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# Understanding Psychological Control Through Differences Between Shame and Disappointment: Implications for Childhood Agression

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UNDERSTANDING PSYCHOLOGICAL CONTROL THROUGH DIFFERENCES  
BETWEEN SHAME AND DISAPPOINTMENT: IMPLICATIONS FOR CHILDHOOD  
AGGRESSION

by

Sacha L. Bikhazi

A thesis submitted to the faculty of Brigham Young University  
in partial fulfillment of the requirements for the degree of

Master of Science

Marriage, Family, and Human Development

School of Family Life

Brigham Young University

November 2006

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GRADUATE COMMITTEE APPROVAL

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This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the thesis of Sacha L. Bikhazi in its final form and have found that (1) its format, citations, and bibliographical requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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## ABSTRACT

# UNDERSTANDING PSYCHOLOGICAL CONTROL THROUGH DIFFERENCES BETWEEN SHAME AND DISAPPOINTMENT: IMPLICATIONS FOR CHILDHOOD AGGRESSION

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The purpose of this study was to examine the potentially unique roles that parental use of two psychological control dimensions, shame and disappointment, play in predicting children's relational and physical aggression. It was additionally of interest to investigate whether warm/involved parenting would moderate the effects of these forms of psychological control on both types of childhood aggression. Based on a review of literature, it was hypothesized that parental use of shame would positively predict aggression in children, whereas parental use of disappointment would not be significantly associated with childhood aggression. Additionally, it was hypothesized that warm, involved parenting would have varied interactions with shaming and disappointment. Specifically, it was expected that warmth and involvement would exacerbate the aversive affects of shaming (leading to more child relational aggression), but that warmth and involvement would enhance the effect of disappointment to curtail relationally aggressive

behavior. The participants were 217 fourth grade children (100 boys, 117 girls) and their parents (184 fathers, 216 mothers) from two school districts in an urban, moderate-sized community in the Western United States. Separate regression models were conducted for pairs of psychologically controlling and positive parenting dimensions in order to test for the main effects of the variables and also potential interaction effects. Additionally, this study explored the interactions between warm/involved parenting and shame and disappointment as they affected childhood aggression. To a large extent, the hypotheses were confirmed. In line with expectations, parental use of shame was significantly and positively associated with both physical and relational aggression, whereas disappointment was not. Interestingly, mothers' use of shaming significantly predicted relational aggression in all models for both boys and girls, whereas physical aggression was predicted only twice, once in the mother-son dyad and once in the father-daughter dyad. Two forms of warmth and involvement emerged in exploratory factor analysis: expressive warmth and supportive involvement. These positive parenting dimensions demonstrated very few main effects and only one significant moderating effect, which was on the relationship between shame and physical aggression. Specifically, post hoc analysis showed that fathers' use of shaming significantly and positively predicted boys' physical aggression only when supportive involvement was low. Implications and directions for future research are discussed.

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## Chapter I

### Introduction

Due to the many deleterious effects of aggression on childhood and adolescent development, social science researchers have spent decades investigating the social influences that contribute to the development of aggression. It is essential that we gain a clearer understanding of the development of aggression and its subtypes if intervention and prevention strategies are to be effective. Until recently, most of the research on childhood aggression has focused on physical aggression (e.g., hitting, kicking, pushing, or threats of physical harm; Crick et al., 1997; Hart et al., 1998; McNeilly-Choque et al., 1996). Because girls rarely exhibit physical aggression, most of previous research has focused on aggression in boys, whereas girls' aggressive behaviors have been overlooked (Crick, 1995; Crick & Dodge, 1994; Crick & Grotpeter, 1995; Crick, Grotpeter & Bigbee, 2002). In recent years, however, there has been some interest in exploring aggressive behaviors that are more characteristic of girls (for a review, see Crick et al., 1999; Crick & Grotpeter, 1995; McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, 1996; Underwood, 2003).

Relational aggression, for example, has been found to be more typical of girls' peer relationships than physical aggression. This type of aggression attempts to harm others by damaging or threatening to damage relationships (Crick, Grotpeter, & Bigbee, 2002) and is significantly related to peer rejection, depression, and negative self-perceptions for both girls and boys (Crick, 1995; Crick et al., 1999; Grotpeter & Crick, 1996). The many aversive effects of aggression on child development have motivated

multiple investigations on the factors that influence the development, maintenance, and intervention of both physical and relational aggression in children of both genders.

One of the most informative lines of inquiry has focused on the influences that parent-child relationships have on the socialization of childhood aggression (see Coie & Dodge, 1998, for a review). Again, much of this research has focused on parental influences on physical aggression, and little is known about how the parent-child relationship influences the development of relational aggression as a construct distinct from physical aggression. In recent attempts to investigate this topic, psychologically controlling parenting has been shown to be a consistent predictor of childhood relational aggression (Hart et al., 2003; Nelson & Crick, 2002; Nelson, Hart, Yang, Olsen, & Jin, 2006; Yang et al., 2004). Barber (1996) has defined psychological control as “a rather insidious type of control that potentially inhibits or intrudes upon psychological development through manipulation and exploitation of the parent-child bond (e.g., love withdrawal and guilt induction), negative, affect-laden expressions and criticisms (e.g., disappointment and shame), and excessive personal control (e.g., possessiveness, protectiveness)” (p. 3297). In the absence of longitudinal or experimental data, the assumption is that the direction of effect is from parent to child (e.g., children model their parents’ behavior in social interaction). Hence, psychological controlling parenting may promote relational aggression in children as the strategies appear to correspond (e.g., love withdrawal by parents parallels the social exclusion of the peer group).

In his definition and measurement of psychological control, Barber (1996) refers to individual dimensions of psychological control such as constraining verbal expressions, invalidating feelings, personal attack, guilt induction, love withdrawal, and

erratic emotional behavior. While psychological control is typically viewed as a global construct, it is possible that such dimensions may differentially influence the development of relational aggression. Indeed, almost every study involving psychological control has consolidated the various forms of psychological control into one construct, attributing any noted outcomes to all included dimensions of the construct. However, the resulting constructs rarely represent more than three or four dimensions of psychological control, thereby raising the question as to whether other constructs may actually be insufficient in their influence on negative child outcomes. In other words, some dimensions of psychological control may be more related to the development of aggression than others.

Research has recently shown that individual forms of psychological control can actually be statistically differentiated from each other (via confirmatory factor analysis; Nelson et al, 2005). Accordingly, it is possible to consider the potentially unique influence of these dimensions. In considering dimensions, the present study is fairly narrow in focus. In particular, this study investigates the seemingly contradictory findings between studies on guilt induction as a dimension of psychological control and studies on the effects of guilt on child outcomes. Psychological control research has shown that guilt induction has aversive effects on child aggression outcomes (Aunola & Nurmi, 2005; Hart et al., 1998; Nelson et al, 2005). However, other research has shown that guilt has motivating and constructive effects on children, whereas shame, a closely related self-evaluative affect, is associated with destructive outcomes in children, including aggression (for a review, see Tangney & Dearing, 2002).

The contradiction in the findings of guilt research may be explained by the constructs often used to measure guilt induction. Guilt induction as a form of psychological control is often created with items measuring shame, disappointment and sacrificing items. Although disappointment items seem to parallel the induction of shame-free guilt, and shame items seem to parallel the induction of shame, both are included in Barber's original definition of psychological control (defined earlier), and have often been collapsed in measurement of guilt induction (e.g. Aunola & Nurmi, 2005). Thus, guilt induction as a dimension of psychological control may be measuring both guilt and shame by using items of disappointment and shame, whereas other research makes a more fine-grained distinction between the influences of guilt and shame. This study seeks to clarify whether disappointment and shame differ in their prediction of negative outcomes. Our data provides evidence that parents report using disappointment with their children more often than they report using any of the other forms of psychological control. Because this form of psychological control (if it can be considered such) seems to occur most often (and is therefore more normative), it may be less likely to predict child aggression outcomes. Thus, this study seeks to further clarify the relationship between childhood physical and relational aggression and two specific forms of parental psychological control: disappointment and shame.

## Chapter II

### Review of Literature

#### *Aggression*

Aggression has been generally defined as behavior enacted with the intent to harm others (Hart et al., 1998). Physical aggression harms others through damage (or the threat

of damage) to another's physical well-being. This would include such behaviors as pushing, hitting, intimidating, or threatening others with physical harm (Crick et al., 1997; McNeilly-Choque et al., 1996). Relational aggression, in contrast, has been defined by Crick and colleagues (Crick et al., 1999) as behaviors that harm others through damage (or threat of damage) to relationships. This would include using social exclusion as a form of retaliation or threatening to withdraw friendship in order to get one's own way. These behaviors damage another's feelings of acceptance, friendship, or group inclusion (Hart et al., 1998). Although physical aggression is more typical of boys and relational aggression is more distinctive in girls (for a review see Crick et al., 1999), both boys and girls have been found to exhibit physical and relational forms of aggression during the early childhood years across cultures (Crick et al., 1997; Hart et al., 1998; McNeilly-Choque et al., 1996).

Research demonstrates that engagement in both physical and relational aggression has deleterious consequences. For example, children whose peer relationships involve high levels of physical and verbal aggression are more likely to drop out of school, engage in delinquent behavior, and develop mental health problems (for a review see Parker, Rubin, Price, & DeRosier, 1995). Similarly, research has shown that children who frequently use relational aggression in their peer relationships are significantly more likely than average children to experience future peer rejection, depression, and negative self-perceptions (Crick, 1996; Crick et al., 1999; Crick and Grotpeter, 1995; Grotpeter & Crick, 1996; Rys & Bear, 1997; Tomada & Shneider, 1997). Additionally, some research has suggested that relationally aggressive children may tend to become increasingly delinquent across time (Crick, 1996; Zimmer-Gembeck, Geiger & Crick, 2002).

Symptoms of borderline personality disorder (affective instability, negative relationships, and engagement in self-harming behaviors) and eating disorders (namely bulimia) have also been identified in college-age relationally aggressive individuals (Werner & Crick, 1999).

