MOTHERS' SOCIAL COACHING ABOUT RELATIONAL AGGRESSION AND ITS RELATION TO INDICATORS OF PEER COMPETENCE

By

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Abstract

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This study focused on mothers' social coaching about preschoolers' relational and physical aggression. We hypothesized that mothers would provide children with higher quality social coaching when discussing physical aggression as compared to relational aggression. We further expected the quality of mothers' social coaching to be associated with child outcomes, including relational aggression, physical aggression, prosocial behavior, and empathy. Finally, we predicted a positive relationship between relational aggression and empathy. Ninety mothers of preschool children read stories with their children depicting reactive displays of relational and physical aggression. Teachers rated children's social behavior at the initial assessment and one year later. Results provided partial support for study hypotheses. Mothers provided higher quality coaching in response to physical aggression, and higher quality coaching was significantly related to child physical aggression, prosocial behaviors, and empathy. Mothers who proposed authority seeking strategies had children rated by teachers as more relationally aggressive. Theoretical and practical implications, as well as recommendations for future research regarding these findings are discussed.

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This thesis is dedicated to

victims of relational aggression and their mothers.

Mothers' Qualities of Social Coaching about Relational Aggression and Relations to Indicators of Peer Competence

CHAPTER 1

INTRODUCTION

Relational aggression, the manipulation of a relationship to intentionally harm another peer's social status (Crick & Grotpeter, 1995), is associated with a myriad of internalizing, externalizing and adjustment problems (for a review see, Crick, Werner, Casas, O'Brien, Nelson, Grotpeter, & Markon, 1999). During the preschool years, relational aggression is more common in girls, whereas physical aggression is more common in boys (Crick, Ostrov & Werner, 2006). Relational aggression is a relatively stable trait during early to middle childhood (Crick et al., 2006; Zimmer-Gembeck, Geiger, Crick, 2005; Crick, Ostrov, Burr, Cullerton-Sen, Jansen-Yeh & Ralston, 2006). Researchers have evaluated a myriad of outcomes associated with relational aggression, but have not clearly addressed how these behaviors take shape. Are some children more genetically inclined for relational aggression? Is relational aggression shaped mainly by the peer group, as Harris (1995) might argue? Or, could parents', specifically mothers, be a contributing factor or influence? Although a large body of literature has documented familial influences on physical aggression, only recently have researchers begun to explore the ways in which parents influence relational aggression. In this study we attempt to understand mother's influence on the development of child relational aggression.

The current study is designed to increase our understanding of unique processes by which parents influence the development or maintenance of relational aggression in young children through a storybook reading task. Specifically, the current study is conducted to understand the potential pathways by which mother's beliefs and parenting practices influence children's use of

relational aggression in the peer group through assessing mother's discussions surrounding stories that involve conflict with their children. The qualities of mothers' discussions with their children about peer conflicts involving relational aggression, or *social coaching*, and their association with children's use of relational aggression and other indicators of peer competence will be assessed in this study. We will assess mothers' social coaching abilities in the social coaching task on qualities of communication including: elaboration, encouragement of empathy and communication of a moral and social rule violation and assess how they are related to child outcomes (i.e., relational aggression and empathy). In addition, the types of strategies that mothers propose for dealing with the conflicts in the stories will be assessed.

Children's relationships with their parents provide them with a broad range of opportunities to develop peer competence (Ladd, Le Sieur, & Profilet, 1993). Ladd and Pettit (2002) identified two pathways by which parents influence children's peer competence: directly and indirectly. Indirect parental influences refer to broad parenting styles and practices that influence multiple aspects of children's development, including peer competence. Available evidence indicates that harsh and permissive parenting and psychological control are associated with relational aggression *and* physical aggression during childhood (Casas, Weigel, Crick, Ostrov, Woods, Jansen Yeh, & Huddleston-Casas, 2006; Hart, Nelson, Robinson, Olsen & McNeilly-Choque, 1998; Nelson & Crick, 2002; Sandstrom, 2007). Although this research is significant, little information about the ways in which parents uniquely influence relational aggression is available.

Direct parental influences, on the other hand, describe the strategies parents use to specifically manage children's peer relationships and promote social skills (Ladd et al., 1993). One type of direct influence is social coaching, which refers to parental advice-giving about

peers. Mothers' social coaching quality has a unique predictor of children's peer competence above and beyond broad stylistic parenting qualities (Mize & Ladd, 1990). To date, no studies have investigated mothers' social coaching about relational aggression and its influence on children's relationally aggressive behavior.

This study has three fundamental empirical goals. Our first goal is to explore differences in the qualities of mothers' social coaching as a function of aggression form (relational versus physical). The three social coaching qualities examined in this study were: *elaboration* (extent to which mother discusses with her child beyond story content), *encouragement of empathy* (extent to which mother encourages child to identify with characters' emotions), and *rule violation* (extent to which mother communicates characters in story violated a convention). In addition, we will examine the *strategies* that mothers proposed as alternative actions in regards to the story. The qualities of the strategies will not be accounted for in the social coaching task, and that is why they were coded for separately. Previous research has shown that mothers hold different beliefs about relational aggression versus physical aggression, and their proposed responses to aggression differ as a function of aggression form (Werner, Senich, & Przepyszny, 2006). For example, when considering relational aggression mothers reported being less upset, were less likely to report intervening, and were less likely to communicate to their child that a social or moral rule was violated compared to physically aggressive scenarios (Werner et al., 2006; Werner & Grant, in press). These beliefs are likely to impact the qualities of mothers' social coaching about relational aggression because if mothers are less upset by it and view it differently than physical aggression then they are likely to respond differently.

Our second goal is to examine the association between the qualities of social coaching and relational aggression. We assessed the extent to which mothers 1) elaborated on the story

content, 2) encouraged empathetic understanding, 3) communicated rule violation, and 4) endorsed effective strategies for handling conflicts involving relational aggression. Prior research has shown that children's social competence is enhanced by the quality of mother's social coaching about peer relationships (Mize & Pettit, 1997). This is the first study to explore social coaching effects on children's use of relational aggression in the peer group.

Our third goal is to explore the correlation between relational aggression and other indicators of social competence that have not been researched as extensively, such as empathy. Empathy is the recognition of a shared emotional state of another person (Zhou, Valiente & Eisenberg, 2003). In the literature, empathy has been found to be a protective factor against the development of physical aggression (Zhou, et al., 2003; Findlay, Girardi & Coplan, 2007; Mayberry & Espelage, 2007). Some research indicates that relational aggression is positively associated with prosocial behaviors including empathy and moral reasoning (Hawley, 2003).

The current study extends prior research on social coaching and parental influences on relational aggression in several ways. First, we explored the ways in which parents manage children's peer conflicts involving relational aggression. The majority of research has been on broad parenting styles (high levels of psychological control and permissive parenting) that are associated with both relational and physical aggression in the same way (Casas et al., 2006, Hart et al., 1998; Nelson & Crick, 2002). This study draws on direct models of parental influence, as opposed to indirect parental influences, in an attempt to understand more specific parental influences on relational aggression. Researchers that have evaluated social coaching qualities and outcomes have yet to assess relational aggression as an outcome.

Secondly, the study is adding important data to the field because observational methods are being used to study parental influences of relational aggression. Most research has used self-

report methods. Observational methods are preferable because they have the potential to reflect actual behaviors, and potentially lessen social desirability bias often associated with survey methods. The current study observed mothers' guidance and feedback on peer conflicts, coined social coaching. These scenarios may be similar to what a child may have experienced or witnessed in their life and provides an opportunity for us to tap into conversations that may actually occur when peer conflicts arise. Previous research on social coaching has used hypothetical vignettes, encouragement of structured parental involvement (Pettit, Brown, Mize, & Lindsey, 1998), and observations with videotaped stimuli (Mize & Pettit, 1997), but not observations that include story book reading. Using videotaped vignettes has advantages- everyone views the same stimuli, has the same contextual cues and listens to the same tone of voice (Colwell, Mize, Pettit, & Laird, 2002). Videotaped stimuli, however, also has its disadvantages – researchers are unable to control for character attractiveness and race identification. The advantage of book reading is that it has removed the limitations of videotaped stimuli, and has been used in recent studies as a method for eliciting conversation (Laible, 2004). Book reading may be a more common activity between mothers and children and therefore may be more naturalistic.

And lastly, this study makes advances by studying contextual influences (e.g., aggression type) on social coaching qualities. Studies have shown that parents' cognitions are sensitive to the type of misconduct children display, and adults view relational aggression as less hurtful and less serious compared to physical aggression (Grusec, Dix & Mills, 1982; Bauman & Del Rio, 2006; Hazler, Miller, Carney & Green, 2001). Parental beliefs about each aggression type have the ability to shape parents' discussion surrounding these topics with their children. Observed social coaching will extend our understanding of differences in how mothers talk

about, manage, and facilitate their children in peer conflicts involving relational aggression versus physical aggression.

The section that follows critically reviews literature regarding relational aggression and parenting. As stated earlier, the first studies on relational aggression and parenting looked at broad parenting dimensions and stylistic qualities, and results have been similar to what research has found on physical aggression. In the current study, we hope to identify the unique processes by which parents influence relational aggression. Direct parental influences, including parents' management and instruction to their children about peer relationships, will be the focus of this study (Ladd & Pettit, 2002). Initial sections will discuss relational aggression, empathy, indirect parental influences, direct parental influences, as well as address issues with parenting research. The review concludes with a summary and critique of the literature, followed by a discussion of the research questions examined in this thesis.

CHAPTER 2

Review of the Literature

Relational Aggression and Empathy

Relational Aggression

Relational aggression is the manipulation of a peer relationship to get one's way in a situation or as retaliation against a real or perceived threat (Crick, 1996; Crick & Grotpeter, 1995). Examples of relational aggression include spreading secrets or gossip, making threats to terminate a friendship and social exclusion. Relational aggression differs from overt forms of aggression (e.g., physical and verbal) because in relational aggression, relationships are the medium used to harm others. Other forms of covert aggression have been compared to relational aggression and include social and indirect aggression. However, in indirect aggression the

aggressor can be anonymous (e.g., egging someone's house), and in social aggression non-verbal gestures are included, such as eye rolling (Coyne & Archer, 2005). Card, Stucky, Sawalani and Little (2008) found a high intercorrelation between relational aggression and physical aggression, concluding that these two types of aggression are somewhat overlapping (57% of variance), yet the remaining variance is unique. The current investigation employs the term relational aggression as defined by Crick and Grotpeter (1995).

Age Differences

Relational aggression is detectable in children as young as three years of age, is relatively direct (e.g., "You can't sit here") and continues to get more sophisticated and manipulative in nature with age (e.g., threatening to leave a friendship unless the friend complies with wishes) (Crick, Ostrov & Kawabata, 2007; Crick, 1996; Bjorkqvist, Osterman, & Lagerspetz, 1994; Zimmer-Gembeck, et al., 2005; Crick et al., 2006). In early childhood relational aggression is associated with peer rejection and loneliness for both perpetrators and victims (Crick et al., 2006). A recent meta-analysis found that age did not moderate the use of relational aggression (Card et al., 2008). In other words, age differences were not present. However, in the meta-analysis, early childhood and older adolescents were not well represented and self report, teacher report, and peer nomination were the main methods of data collection.

Relational aggression is moderately stable across an 18-24 month period during early childhood and over a 36 month period in middle childhood and is comparable to the stability of physical aggression (Crick, et al., 2006). The early occurrence and stability suggests that relationally aggressive behavior patterns may take shape at a young age. It may be particularly important for prevention and intervention efforts to target relational aggression during early childhood. In middle childhood, friendships become the most common context for use of

relational aggression in addition to the general peer group (Grotpeter & Crick, 1996). During adolescence and throughout adulthood, romantic relationships provide new opportunities for the use of relational aggression (Crick, et al., 2006; Linder, Crick, & Collins, 2002).

Gender Differences

Early research on relational aggression suggested that this form of aggression is more characteristic in preschool girls, whereas physical aggression is more characteristic in preschool boys (Crick et al., 2006). In one study with observations during free play, preschool girls engaged in about 3 acts per hour and boys engaged in 2.5 (Ostrov & Keating, 2004). In a metanalysis, however, gender differences were nonsignificant across age, country, and ethinicity (Card et al., 2008). Gender differences held across method of assessing aggression, although some evidence for reporter moderation was found. Specifically, adults appear to have expectations for gender typed behavior, such that both parents and teachers view girls as more relationally aggressive than boys (Card et al.).

