/F: .84/.80, .84/.78
Marital Quality	Personal Assessment of Intimacy in Relationships questionnaire	54 mo, 1 <sup>st</sup>	Mothers, Fathers	M/F: .86/.84, .88/.86
Work Demands	On My Job questionnaire	54 mo, 1 <sup>st</sup>	Mothers, Fathers	M/F: .90/.88, .91/.82
Child Behavior Problems	Child Behavior Checklist	54 mo, 1 <sup>st</sup>	Mothers, Fathers	M/F: all >.90
Parent Depressive Symptoms	Center for Epidemiologic Studies Depression Scale	54 mo, 1 <sup>st</sup>	Mothers, Fathers	M/F: .90/.86, .91/.86
Parent Anxiety	State-Trait Anxiety Inventory	1 <sup>st</sup>	Mothers, Fathers	M/F: .86/.86
Parent Anger	State-Trait Anger Inventory	1 <sup>st</sup>	Mothers, Fathers	M/F: .90/.90
Parent Social Support	Relationships with Other People questionnaire	54 mo	Mothers	M: .93
Obedience-Oriented Parenting Beliefs	Parental Modernity Scale of Child-Rearing and Educational Beliefs	1 <sup>st</sup>	Mothers, Fathers	M/F: .89/.88

*Note.* M = Mother and F = Father.

Table 2.

*Descriptive Properties of Sample Demographic Characteristics.*

Variable	Mean	SD	Range	%
<b>Child Gender</b>				
Female				50%
Male				50%
<b>Child Ethnicity</b>				
European American				85%
African American				5%
Asian American				2%
Hispanic American				5%
<b>Child Birth Order</b>	1.80	.90	1 – 7	
1 <sup>st</sup> born				44%
2 <sup>nd</sup> born				37%
3 <sup>rd</sup> born				13%
4 <sup>th</sup> or later born				6%
<b>Family Income-To-Needs Ratio</b>	4.08	3.35	.34 – 56.96	
< 2				19%
2-5				56%
> 5				25%

Table 3.

*Descriptive Data for Study Variables and Comparisons between Mothers and Fathers.*

Variable	Mother			Father			<i>t</i>	<i>r</i>
	Mean	SD	Range	Mean	SD	Range		
54 months								
Parental Sensitivity	17.37	2.62	5 – 21	17.61	2.23	6 – 21	-2.04*	.17**
Parent-Child Conflict	26.94	7.57	12 – 53	26.31	6.79	12 – 54	2.13*	.31**
Low Marital Quality	-3.82	.88	-5 – -1	-3.91	.86	-5 – -1	2.69**	.39**
Work Demands	-1.52	.93	-3 – 2.65	-1.45	.91	-3 – 2.75	-1.10	.09*
Child Behavior Problems	50.90	9.41	30 – 82	51.05	8.95	30 – 94	-.35	.41**
Depressive Symptoms	8.61	7.72	0 – 44	7.84	6.75	0 – 37	2.32*	.21**
Low Social Support	-5.11	.67	-6 – -1.73	--	--	--	--	--
1 <sup>st</sup> grade								
Parental Sensitivity	17.38	2.70	6-21	17.25	2.45	7-21	1.99*	.28**
Parent-Child Conflict	25.89	10.09	12-56.57	24.56	8.46	12-49.71	2.68**	.33**
Low Marital Quality	-3.91	.90	-5 – -1	-3.96	.88	-5 – -1	1.37	.43**
Work Demands	-1.56	.97	-3 – 3	-1.42	.98	-3 – 2.38	-3.18**	.00
Child Behavior Problems	47.86	9.50	30 – 83	48.62	9.30	30 – 75	-2.90**	.48**
Depressive Symptoms	7.40	8.08	0 – 50	7.32	6.91	0 – 42	-.51	.18**
Anxiety	17.17	5.12	10 – 38	16.77	4.86	10 – 36	1.01	.16**
Anger	13.71	4.29	10 – 39	13.71	4.26	10 – 40	-.71	.16**
Obedience-Oriented Parenting Beliefs	55.93	13.53	27 – 96	59.50	14.07	26 – 110	-6.56**	.41**

Note. Descriptive information calculated prior to imputation or standardization.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 4.

*Correlations between Parental Sensitivity and Parent-Child Conflict.*

	2	3	4	5	6	7	8
1. Maternal Sensitivity 54mo	-.11**	.17**	-.10**	.41**	-.10**	.23**	-.03
2. Mother-Child Conflict 54mo		-.08*	.31**	-.14**	.64**	-.06	.23**
3. Paternal Sensitivity 54mo			-.17**	.23**	-.09*	.40**	-.09*
4. Father-Child Conflict 54mo				-.06	.33**	-.12**	.64**
5. Maternal Sensitivity 1 <sup>st</sup>					-.08*	.28**	-.09*
6. Mother-Child Conflict 1st						-.06	.33**
7. Paternal Sensitivity 1 <sup>st</sup>							-.07
8. Father-Child Conflict 1st							

\*  $p < .05$ . \*\*  $p < .01$ .

Table 5.

*Stability of Study Variables Available at 54 Months and 1<sup>st</sup> Grade.*

Variable	Stability Coefficient from 54 Months to 1 <sup>st</sup> Grade	
	Mother	Father
Parental Sensitivity	.42**	.40**
Parent-Child Conflict	.64**	.64**
Low Marital Quality	.62**	.61**
Work Demands	.35**	.53**
Child Behavior Problems	.69**	.64**
Depressive Symptoms	.50**	.52**

*Note.* Correlations calculated prior to imputation.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 6.