### *Parental Influences*

With such highly aversive effects, it is no wonder that possible influences on the development of aggression have been key points of inquiry for many years. In particular, great attention has been given to family factors, which have been shown to be significant predictors of children's social behaviors, including aggression (Burks & Parke, 1996; McDowell, Parke, & Spitzer, 2002; Paterson & Sanson, 1999; Pettit, Dodge, & Brown, 1988). Particularly, a significant number of studies have examined the role of parenting factors in children's and adolescents' internalizing and externalizing problem behaviors (Hart, Newell, & Olsen, 2003) and, more specifically, aggression (for a review see Coie & Dodge, 1998).

*Parenting dimensions.* Most of the research investigating parent-child interactions and child outcomes has focused on dimensions of various parenting styles. Specifically, research has focused on three primary dimensions of parenting: behavioral control, support, and psychological control, each of which has been shown to play a role in the development of aggression (for a short history and review, see Barber, Stolz, & Olsen, 2005; Hart et al., 2003). These three dimensions of parenting have been found to generally promote either negative or positive child outcomes. Support, for example, consists of acceptance, affection, responsiveness and involvement, and refers to parents' connectedness to the child and their interactional warmth (Barber et al., 2005; Galambos

et al., 2003; Wood et al., 2003). High parental affection as an individual dimension has been shown to facilitate children's positive psychological adjustment (Gray & Steinberg, 1999; Maccoby & Martin, 1983; Siequeland et al., 1996). For example, Gray & Steinberg (1999) found that adolescents with involved parents excelled academically and formed a healthy identity. This parental involvement played a smaller but still significant role in the avoidance of drug use, school misconduct, anxiety, and depression.

Behavioral control, in contrast, comprises maturity demands, monitoring, and limit setting. It optimally consists of the regulation of the child's behavior through firm and consistent discipline (Barber, 1996; Galambos et al., 2003). Appropriate levels of behavioral control are consistently related to lower levels of externalizing problems among both adolescents (Barber & Olsen, 1997; Eccles, Early, Frasier, Belansky, & McCarthy, 1997; Pettit, Laird, Dodge, Bates, & Criss, 2001; Stice & Barrera, 1995) and elementary school children (Barber, 1996; Lewis, 1981). Moreover, it has been postulated that these effects come from a cultivation of self-regulation and compliance (Hart et al., 2003; Lewis, 1981).

Baumrind's (1996) parenting styles are defined by parental levels of behavioral control and support. Authoritative parenting represents the optimal combination of support and behavioral control. In particular, authoritative parents simultaneously have responsive attitudes and use appropriate behavioral control to regulate their children (Baumrind, 1996). Authoritative parents specialize in the practice of induction—establishing and communicating clear, rational guidelines for child behavior as well as the reasons underlying parental expectations. Beyond making reasonable demands of their children, authoritative parents also seek to allow their children adequate autonomy

in order to develop self-regulation (Baldwin, 1948, 1955; Baumrind, 1968; Sears et al., 1957; Symonds, 1939).

Accordingly, the authoritative parenting style is seen as the most optimal parenting approach for the development of children's competent behavior (Darling & Steinberg, 1993). Western research has concluded that inductive reasoning and rational guidance (i.e. authoritative parenting) in child rearing practices predict children's prosocial and adaptive behavior (Baumrind, 1971, 1991; Burleson, Delia, & Applegate, 1995; Dekovic & Janssens, 1992; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Hart, DeWolf, & Burts, 1992, 1993; Zahn-Waxler, Radke-Yarrow, & King, 1979). Furthermore, children of authoritative parents tend to be responsible and independent, to cooperate with adults and peers, to demonstrate general psychosocial maturity, and to experience academic success (for reviews, see Baumrind, 1970; 1989, 1991a; Hart et al., 2003).

Additional findings suggest that such highly responsive and engaging parenting diminishes aggressive and aversive behavior (Hart et al., 1998; Harrist, Pettit, Dodge, & Bates, 1994; Mize & Pettit, 1997; Kahen, Katz, & Gottman, 1994). These findings are consistent for both mothers and fathers, particularly in regard to responsive and interactive parent-child play (Carson & Parke, 1996; MacDonald & Parke, 1984; Parke, Burks, Carson, Neville, & Boyum, 1994). Whereas most of these studies have considered responsiveness as it predicts levels of physical aggression in children, Hart and colleagues (1998) have also shown that responsive parenting, on the part of both mothers and fathers, is linked to less relational aggression in children as well. It seems as though the authoritative parenting style thwarts or simply fails to motivate aggressiveness in

children. Prevention efforts may find great value in a clearer understanding of how dimensions within the authoritative parenting style are related to the development of aggression.

Accordingly, the other parenting styles consist of difficulties in applying either adequate behavioral control and/or support. The permissive parenting style, for example, consists of lax (inadequate) behavioral control coupled with high levels of warmth. These parents make relatively few demands of their children and allow them to freely express their feelings and impulses. Permissive parents rarely apply firm control over their children's behavior and do not monitor their children's activities very closely. Permissive parenting has been linked to impulsivity and aggressiveness in children, as well as more bossy and self-centered behavior. These children usually lack adequate self-control and are low in their levels of independence and achievement (Baumrind, 1966, 1967).

Authoritarian parents, on the other hand, engage in inappropriate behavioral control in that they frequently turn to coercive, power-assertive, and punitive strategies to assert behavioral control with their children (for a review, see Chen, Dong & Zhou, 1997). They may engage in verbal and physical (e.g., corporal punishment) forms of coercion in seeking to keep the child in line. These parents also join coercive control with lower levels of responsiveness and warmth in dealing with their children. Accordingly, a feeling of parental rejection is the defining feature of their parenting (Baumrind, 1996). Authoritarian childrearing practices focus on absolute obedience from the child, and thereby tend to undermine children's ability to develop self-regulation skills.

In contrast to behavioral control, psychological control refers to parents' control of the child's emotions and behavior through psychological means (Barber, 1996). It is

defined by Barber (1996) as a uniformly negative parenting dimension, often referred to as “psychological discipline” or “love-oriented discipline.” In particular, Barber (1996) considered psychological control to be an “intrusion into the developing child’s self-expression—whatever form of expression that might be” (p. 3315). Research has shown that parental psychological control is significantly associated with the appearance of both internalizing and externalizing behaviors, including aggression (Aunola & Nurmi, 2005; Barber & Harmon, 2002; Nelson et al., 2006; Yang et al., 2004).

*Psychological control and child aggression outcomes.* Although typological approaches to parenting often merge behavioral and psychological control in the description of the authoritarian parenting style, research has shown that the primary difference between behavioral control and psychological control is that behavioral control specifically focuses on controlling behavior, but psychological control focuses on controlling a child’s psychological world (e.g., thoughts and feelings) (Barber, 1996; Barber, Olsen, & Shagle, 1994; Nelson & Crick, 2002; Steinberg, 1990). Moreover, Barber (2002) has argued that merging these two forms of control may mask the potentially unique effects of each.

Indeed, recent research regarding parental antecedents of aggression has assumed that psychological and behavioral control might be differentially related to physical and relational aggression. This presumption is based on a social learning theory perspective (Bandura, 1973), wherein children take what social strategies they see modeled and apply those to their own social relationships. Particularly, children’s aggressive behaviors in peer relationships may parallel parents’ particularly coercive or controlling disciplinary styles. It has been postulated that parents are powerful models because of the salience of

their relationships with their children (Grych & Fincham, 1990). Crick et al. (1999) reviewed two ways that parents can serve as models of aggressive behaviors. First, a child may learn aggressive behaviors by watching parents interact with others (e.g., how parents interact with each other or with a child's siblings). Second, parents model aggression through their direct interactions with their child (i.e., by directing aggressive behavior toward the child).

To date, most familial research regarding relational aggression has focused on the second proposition. Specifically, excessive behavioral control (physical coercion) has been hypothesized to be primarily predictive of physical aggression, whereas psychological control was hypothesized to be uniquely predictive of relational aggression (Nelson & Crick, 2002; Nelson et al., 2006; Yang et al., 2004). This rationale is based on the fact that physical aggression parallels physical coercion in nature, and relational aggression appears to mirror some psychological control strategies, such as love withdrawal. However, research has not demonstrated this specificity of relationships, as physical coercion and psychological control each predict both forms of aggression (i.e., aversive parenting is therefore generally predictive of aggression; Nelson et al., 2006). However, psychological control does predict aggression above and beyond coercion and is particularly associated with relational aggression in girls (e.g., Nelson et al., 2006). Therefore, the study of psychological control is a welcome addition to the aggression literature.

*Psychological control dimensions.* Although psychological control has been broadly associated with relational aggression, some dimensions of psychological control may be more critical than others in predicting different childhood aggression subtypes

(Nelson et al., 2005). Barber's (1996) various dimensions of psychological control were briefly introduced earlier. Two dimensions, *invalidating feelings* (e.g., telling the child how to feel or think) and *constraining verbal expressions* (e.g., finishing the child's sentences), appear to undermine the child's individuality. Negative criticism and emotion may also serve to manipulate the child's feelings of self-worth (e.g., evident in the *erratic emotional behavior* and *personal attack* dimensions). *Love withdrawal* (e.g. giving the silent treatment) and *guilt induction* (e.g. making the child feel guilty for his/her mistakes or offenses) are psychological control dimensions used by the parent to manipulate and exploit the parent-child relationship (as a vehicle for exerting control).

However, we know very little about these forms of psychological control which are so often combined together under the umbrella of psychological control. Only very recently has research begun to explore differences in individual forms of psychological control and their effects on aggression. Nelson and colleagues (2005) showed that at least six psychological control dimensions can be statistically differentiated from each other, and only the invalidating feelings dimension was not significantly associated with aggression outcomes. Similarly, Casas et al. (2006) found four of five dimensions of psychological control predicted aggression in regression analyses. Further research is needed to clarify if certain dimensions are more important than others in the prediction of aggression subtypes.