Links with Adjustment

Relational aggression is associated with a myriad of internalizing and externalizing behavioral difficulties (for a review, see Crick et al., 1999). In preschool relational aggression is significantly positively related to social-psychological maladjustment (e.g., peer rejection and depressed affect) (Crick, Casas & Mosher, 1997). Overall, relational aggression in children, adolescents and college students is positively associated with eating disorders, unsatisfactory relationship qualities, peer rejection, decreased life satisfaction, antisocial personality characteristics, delinquent behavior, and emotional maladjustment (Murray-Close, Ostrov, & Werner, 2007; Prinstein, Boergers & Vernberg, 2001; Storch, Werner & Storch, 2003; Werner & Crick, 1999). Research has shown that late adolescent relationships characterized by high levels

of relational aggression are associated with a lack of trust, jealousy, frustration and anxious clinging to partner, and also poorer relationship quality with parents and peers (Linder et al., 2002). Relational aggression has been linked to perceived popularity and receiving social attention in adolescents (Cillessen & Mayeux, 2004; Leadbeater, Boone, Sangster & Mathieson, 2006). However, adolescents who are perceived as popular are not necessarily well liked, and popularity gains do not necessarily increase the quality of social relationship (Rose, Swenson, & Carlson, 2004).

Distinctions from Physical Aggression

Although significantly positively associated with physical aggression (Card et al., 2008), relational aggression is a unique construct. Studies have shown that relational aggression attributions are uniquely associated and with relationally aggressive behavior, and physical aggression attributions are uniquely associated with physical aggression (Crick, Grotpeter & Bigbee, 2002). Ostrov (2008) found that relational aggression was uniquely associated with relational victimization whereas physical aggression was uniquely associated with physical aggression victimization. Relational aggression also appears as a unique process within friendships. Werner & Crick (2004) found that friend's level of relational aggression predicted child's use of relational aggression one year later, and the same unique association was found for physical aggression. In a behavioral genetically designed twin study, friends relational aggression was directly associated with children's own relational aggression as a unique association from child genetic predisposition (Brendgen, Boivin, Vitaro, Bukowski, Dionne, Tremblay et al., 2008). These findings occurred exclusively to the type of aggression and were not supported across aggression types. Although some children show both types of aggression, the majority of children show solely physical or relational forms of aggression (72.7% in sample

vs. 27.3% who showed combined aggression in 3rd-6th grade) (Crick & Grotpeter, 1995). Relational aggression and physical aggression share few environmental influences- and therefore may require context-specific intervention efforts rather than broad aggression intervention strategies (Brendgen et al., 2008).

Empathy

Empathy is an emotional arousal that develops from the comprehension of another person's emotional, physical or psychological condition and is recognized by the observer as a reflection of the other person's state (Zhou et. al, 2003). For example, if an observer notices someone that is in a state of distress and in response feels sad, then the observer is experiencing empathy. Around 2 to 3 years of age, children become increasingly aware of others' feelings (Eisenberg, Spinrad & Sadovsky, 2006). Children also show an attempt to alter others' psychological and emotional states - not just by comforting but also through bullying and teasing others (Dunn, 2006). Prosocial behaviors, which are often linked with peer competence, are actions motivated to benefit another persons well being and begin with empathetic understanding (Hastings, Zahn-Waxler & McShane, 2006). Garner (2003) found that children may use their emotional skills to cooperate with others (i.e., pro-social behavior) or to benefit themselves (i.e., relational aggression).

A lack of empathetic understanding contributes to problems in socio-emotional development. Hoffman (2000) argues that children harm others because their temporary arousal keeps them from recognizing the potential harm and overrides their empathetic tendencies. Empathy has been found to encourage socially competent behaviors and inhibit physical aggression (Zhou, et al., 2003; Eisenberg et al., 2006). Empathy has been found to be inversely correlated with physical aggression and bullying (Eisenberg et al.).

The Relationship Between Empathy and Aggression.

Theoretical and empirical work has linked deficits in empathy with aggressive behavior. Aggressive children often misread other's perspectives and engage in improper behaviors due to their misinterpreted bias in social situations (Crick & Dodge, 1994). Some literature has shown empathy and behavioral problems are not necessarily associated in preschool-age children (MacQuiddy, Maise & Hamilton, 1987; Zahn-Waxler, Cole, Welsh & Fox, 1995). Perhaps aggressive children are capable of responding with empathy, but they often misinterpret peers behavior in social situations (Miller & Eisenberg, 1988) or could be mediated by child shyness (Findlay et al., 2006). Research has shown, however, that children who are high in empathy are less shy (Findlay et al.). When aggressive children experience more forceful forms of parenting, they are less likely to develop a concern for others (Hastings, Zahn-Waxler, Robinson, Usher, & Bridges, 2000). Other research has focused more specifically on how the two constructs, aggression and empathy, are related in children's development.

Physical aggression and empathy. In a review of 17 studies including empathy and physical aggression, Lovett & Sheffield (2007) found the inverse link between empathy and physical aggression to be stronger in adolescents and less clear in early and middle childhood. The authors theorized that the link may be inconclusive in younger samples due to differences in methodology. Behavioral studies including adolescents used clinical assessments of physical aggression, had larger sample sizes, and used a more validated empathy task. Empathy measures in children are centered on personal distress. Differences in measurement methods used in adolescents versus children could account for the mixed findings in younger samples. Mayberry and Espelage (2007) found that adolescent males reported higher levels of physical aggression and lower levels of empathy than females. Non-aggressive adolescents scored higher on empathy

and had lower reward expectations for utilizing aggression. Aggressive children have been found to have lower levels of social understanding and social interpretation bias, and often misinterpret intentions of peers (Crick & Dodge, 1994). Overall, the literature has supported an inverse relationship between physical aggression and empathy.

Prosocial behaviors and empathy. Prosocial behaviors and empathy have traditionally been viewed as similar constructs. In a more recent study, Findlay and colleagues (2007) found empathetic kindergarten children, as rated by their mothers, were more prosocial and had advanced abilities in interpreting social cues. Empathetic children also had lower levels of physical aggression and social-withdrawal. Research on empathy and relational aggression has been limited and of the few studies conducted, results have been inconclusive.

Relational aggression and empathy. Researchers theorize that when children develop social and verbal skills, they are more capable of relational aggression and that social intelligence or social skills (similar constructs related to empathy and prosocial behaviors) should be more positively correlated with relational aggression than physical aggression (Bjorkqvist, Osterman & Kaukianen, 2000). Across studies on relational aggression reviewed in a meta-analysis, relational aggression was positively related to prosocial behaviors, social intelligence (i.e., a concept closely related to social skills), and low levels of perspective taking (Card et al., 2008). Hawley (2003) found that in preschoolers, relational aggression was positively related to prosocial behaviors in both boys and girls. Girls that were rated by teachers as more relationally aggressive also provided higher levels of moral reasoning.

A second study on subtypes of aggression, empathy and social intelligence was conduct by Finnish researchers on schoolchildren (Kaukiainen, Bjorkqvist, Lagerspetz, Osterman, Salmivalli, Rothberg & Ahlbom, 1999). Empathy was correlated negatively with verbal, physical

and indirect forms of aggression at most ages; however, indirect aggression was positively correlated with social intelligence across all age cohorts. In a study with college students, Loudin, Loukas and Robinson (2003) found that students with higher levels of perspective taking reported lower levels of relational aggression. For males only, lower levels of empathy predicted high levels of relational aggression.

Most research has supported that physical aggression and empathy have an inverse relationship, whereas the relationship between empathy and relational aggression is inconclusive. However, due to the nature of relational aggression, a higher level of social understanding might be required. Social understanding usually begins with empathy, therefore empathy and social understanding are related concepts. In this study we examined the association of relational aggression and empathy in preschool-aged children. There have been recent efforts towards indentifying antecedents and correlates of relational aggression (Casas et al., 2006; Nelson & Crick, 2002; Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008). The parent-child relationship is one of the key influences on children's development and maintenance of peer relationships (Ladd & Pettit, 2002). Through parent-child interactions, children acquire social and behavioral references that carry over into peer relationships (Ladd & Pettit). One limitation of existing research on parenting is the lack of research on unique components that may influence the development of relational aggression (Nelson & Crick).Due to the harmful consequences on adjustment resulting from relational aggression, it is important that the development of and contributing factors to relational aggression be studied.

Direct and Indirect Parental Influences on Peer Competence

Recently, there has been an increase in the amount of evidence to show that parent-child relations and child-peer relations complement or compensate for each other, and may even

parallel each other (Ladd & Pettit, 2002). These patterns of parent-child interactions are related to children's peer competence, which is the ability to sustain positive interaction with peers (Ladd & Pettit; Guralnick, Neville, Hammond & Connor, 2007). This research is in part guided by Social Learning Theory, which describes the modeling or adaption of a behavior from observing an attachment figure or a figure with whom the modeler identifies (Bandura, 1969). Children are constantly receiving communications from their parents about how to act and what can be expected from others. Consider the following observation made by Pettit and Mize (1993):

> Two mothers lead their 3-year-olds (both of whom look somewhat bewildered and are clutching their mothers' hands) into the classroom on their child's first day of nursery school. The mother of the first child, busily chatting with another mother, urges her son to join some children already at play in the sandbox. When he hesitates, she tells him just to be nice and to share and that the others will let him play. The son makes an attempt to join the play but soon returns to mother, whimpering that the others would not let him play. The mother admonishes him for not trying hard enough and then pushes him back towards the group, reminding him to be nice. The second mother, meanwhile, carefully watches a child filling a large toy truck with sand. Stooping down, she directs her daughter's attention to the sandbox and asks her to take notice what the child there is doing. Together they walk to the sandbox as the mother mentions that the other child might need some help filling the truck. When the other child says no, the mother tells her daughter that it is okay, that the other child probably just wants to be alone for awhile, and that maybe they can play together later. (p.118-119)

Ladd and Pettit (2002) defined two types of parental influence: indirect and direct. Indirect parental influences refer to parenting styles, which represent a configuration of behaviors that describe parent-child interactions over a myriad of domains that fit into a framework of general parenting that are internal to the family system (Ladd & Pettit; Mize & Pettit, 1997). Direct parental influences include specific parenting practices used to manage children's peer relationships and to meet parents' socialization goals around peer competence. Recently, researchers are examining ways in which mother's direct influences might provide benefits to children beyond, or in concurrence with, the quality of the mother-child relationship (Mize & Pettit). Research has supported that direct and indirect parental influences each make distinctive contributions to children's social competence (Mize & Pettit).

Indirect Parenting Influences on Peer Competence

Indirect parental influences on peer competence are broad parent socialization practices that describe the family climate (Ladd & Pettit, 2002). Indirect parental influences may impact peer relationships, but the mechanisms of influence are less explicit. Indirect forms of influence describe how family relationship patterns are transferred and used in the context of children's peer relations (Ladd & Pettit). Broad parenting dimensions, which have shown to influence children's social competence, are internal to the family system, and do not encompass the explicit management parents provide for their children's actual or potential peer relations or other contexts outside the family system. Indirect parental influences are socialization outlooks that encompass a variety of family environmental factors that include but are not limited to: attachment security, parenting styles, parental discipline, economic stressors, family pathology, and other aspects of the family environment that are independent of peer influence and do not directly assist children outside the family (Ladd & Pettit; Harris, 1995). Social learning theory

(Bandura, 1977) stresses the importance of modeling and observation in learned behaviors. Behaviors observed by children from their parents are theorized to be modeled by children within the context of peers. Social learning principles suggest that parents who rely on harsh or permissive (i.e., failing to set limits combined with high levels of warmth) parenting strategies will raise children who utilize the same type of strategies with their peers (Sandstrom, 2007).

Investigations into the qualities within broad parent-child relationship have shown to be associated with peer competence. Harrist, Pettit, Dodge and Bates (1994) evaluated 100 mothers and their kindergarten children on dyadic elements of parent-child interactions. Observations in the home were conducted over 2 separate, 2-hour home visits. All social events (i.e., any interaction with psychological significance) were coded on broad parenting dimensions including: engagement (level of exchanges), affective tone (positive, negative or neutral expressed emotion) and connectedness (action follows from action of another). Positive interaction qualities were significantly related to children's positive school adjustment and to lower levels of aggression.

Recent research has found behaviors in parent-child relationships are similar to children's interaction with their peers. Kahen, Fainsilber & Gottman (1994) examined 56 family unit interactions (mothers, fathers and their children) in a laboratory and home visit. This is one of the few studies to include fathers. In the laboratory session parents were told to gather information about a story that their child had previously listened to and to also teach a video game. All three family members were present for the 10 minute interaction. Parent-child interaction sessions that took place in the lab were coded for intrusiveness (i.e., physical interference with child's actions), command, engagement, sarcastic humor, and positive affect. In a separate home visit, a best friend was present for a 30 minute play session with the target child for a measure of peer

competence. Parents who scored high on intrusiveness scored low on engagement and used sarcastic humor during instruction had children with low levels of peer competence. Kahen and colleagues summarized that children with low levels of peer competence model their parents interaction qualities and tendency to make others feel as if they are incapable of completing a task or unworthy of respect.