*Latent Profile Analysis Fit Statistics for 2- to 5-Class Solutions.*

# of Classes	Fit Statistics				
	<i>AIC</i>	<i>BIC</i>	<i>SSA-BIC</i>	<i>p LMR (BLRT)</i>	Entropy
54-Months					
Mother-Child					
2	8342.96	8379.69	8354.29	0.0002 (0.0003)	0.94
3	8294.80	8345.31	8310.38	0.0002 (0.0002)	0.83
4	8276.67	8340.96	8296.50	0.0244 (0.0292)	0.75
5	8271.10	8349.16	8295.18	0.0122 (0.0146)	0.78
Father-Child					
2	7886.45	7923.19	7897.78	0.0720 (0.0792)	0.90
3	7863.19	7913.70	7878.77	0.0146 (0.0168)	0.87
4	7847.49	7911.78	7867.32	0.2562 (0.2675)	0.77
5	7850.35	7928.41	7874.43	0.0359 (0.0379)	0.78
1 <sup>st</sup> Grade					
Mother-Child					
2	7665.99	7702.40	7677.00	0.0026 (0.0033)	0.86
3	7625.23	7675.29	7640.36	0.0016 (0.0021)	0.82
4	7602.15	7665.86	7621.41	0.7412 (0.7530)	0.71
5	7578.38	7655.75	7601.77	0.0210 (0.0231)	0.78
Father-Child					
2	6567.12	6603.00	6577.60	0.0039 (0.0049)	0.81
3	6547.50	6596.84	6561.91	0.5130 (0.5243)	0.72
4	6529.42	6592.21	6547.76	0.1808 (0.1882)	0.70
5	6518.63	6594.87	6540.89	0.1482 (0.1576)	0.71

*Note.* AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; SSA-BIC = sample-sized adjusted Bayesian Information Criteria; *p* LMR (BLRT) = *p* values for Lo-Mendell-Rubin likelihood with bootstrapped likelihood ratio test for *K* versus *K* - 1 classes.

Table 7.

*Average Latent Class Probabilities for the Three-Class Solution.*

Class Membership	54 months		1 <sup>st</sup> grade	
	Moms	Dads	Moms	Dads
1	0.94	0.96	0.94	0.80
2	0.96	0.90	0.89	0.76
3	0.85	0.85	0.84	0.90

Table 8.

*Demographic Characteristics of Families Predicting Mother-Child Conflict Style.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3
Income-To-Needs	.25*	.83*	.58	1.28	2.29	1.79	.22*	.50*	.28	1.25	1.65	1.32
Child Gender	.22	-.18	-.40	1.25	.84	0.67	.01	-.46	-.47	1.01	.63	.63
Child Ethnicity	1.37**	1.72**	.35	3.94	5.58	1.42	-1.25**	2.13**	.87	.29	8.41	2.39
Child Birth Order	-.08	.25	.33	.92	1.28	1.39	-.19	.28	.48	.83	1.32	1.62
	(.15)	(.31)	(.34)				(.13)	(.37)	(.40)			

Note. At 54 months and 1<sup>st</sup> grade, 1 = positive, 2 = moderate, 3 = abrasive. Odds ratios less than 1 are difficult to interpret; thus, significant estimates

below 1 are interpreted in parentheses with the reference group reversed.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 9.

*Demographic Characteristics of Families Predicting Father-Child Conflict Style.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3	1 vs. 2	1 vs. 3	2 vs. 3
Income-To-Needs	.29	--	--	1.34	--	--	.04	.33	.29	1.04	1.39	1.34
	(.20)						(.04)	(.23)	(.24)			
Child Gender	.09	--	--	1.09	--	--	.39	.74	.35	1.48	2.10	1.42
	(.33)						(.29)	(.40)	(.47)			
Child Ethnicity	1.60**	--	--	4.95	--	--	-1.00	.81*	1.81*	.37	2.25	6.11
	(.46)						(.66)	(.39)	(.75)			
Child Birth Order	-.29	--	--	.75	--	--	.38	-.21	-.59	1.46	.81	.55
	(.20)						(.31)	(.15)	(.32)			

*Note.* At 54 months, 1 = positive, 2 = moderate, 3 = abrasive. At 1<sup>st</sup> grade, 1 = positive, 2 = dynamic, 3 = disengaged. Comparisons with class 3 at 54 months were not calculated due to small sample size.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 10.

*Stability of Parent-Child Conflict Styles from 54 Months to 1<sup>st</sup> Grade.*

Transition Probability									
Mother-Child					Father-Child				
1 <sup>st</sup>					1 <sup>st</sup>				
1 2 3					1 2 3				
	1	97%	1%	2%		1	95%	0%	5%
54 mo	2	6%	83%	11%	54 mo	2	0%	94%	6%
	3	2%	28%	70%		3	0%	4%	96%

*Note.* For mothers, 54 months and 1<sup>st</sup> grade: 1 = positive, 2 = moderate, 3 = abrasive.

For fathers, 54 months: 1 = positive, 2 = moderate, 3 = abrasive; 1<sup>st</sup> grade: 1 = positive,

2 = dynamic, 3 = disengaged.

Table 11.

*Stress Indices Predicting Mother-Child Conflict Style at 54 Months and 1<sup>st</sup> Grade.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	2 vs. 1	3 vs. 1	2 vs. 3	2 vs. 1	3 vs. 1	2 vs. 3	1 vs. 2	1 vs. 3	3 vs. 2	1 vs. 2	1 vs. 3	3 vs. 2
Parent-Centered	.34*	.22	.13	1.40	1.25	1.14	.81**	-.04	.90**	2.25	.96	2.46
	(.13)	(.17)	(.16)				(.16)	(.27)	(.23)			
Child-Centered	2.49**	1.52**	.95*	12.06	4.57	2.59	-.02	.00	-.03	.98	1.00	.97
	(.28)	(.47)	(.43)				(.08)	(.14)	(.13)			

*Note.* At 54 months and 1<sup>st</sup> grade, 1 = positive, 2 = moderate, 3 = abrasive. Parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 12.

*Stress Indices Predicting Father-Child Conflict Style at 54 Months and 1<sup>st</sup> Grade.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	2 vs. 3	2 vs. 1	3 vs. 1	3 vs. 2
Parent-Centered	.72**	--	--	2.05	--	--	1.34**	.52*	.77*	3.82	1.68	2.16
	(.15)						(.33)	(.24)	(.14)			
Child-Centered	2.32**	--	--	10.18	--	--	-.08	.16	-.18	.92	1.17	.84
	(.38)						(.11)	(.11)	(.14)			

*Note.* At 54 months, 1 = positive, 2 = moderate, 3 = abrasive. At 1<sup>st</sup> grade, 1 = positive, 2 = dynamic, 3 = disengaged. Parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order. Comparisons with class 3 at 54 months were not calculated due to small sample size.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 13.