*Guilt, shame and aggression.* One curious concept is that guilt induction is considered a form of psychological control although previous research has shown guilt to be an adaptive and constructive self-evaluative affect (for a review, see Tangney & Dearing, 2002). However, in previous research, parental use of guilt induction has been

shown to predict aggression in children (Aunola & Nurmi, 2005; Hart et al., 1998; Nelson et al., 2005). This seems contradictory. However, in previous research, guilt induction has often been measured as a compilation of items merging shame (i.e. I tell my child I am ashamed or embarrassed of him/her), disappointment (i.e. I tell my child I am disappointed in what he/she has done), sacrifice (i.e. I tell my child of all the things I have done for him/her), and direct appeals to guilt (i.e. I make my child feel guilty for things I do not approve of) (Aunola & Nurmi, 2005; Hart et al., 1998; Nelson et al., 2005). Thus, previously employed guilt induction scales may not necessarily be measuring guilt induction alone. In fact, such measures of guilt induction may actually be measuring less induction of guilt and more induction of shame. Shame, in turn, is defined by self-evaluative affect which has been shown to predict a host of psychological problems, including aggression (for a review, see Tangney & Dearing, 2002).

Clear distinctions between guilt and shame have been indicated in previous research. Feelings of guilt imply that we have failed in some way to live up to our obligations. When a child feels guilty he or she is likely to focus on the interpersonal consequences of his wrongdoing and is more likely to make reparations for his harmful acts (Higgins, 1987; Hoffman, 2000). Shame, on the other hand, is more self-focused than based on a concern for others. It causes children to negatively focus on themselves, whether it stems from a personal failure, a moral transgression, or a simple social blunder (Tangney & Dearing, 2002).

Research has shown that parenting styles and practices do affect children's proneness to feelings of shame and guilt. How parents react to transgressions may determine whether children feel guilty or ashamed. Children tend to feel shame when

parents belittle them (e.g., “John, you are so bad, mean, careless, etc.”), whereas children are more inclined to feel guilt when parents censure their inappropriate behavior. Guilt is induced by emphasizing why a behavior is wrong, how it may harm others and, at the same time, encouraging children to repair any harm they have done (Hoffman, 2000; Tangney & Dearing, 2002). For example, Ferguson and Stegge (1995) found that guilt in 5- to 12-year-old children was associated with parents’ reports of induction (i.e., focusing the child’s attention on the emotional reactions of others), whereas children’s shame was associated with parental hostility, as well as other negative parenting practices.

Tangney and Dearing (2002) found that parents of shame-prone children were more likely to use person-focused disciplinary messages, to express disgust, to tease, to communicate conditional approval, and to use love withdrawal techniques. Additionally, fathers’ power assertion and mothers’ use of public humiliation were associated with shame-proneness in children. Whereas parents of shame-prone children focused on criticizing the child as a person, parents of guilt-prone children focused on the child’s specific behavior and ways to “fix” any damage or harm caused by this behavior. Because guilt has been found to be adaptive and constructive in previous research, it is expected that previous findings tying guilt induction to aggression in children will be clarified if shaming and guilt-inducing items are better delineated.

*Disappointment.* As mentioned previously, recent studies involving measures of psychological control and guilt induction have included expressions of shame in a child (e.g., I tell my child that I get embarrassed when she/he does not meet my expectations), expressions of sacrificing by the parent (e.g., I remind my child of how much I have done for him/her) and expressions of disappointment in a child’s misdeeds (e.g., I let my child

know how disappointed I am when he/she misbehaves; Aunola & Nurmi, 2005; Nelson et al., 2006). Although research has explored the general constructs of guilt and shame, very little research has investigated the use of disappointment as a parental strategy. Previous research has also shown that parents are the individuals who evoke feelings of guilt most often in students throughout all grade levels, and that parents can invoke feelings of guilt by such strategies as lecturing, nagging, and expressing disappointment in their children (Williams & Bybee, 1994). Additionally, research has suggested that children seek to please their parents by meeting parental expectations in order to receive positive reinforcement for their behavior and to avoid guilt (for a review, see Miller-Day & Lee, 2001). Research on the mother-daughter relationship has suggested that parents often convey disappointment in their children strategically, as a tool of parental control, by keeping the children responsible for the feelings of the parent (Miller, 1995; de Waal, 1993; Jordan, 1993; Mann, 1998). Miller-Day and Lee (2001) summarized this phenomenon: parents communicating their disappointment in a child for not meeting their expectations might serve to manipulate a child's sense of self, engender a child's emotional dependency on parental validation, inhibit individuation, and serve as a means for psychological control.

Only one study was found to explore different ways that parents communicate disappointment to their children; however, the sample consisted of college-age children. Miller-Day and Lee (2001) qualitatively investigated parents' use of disappointment on their children. They found that the more parents reported using indirect criticism (i.e. making hinting comments and/or using body language) to express disappointment, rather than expressing disappointment directly (i.e. saying it to the person in a straight-forward

manner), the more likely the young adult would be to report feeling out of control of his or her life. The results also showed that parental use of disappointment differed by parent. Mothers were reported by both sons and daughters to use meaningful asides (little verbal comments or “digs”) and nonverbal cues to communicate disappointment more so than fathers. Results also suggested there may be significant differences in how mothers and fathers communicate disappointment to their daughters and sons (Miller-Day & Lee, 2001). In general, parents expressed disappointment in their adult-children by focusing either on the personal traits of the child (e.g. being a liar or being lazy) or on the child’s interpersonal or instrumental misdeeds or offenses (e.g. being rude to a family member or getting drunk). However, participants reported that mothers more often expressed disappointment in both sons and daughters for not disclosing enough information, in sons for violent or unlawful behavior, and in daughters for a lack of some important physical or intellectual quality the mother saw in herself. Whereas mothers’ disappointment was most often focused on her relationship with the child and for personal, enduring traits, the only type of disappointment unique to fathers was that they more often focused their disappointment on the domain of interpersonal offenses than did mothers (Miller-Day & Lee, 2001).

These findings suggest that at least two variables affect the impact of expressed parental disappointment on child outcomes. First, the way disappointment is expressed, whether through direct or indirect communication, may affect the impact parental disappointment has on the child. Second, parental disappointment may have differing effects on child outcomes depending on whether the focus of the expressed disappointment is on the person or whether it is on the person’s actions. Indeed, the

authors of this study suggest that reasons for expressed disappointment in the personal domain emphasize disappointments in a child's (perceived) enduring personal traits (e.g., I'm lazy), which have less to do with a child's actions and more to do with the characteristics possessed by the child and may be more harmful psychologically to the child than other reasons for expressed disappointment (Miller-Day & Lee, 2001). This is consistent with research on guilt and shame, which has found that constructive guilt is more likely to persevere over shame when parents focus on condemning the actions of the child, rather than the child as a person (Tangney & Dearing, 2002).

In our assessment of guilt induction, as a facet of psychological control, we surmised that a distinction could be made between items that focus on parental expression of disappointment and other items that focus on shaming behaviors. The former set of items was presumed to encompass the types of behavior that would ideally promote guilt rather than shame. Accordingly, we anticipated that parental use of disappointment (when separated from shaming items) would be unassociated with physical or relational aggression, unlike shaming or other forms of psychological control. Previous research has shown that shame does predict negative child outcomes, including aggression, and that shame-free guilt does not predict these negative child outcomes (for a review, see Tangney & Dearing, 2002). Therefore, if parental use of disappointment invokes adaptive and constructive guilt in children, whereas shame-oriented guilt induction invokes destructive feelings of shame, it would follow that parental use of disappointment would not predict aggression outcomes in children as does shame or other forms of psychological control. If this is the case, research on psychological control

would need to take into account that parental use of disappointment may not fit as an aversive parenting practice or as a form of psychological control.

*Differences by Gender of Parent and Child*

As mentioned briefly above, research has shown that the level and type of influence a parent has on a child depends on the gender of the child and/or parent. Research has consistently shown differences in how mothers and fathers interact with their children. Across cultures mothers devote more time to physical care and expressing affection, whereas fathers spend more time in playful interaction (Lamb, 1987; Roopnarine et al., 1990). Fathers and mothers also interact in play differently. Whereas fathers tend to engage in exciting, highly physical games that provide bursts of stimulation to their young children, mothers more often play provide toys, talk to their children, and engage in conventional games, such as peek-a-boo (Yogman, 1981).

Studies on adolescents have also shown that male and female children relate very differently to their mothers and fathers (Collins & Russell, 1991; Holmbeck et al., 1995). Both boys and girls tend to be closer to their mothers, to spend more time alone with their mothers, and to feel more comfortable talking to their mothers about problems in their lives and other emotional matters. In consequence, mothers tend to be more involved than fathers in their adolescents' lives (Updegraff, McHale, Crouter, & Kupanoff, 2001). Moreover, rather than seeking for support or guidance (i.e., asking for advice about friendships) from fathers, adolescents more often seek to consult with their fathers on more objective information (i.e., asking for help on homework). Additionally, both male and female adolescents tend to argue with mothers more often than fathers. Thus, it has

been suggested that the mother-child relationship is more emotionally intense than the father-child relationship (Apter, 1990; Larson & Richards, 1994).

Such findings have brought researchers to focus on gender differences in their research; not simply differences between sons and daughters or between mothers and fathers (McHale, Updegraff, Tucker, & Crouter, 2000; Seginer, Vermulst, & Gerris, 2002), but in terms of each parent-child dyad. Indeed, recent studies suggest that the effects of psychological control strategies may be dependent on the composition of the parent-child dyad (i.e., the gender of both parent and child). Specifically, a positive relationship between daughters' relational aggression and paternal psychological control has been found in recent years (Nelson & Crick, 2002; Nelson et al., 2006; Yang et al., 2004). Casas et al. (2006) also found a relationship between both parents' psychological control and relational aggression in girls, but not boys (in a U.S. sample). In a study of Russian preschoolers, same-gender dyads yielded the greatest number of associations between psychological control and aggression (accounting for 17 of the 20 significant findings; Nelson, Yang, & Hart, 2005). Thus, the effects of psychological control are not always consistent based on parent child dyad and may vary by culture. Accordingly, the analysis strategy found in this study reflects this emphasis on exploring associations between dimensions of parental psychological control and childhood aggression subtypes across the various parent-child dyads.