Other research has carefully examined the influence of stylistic qualities of parental-child interactions as contributors of children's competence. Criss, Shaw and Ingoldsby (2003) examined levels of parental engagement and positive affect during a conflict discussion task with a diverse, low-income sample of 122 families with 10-year-old children. Mothers and their sons were assessed at home during interactions on level of synchrony (i.e., the balance between partners, or the degree the dyad reflects back on one another). High quality parent-child interactions were related to lower levels of child physical aggression and higher levels of peer social skills. Synchrony reflects the level of engagement between a mother and child, which may reflect a higher quality relationship. This positive relationship may help children maintain positive peer relationships. These results remained even after controlling for children's hostile attributions and earlier child and peer antisocial behaviors. Therefore, these indirect influences remain a strong influence aside from children's previous peer relations, and previous physical aggression.

These studies demonstrate the important links between indirect parental socialization methods and children's competence with peers. Social learning theory has continued empirical support for the importance of parental modeling, as research has shown parents behaviors are often observed and enacted by children with their peers (Criss et al., 2003; Harrist et al., 1994; Kahen, et al., 1994). While indirect parental influences provide an explanation for the

transference of parent-child relationship qualities to peer contexts, they do not tap into the specific practices parents utilize to develop and foster children's peer relationships. Indirect processes exist within the family and are not motivated or influenced by children's experiences outside the family (Ladd & Pettit, 2002). Rather, indirect parenting describes a broad socialization climate (Ladd & Pettit). Indirect parental pathways are related to children's peer competence, but do not have a direct bearing on children's access, interactions or relationships with peers (Ladd et al., 1993).

Indirect Influences on Relational Aggression

The majority of research that has evaluated parental influences on aggression has focused on overt forms of aggression (i.e., verbal and physical). Studies have found that parents' controlling and harsh behaviors towards children are related to children's use of physical aggression and hostile behaviors towards peers (Caron, Weiss, Harris, & Catron, 2006; Coie & Dodge, 1988; McFadyen-Ketchum, Bates, Dodge, & Pettit, 1996). Few studies, however, have empirically evaluated unique parental discipline strategies in relation to children's relational aggression. Recently, researchers found both controlling and permissive parenting styles to be important correlates of both relational aggression and physical aggression. Recent research on relational aggression has examined behavioral versus psychological forms of control on child outcomes and their unique contributions within subtypes of aggression (Nelson & Crick, 2002). I first provide an overview of the current research on broad parenting styles as an influence on relational aggression. This is followed by the emerging research on parental psychologically controlling strategies as a possible antecedent to children's use of relational aggression.

Parenting Styles. Current studies provide additional support for the associations of broad parenting styles with child relational aggression. Relational aggression and physical aggression

are highly inter-correlated (Card et al.). Because the study of parental influences on relational aggression is so novel, evaluating broad parenting styles was a logical starting place for evaluating familial influences on relational aggression. Broad parenting styles include those originally conceptualized by Baumrind (1967) which include permissive, authoritarian, and authoritative. Permissive parents are high on warmth and low on control, while authoritarian parents are low on warmth and high on control (Baumrind). Authoritative parents give high levels of warmth with moderate levels of behavioral control (Baumrind).

One recent study evaluated the influence of maternal parenting style, which included authoritarian, authoritative, and permissive parenting and children's relational aggression as an outcome in a Western sample. Sandstrom (2007) found mothers use of authoritarian or controlling strategies were related to higher rates of both physical and relational aggression in school age children. Maternal permissiveness was related to relational aggression in girls, but not boys. The author hypothesized that permissive mothers may be less clear about expectations of appropriate behavior surrounding relational aggression with young daughters (Sandstrom). Permissive parenting creates a "risky" model for girls in the peer context, in that parents persuade their children to comply rather than being clear about specific expectations (Sandstrom). Girls with permissive mothers may be more likely to use similar strategies with peers. Mother may also be gentler with their girls in response to aggression, and may set more explicit rules for their sons (Sandstrom).

Brown and colleagues (Brown, Arnold, Dobbs & Doctoroff, 2007) evaluated parenting in a diverse sample, including European American, Puerto Rican, African American and multi-ethnic families using both survey and observational methods. Researchers coded parents' behavior for harshness, laxness, negative affect and positive affect. Mothers' positive affect was

related to lower levels of relational aggression. In addition, maternal laxness (a dimension of permissive parenting) and harsh parenting were associated with relational aggression for daughters only. This finding could be explained by gender role identification. As the authors hypothesized, permissive parents may be less clear about behavioral expectations or rules for their children. These results, that harsh parenting and lax parenting are related to relational aggression, are similar to what has been found for physical aggression and parenting styles.

Research on broad parental influences on relational aggression has helped researchers understand the transmission of such damaging behaviors. Overall, studies suggest that broad parenting practices (e.g., permissive and authoritative parenting) are related to physical and relational aggression in similar ways (Casas et al., 2006; Brown et al, 2007; Hart et al., 1998; Nelson & Crick, 2002; Sandstrom, 2007). Despite similarities, the gender of the parents and their child plays an important role in whether the behaviors are modeled. For example, permissive parenting predicted relational aggression only in mother-daughter relations (Sandstrom). One potential avenue for explaining the gender specific relationship may be through identifying novel parenting dimensions unique to relational aggression and gender identification. Few studies, however, have identified specific processes through which parents acculturate relationally aggressive behaviors in children. A complete understand of aggression is delayed due to a previous focus on physical aggression, whereas little is known about relational aggression (Casas et al., 2006).

Psychological control. Nelson and Crick (2002) argue that the use of psychological control closely resembles relationally aggressive behaviors used by children in peer relationships. Love withdrawal is a dimension of psychological control that includes the

manipulation of a relationship to get what one wants and restricts child autonomy (Casas et al., 2006). A child may take these lessons from their parent and use them with peers.

Hart and colleagues (1998) found maternal use of psychological control and lack of responsiveness were significantly related to daughters' use of relational aggression, as reported by teachers, even after controlling for broad parenting dimensions and marital hostility. Similarly, in a sample of Chinese families, physical coercion by mothers was associated with daughters' level of relational aggression in the peer group (Nelson, Hart, Yang, Olsen, & Jin, 2006).

Studies of parenting and relational aggression in the U.S. have focused on the same broad parenting styles and dimensions as in cross-cultural studies. Nelson and Crick (2002) found that maternal coercive control predicted relational aggression in boys and girls in 3rd grade, whereas in 5th grade, fathers' use of psychological control was related to relational aggression in girls only. Casas and colleagues (2006) also evaluated mothers and fathers parenting styles, psychological control and attachment and its relation to preschooler's relational aggression. Casas and colleagues found that parents (both mothers and fathers) who reported higher levels of psychological control had children who used more relational aggression. Relational aggression in girls was found to be associated with authoritarian and permissive parenting, and having an insecure attachment.

Given that psychological control and relational aggression are similar constructs in that both involve relationship threats; it may be that individuals, specifically parents, use both types across context in a myriad of relationships (Reed, Goldstein, Morris, Keyes, 2008). A recent study measured mother's use of relational aggression with peers and found it was related to mother's use of psychological control with their elementary and middle school children, but was

not related to children's use of relational aggression with peers (Reed et al.). However, the sample was relatively small and relied on self report methods and teachers reported on relational aggression. However, the results demonstrate important links between parents' use of relational aggression with peers and their use of psychological control with their children.

Soenens and colleagues (2008) assessed an understudied population in this area of research: adolescents. They relied on parent and adolescent report of psychological control and used peer nomination techniques to assess relational aggression. Mothers and fathers use of psychological control was related to higher levels of relational aggression in their adolescents. A structural model revealed that relational aggression was also related to poor friendship quality and loneliness.

As previously stated, broad parenting styles (i.e., permissive and authoritative) are linked with both physical and relational aggression (Hart et al., 1998). Research suggests these behaviors may be moderated by parent or child gender, in that psychologically controlling mothers are more likely to have relationally aggressive daughters (Nelson & Crick, 2002; Nelson et al., 2006). Because girls place a greater importance on social relationships, girls raised by psychologically controlling parents may be more susceptible to the effects of this type of parenting, and may be more likely to bring these experiences to their peer group (Nelson & Crick). Psychological control parallels relationally aggressive behaviors, as in both relationships are manipulated and used to form threats (Nelson & Crick). This research fits into the social learning perspective, which implies that parent-child interactions serve as a model for children to use with their peers.

Because empathy may be a key influence to understanding aggression and prosocial behaviors, researchers have also made efforts to understand how parents encourage empathetic

understanding in their children. The majority of this research has focused on discipline strategies and broad parenting dimensions. However, some research has looked at parent-child discussions that include emotions as predictors of empathetic understanding.

Indirect Parental Influences on Empathy

Parents talk about emotions with their children to intensify children's awareness of their own and others emotions and to teach their children how to respond appropriately when emotions arise (Brown & Dunn, 1991; Wang & Fivush, 2005). Emotions are discussed more often when mothers provide advice or help their child resolve a peer relationship issue and are related longitudinally to children's advanced understanding of emotions (Brown & Dunn, 1991; Laible, 2004; Laird, Pettit, Mize, Brown and Lindsey, 1994). The discussion of positive emotions is linked to positive outcomes, such as emotional understanding and prosocial behavior (Laible; Laird et al.). Discussions about negative emotions are related to negative outcomes, such as low levels of prosocial behavior. However, if a mother is using negative emotions to encourage empathetic understanding in a story reading task, the kind of emotion words may not be as important. Mothers may focus on negative emotions to emphasize the hurtful nature of a behavior, which may encourage empathetic understanding. Parents may encourage empathy by having their child think about how the characters in the story felt as a way to explain why the behavior was wrong. Other studies have found that maternal explanations of emotions and directiveness for children to label emotions were related to children's attempts to understand the feelings of others and children's concern for others (Garner, 2003; Denham, 1997).

Krevans and Gibbs (1996) evaluated the influence of parental intervention strategies on children's empathy. Seventy-eight school-aged children and their families took part in completing questionnaires about discipline strategies and prosocial behaviors. Teachers also

completed surveys on child behaviors which included empathy. Parental use of negative control and power assertion were negatively correlated to children's empathetic responding (Krevans & Gibbs). The effects of parents' discipline strategies on children's prosocial behavior were mediated by child empathy. Therefore, parents' discipline strategies may be especially important for developing child empathy in the early years.

The nature of understanding emotions is critical for children's development of empathy. Previously, research had evaluated conversations between children and their parents and attachment security as predictors of developing emotional understanding, but had not had integrated both concepts. Ontai and Thompson (2002) evaluated attachment security, mother-child discourse and young children's emotional understanding in one sample. Secure attachment combined with high levels of maternal elaboration predicted emotional understanding at age 5 but not at age 3. The attachment or relationship quality is initially important and predicts whether the mother's messages about emotions will be adopted by the child (Ontai & Thompson). Central to open communication between a parent and child is the quality of the relationship. Therefore, mothers who are warm and also encourage conversation with their child are more likely to have children that recognize the emotions of others and are more empathetic. Mother's broad influences combined with specific practices influence children's emotional understanding.

Children who are better able to identify their own emotions may more easily recognize others' feelings, and therefore feel more empathy towards others (Eisenberg et al., 2006). Lagutta and Wellman (2002) found that parents and children talk more about negative emotions than positive emotions in their discussion of past and future events. It is possible that parents wish to teach their children how to handle negative emotions which may provide more

opportunities for emotional socialization than discussions including positive emotions (Lagutta & Wellman).

Research in this area has found that parents who use inductive reasoning as opposed to harsh discipline and who set high standards for their children are likely to rear empathetic children (Eisenberg et al., 2006 ; Hastings et al., 2000). Inductive reasoning and discipline is when parents encourage their children to think about how their harmful actions affect their peers (Hoffman, 2000). Broad parenting dimensions are influential to children's development of positive peer relationships and understanding of other's emotional states.

Historically, researchers have placed families and peers as opposing influences on children's development of social competence (Collins, Maccoby, Steinberg, Hetherington & Bornstein, 2000). The recent trend, however, is to evaluate how parents and peers conjointly influence children's development. Parent's play more of a direct role in shaping children's peer relationships than previously thought (Collins et al.). Less is known regarding the specific processes in which parents influence or manage their children's peer relationships.