*Stress by Vulnerability Interactions Predicting Mother-Child Conflict Style at 54 Months and 1<sup>st</sup> Grade.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2	1 vs. 2	1 vs. 3	3 vs. 2	1 vs. 2	1 vs. 3	3 vs. 2
Vulnerability x Parent-Centered	-.02 (.81)	.29 (.31)	.13 (.36)	.98	1.34	1.14	.16 (.12)	.19 (.10)	.17 (.12)	1.17	1.21	1.19
Vulnerability x Child-Centered	.45* (.21)	.64** (.22)	.21 (.19)	1.57	1.90	1.23	.11* (.05)	.11* (.04)	-.04 (.05)	1.12	1.12	.96

*Note.* At 54 months and 1<sup>st</sup> grade, 1 = positive, 2 = moderate, 3 = abrasive. Parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 14.

*Stress by Vulnerability Interactions Predicting Father-Child Conflict Style at 54 Months and 1<sup>st</sup> Grade.*

Variable	54 months						1 <sup>st</sup> grade					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	1 vs. 2	3 vs. 1	3 vs. 2	1 vs. 2	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2
Vulnerability x Parent-Centered	.27 (.32)	--	--	1.31	--	--	.08 (.21)	.36* (.17)	.30 (.23)	1.08	1.43	1.35
Vulnerability x Child-Centered	.14 (.48)	--	--	1.15	--	--	.05 (.07)	.06 (.12)	.20 (.18)	1.05	1.06	1.22

*Note.* At 54 months, 1 = positive, 2 = moderate, 3 = abrasive. At 1<sup>st</sup> grade, 1 = positive, 2 = dynamic, 3 = disengaged. Parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order. Comparisons with class 3 at 54 months were not calculated due to small sample size.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 15.

*Accumulated Stress Indices Predicting Parent-Child Conflict Style at 1<sup>st</sup> Grade.*

Variable	Mother-Child						Father-Child					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	1 vs. 2	3 vs. 1	3 vs. 2	1 vs. 2	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2
Accumulated	.01	.04	.05	1.01	1.04	1.05	.22**	.27**	.05	1.25	1.31	1.05
Parent-Centered	(.06)	(.06)	(.08)				(.08)	(.09)	(.09)			
Accumulated	1.39**	-.29	1.10**	4.01	.75	3.00	1.01**	.37	-.64	2.75	1.45	.53
Child-Centered	(.15)	(.19)	(.25)				(.16)	(.29)	(.39)			

*Note.* For mothers, 1 = positive, 2 = moderate, 3 = abrasive. For fathers, 1 = positive, 2 = dynamic, 3 = disengaged. Accumulated parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 16.

*Accumulated Stress by Accumulated Vulnerability Interactions Predicting Parent-Child Conflict Style at 1<sup>st</sup> Grade.*

Variable	Mother-Child						Father-Child					
	Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio			Log-Odds <i>B</i> ( <i>SE B</i> )			Odds Ratio		
	2 vs. 1	1 vs. 3	3 vs. 2	2 vs. 1	1 vs. 3	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2	2 vs. 1	3 vs. 1	3 vs. 2
Accumulated	-.01	.02	.00	.99	1.02	1.00	.01	.00	-.01	1.01	1.00	.99
Vulnerability x	(.01)	(.02)	(.03)				(.02)	(.03)	(.01)			
Parent-Centered												
Accumulated	.02	.05	-.07	1.02	1.05	.93	-.06	.01	.08	.94	1.01	1.08
Vulnerability x	(.03)	(.05)	(.05)				(.06)	(.05)	(.04)			
Child-Centered												

*Note.* For mothers, 1 = positive, 2 = moderate, 3 = abrasive. For fathers, 1 = positive, 2 = dynamic, 3 = disengaged. Parent-centered and child-centered stress indices are tested in the same analysis. All analyses control for family income-to-needs ratio, child sex, child ethnicity (0=nonwhite, 1=white), and child birth order.

\*  $p < .05$ . \*\*  $p < .01$ .

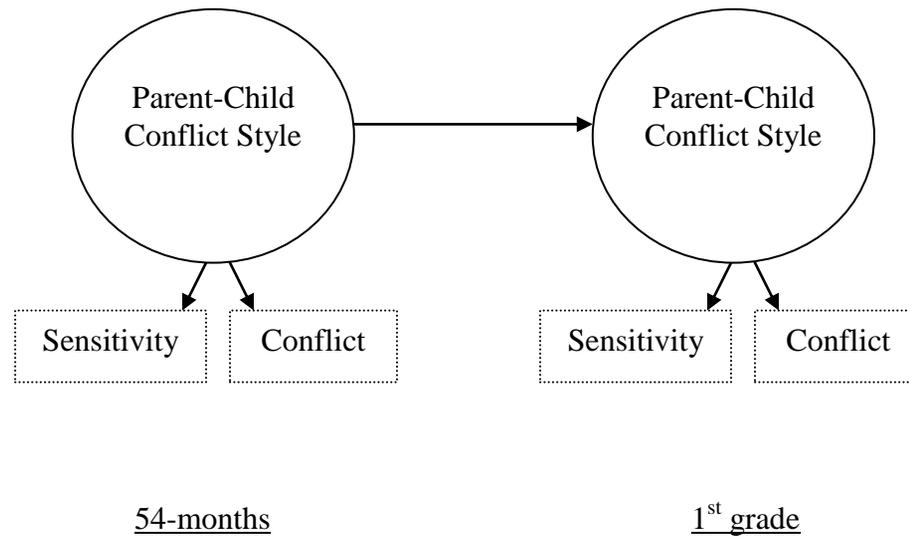


Figure 1. *Longitudinal Conflict Style Typology Model.*

*Note.* Separate models will be run for mother-child and father-child relationships. Dashed boxes indicate observed indicators of latent constructs.