*Interactions between Behavioral Control, Psychological Control, and Warmth/Involvement*

Parenting research in recent years has also considered interactions between the three parenting dimensions: parental behavioral control, psychological control, and support. For example, Galambos et al. (2003) found that when parents used high levels of

psychological control combined with a high level of behavioral control, adolescents were at higher risks for developing externalizing problems (substance use, antisocial behavior, and misconduct at school). Accordingly, aversive control strategies appear to be additive in their negative effects, as one might expect.

Consideration of interactions between aversive parenting and support have generated inconsistent findings and significant controversy, however. One area of controversy circulates around the inconsistent findings regarding parental physical coercion and child outcomes (for a review, see Nelson et al., 2006). For years, a consistent relationship was presumed between physical punishment and a variety of negative childhood outcomes, including aggression (e.g., Baumrind, 1993; Maccoby & Martin, 1983). However, other studies have shown that such control strategies appear to vary in effect, depending on the cultural context. This perspective implicitly suggests that parents of differing ethnicities vary in the support they provide to children in the context of negative parenting. For example, results of some studies suggest that African-Americans may not be affected by corporal punishment (non-abusive) in the same negative ways as previously shown with European-American samples (Deater-Deckard & Dodge, 1997; Polaha, Larzelere, Shapiro, & Pettit, 2004). However, such findings have not been consistent across studies. Some have found a negative relation, some a positive relation, and others no relation between physical discipline and childhood physical aggression among African-Americans (Polaha et al., 2004).

Some studies investigating physical discipline and childhood physical aggression have been based on Rohner's PARTheory (Parental Acceptance and Rejection Theory), which postulates that children's psychological adjustment is directly related to how accepted they feel by their parents (Khaleque & Rohner, 2002). In this theory, parental hostility/aggression is considered a fundamental sign of rejection, rather than acceptance. Rohner hypothesizes that this association would be true for children anywhere in the

world, irrespective of their unique culture, ethnicity, race, gender, or socioeconomic status (Khaleque & Rohner, 2002). Some have suggested, however, that negative parenting might not have consistent results across cultures if cultures differ in how negative parenting is perceived by parent and child. However, results of inquiry based on this theory have consistently shown corporal punishment to predict children's perceptions of parental rejection and negative psychological adjustment (including aggression) across many cultures. Importantly, the associations exist even in cultures where the majority of both parents and children endorse the regular use of such physical punishment and see it as good parenting (Lansford et al., 2005; Nelson et al., 2006; Rohner, Kean, & Courmoyer, 1991).

An extension of this point of controversy is whether warm and involved parenting moderates the aversive effects of physical discipline/coercion on childhood aggression. One longitudinal study analyzed connections between maternal spanking and problem behavior of children in three different ethnic groups (European-American, African-American, and Hispanic) over a 6-year period (McLoyd & Smith, 2002). Results showed that, for all three ethnicities, maternal emotional support moderated the negative associations between spanking and behavioral problems. Specifically, low maternal emotional support combined with spanking predicted increases in problem behaviors. However, there was no connection between spanking and problem behavior when the mother was high on emotional support (McLoyd & Smith, 2002).

Recently, studies have also begun to address interactions between psychological control and support. At least two studies have suggested that children's problem behaviors decrease when high levels of parental psychological control are coupled with high levels of parental affection and involvement (Gray & Steinberg, 1999; Pettit & Laird, 2002). In contrast, Aunola and Nurmi (2005) recently reported that maternal affection exacerbates the negative effect of psychological control on child adjustment

when the two are combined. Taken together, these inconsistent findings suggest that psychologically controlling parenting may not have uniform effects when combined with elements of positive parenting dimensions (e.g., affection/warmth).

Further research is needed to test whether parental support enhances or diminishes the negative effects of psychological control. For instance, it may be that parental warmth/involvement differentially interacts with individual dimensions of psychological control. Thus, in the context of a highly warm and involved parent-child relationship, the use of shame as a control strategy may not be predictive of aggression. Warmth may interact with disappointment to negatively predict aggression (thereby enhancing the influence of disappointment). In contrast, warmth and involvement may strengthen the negative effects of shaming. Thus, in order to create a more complete understanding of these potential interactions, this study seeks to explore these specific relationships.

*Importance of relationships model.* Consistent with the perspective that parental warmth and involvement may exacerbate the effects of more negative forms of psychological control, Crick and colleagues (1999) have proposed an importance of relationships model to explain parental influences on the development of relational aggression in children. This theory postulates that relationally aggressive tendencies in children may evolve through a process “characterized by a relatively intense focus on the importance of relationships to themselves and to others” (Crick et al., 1999). In other words, relationally aggressive children may have parent-child relationships characterized by very strong bonds that are sometimes inappropriately used as a point of leverage in parent-child conflict. Supporting research has found that relationally aggressive preadolescents report being significantly closer to their mothers than do other preadolescents, who tend to be differentiating from parents at this point in life (Grotjeter, Crick, & O’Brien, 1996). These relationally aggressive preadolescents also reported

being closer to their mothers than even younger children. Another study found that, compared to less aggressive peers, relationally aggressive children report higher levels of exclusivity with both their mothers and fathers (Grotmeter & Crick, 1997). Yet relational aggression is consistently associated with aversive parenting, suggesting that parents of at least some relationally aggressive children may alternate between periods of warmth and involvement and aversive parenting (Nelson et al., 2006).

Other findings have suggested that relationally aggressive children's dyadic friendships are similarly characterized by relatively high levels of intimacy and jealousy, as well as desires to keep their friendships exclusive (e.g., not wanting others to take part in their important peer relationships; Grotmeter & Crick, 1996). Accordingly, the importance of relationships model suggests that relationally aggressive children learn from their parents that close, intimate relationships are valuable, and that the psychologically controlling strategies parents use in maintaining the parent-child relationship may teach children how to effectively use relational aggression to maintain highly valued relationships, such as friendships (Crick, et al., 1999).

### *Summary*

Recent research on relational aggression has focused on parental use of psychological control. However, it is possible that individual dimensions of parental psychological control may be differentially associated with child aggression. In particular, understanding how types of guilt induction (disappointment versus shame) are related to aggression would be helpful in understanding why guilt induction has been shown to predict aggression while previous research has shown guilt to be an adaptive and constructive emotion/cognition.

Additionally, most of the research on parenting styles and childhood aggression has not explored how distinct dimensions of parenting might differentially interact in the prediction of child aggression (relational aggression in particular). As explained previously, whereas most studies find psychological control to be positively associated with relational aggression and warmth/involvement to be negatively predictive (Grotzinger & Crick, 1997; Nelson et al., 2006), these two dimensions may uniquely interact. For instance, there is evidence that parental warmth and involvement, in the context of psychologically controlling parenting, may exacerbate relationally aggressive tendencies (Grotzinger & Crick, 1997). Thus, it may not be the effects of individual parenting styles that are most influential, but, rather, the interactions between certain dimensions of the differing parenting styles may be the most influential in child development outcomes (Aunola & Nurmi, 2005; Baumrind, 1991; Darling & Steinberg, 1993; Steinberg, 2001).

In an attempt to gain a more complete view of the specific relationships between psychological control and relational aggression, this study will concentrate on exploring the interactions between warm/involved parenting and two forms of psychological control (shame and disappointment) as they affect childhood relational aggression. Regression equations predicting physical aggression will be provided as a point of contrast. Furthermore, these analyses will be conducted separately for each parent-child dyad (defined by gender of parent and child).

### *Objectives and Hypotheses*

The current study seeks to address the following objectives:

1. This study seeks to identify selected dimensions of psychological control (shame and disappointment) and assess their correlation with aggression subtypes

(relational and physical). Consistent with previous research, it is expected that both psychological control dimensions will be moderately correlated (with each other) and aggression subtypes will be highly correlated as well. Nonetheless, it is expected that the dimensions and subtypes can be statistically distinguished (e.g., physical aggression distinguished from relational aggression). It is also projected that parental use of shame will be positively correlated with both aggression subtypes. However, it is anticipated that parental use of disappointment will not be correlated with either aggression subtype. An additional part of our measurement strategy is to identify warmth and involvement as a parenting dimension. It is anticipated that this dimension will be modestly and negatively correlated with each aggression subtype and psychological control dimension. Parenting dimensions will be identified for both mothers and fathers and aggression subtypes will be identified for boys and girls.

2. Next, this study will examine the potential moderating effect of parental warmth and involvement on the relationship between the psychological control dimensions and the aggression subtypes. Relational aggression is the primary focus of this objective, but analyses predicting physical aggression are provided as a point of comparison. It is expected that warmth and involvement will significantly interact with shaming and disappointment. In particular, we anticipated that warmth and involvement would exacerbate the aversive affects of shaming (leading to more child relational aggression), but that warmth and involvement would enhance the effect of disappointment to curtail relationally aggressive behavior.

## Chapter III

### Methods

#### *Research Participants*

Included in this study were 217 fourth grade children (100 boys, 117 girls) and their parents (184 fathers, 216 mothers) from two school districts in an urban, moderate-sized community in the Western United States. The number of fathers reflects a participation rate of 84.8% of fathers from dual-parent families. The sample was primarily Caucasian (92.2%) with the remaining children belonging to a mix of other ethnic categories (Latino, Native American, Asian, Polynesian, and Biracial). Parental consent was obtained for each child and each child assented to participate in the study. The rate of consent for the aggression assessment exceeded 75%. The rate of consent for the parenting assessment, which was conducted in the context of a home interview, was just above 70%.