Direct Parental Influences on Peer Competence

Parenting styles are generally thought of as an expansive climate within which specific parental strategies materialize, rather than a specific type of practice (Darling & Steinberg, 1993). Parenting dimensions, such as warmth and control, explain an environment by which parenting occurs, but fails to provide an explanation for the specific strategies and processes by which parents socialize their children. Therefore, a careful examination of the effectiveness of specific parenting practices as a function within the context of indirect parental influences should be further understood (Darling & Steinberg). Despite many years of research, we know little about the unique and specific processes through which parents influence the development of

children's peer competence (Darling & Steinberg). Mize and Pettit (1997) argue that the relations between parenting styles and children's peer competence are modest, and children may need more *explicit* forms of guidance from their parents to acquire social skills to use with peers.

Direct influences are domain specific and are expected to have domain specific effects within the parent-child relationship (Mize & Pettit, 1997). Direct parenting encompasses the specific features of socialization that are often left out when general parenting characteristics are studied (Darling & Steinberg, 1993). These influences are either based on or inspired by children's actual, anticipated, or parents' perception of their child's experiences with their peers. In the peer domain, parents impact children's competence through designing (i.e., choosing environments that facilitate interactions with peers), mediating (i.e., arranging play dates), supervising (i.e., monitoring peer play) and consulting (i.e., providing advice or guidance about how to interact with peers) (Ladd & Pettit, 2002). Research has found that the advice that parents provide to their children about peers regarding the management of peer situations is a distinguishable influence from broader parenting styles (Mize & Pettit). Even without the presence of their children's peers, parents mediate, advise, manage, and design their children's peer situations (Ladd & Pettit).

Social Coaching

Mize and Ladd (1990) coined the parental practice of giving advice and providing assistance to a child about peer situations as *social coaching*. As a direct parental influence, social coaching has been found to influence children's adjustment and peer relations (Mize & Pettit, 1997). Dimensions of social coaching have been associated with prosocial behavior, peer competence and antisocial behavior (Zahn-Waxler, Radke-Yarrow, & King, 1979; Denham, Zoller & Couchoud, 1994; Mize & Pettit; Criss et al., 2003).

Preschool age children. As early as preschool, parents play a key role as advisor to their children's peer interactions and even assist in the formation of their children's first friendships (Mize & Pettit, 1997). Mothers advise their children about making friends and dealing with bullies as early as the preschool years (Laird, Pettit, Mize, Brown & Lindsey, 1994). Research has found that emotions are discussed more often when mothers provide specific advice about peers, compared to general discussion, with their children (Laird et al.). Discussions that include references to emotions may encourage empathy and prosocial behaviors.

Laird and colleagues (1994) evaluated the content and natural occurrence of mother-child dialogues about peer interactions in 39 mothers and their 4 and 5 year old children. The qualities of mother-child conversations that were measured included maternal involvement (i.e., level of interaction between mother and child) and encouragement (i.e., level that mothers promoted or discouraged child's activities). Approximately half of the mothers reported that they talk to their children about peers daily and provide their children advice on making friends and dealing with bullies. Children initiated most of the conversations and daughters initiated these conversations more often than sons. Emotions were discussed more often when mothers gave advice or helped solve a peer relationship issue. The frequency of conversations about peers was positively related to maternal involvement and encouragement. Higher frequencies of mother-child conversations about peers were related to better peer competence in children after controlling for encouragement and involvement. Therefore, conversations involving peers uniquely benefit children's peer competence because the frequency of conversation about peers influences peer competence above and beyond general conversation, maternal encouragement and involvement. Therefore, intentional efforts parents make for assisting their children with peers has been shown to be especially beneficial for children's development of positive relationships. However, it is

also possible that less socially competent children, or children with difficult temperaments, require more conversations.

Mothers' communication with their children about the consequences of behavior, emotions, and other contextual factors is expected to help children make decisions about peer situations. Laible (2004) videotaped a book reading session with preschool children and their mothers. Conversations were coded for elaboration and emotional content. Mothers who elaborated extensively while conversing with their children during a book-reading task, had children that demonstrated more emotional understanding and behavioral internalization. Mothers' discussion of positive emotions was also related to higher levels of emotional understanding and prosocial behaviors. Inversely, parent-child discussions about negative emotions were associated with lower levels of prosocial behaviors in children. By focusing on negative emotions, mothers may influence children's hostile attribution bias or normative beliefs about aggression (MacBrayer, Milich & Hundley, 2003; Laible). Maternal elaboration and the discussion of positive emotions are important predictors for children's social competence. Mother's discussions with their children may be broad, or may encompass something more specific, such as being centered on peer situations.

In one of the first studies of maternal social coaching in the peer context, Mize and Pettit (1997) evaluated 105 preschool-aged children and their mothers watching videos of peer conflicts to assess the way mothers talk to their children about peer situations. Teachers provided ratings of children's competence with peers. Mothers' social coaching was scored on resiliency framing (i.e., the extent to which mother expressed optimistic attitudes despite negative circumstances), prosocial strategies (i.e., mothers' endorsement of friendly behaviors as opposed to ignoring or allowing aggressive responses) and elaboration (i.e., extent to which mother

helped child recognize social cues in story and provide alternative choices of behavior). Resiliency framing and the endorsement of prosocial strategies were found to be associated with lower levels of physical aggression, and with higher levels of prosocial behaviors and peer acceptance. Maternal elaboration was also associated with higher levels of peer acceptance. Maternal social coaching qualities predicted peer competence above and beyond general parenting dimensions (i.e., warmth). Associations between social coaching dimensions and peer competence remained even when controlling for children's receptive vocabulary, suggesting that coaching is more than just maternal responses to children's verbal abilities. Therefore, direct parental influences on children's peer relationships, such as social coaching, have a unique influence above and beyond indirect influences including broad parenting styles.

To date, only one study has examined fathers' social coaching capabilities. Pettit and colleagues (1998) observed mothers and fathers coaching practices in different settings. Preschool aged children and their mothers and fathers took part in a laboratory visit. Data on social competence was collected from teachers, and sociometric methods were used with children in the classroom. In the parent-child interactions, parents were told to play with their children the way they normally would at home. After 10 minutes, an unacquainted same sex peer entered the room for the child-peer play segment. After the child-peer segment, mothers and their children watched videos together portraying social problem scenarios. For each social coaching scenario, parents were coded on level of prosocial response (i.e. endorsed friendly strategies, did not focus on aggression) and elaboration (i.e., helped child attend to cues and think about alternative actions). Mothers and fathers each uniquely contributed to children's peer competence. Daughters' social competence and social skillfulness were predicted by their mothers' social coaching qualities (specifically, mothers' elaboration predicted girls social

skillfulness). Sons' competence was positively related to fathers' involvement in dyadic peer play. This study provides evidence for the importance of evaluating both parents, and shows that gender identification may be strong during younger ages.

Relatively little information is available about naturalistic occurrences of social coaching. Russell and Finnie (1990) observed parent –child interactions regarding their child engaged in play with peers in an experimental condition in which mothers were instructed to help their children join in play. Teachers rated preschool children's peer competence. Mothers were rated on their strategies used with their children regarding entering a new peer group. Discrete strategies included group oriented strategies, disruptive strategies and avoidance strategies. Mothers of popular children were more likely to suggest group entry strategies and facilitate ongoing play between their children and their peers. Mothers of rejected and neglected children were more likely to suggest ideas that redirected play and/or used authority to take charge of their child's peer situation. Russell and Finnie concluded that mothers can directly teach their children strategies for dealing with peers and also have the potential to thwart their child's peer interactions if they suggest inappropriate strategies.

Mothers' belief systems surrounding their children's abilities to interact with peers are also important predictors of social coaching qualities. Mize, Pettit, and Brown (1995) observed a sample of 34 mothers supervising the dyadic play of their preschool-aged children with their peers. Three distinct maternal cognitive domains were examined: beliefs, perception and knowledge. Mothers believed that experience was more significant in constructing children's peer relationships than direct teaching or children's dispositional traits. Mothers' beliefs about the origins of behaviors were also linked with their children's age. As children get older, mothers are more likely to predict experience, rather than age, as a stronger predictor of children's

inappropriate behavior with peers. Mothers with more social knowledge provided higher quality supervision, which includes taking an active role in monitoring child's play activity. Mothers, who were highly involved in supervising their children's peer relationships, yet employed low quality strategies had children that scored lower on social competence.

School-age children. McDowell, Parke & Wang (2003) measured mothers and fathers advice giving style about peer issues in elementary school aged children. Advice quality was determined by the degree to which advice was specific, reasonable and warm. In school-aged children, parents who provided more frequent and better quality advice, had children who were rated more poorly by teachers on social competence. The authors suggest that after a certain age parents may provide advice as more of a remediation technique rather than socialization strategy. Mothers may try to compensate for children's abilities by correcting a child who is not doing well with peers. Similarly, Laird et al. (1994) found that mothers of socially unskilled children encourage their children to engage in more frequent peer interactions. One explanation is encouragement from mothers is a way for them to attempt to compensate for children's lack of social skills. Mothers who give high quality advice at a younger age may "pull back" and be less directive as children get older. Parents may manage or influence their children's peer relationships in different ways that may be more developmentally appropriate in school aged children and adolescence. For example, during the elementary school years, parents have the ability to drive their children towards particular peers, which increases contact with some peers and decreases it with other peers (Collins et al., 2000).

Adolescence. As children get older, their parent's strategies change, but not necessarily their influence. In a sample of adolescents and their parents, Vernberg, Berry, Ewell, and Abwender (1993) used a semi-structured interview format to compare friendship-facilitation

strategies used by parents and their adolescents following a move or relocation. This method of collecting data on parent facilitation of friendship provides a naturalistic way of observing direct parental influences on adolescent peer relationships. Adolescents and mothers identified strategies that parents used to help adolescents form friendships. The frequency and type of parental strategies predicted success at making new high quality friendships. The most influential strategies on forming new friendships were enabling strategies, such as when parent allowed their adolescent to spend time with a friend (e.g., told adolescent the family was doing something with which they could invite a friend, let a friend sleep over, drove adolescent to friend's house). Research has found that during adolescent years, parental knowledge is more reliant on the information adolescents disclose rather than parents solicitation or control (Stattin & Kerr, 2000). The early strategies mothers use with their children to directly assist in peer engagements may be more influential. Therefore, it may be beneficial for parents' during these years to "pull back" and facilitate, rather than try to control their youth's relationships.

Differences in the occurrence, quality and intensity of direct parental strategies, assessed in laboratory and interview studies, appear to be important predictors of children's peer competence (Pettit & Mize, 1993). Direct parental influences, specifically social coaching, influence children's peer relationships in unique ways beyond indirect parental influences (Mize & Pettit, 1997). Specifically during the preschool years, parents facilitate the formation of children's first friendships and help them deal with bullying peers (Laird et al., 1994). Mother's extensive elaboration and endorsement of prosocial strategies have specifically been associated with children's peer competence (Laird et al.; Mize & Pettit; Pettit et al., 1998). This research suggests that parents teach children about relationships explicitly through their verbal

communications concerning relationships (Pettit & Mize). Limited research, including the current study, has specifically evaluated direct parental influences on relational aggression.

Direct Parental Influences on Relational Aggression

There is a dire need to understand the direct and specific parenting processes through which relational aggression develops (Nelson & Crick, 2002), and to identify strategies for parents to apply when discussing peer situations with their children. Research on the influence of broad parenting styles, or indirect influences, has not provided a clear picture of how relational aggression develops distinctly from physical aggression. No prior research has examined the quality of mothers' social coaching and relational aggression as an outcome. Examination of direct parental influences has promise for increasing our understanding of the etiology and maintenance of relational aggression.

Werner and colleagues (2006) were interested in mothers' emotional and behavioral responses to relational aggression. Although they did not measure coaching, per se, they hypothesized that specific responses to relational aggression would predict child relational aggression. In the study, mothers of preschool-aged children were asked to imagine their child as the aggressor in hypothetical stories depicting relational or physical aggression, and to describe how they would feel and what they would do or say if they witnessed each situation. Werner and colleagues evaluated dimensions or qualities of proposed intervention strategies for relational and physical aggression, including power assertion (i.e., punishment), discussion (i.e., explanation), encouragement (i.e., encouraging continued peer play) and rule violation (i.e., degree to which mother communicated that aggressive behavior breaks a social convention). In response to relationally aggressive scenarios, mothers reported being less upset, less likely to intervene, and less likely to communicate to their child that a social or moral rule was violated

compared to their responses to physically aggressive scenarios. Mothers who proposed interventions higher in power assertion and rule violation in relationally aggressive scenarios had daughters who were described by teachers as less relationally aggressive and more prosocial, but not more physically aggressive. These proposed interventions describe direct parenting strategies that have an influence on children's competence with peers.