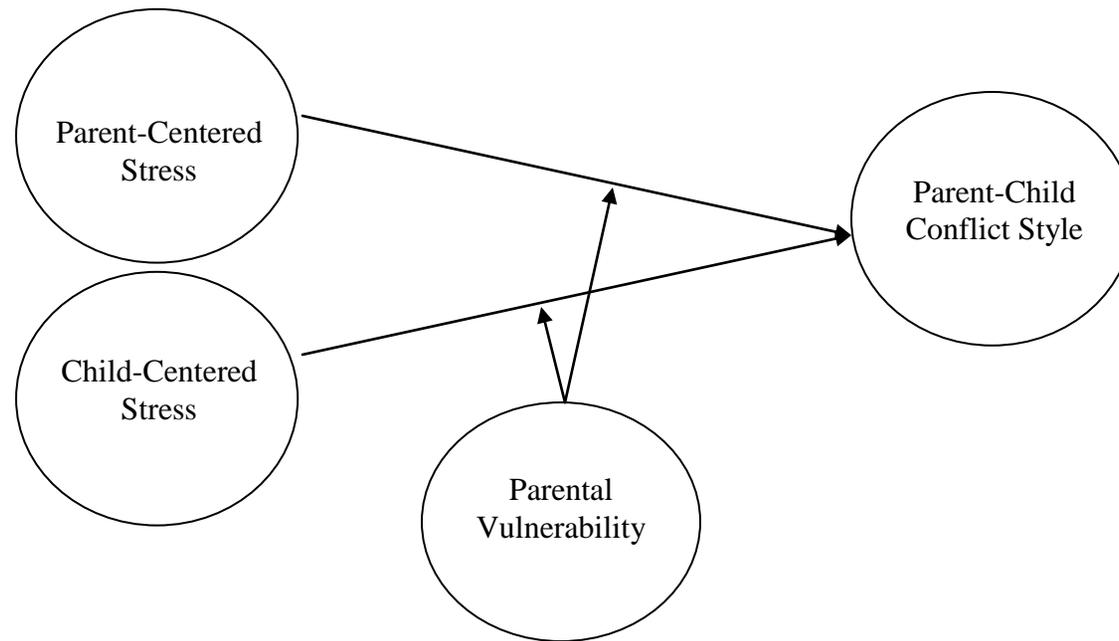


Figure 2. *Concurrent Conceptual Model.*

*Note.* Separate models will be run for mother-child and father-child relationships.

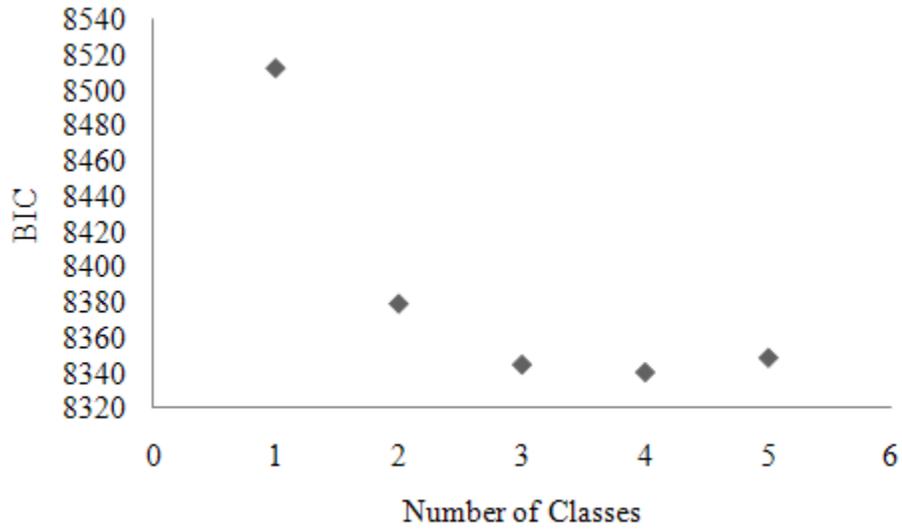


Figure 3. *Bayesian Information Criterion (BIC) Values Based on Number of Mother-Child Classes at 54 Months.*

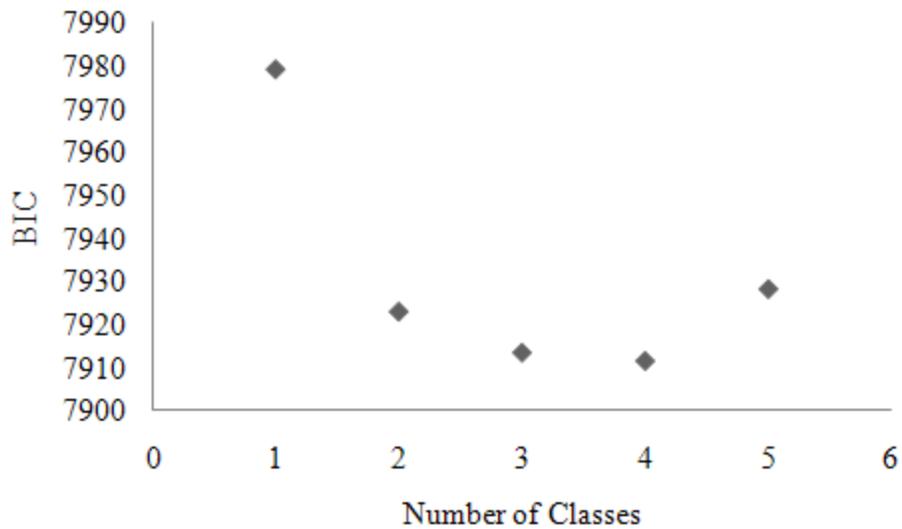


Figure 4. *Bayesian Information Criterion (BIC) Values Based on Number of Father-Child Classes at 54 Months.*

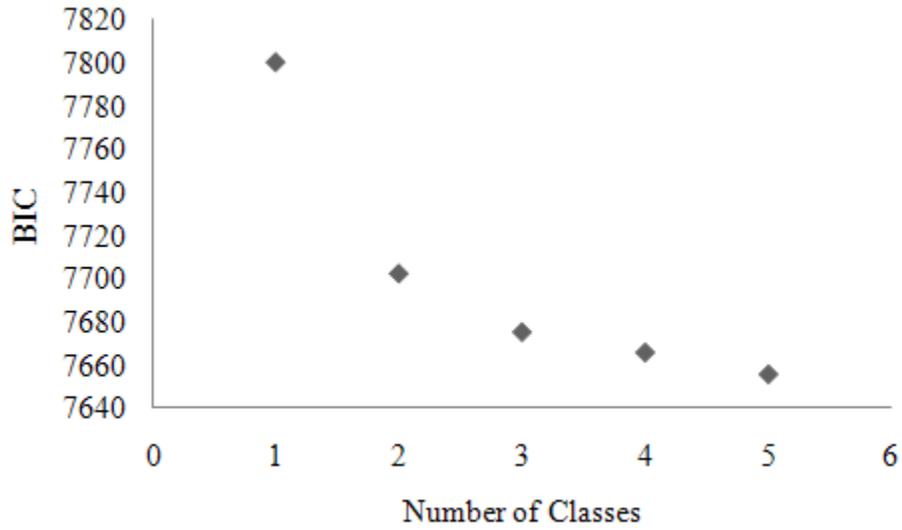


Figure 5. *Bayesian Information Criterion (BIC) Values Based on Number of Mother-Child Classes at 1<sup>st</sup> Grade.*