#### *Procedure*

Children were invited to participate during short, in-class presentations at their schools. All fourth-grade classrooms sent home consent forms which asked parents to give consent for their children to participate in both a classroom activity (composed of a sociometric and behavior nomination procedure) and a family interview. Sociometric and behavior nomination procedures were conducted within each classroom in which consent reached the target threshold (70%). These classroom assessments provided data regarding peer acceptance as well as nominations of relationally aggressive, physically aggressive, and prosocial behavior (the latter not being relevant to this study). All students in the

classroom were rewarded with a special pencil and eraser (regardless of whether they participated in the study or not) for allowing us to work with their classroom.

All families from the classrooms that reached the consent threshold for family interviews (70%) were asked to participate in these assessments, wherein the parenting measures were administered. These interviews were given within the family's home or another suitable place (e.g., town library). Each interview lasted approximately one hour, and included other measures (e.g., social cognition) that are not included in the current study. Each participating family received five dollars for their child's participation and 10 dollars for the participation of each parent (two-parent families received 25 dollars).

### *Instrumentation*

*Assessment of children's relational and physical aggression.* A peer nomination measure adapted from Crick's Children's Social Behavior Scale—Peer Report (CSBS-P) was used to assess subtypes of prosocial and aggressive behavior (Crick, 1995; Crick & Grotpeter, 1995; Grotpeter & Crick, 1996). The CSBS-P has yielded favorable psychometric properties in past research. For instance, factor analyses of the items on the measure have yielded similar factor structures across multiple independent samples, and the scales have demonstrated internal consistency (Crick & Grotpeter, 1995; Grotpeter & Crick, 1996). In particular, the physical and relational aggression items were utilized from the CSBS-P. Five items were summed to form the relational aggression scale (e.g., Who tries to make others not like certain children by spreading rumors about them?). Three items were summed to comprise the physical aggression subscale (e.g., Who hits, kicks, or punches others?). An additional 14 social behaviors and peer perceptions (e.g., prosocial behaviors) were added to the measure for purposes which go beyond this study.

*Assessment of parenting measures.* In this study, parents independently rated their own parenting styles and practices with items adapted from measures of psychological control (see Barber, 1996; Olsen et al., 2002; Yang et al., 2004) as well as authoritarian and authoritative parenting dimensions (Robinson, Mandleco, Olsen, & Hart, 2001). Representative items are listed in Table 1, and these items have been reliably used in previous studies (e.g., Nelson & Crick, 2002; Yang et al., 2004). Parents rated the frequency of their engagement in specific parenting behaviors utilizing a five-point Likert-type scale (1 = Never; 5 = Always). Four items were summed to form the disappointment scale (e.g. I let my child know when he/she has disappointed me); four items were summed to form the shame scale (e.g. When my child misbehaves, I tell him/her that he/she should be ashamed); and seven items were summed to form the warmth/involvement scale (e.g. I express affection by hugging, kissing, and holding my child; I tell my child that I appreciate what he/she tries or accomplishes).

## Chapter IV

### Results

#### *Analysis Plan*

The first goal of this inquiry was to discover whether parental use of disappointment and shame could be differentiated as separate and unique forms of psychological control. Additionally, it was of interest to adequately measure parental warmth and involvement in order to later account for any moderating effects of positive parenting on the relationship between the specified psychological control dimensions and child aggression. Also essential to this study were adequate measures of the child aggression constructs (physical and relational aggression). In order to establish the

distinctiveness of these constructs, an exploratory factor analysis was employed, and reliability estimates for each resulting scale are provided. An intercorrelation table is provided for all study scales and variables.

In prelude to the regression analyses, we conducted a number of important preliminary t-tests. First, due to the central focus of the disappointment and shame parenting constructs, paired-samples t-tests probed for significant mean differences in parents' self-reported engagement in disappointment and shaming behaviors (conducted for each parent-child dyad). These tests assessed whether parents might, by the relative engagement in disappointment versus shame, indicate that they found one to be more or less desirable or normative in their parenting interactions. Next, additional t-tests were conducted in order to determine whether means differed significantly for boys and girls for any of the primary variables of interest, including the child aggression variables and the parenting variables. In regard to the parenting variables, these tests allowed examination of whether parents respond differently to boys and girls in their childrearing. In addition, we assessed to what extent mothers and fathers were congruent in their responses for each of the parenting variables (for boys and girls separately). Accordingly, t-tests were conducted to determine the level of difference between mothers' and fathers' reports of their parenting of boys and girls, respectively.

Next, regression analyses were used to examine how parental disappointment and shame might differentially predict aggression. These analyses examined the amount of variance explained by shame or disappointment in the prediction of physical or relational aggression, in the presence of the positive parenting variables. Interactions were tested by including the product of a negative parenting variable and a positive parenting variable to

test for potential moderating effects (Aunola & Nurmi, 2005; Gray & Steinberg, 1999; Pettit & Laird, 2002).

*Assessment of Disappointment, Shame, and Warmth/Involvement Scales*

A principal components factor analysis with promax rotation of the factors was conducted on disappointment, shame, and warmth/involvement items. Mothers' and fathers' scores were combined in this analysis. As expected, this analysis yielded two distinct factors for disappointment and shame, and it also yielded two subdimensions of the warmth/involvement items. Thus, four factors with eigenvalues greater than 1 were obtained: (a) supportive involvement (in which items of expressed support loaded together; eigenvalue = 3.5), which accounted for 23.5% of the variation, (b) disappointment (eigenvalue = 2.7), which accounted for 18.3% of the variation, (c) expressive warmth (in which items of expressed affection loaded together; eigenvalue = 1.3), which accounted for 8.8 % of the variation and (d) shame (eigenvalue = 1.0), which accounted for 6.8% of the variation. Similar factor structures were obtained separately for mothers and fathers as well.

In all the above factor analyses, the criterion used for determining a substantial crossloading between constructs was .30 or greater. The factor loadings for the resulting four scales are shown in Table 1. Cronbach's alpha coefficients were also computed for all scales and were found to be satisfactory: mothers' disappointment ( $\alpha = .67$ ), fathers' disappointment ( $\alpha = .77$ ), mothers' shame ( $\alpha = .63$ ), fathers' shame ( $\alpha = .60$ ), mothers' expressive warmth ( $\alpha = .76$ ), fathers' expressive warmth ( $\alpha = .75$ ), mothers' supportive involvement ( $\alpha = .71$ ), and fathers' supportive involvement ( $\alpha = .74$ ).

*Assessment of Aggression Scales*

In a separate factor analysis, boys' and girls' scores were combined to test for divergence between the physical and relational aggression measures. Consistent with previous research, this factor analysis resulted in two subtypes of aggression: (a) relational aggression (eigenvalue = 4.8), which accounted for 60.0% of the variation, and (b) physical aggression (eigenvalue = 1.5), which accounted for 19.0% of the variation. Factor loadings for the two resulting scales are shown in Table 2. Cronbach's alpha coefficients were computed for these scales and were found to be satisfactory: physical aggression ( $\alpha = .95$ ) and relational aggression ( $\alpha = .89$ ).

#### *Descriptive Statistics and Intercorrelations of Study Scales and Variables*

An intercorrelation matrix of all study scales (disappointment, shame, expressive warmth, supportive involvement, physical aggression, and relational aggression) is provided in Table 3, complete with means and standard deviations. The descriptive and correlational data are reported separately for boys and girls, as we expected there would be gender differences in the means of some variables and the magnitudes of some correlations. A few comments about the correlations are in order.

First, relational and physical aggression were found to be highly correlated, especially for boys ( $r_s = .72$  and  $.53$  for boys and girls, respectively). This high correlation is expected as these subtypes originate from the same overall construct of childhood aggression (Crick & Grotpeter, 1995). Comparison of the correlation between these aggression subtypes (using Fisher's  $r$ -to- $z$  test) showed that the correlation was also significantly higher in boys ( $z = 2.3, p < .01$ ). These correlations are consistent with findings in previous studies (Crick et al., 1999; Nelson et al., 2005; Nelson et al., 2006).

Despite the high correlation, however, results of exploratory factor analysis show that physical aggression and relational aggression do emerge as distinct factors.

Second, parental use of shaming and disappointment in parents of boys and girls were found to be somewhat correlated ( $r_s = .41, .30$  for fathers and mothers of boys, respectively, and  $r_s = .37, .30$  for fathers and mothers of girls, respectively). This is not unexpected. If some parents are prone to tell their children they are ashamed of them, it follows that they may also be prone to telling their children when they are disappointed in them. However, the modest correlation also suggests that parents tend to differentially engage in disappointment and shaming behavior.

Correlations between mothers' and fathers' positive parenting variables also indicated that parents tended to engage in similar levels of expressive warmth and supportive involvement. For parents of boys, mothers' and fathers' expressive warmth were moderately correlated ( $r = .47$ ) as were mothers' and fathers' supportive involvement ( $r = .63$ ). For parents of girls, mothers' and fathers' expressive warmth ( $r = .56$ ) and mothers' and fathers' supportive involvement were also substantially correlated ( $r = .48$ ).

#### *Differences in Parents' Use of Disappointment and Shame*

Given that shame and disappointment are the main scales of interest in this study, it is important to know whether parents of boys and girls differ significantly in their use of disappointment and shame. The means and standard deviations in Table 1 suggest that parents do engage in far more disappointment behaviors than shaming behaviors with their children. T-tests of these means within gender of child confirmed this. In particular, mothers reported greater use of disappointment than shaming for both boys ( $t(1,99) =$

31.3,  $p < .001$ ) and girls ( $t(1, 116) = 31.4, p < .001$ ). Similarly, fathers reported significantly greater engagement in disappointment than shaming for both boys ( $t(1,86) = 25.0, p < .001$ ) and girls ( $t(1, 96) = 24.4, p < .001$ ).