In a follow up study conducted with school-aged children, Werner and Grant (in press) assessed the cognitive influences, or what predicted the differences in choice of strategies, on mothers' proposed responses to relational and physical aggression. Power assertion was measured as the strength of response and sternness. Mother's who viewed relational aggression as less acceptable reported using higher levels of power assertion in response to children's relationally aggressive behavior. Mothers' use of more power assertion was, in turn, associated with higher levels of peer acceptance and prosocial behavior in girls. Werner and Grant replicated findings from the preschool study and also found a prediction of daughter's relational aggression from maternal specific norms. Mothers who viewed relational aggression as less acceptable used more power assertion, and power assertion was related to lower levels of relational aggression. This is contradictory to previous research which has associated power assertion with physical aggression and relational aggression (Casas et al., 2006; Hart et al., 1998; Nelson & Crick, 2002). However, when mothers communicate clearly that a child's behavior is unacceptable or expresses disappointment, the child may be more likely to internalize these values that support prosocial behaviors or empathy, rather than choosing aggressive responses.

Taken together, the above studies suggest that mothers hold a unique set of beliefs about child relational aggression. These beliefs influence choice of discipline strategies, and are in turn related to children's use of relational aggression and peer acceptance (Werner & Grant, in press).

Mothers who are more accepting of relationally aggressive behaviors are unlikely to clearly communicate that behaviors are wrong, which may send an implicit message to children that it is okay to continue to utilize these behaviors in order to get what they want. Due to the lack of strong emotional responses and high quality interventions from parents, as well as the potential positive social rewards for relational aggression, children may be receiving the wrong message about the acceptability of relationally aggressive behaviors.

Mother's provided explanations for stories or social coaching have been shown to be correlated with children's competence. Garner, Dunsmore, & Southam-Gerrow (2008) initially found that mothers' explanation of emotions in a story book reading task were initially negatively associated with preschool children's relational aggression, but once children's emotional situational knowledge and other factors were entered into a regression, their was no longer a significance. Therefore, the relationship between emotional knowledge and children's relational aggression was not explained by mother's emotional explanations or by child age and gender. The most significant predictor of relational aggression studied was a child's emotional situational knowledge. However, mothers who frequently explained emotions had children with more emotional knowledge and prosocial behaviors, which are linked with empathy (Garner et al.). Children might use their emotional sensitivity to benefit others through the use of prosocial behaviors or alternatively to gain resources for themselves through the use of relational aggression (Garner et al.). Mothers' positive emotional discussions are related to low levels of physical aggression (Garner et al.). Similarly, knowledge of others emotions was negatively related to physical aggression which illustrates physically aggressive children may be less likely to identify the emotions of others. Physically aggressive children have difficulty identifying the

emotions of others which may explain why physically aggressive children have lower levels of empathy.

Issues with Parenting Research

Studies on parenting often overestimate the effect of parental socialization on children. Some developmentalists would agree that genes are the driving force in development and even influence the environments children are surrounded with. A child's genetic makeup is surely expected to influence the strategies parents use as well as the peers they surround themselves with. Some issues not addressed in the design of this study that warrant attention include genetic influences, direction of effects and group socialization theory.

Gene-Environment Correlations

Scarr & McCartney (1983) argue that genes are the driving force in differences in the types of environments individuals surround themselves with and also the degree of influence that those environments have on individuals. Research with twins has helped behavioral geneticists understand the influence of genetics on the parent-child relationship (McGue, Elkins, Walden & Iacono, 2005). Three types of genetic influences described by Scarr & McCartney are passive, evocative and active. In passive gene-environment correlations, parents provide both the genes and environment for their children, so it is impossible to separate out their respective influence. Using reading as an example, parents who are good readers most likely have a lot of books, and even when faced with a child who is a poor reader are able to provide an enriching environment (Scarrr & McCartney). A similar example would be that children who are relationally aggressive may have relationally aggressive parents. The second type of gene-environment correlation is evocative suggesting that different genes evoke or elicit different responses from social and physical environments (Scarr & McCartney). For example, a baby with an easy temperament

may be more likely to have a mother that enjoys spending time with her child and thus may provide more stimuli and attention to her child. The third type of gene-environment correlation is active, which describes how individuals seek out environments that match their genotype. For example, a child that is relationally aggressive may seek out peers who are relationally aggressive.

Developmental psychologists in the field have reached the consensus that it is the interaction of genes and environment that shape development (Patridge, 2005). Others have argued that the relationship is closer to nature *via* nurture in that our environment turns on different genes and determines how our genes act (Ridley, 2004). Because environmental influences are difficult if not impossible to control or conceptually measure, twin studies are predominantly genetically informed designs (Patridge). Despite their being an impossible way to test or separate out genetic and behavioral influences, we cannot argue that genetic influences are not present.

Direction of Effects

It may be that highly competent children elicit high quality forms of management from parents (Pettit & Mize, 1993). Parenting research has been up against scrutiny because of the lack of longitudinal designs but also because the parenting behaviors have not been shown to have a strong influence on the variance in children's psychological characteristics (Harris, 1995). The second type of gene-environment correlations noted by Scarr & McCartney (1983) are evocative effects but are known in the parenting literature as child-driven effects. Twin studies have found almost no effect of shared environment on personality characteristics (Harris). Parents may treat their children differently, which might be based on children's temperament or other child characteristics. Alternatively, parents may treat their children similarly but each

separate child might interpret their parent's actions differently (Harris). The majority of studies have been correlational and cross-sectional in nature and the direction of effects between parenting and child behaviors is not clear. It is also very likely that children's social competence or temperament predict, in part, parents' social coaching qualities. Laird and colleagues (1994) found that children initiate conversation more often than mothers, and thus the child most likely plays a very important role. The lack of attention to direction of effects between parents and children and genetic influences are major limitation in this area of research. The effects sizes of previous research in this area has been small, and so it leaves much unexplained variance.

Group Socialization Theory

A child must learn to get along with their parents at home, but a child must also learn how to get along with peers- which may be an entirely different process than what happens within the parent-child relationship (Harris, 1999). Harris developed a group socialization theory after reading about adolescents' rebellious behaviors. If adolescents really wanted to be like adults, than why wouldn't they be folding laundry and doing their taxes? Most adolescents are trying to contrast themselves with adults and identify with their own age group (Harris). Brendgen and colleagues (2008) found that affiliation with a physically or relationally aggressive peer is unrelated to a child's genetic predisposition for relational aggression (both teacher and peer nominations) in seven year old twins. According to Harris, children are socialized more by the peer group than parents.

This does not mean that parents are not important for if a parent were to not love and nurture their child, a child would face detrimental effects on their development. Parents want to know what they can do to foster the socio-emotional development of their child and this is the main motive of this study. Parents have some control over children's choice of peers, such as

choosing play groups and what neighborhood to live in (Collins et al., 2000). Parents influence or design children's social environments, and the characteristics of these settings influence opportunities for children to interact with peers and the quality of these relationships (Ladd et al., 1993). Although there are differences in the way parents manage children's peer relations, we know little about what motivates parents to use different techniques and the specific processes parents use to influence their children's peer relationships (Ladd et. al.). Direct parental influences, specifically parental consultation or social coaching, warrants further study in the field as we have yet to fully understand the influence it may have on children's social lives.

Summary: Direct and Indirect Parental Influences on Relational Aggression

According to the framework outlined by Ladd and Pettit (2002), we can expect parents to have both indirect and direct influences on the development of relationally aggressive behaviors in young children. With respect to indirect influences, a growing body of literature indicates that broad parenting styles and practices are linked to relational aggression and physical aggression in similar ways. Findings by Werner and colleagues (Werner et al., 2006; Werner & Grant, in press) provide initial support for the second pathway of direct influence to the extent that mothers' responses to child relational aggression were *uniquely* associated with relational aggression and peer acceptance, but not to physical aggression.

The Current Study

A growing body of literature has shown that relational aggression is associated with a myriad of psychosocial adjustment problems in children of all ages, including preschoolers (Crick, 1996; Crick & Grotpeter, 1995). Consequently, efforts are being made to understand the etiology and development of relational aggression in young children. One line of investigation has been to study parenting practices and their associations with relational aggression. According

to the framework proposed by Ladd and Pettit (2002), parents influence children in two ways: 1) indirectly, which describes the broad family climate that inadvertently contributes to peer competence, and 2) directly, which describes parents' formal attempts at assisting and managing children's peer situations. Available evidence suggests that indirect parental dimensions, such as parental affect and parenting styles, are associated with relational aggression *and* physical aggression (e.g., Sandstrom, 2007). Less is known about possible direct parental influences on relational aggression. In the current study we assume that parent-child discussions about relational aggression are an important part of the socialization process in which parents communicate important messages about relational aggression and peer conflicts. Important dimensions of social coaching include elaboration (Mize & Pettit, 1997; Pettit et. al., 1998; Laible, 2004), encouragement of empathy, rule violation (Werner et al., 2006; Werner & Grant, in press) and proposed intervention strategies (Russell & Finnie, 1990), all of which have been linked to children's peer competence.

The current study has three primary goals: 1) to examine the qualities of mothers' social coaching by aggression form (relational and physical), 2) to evaluate the association between social coaching qualities and children's use of relational aggression with peers, and 3) to evaluate the relationship between relational aggression and empathy.

Our first research goal is to examine whether qualities of mothers' social coaching vary by form of aggression. Several studies using survey-based measures have shown that mothers' cognitions about and responses to relational aggression differ significantly from physical aggression (Werner et al., 2006; Werner & Grant, in press). Specifically, mothers view relational aggression as more normative and less harmful than physical aggression, and they report being

less upset about and responding with lower power assertion to relational aggression as compared to physical aggression. Thus, our first hypothesis is:

H1: Mothers' social coaching qualities will differ significantly in response to conflicts involving relational aggression versus physical aggression.

H1a: Mothers will use lower levels of elaboration, encouragement of empathy, and rule violation when discussing conflicts involving relational aggression as compared to physical aggression.

H1b: Mothers will propose strategies that suggest withdrawal from peers more frequently in conflicts involving relational aggression scenarios compared to those involving physical aggression.

Our second goal is to evaluate the associations of mothers' social coaching qualities and child relational aggression, physical aggression, and prosocial behavior. In particular, we were interested in whether social coaching around conflicts involving relational aggression uniquely predicted children's relationally aggressive behavior in the peer group. Mothers' use of elaboration while talking about peers has been found to be related to higher levels of peer acceptance (Mize & Pettit, 1997; Laible, 2004). Research has also shown that parents' discussion of emotion has been linked to positive outcomes (Laird et al., 1994; Brown & Dunn, 1991). Finally, mothers who proposed interventions following relational aggression that were higher in power assertion and rule violation had daughters who were described by teachers as less relationally aggressive and more prosocial, but not more physically aggressive (Werner et al., 2006). Thus, our second hypothesis is:

H2: Qualities of mothers social coaching will be significantly associated with children's aggression and prosocial behavior in the peer group.

H2a: Mothers who use high levels of empathy, elaboration, and communication of rule violation will have children who use lower levels of aggression and higher levels of prosocial behavior with peers.

H2b: Qualities of social coaching in peer conflicts involving relational aggression would be uniquely predictive of children's use of relational aggression in the peer group.

We are also interested in the strategies mothers propose in conversations about relational aggression and their association with children's behavior in the peer group. Previous research has shown that mothers who suggested positive strategies (i.e., facilitating group entry and ongoing play between their children and peers) have more competent children (Russell & Finnie, 1990). On the other hand, mothers who suggested low quality strategies (e.g., suggesting ideas that redirected or withdrew from play) were more likely to have rejected and neglected children. Drawing in this research, our third hypothesis is:

H3: The strategies proposed by mothers in discussions with children will be associated with children's use of aggression and prosocial behavior with peers.

H3a: Mothers' endorsement of direct assertion (i.e., advising child to communicate directly with peer, such as "please don't do that.") and prosocial strategies will be related to low levels of relational aggression. In contrast, mothers' encouragement of strategies that redirect play, encourage withdrawal, or seek authority (considered low quality strategies) will be associated with higher levels of relational aggression.

Our third and final goal was to look at the relationship between relational aggression and empathy. In a study with preschoolers, relational aggression and empathy were positively

correlated. This is possibly because manipulating relationships may require a higher level of social understanding. Therefore, our final hypothesis is:

H4: Relational aggression and empathy will be positively correlated.

The current study extends previous research in several ways. First, this study is one of few to examine direct parental influences on young children's relational aggression. Second, this is the first study of maternal social coaching to include relational aggression as an outcome of effective coaching. Third, this study uses observational methods to assess parenting practices and their association with relational aggression. Finally, this study extends beyond storybook reading methods, because the stories mothers and their children read together in the current study are specifically on the topics of relational and physical aggression peer conflicts.