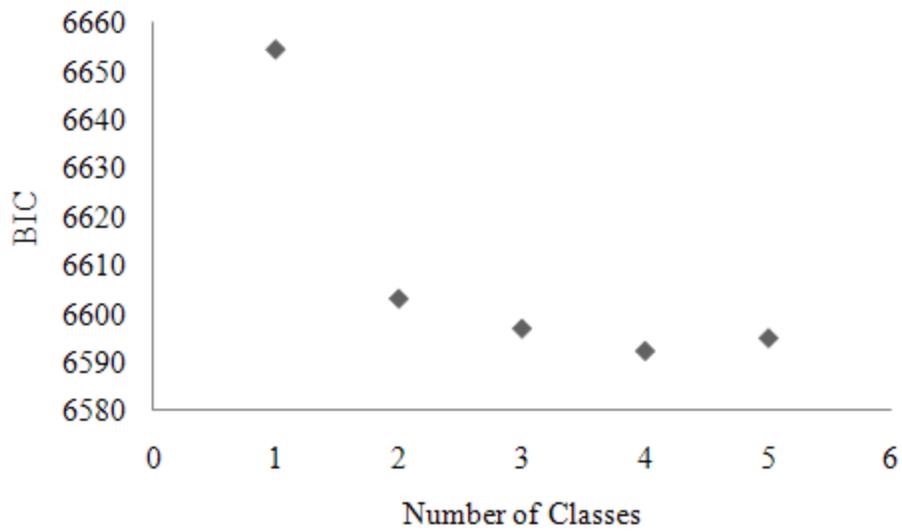


Figure 6. *Bayesian Information Criterion (BIC) Values Based on Number of Father-Child Classes at 1<sup>st</sup> Grade.*