#### *Gender Differences in Aggression Subtypes*

Previous research has consistently tested for gender differences in aggression subtypes (Crick & Grotpeter, 1995; Crick et al., 1999; Nelson et al., 2005; Nelson, Hart, Yang, Olsen, & Jin, 2006). Thus, to determine whether males and females were significantly different in their levels of physical and relational aggression, t-tests were conducted for boys and girls. Results indicated no significant gender difference for relational aggression. However, t-test results for physical aggression revealed a significant difference ( $t(1, 215) = 7.5, p < .001$ ). In particular, boys ( $M = .27, SD = .98$ ) were significantly more likely to be nominated as physical aggressive than were girls ( $M = -.46, SD = .35$ ).

#### *Differences in Parenting across Gender of Child*

T-tests were also conducted by gender of child in order to test whether parents treat their children differently by child gender. Results indicated that fathers are significantly more likely to report engaging in expressive warmth with daughters than with boys ( $t(1, 161) = -2.0, p = .05$ ). Additionally, fathers are more likely to report using disappointment with sons than with daughters, though the difference is marginal ( $t(1, 184) = 1.8, p < .10$ ). No other gender differences were found.

#### *Differences in Parenting by Gender of Parent*

Additional t-tests were conducted to examine differences in mothers' and fathers' reported parenting behaviors within gender of child. Results indicated that mothers of

boys reported significantly higher levels of expressive warmth ( $t(1, 86) = 3.67, p < .001$ ) and supportive involvement ( $t(1, 85) = 5.16, p < .001$ ) than did fathers of boys; and mothers of girls reported significantly higher levels of disappointment ( $t(1, 97) = 2.33, p < .05$ ), expressive warmth ( $t(1, 97) = 3.11, p < .01$ ), and supportive involvement ( $t(1, 96) = 3.21, p < .01$ ) than did fathers of girls. Thus, the overall mean differences reveal that two out of four parenting variables are significantly different for mothers and fathers of boys, and three out of four parenting variables are significantly different for mothers and fathers of girls.

Correlations between mothers' and fathers' parenting (see Table 3) also suggest that mothers and fathers in general have minor concordance in their parenting. Only one parenting variable (supportive involvement) was significantly correlated for mothers and fathers ( $r = .31, p < .01$ ). However, for mothers and fathers of girls, none of the parenting variables were significantly correlated with one another. Therefore, in general, parents tend to differ significantly in self-reported parenting. These and other t-test results provide further impetus for conducting the subsequent regression analyses separately for mothers and fathers.

### *Regression Analyses*

Regression analyses were next conducted in order to assess the predictive relationship between parental shame and disappointment and child physical and relational aggression. Separate regression models were conducted for pairs of psychologically controlling and positive parenting dimensions in order to test for the main effects of the variables and also potential interaction effects. For example, shame and supportive

involvement, and the interaction between the two, constitute one regression model.

Again, these models are analyzed separately for each parent-child dyad.

*Disappointment and shame predicting aggression subtypes.* Consistent with our hypotheses, regression analyses demonstrated that shame significantly predicted child aggression whereas disappointment generally did not (only two marginal trends were obtained; see Table 4). Furthermore, the F-value for the overall equations for parental disappointment were non-significant. In contrast, as seen in Table 5, mothers' use of shaming significantly predicted relational aggression in all models for both boys and girls, and physical aggression in one model for boys only ( $p < .01$  for all the above mentioned models). Paternal shaming, on the other hand, was significantly predictive in only one equation, wherein it was predictive of girls' physical aggression (in the context of expressive warmth). The F-value for the overall equations for parental shaming were consistently significant as well.

*Expressive warmth and supportive involvement predicting aggression subtypes.* In these same equations, few significant main effects emerged for the relationship between parental expressive warmth and supportive involvement and child aggression outcomes. As seen in Tables 4 and 5, regression results indicated two significant main effects of expressive warmth. In particular, paternal expressive warmth was negatively predictive of boys' engagement in relational aggression (in models where either disappointment or shame was present). Supportive involvement also had few associations with aggression subtypes. When disappointment was present in the model, mothers' supportive involvement negatively predicted relational aggression in boys, whereas fathers'

supportive involvement negatively predicted girls' relational aggression in the context of disappointment.

*Expressive warmth and supportive involvement as moderators.* As seen in Tables 4 and 5, expressive warmth and supportive involvement demonstrated very few moderating effects on the relationship between disappointment and shame and the two child outcomes. Only one model revealed a significant interaction between these variables. Specifically, the association between fathers' use of shame and boys' physical aggression was moderated by fathers' use of supportive involvement ( $\beta = -.23$ ,  $t = -2.02$ ,  $p < .05$ ). It is also interesting to note that fathers' expressive warmth was found to marginally function as a moderator for the link between fathers' use of shame and boys' physical aggression ( $\beta = -.20$ ,  $t = -1.89$ ,  $p = .06$ ). Given that this marginal finding was nearly significant, we chose to interpret it.

To better interpret these interactions, simple slopes were examined for the dependent variables on the independent variables at multiple levels (high, average, low) of the positive parenting variables (expressive warmth and supportive involvement). In order to test the different slope coefficients for the two identified interactions, we followed Aiken and West's (1991) recommendation for post-hoc comparisons. They recommend looking at the association between the outcome variable and the main effect variables of interest while holding the moderator variables fixed at three different levels: the mean of the centered value of the moderating variable (average), the value one standard deviation above the mean (high), and the value one standard deviation below the mean (low).

Accordingly, the post hoc analysis for the one significant interaction showed that fathers' use of shaming significantly and positively predicted boys' physical aggression only when supportive involvement was low ( $\beta = .30, t = 2.39, p < .05$ ). At the mean level of supportive involvement ( $\beta = .21, t = 1.85, p = .07$ ), the effects of fathers' shaming was marginal, and when fathers' supportive involvement was high ( $\beta = -.01, t = -0.03, p = .98$ ), the effect that fathers' shaming had on boys' physical aggression disappeared. Thus, as seen in Figure 1, at high levels, fathers' use of supportive involvement with sons ameliorates the negative impact of shame in predicting physical aggression.

Similarly, post-hoc analysis for the marginal interaction showed that fathers' use of shaming significantly and positively predicted boys' physical aggression only when expressive warmth was low ( $\beta = .32, t = 2.19, p < .05$ ). At the mean level ( $\beta = .11, t = 1.02, p = .31$ ) or high level of expressive warmth ( $\beta = -.10, t = -.61, p = .54$ ), shaming was unassociated with boys' physical aggression. Again, as can be seen in Figure 2, it appears that fathers' use of shame is a factor in physical aggression only in father-son relationships in which the father's expressive warmth is low. Thus, limited evidence showed that positive parenting interacts with shaming in the prediction of physical aggression for the father-son dyad.

## Chapter V

### Discussion

#### *Disappointment, Shame and Aggression Subtypes*

This study first examined the potentially unique roles that parental use of two psychological control dimensions (disappointment and shame) play in predicting children's relational and physical aggression. As expected, the results showed that for

none of the parent-child dyads did parental use of disappointment significantly predict either relational or physical aggression in children. Conversely, parental shaming was particularly important in predicting relational aggression in all equations for both boys and girls. These results support previous research which has suggested that psychological control may be a stronger predictor of relational aggression than of physical aggression, though both types of aggression have been shown to be associated with parental psychological control (Nelson & Crick, 2002; Nelson et al., 2006; Yang et al., 2004). In this study, parental shaming predicted physical aggression in half as many equations as relational aggression.

The finding that parental use of disappointment fails to predict either relational or physical aggression (in any parent-child dyad) suggests that combining measures of disappointment with measures of shame in psychological control constructs may dilute the true effects that both of these parenting measures have on child outcomes. The fact that parents are more willing to admit to disappointment behaviors also suggests that differential effects may be likely. Therefore, caution should be used in future research in order to avoid conflating disappointment with other forms of psychological control.

Additionally, the results of this study confirm what previous research has only recently suggested—that some dimensions of psychological control may be more critical than others in predicting different childhood aggression subtypes (Nelson et al., 2005). Indeed, in the current study, as well as in previous studies (Aunola & Nurmi, 2005; Nelson et al., 2005), the items used to measure disappointment reflect parents' focus on condemning the child's actions, and items used to measure shame reflect parents'

criticism of the child as a person. Thus, disappointment seems to be quite different in its use by parents to regulate children's behavior.

These findings also appear to parallel previous research on the fundamental differences between guilt and shame. This research has shown that parents of shame-prone children focused on criticizing the child as a person, whereas parents of guilt-prone children focused on the child's specific misbehaviors (Ferguson & Stegge, 1995; Hoffman, 2000; Tangney & Dearing, 2002). Parental use of disappointment is likely an important facet of parental induction of guilt (which has been shown to be an adaptive and constructive emotion), whereas shaming behaviors may be considered somewhat antithetical to guilt induction. Therefore, a redefinition of guilt induction as an aversive form of parental psychological control may be in order, with disappointment and shaming behaviors considered separately. Perhaps *shame induction* would be a more appropriate title for such a construct. Additionally, as parental use of disappointment or the induction of shame-free guilt does not appear to predict either physical or relational aggression in children, it may be appropriate to strike disappointment and guilt induction from the commonly listed forms of aversive parenting.

Furthermore, these findings may be further interpreted in light of Rohner's PARTheory (Parental Acceptance and Rejection Theory). In this theory, it is postulated that children's psychological adjustment is directly related to how accepted they feel by their parents (Khaleque & Rohner, 2002). The more rejection occurs, the more likely misbehavior is to result. Accordingly, it appears that parental shaming may be significantly more likely than parental disappointment to broadcast a strong sense of parental disapproval and thereby provoke a feeling of rejection. Disappointment, in

contrast, may be milder in its effects and allow the child to feel accepted despite moderate parental disapproval.