CHAPTER 3

METHOD

Participants

Participants made up two cohorts. Cohort 1 participants were recruited from 6 early childhood programs from a rural town in Eastern Washington who were taking part in a larger study on children's social development (n=176). Within that sample, only those who would be attending kindergarten the following year were contacted for the laboratory visit (n=130). After discussing the study with program directors, letters explaining the study and consent forms were sent home with all children meeting the age criteria in the program. Parents of 65 children provided consent for the current study (50% of larger sample). Comparison of Cohort 1 participants with the larger sample on teacher-ratings of aggression revealed no significant differences between the two groups: t (179) = .11, $p > .05$ for relational aggression, t (179) = .93, $p > .05$ for physical aggression. The second cohort was recruited the following year from five

early childhood centers. Parents of 53 children provided consent. Comparison of Cohort 1 and Cohort 2 on key study variables revealed one significant difference: Cohort 2 children were significantly more physically aggressive, t (85) = -2.12, $p < .05$.

The two cohorts were combined into a single sample for the purposes of this study. The final sample for the current manuscript consisted of 90 mothers and their children (40 girls) who ranged in age from three and five at Time 1 (mean age= 3 years, 9 months). One year following the initial school-based data collection for each cohort (Time 2 or T2), families were re-contacted and asked for permission to collect information from children's teachers. Permission for the follow-up data collection was granted for 66 children who were evenly distributed across cohorts (52% male). Comparison of children with and without T2 data on all study variables revealed no significant differences. Mothers' ethnicity was fairly homogeneous, with 71% of mothers and 74% of children reporting European American ethnicity; 3.8% of children were Asian or Asian American; 6% of mothers and children were of Latino or Hispanic origin, and the remaining participants made up other ethnic groups or did not report ethnicity (7.3% of mothers, 18% of children). Mothers were highly educated with 60.7% having received a bachelor's degree or higher. Seventy-nine percent of mothers were married, and 28% of families received public assistance. Household incomes were somewhat evenly distributed: 39.6% ranged from $10,000-40,000, 25% ranged from $40,000-70,000, and 28% of families made over $70,000.

Procedures

This study comes out of a project within the Department of Human Development conducted by faculty members and students with Institutional Review Board approval from the sponsoring institution (Washington State University). Consenting parents were contacted by phone to set up an interview date, and were then mailed a packet of surveys on parent-child

relations and child behaviors. Parents were instructed to bring the packet of surveys with them when they came in for the laboratory observation. Scheduling conflicts and other complications such as vacations and moving prevented 20 families from participating in the lab and completing all the surveys in the first cohort and four families in the second cohort. There were no significant differences on key study variables from those who did not participate in lab. Ninety parents and children completed all parts of the laboratory phase, and information from this final sample of participating families constitutes the data for the current study.

Classroom-Based Assessments

Lead teachers completed behavior ratings on each participant during a two-week period in the fall. Follow-up teacher ratings were collected approximate one year after the initial data collection. All measures were the same for both cohorts except a measure for empathy was added in the second cohort.

Laboratory Assessment

The laboratory sessions took place in the late spring-early summer of two consecutive years. Participants engaged in a series of structured and semi-structured interaction tasks in the laboratory. These tasks have been used successfully in prior studies designed to measure direct (coaching) and indirect (parenting styles) parental influences on children's peer competence. The laboratory session lasted approximately 60 minutes, and interactions were videotaped behind a one-way mirror. During the first segment, mothers engaged in free play with children using provided toys (i.e., kitchen, dolls, puzzles and blocks). In the second segment, mothers independently completed surveys in another room while children completed a structured interview designed to assess empathy and social cognitions with an experimenter in the observation room. The third and fourth segments consisted of the "controlled mess" and mother-

initiated clean up tasks. The fifth segment was the social coaching task (described below), and in the final task, the parent-child dyad jointly completed two mazes using a modified Etch-A-Sketch (Belsky, Fearon, & Bell, 2007; Luby, Sullivan, Belden, Stalets, Blankenship & Spitznagel, 2006). Following the final task, participants were thanked for their time and compensated $50. Children were allowed to pick a prize, and families were allowed to ask any questions they have about the laboratory procedures. Parents signed a consent form to allow us to follow up with their children's teacher in the fall. Observational data for this study were taken from the social coaching task.

Measures

Child Social Behavior

Teacher-ratings. Lead teachers assessed children's social behavior using the Preschool Social Behavior Scale-Teacher Form (PSBS-T; Crick, Casas, & Mosher, 1997). This measure consists of 25 items and 6 subscales. In the present study, the *relational aggression* (8 items), *physical aggression* (8 items) and *prosocial behavior* (4 items) scales will be used. Teachers rated children on each item using a 5-point Likert scale (1 = *never/almost never true* to 5 = *always/almost always true*).

The PSBS-T has been shown to have excellent psychometric properties in prior research. Factor analyses confirm the existence of separate factors for relational and physical aggression across several samples, and Cronbach's alphas for the two subscales typically exceed .90 (Bonica, Arnold, Fisher, Zeljo, & Yershova, 2003; Crick et al., 1997; Estrem, 2005; Ostrov & Keating, 2004; Johnson & Foster, 2005). Teacher ratings of aggression have been found to correlate significantly with naturalistic observations (Ostrov & Keating, 2004). In this study, the chronbach's alpha for the three subscales of relational aggression, physical aggression and

prosocial behavior were.88, .90, .89, respectively for time one. For time two chronbach alphas for teacher report of relational aggression, physical aggression and prosocial behavior were .82, .88, and .88, respectively.

Child Empathy

Ratings of child empathy were collected from teachers, mothers, and children. Only teacher-ratings were used in this study. Teachers responded to five sympathy/empathy items (Zhou et al., 2003) using a 4-point response scale. Respondents were asked to select one of two statements (e.g., "My/This child gets upset when she/he sees another child being hurt," or "My child does not get upset when he/she sees another child being hurt.") and indicate whether this is "sort of true" or "really true" for the child. Items were standardized and combined after reversing items. The coefficient alpha for past samples of teacher was .92 (Murphy, Shepard, Eisenberg, Fabes & Guthrie, 1999). In the current study, the Cronbach's alpha for teachers at Time 1 was .93 and .91 at Time 2.

Social Coaching Qualities

For the purpose of this study, observational codes focused explicitly on the content of *mothers'* conversation during the social coaching task. The coding scheme consisting of global and discrete codes was developed by adapting codes used in previous research (Laible, 2004; Mize & Pettit, 1997; Werner et al., 2006).Videotapes of the social coaching task were transcribed by trained research assistants blind to the hypotheses of the study. Following an extended training phase, transcripts were then coded by the first author. Social coaching codes were coded on 5-point global scales. Approximately 10% of transcripts were coded for reliability. Refer to Appendix A for the complete coding scheme. Cohen's kappa for the social coaching codes were

as follows: *elaboration* = .73, *encouragement of empathy* = .78, *rule violation (provocation)* = .69, *rule violation (retaliation)* = .73.

Story types. Mothers read 8 stories depicting same-sex preschool-aged children engaged in social conflicts (e.g., a child knocks over a tower of blocks another child built; a child says, "You can't come to my birthday party" to a friend when angry). Half of the stories depicted ambiguous provocations and half depicted clearly hostile provocations. Only hostile stories were included in this study.

The 4 hostile stories were adapted from stories included in the Assessment of Preschoolers' Social Information Processing (APSIP) developed by Casas and Crick (2007). The stories conformed to a 2 (*provocation type*: relational vs. physical) by 2 (*retaliation type*: relational vs. physical) design. Their were four hostile stories, one physical provocation/ physical retaliation conflict, one physical provocation/relational retaliation conflict, one relational provocation/ physical retaliation conflict, and one relational provocation/ relational retaliation conflict. Relational provocation/retaliations included threats to a child's peer relationships (e.g., refusal to join play; threat to withdraw friendship) and physical provocation/retaliations included threats to a child's physical well-being or instrumental goal attainment (e.g., knocking down a peer's tower of blocks; push). Each story was illustrated with a series of simple cartoons. Children in the story played distinct roles (aggressor, victim, aggressive-victim, and bystander) and were named for ease in discussion. Discussions were coded on 3 dimensions.

Elaboration. Elaboration reflects mothers' attempts to help children attend to relevant social cues in each scenario. It also includes the extent to which parent goes beyond reading the story to engage the child in discussion of key issues in the peer conflicts (e.g., by asking the child whether the events in the story ever happened to him/her). Low scores on this dimension are

given to mothers who read the story verbatim, paraphrased the story, or engaged child in discussion of superficial content (e.g., pointing out character names). High scores were given to mothers who helped children attend to relevant cues and details in each story by asking open-ended questions or making statements about characters' intentions and emotions, child's experience, and strategies for handling the situations. This code does not consider the *quality* of any of the strategies proposed.

Encouragement of empathy. This code captures the extent to which mothers encouraged children to empathize with the characters portrayed in each story. High scores were given to mothers who highlighted the emotions of characters in the story by focusing on relevant emotion cues (e.g., facial expressions), encouraged their child to think about how the characters in the story felt (or how child would feel if s/he were the character in story) through making emotional statements or asking questions about emotions. Low scores were assigned when mothers did not appeal to emotions or feelings of characters in the story, did not respond to child's reference to emotions, or they implicitly, but not explicitly acknowledged others feelings or how behaviors make other people feel.

Rule violation. This code captures the extent to which mothers communicated that the actor's aggressive behavior in each vignette violated a social or moral rule. Specific elements of this dimension include statements (explicit or implicit) that the aggressive actions are inappropriate and the presence of additional elements including: explanations of why behavior is wrong, discussion of consequences of aggression, suggestions of alternative courses of action (i.e., what the children in the story could do differently), and discussion of how to remedy the situation (e.g., by apologizing). High scores were given to mothers who made *explicit* statements of rule violation and included additional elements of rule violation in their discussions. Examples

of explicit statements include: "He shouldn't do that," "That wasn't the best choice," or "That wasn't very nice." Mother might have also asked a question in which rule violation is embedded "Is that nice to do?" Examples of *implicit* statements include non-verbal negative reactions to the actions of the children in the stories, appeals to peers' feelings, suggesting a different course of action, explanation of why behavior is wrong or suggesting reparations. Mothers could communicate explicit or implicit rule violation by talking exclusively about the characters in the story and/or by discussing a similar situation faced by the target child (e.g., prior experience at school or with sibling at home).

Separate codes for rule violation were assigned to mothers' discussion of aggressive actors in the story and the aggressive-victims. Every attempt was made to distinguish between the aggressor and the aggressive-victim. However, in some cases mother might have made global statements about all children in the stories (e.g., "these kids are not very nice"). In such cases, the code for rule violation applied to both the provocation and retaliation. In the Werner et al. (2006) study, this scale demonstrated acceptable reliability (kappa = .83), and the results showed that mothers' level of rule violation in response to relationally aggressive conflicts predicted teacher-ratings of children's use of relational aggression in the classroom.

Strategies. An independent coder recorded each discrete strategy suggested by the mother for handing the peer conflicts. For each strategy, the coder recorded the target of the strategy (aggressor, victim, bystander). Discrete strategies were then coded into one of 13 codes: direct assertion (target child confronts peer in an assertive, non-aggressive way), appeal to feelings (direct assertion with emotional aspect), information seeking (direct assertion with information gathering), appeal to authority (encouraged to tell authority figure), withdrawal (cessation of activity or play), ignore (response should be to ignore the situation or not respond), reparations

(child apologizes or finds solutions for hurt peer), prosocial (helping or inclusion), retaliation (retaliation against a peer), forgive (forgiving peer), protect (protecting child's feelings from being hurt), defend (bystander should defend or stand up for peer), and other (strategies that do not fit into categories). The coding scheme for strategy coding can be found in Appendix B.

Transcripts were coded by a trained research assistant. All discrete strategies mentioned by mothers and children we identified and coded into 1 of 12 categories, 4 of which are used in the current study. The target of the strategy was also identified (aggressor, victim, bystander). Twenty percent of the transcripts were double-coded by one professor and a trained research assistant. Cohen's kappa for the 4 categories were as follows: *direct assertion* = .93, *appeal to authority* = 1.0, *withdrawal* = 1.0, *prosocial* = .84.

Every attempt was made to code original strategies only. For example, we coded each unique strategy only once within a story. Repetitions of the strategy were not coded. Also, we did not code strategies that were repetitions of those suggested by the target child. The number of times mothers' generated unique strategies of each type was summed within each vignette.

CHAPTER 4

RESULTS

The current study had three primary empirical goals: 1) to investigate the differences in social coaching qualities by aggression type ; 2) to evaluate the association of social coaching qualities with children's relational aggression and other indices of peer competence; and 3) to explore the relationship between relational aggression and empathy.