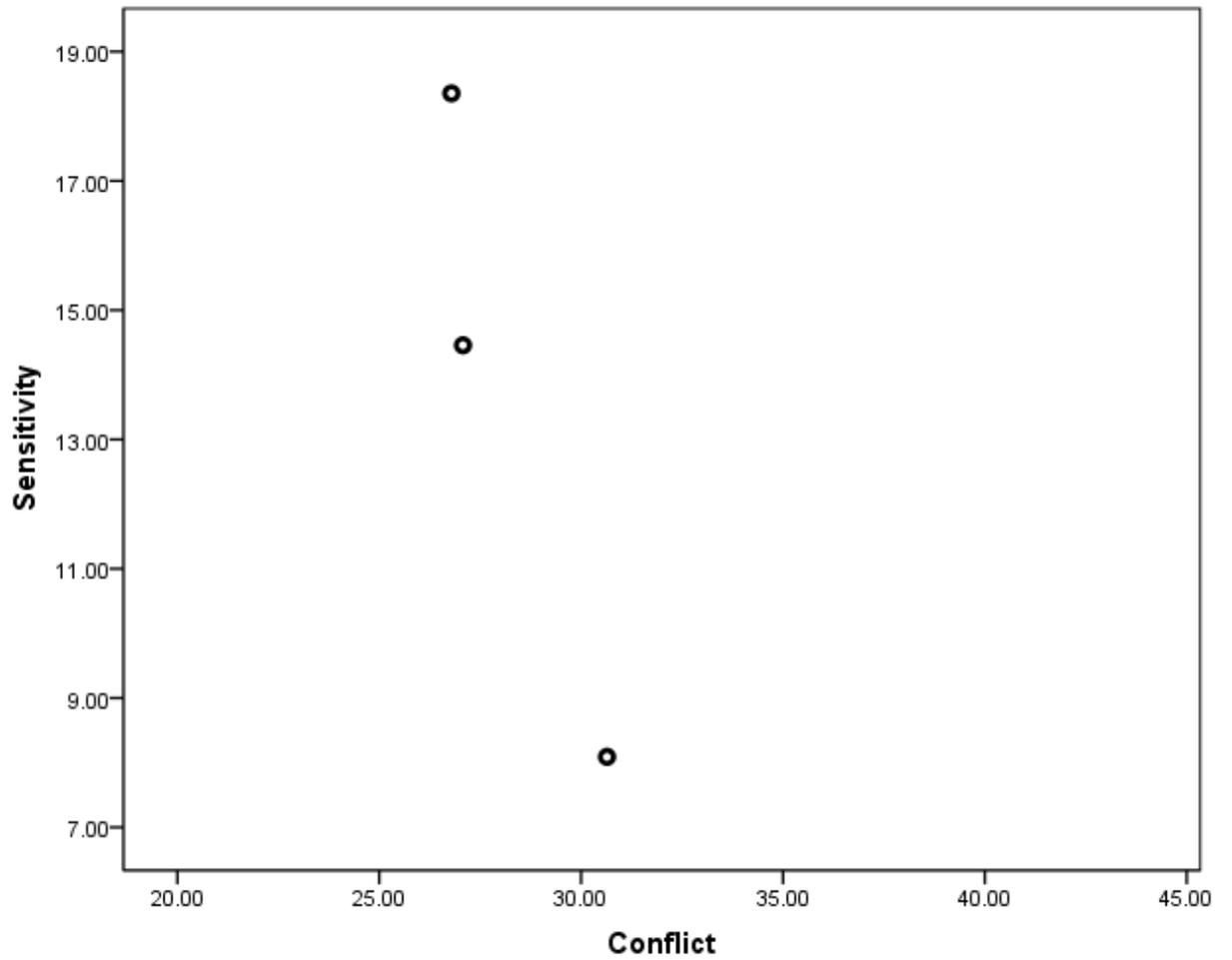


Figure 7. *Three-Class Solution for Mother-Child Conflict Styles at 54 Months.*

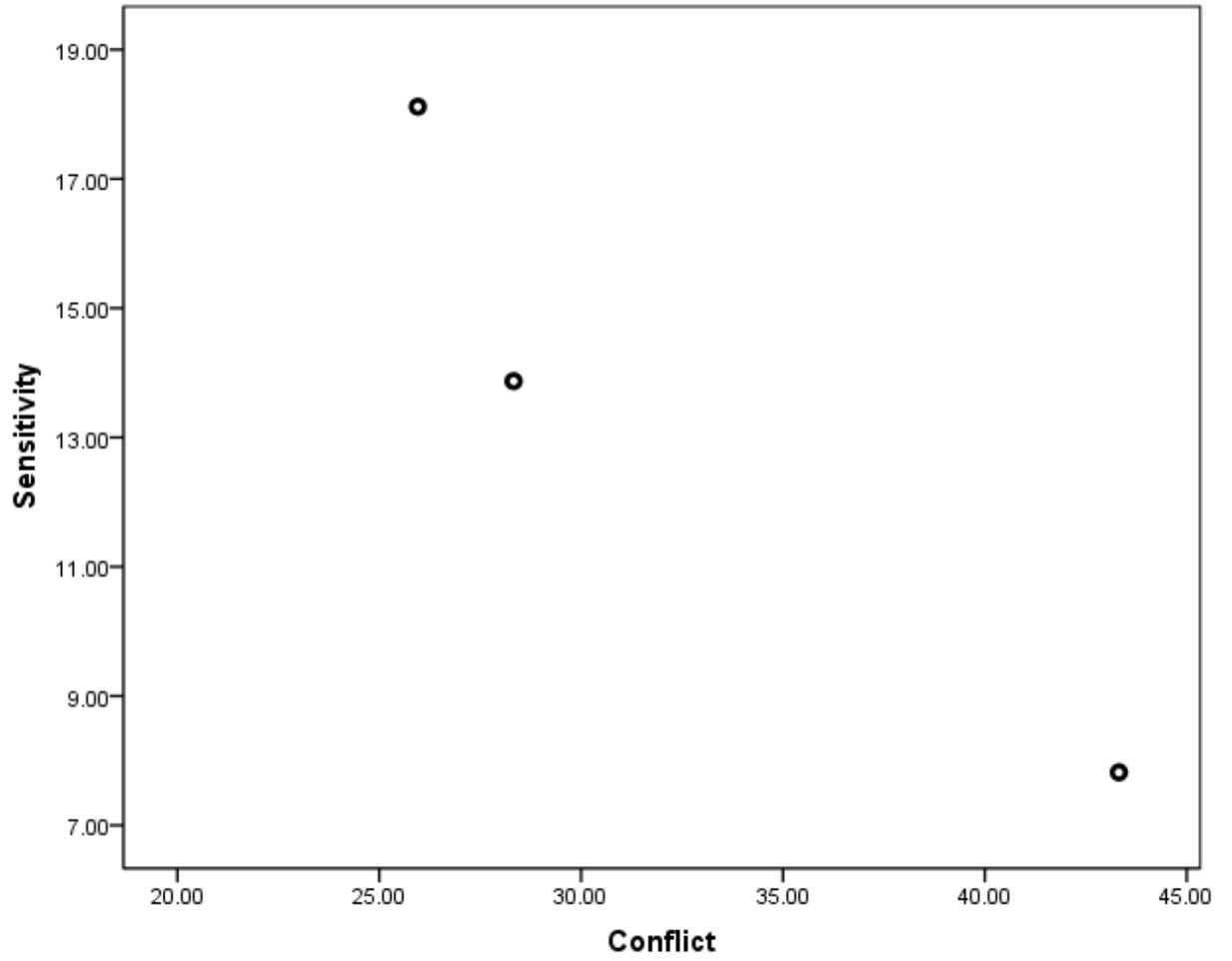


Figure 8. *Three-Class Solution for Father-Child Conflict Styles at 54 Months.*