#### *Warmth and Involvement as Predictors of Aggression Subtypes*

Unexpectedly, the positive parenting dimensions (expressive warmth and supportive involvement) had very few significant outcomes. The few significant findings obtained were all associated with relational aggression and most were present only in models in which the disappointment variable was present. It is difficult to explain why a more robust negative association between positive parenting and child aggression was not obtained. One potential explanation is that a ceiling effect may be at work in which most parents rate themselves highly on each of these dimensions. Nearly all of these positive parenting variables had means that were above 4 on a 5-point scale (with 4 representing “very often”). Accordingly, the lack of variability in parenting scale scores for these positive parenting variables may have inhibited detection of the actual association of these scales with child aggression. Social desirability is often a difficulty in self-ratings of parenting (Nelson et al., 2006)

#### *Differences by Parent/Child Dyads*

Previous research has suggested that investigating the effects of parenting styles on child aggression outcomes by parent-child dyads is often useful (Hart, et al., 1998; Nelson et al., 2005). It is interesting that, in this study, mothers’ shaming had the greatest influence on both sons’ and daughters’ relational aggression outcomes. However, in predicting physical aggression, opposite-gender dyads seemed to be of most importance. In particular, mothers’ shaming predicted sons’ physical aggression, whereas fathers’ shaming predicted daughters’ physical aggression. In previous research, some studies

have shown opposite-gender dyads (mother-son, father-daughter) to be most influential when using psychological control to predict child aggression outcomes (Nelson & Crick, 2002; Yang et al., 2004), whereas same-gender dyads (mother-daughter, father-son) appear to be most influential in other studies (Nelson et al., 2005). Further research is needed to create a better understanding of how and why parenting and child outcomes may vary across parent-child dyads.

The fact that mothers' shaming had the greatest influence on both son's and daughter's relational aggression outcomes may be explained using Miller-Day and Lee's (2001) study on parental communication of disappointment. In this study, mothers were reported as using indirect forms of expressing disappointment (e.g. little comments and jabs, as well as body language) more often than fathers, and such indirect expressions were associated with less perceived personal control in these children. These indirect and/or nonverbal expressions of disappointment so often used by mothers appear to actually parallel the current study's construct of shaming. Additionally, as Miller-Day and Lee (2001) posited, "a constant drip of critical or indirect parental remarks that express disappointment in a child may potentially engender greater psychological control over a child than less frequent direct verbal expressions of disappointments." These meaningful asides (e.g. little negative comments) that seem to be more often used by mothers than fathers may last longer and may be more re-occurring than direct, one-time expressions of disapproval, and thus may be more hurtful or rejecting to children.

Additionally, in Miller-Day & Lee's (2001) study, mothers expressed disappointment in their children because of perceived personal enduring traits (e.g. laziness, lack of intelligence) more often than did fathers. Based on previous research on

shame, it appears that such expressions of disappointment were actually shame inducing expressions, which would be equivalent to the current study's measures of shaming. Furthermore, it may be that mothers' shaming, when focused on things the child cannot change (i.e. personal traits), induces children to feel especially out of control in their relationships. Since the child cannot change the things about him or herself that are disapproved of, the child may feel that the only control he/she has in relationships is in the manipulation of those relationships through relational aggression.

*Warmth and Involvement as Moderators of Disappointment and Shame*

Only recently has research begun to address interactions between psychological control and parental support in predicting child outcomes. Two studies have suggested that children's problem behaviors decrease when high levels of parental psychological control are coupled with high levels of parental affection and involvement (Gray & Steinberg, 1999; Pettit & Laird, 2002). In contrast, Aunola and Nurmi (2005) reported that maternal affection exacerbates the negative effect of psychological control on child adjustment when the two are combined. The current study adds valuable information to this emerging area of research.

The results of this study showed only one interaction between positive and negative parenting dimensions to be significant: fathers' use of shaming significantly and positively predicted boys' physical aggression only when supportive involvement was low. At the mean level of supportive involvement, the effect of fathers' shaming was marginal, however it did follow the same positive direction. Interestingly, when fathers' supportive involvement was high, the negative effect that fathers' shaming had on boys' physical aggression disappeared. Additionally, although the overall interaction was only

marginally significant, it is interesting to note that the association between fathers' shaming and boys' physical aggression was similarly moderated by expressive warmth.

These results support the research of Gray and Steinberg (1999) and Pettit and Laird (2002), which studies suggest that supportive and involved parenting can buffer the negative effects of psychological control on child outcomes. However, supportive evidence was scant—only one of 32 interactions investigated in this study emerged as significant, and findings emerged only for the father-son dyad. It may be that a larger, more diverse sample of parents and children would yield more consistent findings (i.e., given greater statistical power). In any case, it seems clear that more in-depth research is needed to test in what circumstances positive parenting enhances, diminishes, or, indeed, has any influence on the negative effects of psychological control.

#### *Limitations and Future Research*

Although this study reveals some valuable insights into psychological control constructs and their effects on relational and physical aggression in children, more in-depth research is needed to confirm or clarify these relationships. As this study focused on an overwhelmingly Caucasian sample (92% Caucasian), it is not unreasonable to imagine that the findings may be stronger or different with parents and children in other ethnic groups. Additionally, the relationship between the specified parenting constructs and the aggression outcomes in this study may differ when focusing on a different age group. As Barber (1996) has hypothesized, it is likely that the effects of psychological control are more pronounced for adolescents, who are seeking greater autonomy in the parent-child relationship. Shame may be particularly maladaptive in use with adolescents.

Likewise, parental warmth and support may be particularly important to ease the effects of parental disapproval in the self-conscious years of adolescence.

Despite these reservations, the results of this study are not without merit. Perhaps the most valuable contribution of this study is that it draws attention to the importance of exploring the effects individual constructs within psychological control (i.e. disappointment versus shame), rather than exclusively focusing on psychological control as a general parenting dimension. It appears that greater attention to guilt induction is particularly needed in future research to reveal whether parental induction of guilt impacts children negatively or whether it is a constructive parenting tool. Additionally, this study appears to further illuminate what types of parenting seem to be most predictive of relational aggression difficulties in children. This is important given the dearth of parenting research in relational aggression, relative to physical aggression research (Nelson et al., 2006). As researchers and practitioners seek to assist parents who are dealing with relationally aggressive youth, it will be important to understand what parents can do to adjust their parenting practices so that they are curtailing rather than promoting this kind of social behavior.

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## Appendix

Table 1

*Factor Loadings for the Parenting Instrument*

Item	Factor			
	Disappoint- ment	Shaming	Expressive Warmth	Supportive Involvement
I let my child know when he/she has disappointed me.	.81			
I let my child know when I am angry with him/her.	.75			
I act disappointed when my child misbehaves.	.71			
I let my child know how disappointed I am when he/she misbehaves.	.66			
I say to my child something like, "If you really cared for me, you would not do things that make me worry."		.78		
When my child misbehaves, I tell him/her that he/she should be ashamed.		.73		
I tell my child that I get embarrassed when he/she does not meet my expectations.		.46		
I remind my child of past misbehaviors or embarrassing moments when I criticize him/her.		.71		
I express affection by hugging, kissing, and holding my child.			.85	
I have warm and intimate times together with my child.			.72	
I tell my child that I love him/her.			.71	
I give praise when my child is good.				.77
I give comfort and understanding when my child is upset.				.60
I show sympathy when my child is hurt or frustrated.				.68
I tell my child that I appreciate what he/she tries or accomplishes.				.74

*Note.* All other factor loadings were less than .30, with the exception of one item with a loading of .34, which was considered insubstantial.

Table 2

*Factor Loadings for the Peer Behavioral Nomination Instrument*

Item	Factor	
	Relational Aggression	Physical Aggression
Tries to make another kid not like a certain person by spreading rumors about them or talking behind their backs.	.92	
When mad at a person, this kid gets even by keeping that person from being in their group of friends.	.83	
When mad at a person, this kid ignores the person or stop talking to them.	.92	
Tells friends he/she will stop liking them unless the friends do what he/she says.	.74	
Tries to keep certain people from being in the peer group when it's time to play or do an activity.	.65	
Hits, kicks, or punches other kids at school.		.99
Pushes and shoves other kids.		.94
Tells others that he/she will beat them up unless the kids do what he/she says.		.95

Table 3

*Descriptive Statistics and Correlation Matrix for Observed Variables (for Boys and Girls)*

	Physagg	Relagg	Mdisapp	Fdisapp	Mshame	Fshame	Mexpwrm	Fexpwrm	Msuppinv	Fsuppinv
<i>Mean</i>	.27	-.09	3.42	3.43	1.41	1.54	4.23	3.82	4.43	4.10
<i>SD</i>	.98	.70	.60	.71	.46	.56	.61	.82	.38	.55
Physagg	-	.72**	.13	-.04	.26**	.13	-.12	-.07	-.17	-.08
Relagg	.53**	-	.03	.04	.31**	.08	-.13	-.21*	-.22*	-.13
Mdisapp	.01	.14	-	.12	.30**	.09	-.08	.09	.06	.14
Fdisapp	.13	-.02	.19*	-	.21*	.41**	.03	.15	.13	.29**
Mshame	.09	.30**	.33**	.14	-	.06	-.09	.10	-.17*	.09
Fshame	.25**	.08	.06	.37**	.19*	-	.10	-.02	.01	.04
Mexpwrm	-.02	-.02	.14	.02	-.09	.10	-	.10	.46**	.12
Fexpwrm	-.06	-.07	.04	.05	-.03	-.06	.18*	-	.23*	.63**
Msuppinv	.03	-.06	-.03	-.06	-.22**	-.04	.57**	.06	-	.32**
Fsuppinv	-.10	-.20*	-.05	.08	.03	-.23*	-.01	.48**	.02	-
<i>Mean</i>	-.46	-.12	3.50	3.24	1.43	1.48	4.28	4.03	4.37	4.12
<i>SD</i>	.35	.73	.73	.75	.44	.41	.63	.64	.49	.59

*Note.* Upper diagonal: Descriptive Statistics and Correlations for Boys; Lower diagonal: Descriptive Statistics and Correlations for Girls.