Descriptive Analyses

Intercorrelations of Child Outcomes

Teacher-ratings of relational and physical aggression were significantly correlated at time 1, $r = .32$, $p < .01$ and time 2, $r = .67$, $p < .001$. Physical aggression was also inversely correlated with prosocial behavior at time 1, $r = -.41$, $p < .001$ and time 2, $r = -.48$, $p < .001$. At time 2 only, ratings of relational aggression were significantly inversely correlated with those for prosocial behavior and empathy, $r = -.51$, $p < .01$ and $r = -.59$, $p < .01$, respectively. Ratings of prosocial behavior were associated with empathy at time 1, $r = .44$, $p < .05$ and time 2, $r = .69$, $p < .001$. Refer to Tables 1, 2 and 3 for descriptive and analyses.

Stability of Aggression and Prosocial Behavior

Teacher-ratings of relational aggression were not significantly correlated at time 1 and time 2, $r = .01$, *ns*. However, ratings of physical aggression were significantly correlated, $r = .30$, $p < .05$ as were ratings of prosocial behavior, $r = .40$, $p < .01$, and empathy, $r = .85$, $p < .01$.

Gender Differences in Child Outcomes

To examine gender differences in children's relational aggression, physical aggression, and prosocial behavior, a series of one-way ANOVAs were conducted with child gender as the independent variable. Teacher-ratings of child outcomes were dependent variables. Analyses were conducted separately at time 1 and time 2.

At time 1, teachers rated boys as significantly more physically aggressive than girls, $F(1, 89) = 7.98$, $p < .001$, and girls as significantly more prosocial than boys, $F(1, 89) = 11.38$, $p < .001$. Teachers also rated boys as significantly more physically aggressive than girls at time 2, $F(1, 67) = 3.91$, $p < .05$.

Central Analyses

Analysis of Mothers' Coaching Qualities by Aggression Forms

We computed a series of paired-samples t-tests to test hypotheses about differences in mothers' social coaching qualities by form of aggression. The first set of analyses compared mothers' coaching qualities as a function of *provocation* type: relational vs. physical. The second set explored coaching as a function of *retaliation* type: relational vs. physical. Refer to Table 5 and Table 6 for the results of these analyses.

Provocation type. Mothers' conversations were characterized by higher levels of elaboration in conflicts depicting physical provocations ($M = 7.61$, $SD = 1.79$) compared to those depicting relational provocations ($M = 7.23$, $SD = 2.07$). No differences in empathy or rule violation emerged.

Retaliation type. Mothers discussed emotions more in conflicts depicting relational retaliation ($M = 5.10$, $SD = 2.08$) compared to those depicting physical retaliation ($M = 4.36$, $SD = 1.53$). In addition, scores for rule violation (retaliation) were higher in conflicts depicting physical retaliation ($M = 7.11$, $SD = 1.82$) compared to relational retaliation ($M = 6.65$, $SD = 1.94$). No differences in elaboration or rule violation (provocation) were found.

Analysis of Mothers' Proposed Strategies by Aggression Forms

We computed paired-samples t-tests on mothers' scores for authority-seeking, direct assertion, prosocial, and withdrawal strategies. Again, we computed separate analyses by provocation type and retaliation type. Three significant comparisons were found. Mothers generated more authority-seeking strategies for victims when discussing physical provocations compared to relational provocations (*M*s = .18 and .04, respectively). Mothers were also more likely to propose direct assertion strategies for victims in response to physical vs. relational provocations (*M*s = .51 and .21, respectively). In contrast, mothers proposed more prosocial

strategies for aggressors when discussing conflicts involving relational retaliation as compared to physical retaliation (*M*s = .26 and .05, respectively).

Correlations of Social Coaching with Child Outcomes

To examine the concurrent and longitudinal associations of maternal social coaching qualities with children's social competence, we computed a series of correlations with Time 1 and Time 2 variables. We used composite scores (i.e., summed across all stories) for maternal elaboration, empathy, and rule violation (provocation and retaliation scores). Complete results can be found in Table 4.

Mothers who used higher levels of elaboration and rule violation (provocation) had children who were rated as less physically aggressive by teachers at Time 1, $r = -.31$ and $r = -.26$, respectively. Qualities of social coaching were not associated with relational aggression, prosocial behavior, or empathy at Time 1. Time 2 analyses showed that mothers who communicated higher levels of rule violation (provocation) had children who were rated as more prosocial ($r = .34$, $p < .05$) and empathic ($r = .39$, $p < .05$).

Unique predictors of relational aggression. Due to the lack of associations of maternal coaching qualities with relational aggression, we did not conduct further analyses.

Strategies and Child Outcomes

We focused on the following strategy codes: withdrawal/ignore, prosocial, authority-seeking, and direct assertion. We computed correlations between the total number of strategies in each category and child outcomes. Prosocial strategies were significantly negatively associated with teacher reports of empathy at Time 1, $r = -.42$, $p < .05$. No other correlations were significant. At Time 2, mothers who proposed more authority-seeking strategies had children who were more relationally aggressive, $r = .35$, $p < .01$.

We computed a regression analysis predicting relational aggression at Time 2 from maternal strategies at Time 1. We controlled for child gender and age and for physical aggression at Time 2, in the first step. Scores for maternal strategies were entered at the second step. This analysis allowed us to determine whether maternal strategies provided unique information about future relational aggression after controlling for physical aggression. The overall regression model was significant, $F(7, 58) = 10.12$, $p < .001$. Although the second step including maternal strategies only approached significance, $F\Delta(4, 51) = 2.36$, $p = .07$, authority seeking strategies emerged as a significant univariate predictor of Time 2 relational aggression, $\beta = .23$, $p < .05$. These results can be found in Table 7.

CHAPTER 5

DISCUSSION

This study was designed to increase our understanding of maternal influences on young children's relational aggression. Specifically, we examined qualities of mothers' coaching about relational and physical aggression and their association with children's behavior in the peer group. Importantly, this investigation extends prior work in this area by using observational techniques to study maternal influences on relational aggression and a short-term longitudinal design. The results provided partial support for study hypotheses. First, mothers' coaching differed in levels of elaboration, empathy, and rule violation as a function of aggression form. In addition, the frequency with which mothers' proposed specific strategies during discussions varied across stories depicting relational versus physical aggression. These findings replicate and extend prior work on mothers' responses to relational aggression. Second, although qualities of mothers' coaching and the strategies they proposed were associated with indices of child social competence, only one significant association with child relational aggression emerged. Third, in

contrast to hypotheses, relational aggression and empathy were significantly negatively correlated. Taken together, the results of this study suggest that the quality with which mothers discuss peer conflicts may have implications for the development and maintenance of peer competence, including relational aggression, during the preschool years.

Association between Empathy and Relational Aggression

One goal of the current study was to investigate the relationship between empathy and relational aggression in preschoolers. Contrary to predictions, we found that empathy and relational aggression were *inversely* related. These findings are inconsistent with Hawley (2003) and others who speculate that relational aggression requires a higher level of social understanding, including empathy. Instead, our results are consistent with the notion that individuals who lack empathy are at-risk for engagement in relational *and* physical aggression during early childhood. Our findings support that physical aggression and relational aggression may function in similar ways in relation to empathy, in that empathy serves as a protective factor against aggressive behaviors. This is consistent with research that has found aggressive children have social cognitive deficits, in that they are unable to accurately read peers social cues (Crick & Dodge, 1994).

According to Eisenberg et al. (2006), empathy develops as early as age two. However, teachers may have difficulty assessing this construct at a young age, and children and parents are highly susceptible to social desirability. Preschool children's ability to read others' emotions may be conditional on theory of mind or perspective taking skills that may not be fully developed yet. Children's empathetic abilities and moral reasoning might have positive associations with relational aggression as children get older and social and emotional skills become more sophisticated. Some researchers have found that empathy and aggression are not

associated in young children, because, although children are capable of responding with empathy, they often misread peers behaviors (Findlay et al., 2006).

Although our findings are consistent with the view that relationally aggressive children lack certain social and emotional skills (e.g., empathy), limitations in our study design require that more research be done before drawing conclusions. Of particular note is the fact that data on empathy was available only for cohort two participants, resulting in a very small sample with which to conduct analyses.

Some may argue that our measure of empathy looks more similar to a measure of sympathy. Empathy is a shared emotional response- the individual recognizes they feel the way the other person feels, whereas sympathy is a concern for others (Eisenberg et al., 2006). The questionnaire used in the current study is actually more similar to sympathy than empathy. Although researchers state that empathy is frequently accompanied by sympathy or distress (Findlay et al., 2006), the differences between the two constructs are important to distinguish.

Future studies should rely on multiple measures of empathy, including a physiological measurement. As Zhou and colleagues (2003) have addressed, some individuals may show their emotions while others may keep it inside, which is why it is important to use a multi-method approach to assessing empathy related responding. It would be beneficial as well to include a measure of theory of mind to see if and how empathy stems from this development process. A longitudinal study that measures developmental changes in empathy and how they relate to changes in aggressive behaviors will provide a more accurate portrayal of how empathy is related to relational aggression. Measures of social status and empathy should be included in future research on relational aggression, as it may be that there are different types of relationally

aggressive children, and those who use empathy and relational aggression may utilize their social knowledge to gain or maintain social status.

Differences in Social Coaching Qualities and Strategies by Aggression Form

Another goal of this study was to explore whether mothers' coaching was sensitive to aggression form. Specifically, we sought to replicate and extend findings of Werner and colleagues (2006) using actual conversations between mothers and children rather than mothers' responses to written hypothetical scenarios.

Coaching qualities. We hypothesized that mothers would elaborate, discuss emotions, and communicate that a rule had been violated to a greater degree when discussing peer conflicts that centered on physical aggression compared to relational aggression. Our results were partially consistent with these hypotheses. Mothers' elaboration scores were higher when stories depicted physical provocation compared to relational provocation, and rule violation scores were higher when mothers discussed conflicts depicting physical retaliation. Together, these findings suggest that mothers attend to physical aggression acts more than they do to relational aggression acts. These findings are consistent with previous studies that have found mothers are less likely to clearly communicate that a rule was violated in relationally aggressive scenarios (Werner et al., 2006). Mothers may spend more time talking with their children about physical aggression than relational aggression, because they view physical aggression as more important to respond to (Lyle & Werner, 2009). Previous research has found that mothers respond more negatively and are more upset in response to physical aggression than relational aggression, which may explain why mothers would elaborate more with their children in physical aggression provocation stories (Werner et al., 2006). Similarly, Werner and colleagues found that mothers are more likely to

ignore relational aggression, which would explain why mothers spent less time talking with their child about relational aggression than physical aggression.

Our results for empathy showed a different pattern. Contrary to predictions, mothers made more frequent references to emotions when discussing conflicts depicting relational retaliation than physical retaliation. These findings are somewhat surprising given Werner and colleagues (2006) findings that mothers responded with more negative affect to physical aggression compared to relational aggression. Clearly, a stronger emotional response does not necessarily equate to mothers' discussions of emotions in the social coaching context. It is perhaps more likely that mothers who respond emotionally to hypothetical displays of child aggression (i.e., in the stories) will respond with power assertion or communication of rule violation. The coding system used in this study did not differentiate mothers' discussion of the emotions of aggressors versus victims. Mothers might have felt the relational conflicts were more ambiguous, thus leading them to make more statements explaining how the characters in the story felt, maybe even justifying the aggressors' actions. It is possible that mothers made emotional references to the aggressor (i.e., "I bet he did that because he was mad or sad."), with fewer attempts to communicate that the aggressor violated a social convention. Mothers' encouragement of empathy may be more common in child behaviors that may be viewed as more acceptable by parents or in acts that are more ambiguous. Future studies should continue to investigate this issue.

Strategies. We were also interested in the strategies mothers generated in discussions with children for handling peer conflict situations. Previous research has found that in response to relational aggression, mothers' proposed interventions for relational aggression include attempts to distract or reassure child, with less direct attempts to change child behavior (Werner

et al., 2006). Our analyses extended these findings by demonstrating that mothers generated more authority seeking strategies and direct assertion strategies for victims when discussing physical conflicts versus relational conflicts. Mothers' encouragement of their child to deal directly with the aggressor, such as telling the child how he or she feels, communicates to the child that the conflict needs to be dealt with immediately and requires adult assistance. However, it is unknown whether these strategies facilitate or hinder young children's social competence. These findings provide additional support for the notion that children receive different messages from mothers about how to react to physical aggression versus relational aggression.