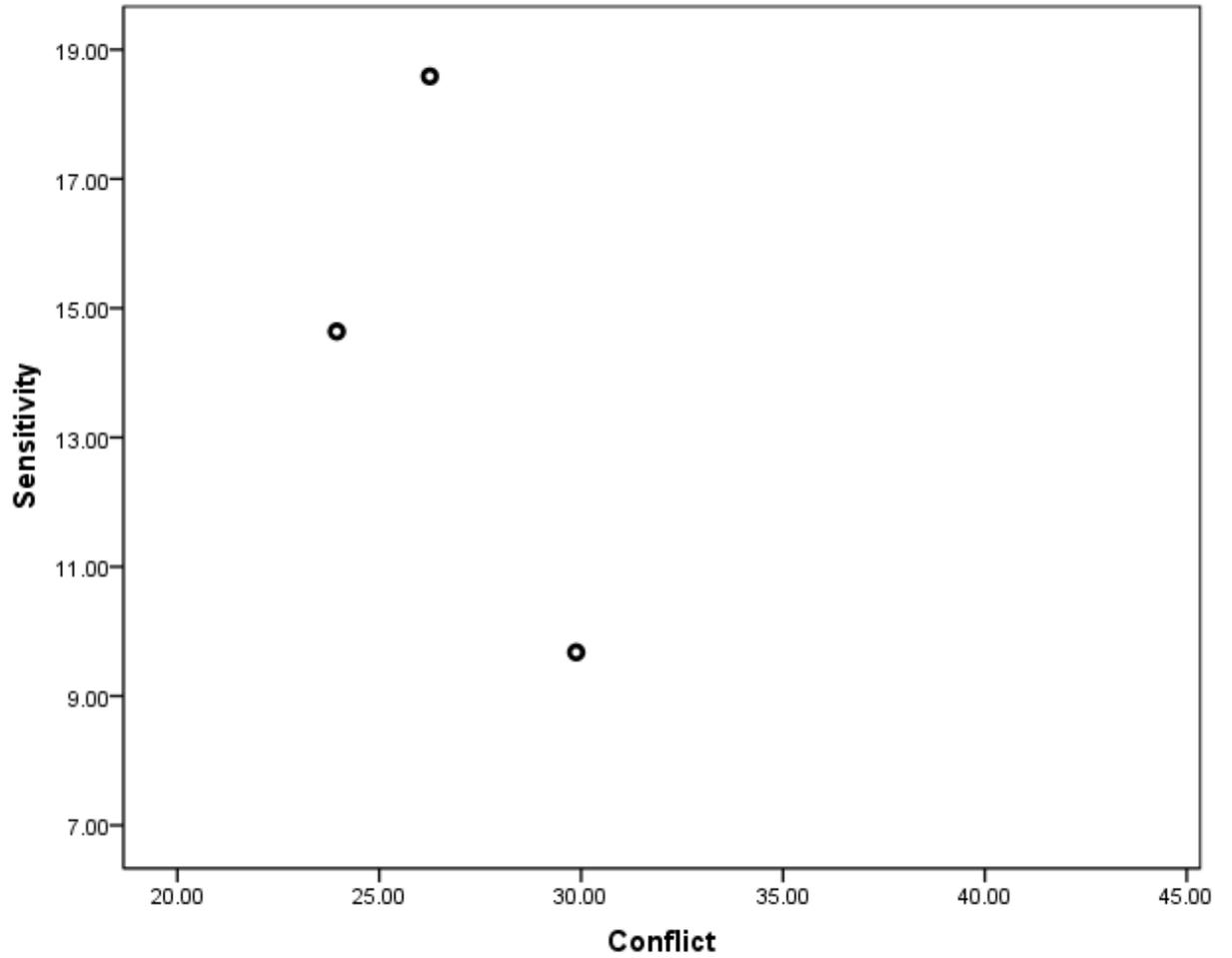


Figure 9. *Three-Class Solution for Mother-Child Conflict Styles at 1<sup>st</sup> Grade.*

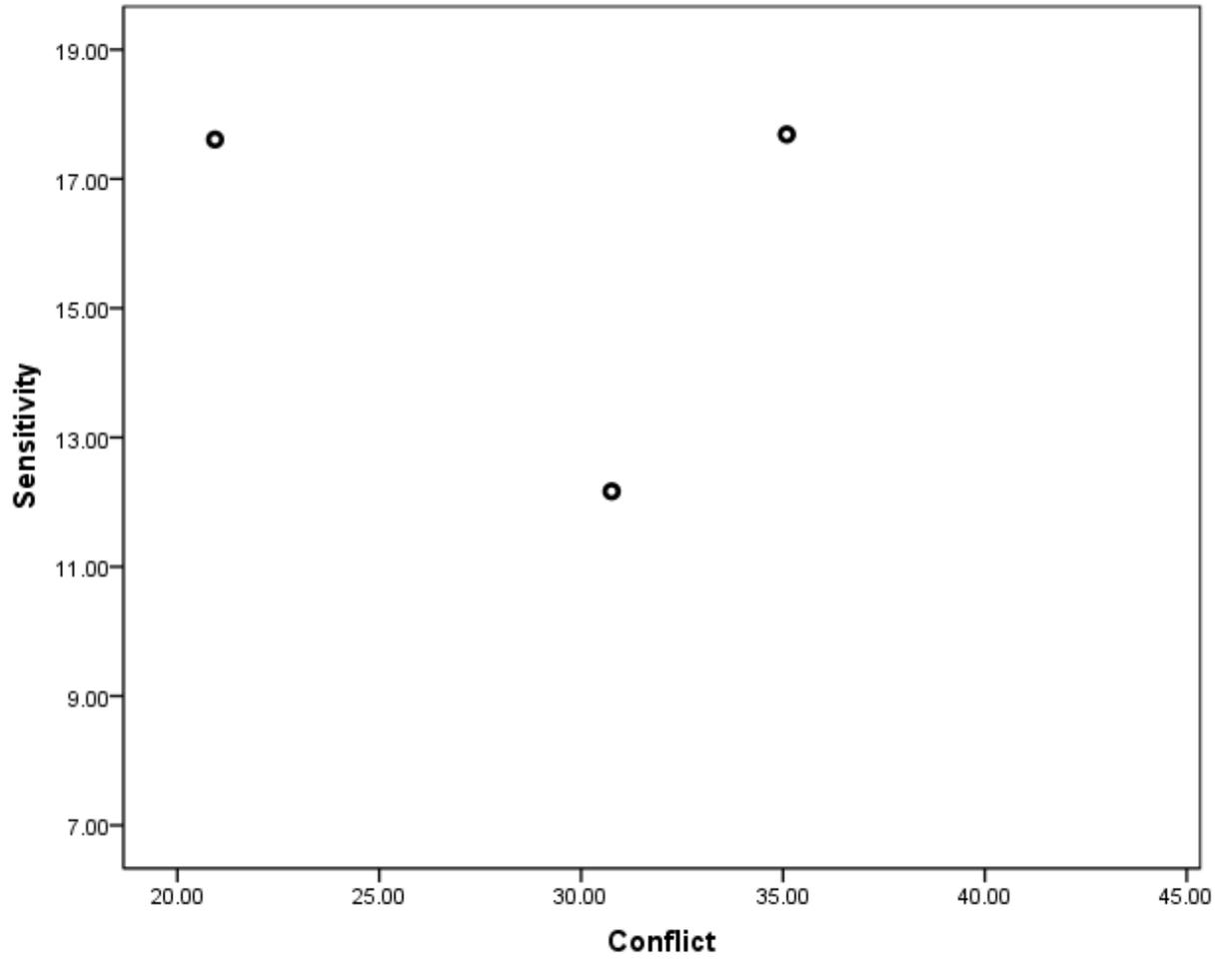


Figure 10. *Three-Class Solution for Father-Child Conflict Styles at 1<sup>st</sup> Grade.*