Table 4

*Main Effects and Moderating Effects of the Regression Equations for Disappointment*

Dependent Variable/ Moderating Variable	Independent Variables						Adj R <sup>2</sup>	F
	Disappointment		Expressive Warmth/ Supportive Involvement		Disappointment X Expressive Warmth/ Supportive Involvement			
	<i>B (SE)</i>	$\exists$	<i>B (SE)</i>	$\exists$	<i>B (SE)</i>	$\exists$		
<b>Boys</b>								
Relational Aggression/ Expressive Warmth	.01 (.12)	.01	<i>-.13 (.12)</i>	<i>-.11</i>	<i>.25 (.18)</i>	.14	.00	1.1
	<i>.07 (.10)</i>	<i>.07</i>	<i>-.19 (.09)</i>	<i>-.23*</i>	<i>-.01 (.13)</i>	<i>-.01</i>	<i>.02</i>	<i>1.5</i>
Relational Aggression/ Supportive Involvement	.04 (.12)	.03	<i>-.41 (.19)</i>	<i>-.22*</i>	<i>-.20 (.31)</i>	<i>-.07</i>	.03	1.8
	<i>.08 (.11)</i>	<i>.09</i>	<i>-.19 (.14)</i>	<i>-.15</i>	<i>.08 (.17)</i>	<i>.05</i>	<i>-.01</i>	<i>0.7</i>
Physical Aggression/ Expressive Warmth	.20 (.17)	.12	<i>-.16 (.16)</i>	<i>-.10</i>	<i>.13 (.26)</i>	<i>.05</i>	.00	1.0
	<i>-.04 (.15)</i>	<i>-.03</i>	<i>-.08 (.14)</i>	<i>-.07</i>	<i>-.02 (.19)</i>	<i>-.01</i>	<i>-.03</i>	<i>0.2</i>
Physical Aggression/ Supportive Involvement	.23 (.17)	.14	<i>-.44 (.26)</i>	<i>-.17+</i>	<i>-.27 (.43)</i>	<i>-.06</i>	.02	1.7
	<i>-.02 (.16)</i>	<i>-.01</i>	<i>-.14 (.20)</i>	<i>-.08</i>	<i>-.12 (.25)</i>	<i>-.05</i>	<i>-.03</i>	<i>0.3</i>
<b>Girls</b>								
Relational Aggression/ Expressive Warmth	.16 (.09)	.16+	<i>-.07 (.11)</i>	<i>-.06</i>	<i>-.23 (.17)</i>	<i>-.13</i>	<i>.01</i>	<i>1.5</i>
	<i>.02 (.11)</i>	<i>.02</i>	<i>-.11 (.13)</i>	<i>-.10</i>	<i>-.11 (.16)</i>	<i>-.08</i>	<i>-.02</i>	<i>0.4</i>
Relational Aggression/ Supportive Involvement	.15 (.09)	.15	<i>-.05 (.14)</i>	<i>-.03</i>	<i>-.23 (.19)</i>	<i>-.11</i>	.01	1.4
	<i>.03 (.11)</i>	<i>.03</i>	<i>-.26 (.13)</i>	<i>-.20*</i>	<i>-.14 (.18)</i>	<i>-.08</i>	<i>.01</i>	<i>1.5</i>
Physical Aggression/ Expressive Warmth	.01 (.05)	.02	<i>-.02 (.05)</i>	<i>-.04</i>	<i>-.09 (.08)</i>	<i>-.11</i>	<i>-.01</i>	<i>0.5</i>
	<i>.10 (.06)</i>	<i>.20+</i>	<i>-.07 (.06)</i>	<i>-.12</i>	<i>-.10 (.08)</i>	<i>-.14</i>	<i>.01</i>	<i>1.3</i>
Physical Aggression/ Supportive Involvement	.01 (.05)	.01	<i>.03 (.07)</i>	<i>.04</i>	<i>-.05 (.09)</i>	<i>-.05</i>	<i>-.02</i>	<i>.13</i>
	<i>.08 (.05)</i>	<i>.17</i>	<i>-.07 (.07)</i>	<i>-.12</i>	<i>-.07 (.09)</i>	<i>-.09</i>	<i>.00</i>	<i>1.1</i>

Note. *Italicized values* represent findings of regression equations for fathers.

Adj R<sup>2</sup> = adjusted multiple correlation squared; F = adjusted Fisher's F Ratio.

+*p* < .10; \**p* < .05; \*\**p* < .01.

Table 5

*Main Effects and Moderating Effects of the Regression Equations for Shaming*

Dependent Variable/ Moderating Variable	Independent Variables						<i>Adj R</i> <sup>2</sup>	<i>F</i>
	Shaming		Expressive Warmth/ Supportive Involvement		Shaming X Expressive Warmth/ Supportive Involvement			
	<i>B (SE)</i>	$\exists$	<i>B (SE)</i>	$\exists$	<i>B (SE)</i>	$\exists$		
<b>Boys</b>								
Relational Aggression/ Expressive Warmth	.45 (.15)	.30**	-.11 (.12)	-.10	.06 (.30)	.02	.08	4.6*
	<i>.08 (.13)</i>	<i>.07</i>	<i>-.18 (.09)</i>	<i>-.22*</i>	<i>-.09 (.19)</i>	<i>-.05</i>	<i>.02</i>	<i>1.6</i>
Relational Aggression/ Supportive Involvement	.38 (.16)	.25**	-.32 (.18)	-.17+	-.30 (.37)	-.08	.10	4.7**
	<i>.11 (.14)</i>	<i>.09</i>	<i>-.16 (.14)</i>	<i>-.13</i>	<i>-.06 (.23)</i>	<i>-.03</i>	<i>-.01</i>	<i>0.7</i>
Physical Aggression/ Expressive Warmth	.55 (.21)	.26**	-.09 (.16)	-.06	.66 (.41)	.16	.07	3.5**
	<i>.19 (.19)</i>	<i>.11</i>	<i>-.10 (.13)</i>	<i>-.09</i>	<i>-.50 (.26)</i>	<i>-.20+</i>	<i>.03</i>	<i>1.8</i>
Physical Aggression/ Supportive Involvement	.42 (.22)	.20+	-.31 (.26)	-.12	-.62 (.52)	-.12	.07	3.3*
	<i>.36 (.19)</i>	<i>.21+</i>	<i>-.11 (.19)</i>	<i>-.06</i>	<i>-.65 (.32)</i>	<i>-.23*</i>	<i>.04</i>	<i>2.1</i>
<b>Girls</b>								
Relational Aggression/ Expressive Warmth	.49 (.15)	.30***	.01 (.10)	.01	-.09 (.25)	-.03	.07	3.7**
	<i>.14 (.19)</i>	<i>.08</i>	<i>-.09 (.13)</i>	<i>-.07</i>	<i>.02 (.33)</i>	<i>.01</i>	<i>-.02</i>	<i>.40</i>
Relational Aggression/ Supportive Involvement	.44 (.16)	.27**	.04 (.14)	.03	-.30 (.25)	-.12	.08	4.2**
	<i>.06 (.20)</i>	<i>.03</i>	<i>-.24 (.13)</i>	<i>-.19+</i>	<i>-.06 (.28)</i>	<i>-.02</i>	<i>.01</i>	<i>1.3</i>
Physical Aggression/ Expressive Warmth	.07 (.08)	.08	-.01 (.05)	-.02	-.05 (.12)	-.04	-.02	.35
	<i>.22 (.09)</i>	<i>.24*</i>	<i>-.05 (.06)</i>	<i>-.09</i>	<i>-.12 (.16)</i>	<i>-.08</i>	<i>.04</i>	<i>2.3+</i>
Physical Aggression/ Supportive Involvement	.07 (.08)	.09	.04 (.07)	.06	-.04 (.13)	-.03	-.02	.40
	<i>.19 (.10)</i>	<i>.21+</i>	<i>-.04 (.07)</i>	<i>-.05</i>	<i>-.14 (.14)</i>	<i>-.12</i>	<i>.04</i>	<i>2.4+</i>

*Note. Italicized values represent findings of regression equations for fathers.*

*Adj R*<sup>2</sup> = adjusted multiple correlation squared; *F* = adjusted Fisher's *F* Ratio.

+*p* < .10; \**p* < .05; \*\**p* < .01; \*\*\**p* < .001

Figure 1

*Significant Interaction between Fathers' Shame and Supportive Involvement in Predicting Physical Aggression*

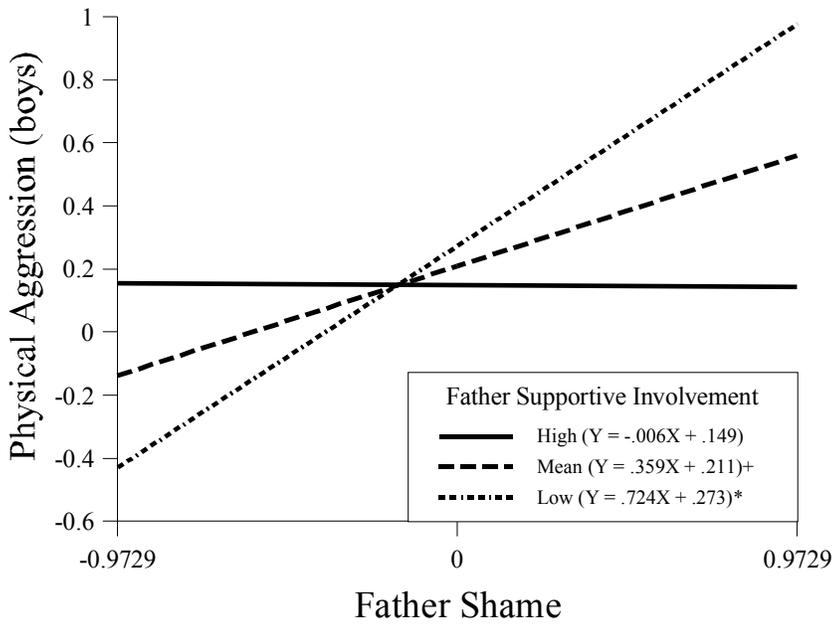


Figure 2

*Marginal Interaction between Fathers' Shame and Supportive Involvement in Predicting Physical Aggression*