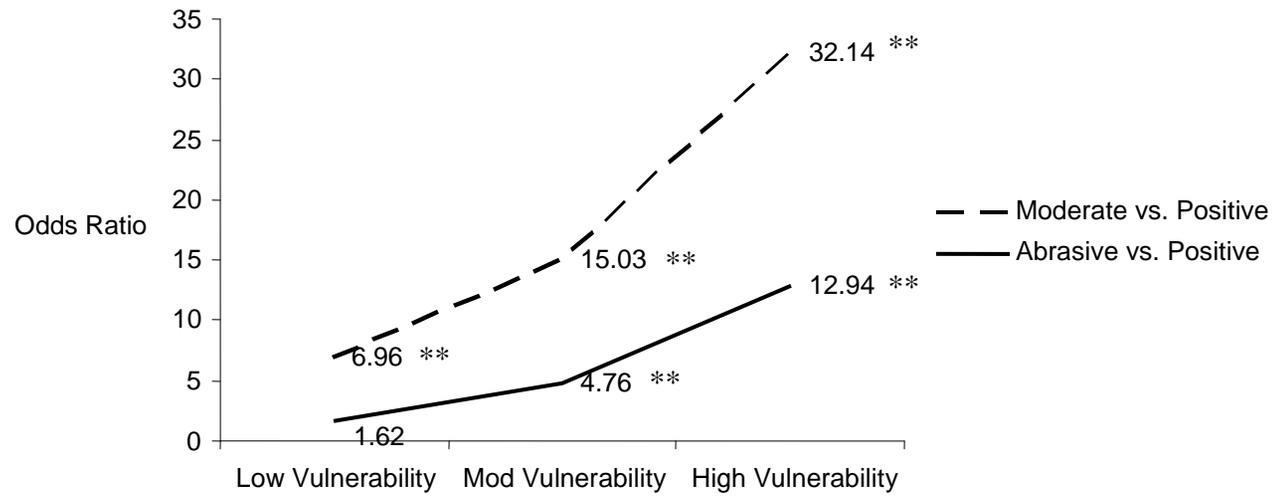


Figure 11. *Odds Ratios of Child-Centered Stress Predicting Class Membership at Varying Levels of Maternal Vulnerability at 54 Months.*

\*\*  $p < .01$ .

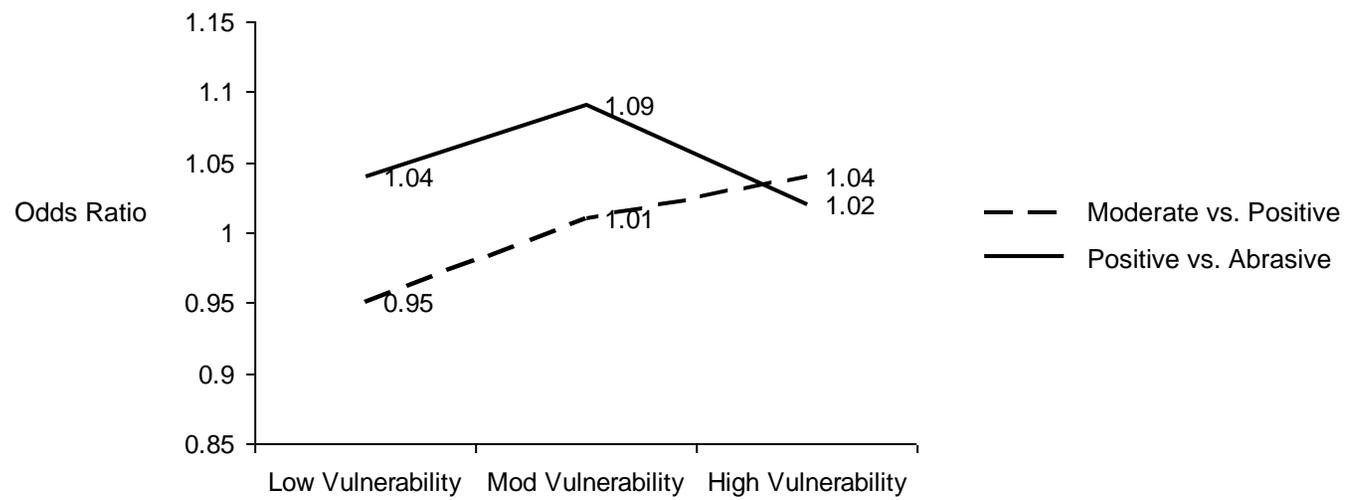


Figure 12. *Odds Ratios of Child-Centered Stress Predicting Class Membership at Varying Levels of Maternal Vulnerability at 1<sup>st</sup> Grade.*

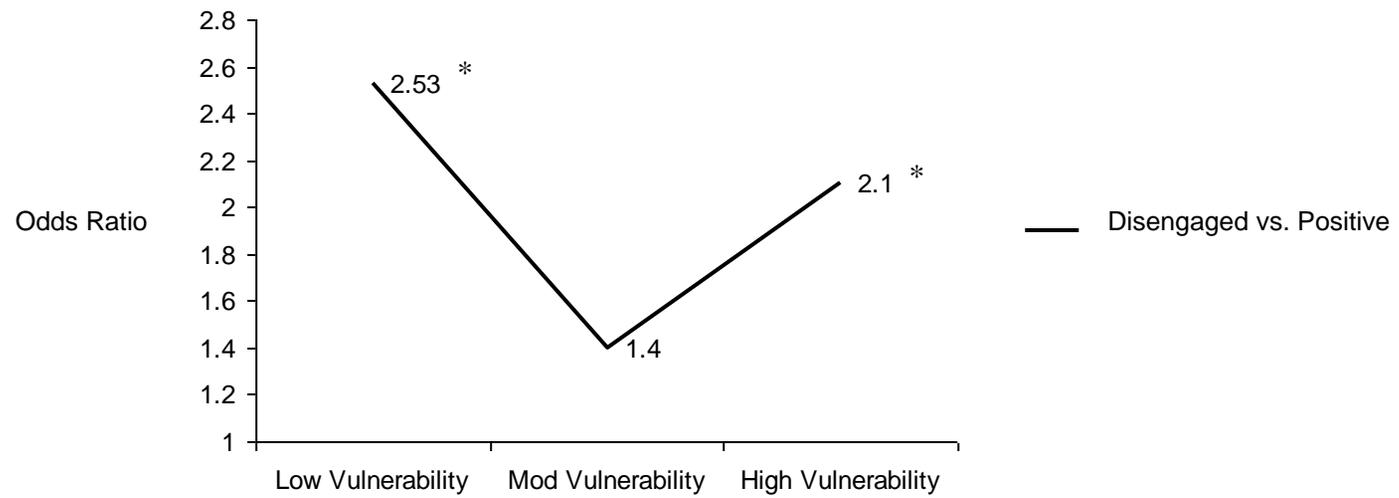


Figure 13. *Odds Ratios of Parent-Centered Stress Predicting Class Membership at Varying Levels of Paternal Vulnerability at 1<sup>st</sup> Grade.*

\*  $p < .05$ .