Mothers proposed more prosocial strategies for aggressors when discussing conflicts involving relational retaliation compared to physical retaliation. This suggests that mothers' preferred outcome is for the retaliatory aggressor to repair or subdue the conflict, rather than to see the aggressor punished in some way. In relational conflicts, mothers may be particularly interested in repairing the relationship, understanding why the aggressor behaved in the way he or she did, or comforting a child who is the victim, rather than disciplining the aggressor, especially if they view the behavior as less wrong. Research has found that mothers' responses to physical aggression are more negative compared to other maladaptive behaviors such as shyness (Colwell et al., 2002), and now we find support for this with relational aggression.

Social Coaching, Strategies, and Child Outcomes

Our final goal was to evaluate associations between social coaching qualities, strategies, and child outcomes. We found support for our hypothesis that low quality social coaching was related to poor child outcomes. Specifically, mothers who used low levels of elaboration and rule violation (provocation) had children rated as more physically aggressive at the initial assessment. Mothers who communicated higher levels of rule violation (provocation) had children who were

more prosocial and empathic at the second assessment. In contrast to expectations, qualities of mothers' social coaching were not significantly related to children's level of relational aggression with peers.

The results for physical aggression, prosocial behavior, and empathy are meaningful because they provide evidence to support the notion that mothers' social coaching bears important relations to children's competence with peers. Unfortunately, with one exception, our findings do not increase our understanding of parents' unique influence on relational aggression. It may be that maternal coaching about relational aggression becomes more important at later ages, when children's experiences of relational aggression become more frequent and salient. Studies have shown that mothers view relational aggression as more normative among preschool-aged children than physical aggression, and they ascribe a lower importance to responding to relational aggression (Lyle & Werner, 2009). These findings might explain the lack of associations between mothers' coaching qualities and children's relationally aggressive behavior. Future studies should include children of different ages to test the hypothesis that direct parental influences on relational aggression strengthen with age.

Mothers may also feel more competent intervening in physical aggression conflicts than relational aggression conflicts. Werner and colleagues (2006) found that mothers are more likely to intervene in response to physical aggression compared to relational aggression. Mothers may feel more comfortable and confident responding to physical aggression because they have scripts and more knowledge on how to respond to this type of behavior. Mothers may be less certain and confident in knowing how to respond to relational aggression.

Our analysis of mothers' proposed strategies revealed one important finding for relational aggression. Overall, mothers were less likely to suggest that victims of relational aggression seek

an authority figure compared to victims of physical aggression. Interestingly, mothers who generated more authority-seeking strategies for victims had children who were relationally aggressive at the second assessment. Mothers may not have scripts for knowing how to respond to relational aggression, and encouraging their child to seek an authority figure may be the best attempt for mothers' who are less confident in knowing how to respond to this type of behavior. Seeking an authority figure is similar to withdrawal strategies in some ways in that the parent undermines child's autonomy and ability to resolve a conflict on their own. In contrast, when mothers suggest that children use direct assertion, they communicate to children that they are competent to deal with peer problems on their own using assertion. Encouraging a child to seek a parent or teacher as an authority figure may be a form of ignoring the conflict. Rather than propose strategies a child can use with their peer, mothers are communicating that someone else knows better, without providing the child strategies they can use themselves to make amends to the situation. Mothers might also not know how to provide advice to their children about relational aggression, and encouraging their child to seek an adult gives them a "way out" of providing direct advice to their child for handling the situation. Children are given different messages about physical aggression, in that mothers were more likely to advocate for the use of direct assertion. Perhaps relational aggression conflicts are more complex, and mothers view an authority figure as necessary in order to have an adult assess the situation. Alternatively, authority seeking could be a high quality strategy, and relationally aggressive children may elicit mothers to communicate that children need an adult's assistant with conflicts.

Earlier research has shown that broad parenting styles are associated with relational and physical aggression in similar ways. This study's goal was to see if direct parenting strategies (i.e., coaching) had unique associations with relational aggression. Contrary to expectations,

coaching qualities were not uniquely predictive of children's use of relational aggression. The only exception to this was the finding discussed previously: the frequency with which mothers' proposed authority-seeking strategies predicted future levels of relational aggression, even after controlling for child gender, age and physical aggression. This finding provides new evidence that mothers play an important role in the development of relational aggression in young children.

An unexpected finding was that mothers who proposed more prosocial strategies had children described by teachers as less empathic at the initial assessment. Mothers may be attempting to compensate for their child's lack of peer skills. Support for the compensation theory has been found in a sample of school aged children, in that parents with less socially competent children gave more and better advice during laboratory tasks (McDowell et al., 2003). Similarly, Laird and colleagues (1994) found that mothers of less socially competent preschoolers encourage peer interaction more than those with more competent children. The authors theorized that mothers are worried about their child's status and are attempting to compensate for it by fostering peer interactions. Some parents may be using social coaching as an opportunity to redeem their child's abilities, while other parents may "pull back" when they feel their child is competent (Laird et al.). Differences in children's peer competence may be more dependent on something unique about the child, such as social abilities, rather than parents' coaching or the child's age.

Future Directions

One important direction for future research will be to explore predictors of individual differences in mothers' social coaching about relational and physical aggression. Prior studies have demonstrated that mothers hold a different set of beliefs about relational versus physical

aggression (e.g., Werner et al., 2006), and that maternal cognitions predict qualities of their proposed responses to children (Werner & Grant, in press). However, no research, to date, has directly examined relations between maternal cognitions about relational aggression and the quality of social coaching. According to Grusec & Goodnow (1994), the nature of the problem, parents' emotional reaction, and characteristics of the child must be considered when evaluating parental socialization effects on children. Future research should connect these three contextual influences. Parent cognitions and emotions, as well as the characteristics of the child, surely have an influence on how mothers coach children about conflicts involving relational and physical aggression.

Research has found that social coaching and mother-child relationship quality are important contributors of peer competence (Mize & Pettit, 1997). In this study we did not evaluate the quality of the relationship between the mother and child. It could be that mother-child relationship quality mediates the relationship between social coaching qualities and child outcomes. If the child does not have a good relationship with the parent, he or she may be less likely to internalize messages from the parent. Laible (2004) found that attachment security shaped maternal-child discussions. The level of engagement between the mother and child, or interactional synchrony (Criss et al., 2003), may also mediate the association of social coaching and child outcomes. Mothers' use of psychological control, a type of control that somewhat mimics child's use of relational aggression with peers, has been shown to influence children's use of relational aggression (Nelson & Crick, 2002). Indirect parental influences such as this may moderate the impact of mothers' advice about peer relationships on children. Both direct and indirect parental influences have been found to uniquely influence child outcomes (Mize & Pettit). Future studies should evaluate both direct and indirect parenting strategies, in order to

develop a comprehensive model of how the parenting climate, as well as the specific advice provided by parents' influences the development of children's relational aggression. An examination of coaching within the context of the parenting style or climate needs to be further understood (Darling & Steinberg, 1993).

An additional direction for the future will be to apply our understanding of maternal cognitions about aggression and coaching to prevention and intervention efforts. Through parenting education, parents' beliefs about relational aggression can and should be challenged, and these beliefs will hopefully facilitate change when mothers act as consultants to their children about peer relationships (Werner et al., 2006). Future parenting programs can work on challenging mothers' views of relational aggression as a normative behavior, and work with parents in generating strategies for intervening on relational conflicts.

Early Interventions

Research has shown that intervening at an early age is more effective for changing child behaviors. Meta-analyses of interventions designed to prevent anti-social behavior in preadolescence and adolescence have not shown promising results. In fact, the average affect of intervention in adolescence is close to zero (Lipsey, 1992). Interventions conducted earlier, such as during the elementary school years, have had a significant impact on reducing/intervening on antisocial behavior and physical aggression (Gauther, 2003). Therefore, prevention programs geared at preschool children and their families providing parents with explicit advice for dealing with relational aggression would be very beneficial. However, until further research connects direct and indirect parenting, as well as parenting beliefs, we caution against providing specific advice to parents. Physical aggression and relational aggression are associated with indirect parenting in similar ways, however, our research shows that social coaching has unique

influences on different types of aggression and until we know more, we caution against recommending specific strategies for mothers to use with relational aggression.

Contextual Influences

According to Harris (1998), when researchers refer to nurture they are usually referring solely to parental influences, which is a biased assumption. Studies on parenting practices do not tell us what is genetic or what is due to socialization. We assume "nurture" is parental socialization, but children could be learning relational aggression from other peers, rather than parents. Harris calls for genetically informed designed studies that account for more of the "nurture" in children's environments such as peers, teachers, and culture. Future research should evaluate these contextual influences. Unless we include twin or adoption studies in the research on parenting, we will never know how much of child outcomes are accounted for by genetics or shared environment.

Further studies should also evaluate whether social coaching functions as a compensation method or as a facilitative strategy. It is important to know if these shifts occur developmentally or are as a result of individual child abilities- or both. Comparing social coaching to naturalistic observations of mother's involvement in peer play or discussions regarding actual child-peer conflicts may elucidate to the nature of this method as a valid measurement for maternal social coaching.

CHAPTER 6

LIMITATIONS

Although this study provides insight into the importance of direct parental processes on child outcomes, several limitations should be acknowledged. The current research provides no evidence for the role fathers' play in social coaching. Previous research has found that fathers

share a similar and a unique role in social coaching and child outcomes (Kahen et al., 1994). Also, this research does not account for a myriad of possible mediators and moderators, such as: indirect influences (i.e. parenting styles and attachment), age, siblings, school climate, stress, relationship quality between spouses, teacher's beliefs and practices, and child temperament that may account for the quality of social coaching. The P.I. of the project has included many of these variables in the project, but these factors are not currently evaluated in this study.

Because the current sample is fairly homogenous, we caution against generalizing to populations other than educated, middle to upper middle class white families in the rural Northwest. Further research is needed with a more diverse sample, as features of these conversations and maternal advice giving are expected to vary. Middle class mothers may be more invested and interested in their children's peer relationships than low income mothers who may have fewer resources and available time to spend with their children and foster their peer relationships. Also, difference in values and beliefs across cultures and ethnicities may contribute to different strategies and qualities of coaching that may also be linked to different outcomes. One significant cultural difference found is that American mother–child conversations are depicted by "emotion-explaining style" where mothers and children provided explanations for the cause of emotions. Chinese mother–child conversations portray an "emotion-criticizing style" in which the focus is on establishing a value of proper behaviors in the child and provide few emotional explanations (Wang, 2001). Much less is known about various ethnic groups and social coaching than what is known about white, middle class samples.

The current literature is limited in what it can tell us about parent's natural inclinations to support children in peer relationships (Pettit & Mize, 1993). From Russel and Finnie (1990) we know that parents will assist their children in peer relations when asked to do so. Social coaching

in the lab setting may not be an accurate depiction of naturalistic, real life discussions or social coaching methods that mothers employ with their children. It could be the semi-structured nature of our methods introduces a unique environment, which is not generalizable to what happens when a child has a peer conflict and comes to talk to their mother, or of when a mother approaches a child and a peer who are involved in a conflict. The qualities of mothers' social coaching provide little information about on whether mothers spontaneously engage with their children in such ways (Pettit & Mize). It is also not clear if children will behave in agreement to their parents' advice (Pettit & Mize).

We must also acknowledge limitations in the design of the social coaching task. First of all, the stories reflect a limited range of peer conflicts. Although most children of this age are exposed to conflicts involving relational and physical aggression on a daily basis, there are many other challenges children face with peers (Mize & Pettit, 1997). Moreover, our interest in examining the importance of relational vs. physical provocation *and* retaliation, coupled with time limitations in the laboratory procedure, lead us to develop two stories that contained relational and physical aggression in the same story. Our analyses of relational provocation aggression form, therefore, were confounded by the presence of physical retaliation, and vice versa. It will be important for future studies on this topic to include more stories for each provocation and retaliation aggression form so clearer analyses can be conducted. Changing the nature of the design so that stories are presented in different orders would also allow for firmer conclusions to be drawn. Another option would be to randomly assign parents into two groups- one group that reads physical aggression stories and one group that reads relational aggression stories to reduce the influence the other types of aggression might have on mothers' coaching.

Similarly, parents may interpret events much differently in real life or when their own child is involved in the situations. Naturalistic observations or the use of instruments that generate conversations about actual peer conflicts would generate naturalistic conflicts and how mothers dealt with these conflicts. This would allow researchers to explore the impact of children's history of relational aggression on mothers' responses (Werner et al., 2006). It would also be beneficial to look at how mothers respond to prosocial events. Future studies will continue to benefit from observations of mothers' supervision in play groups (Russel & Finnie, 1990).

One explanation for any association between mothers' social coaching and children's competence with peers could be shared genetics (Harrist et al., 1994). Children who behave aggressively with their peers, may share that tendency with their parents, and may be more likely to have a poor relationship with their parents (Harrist et al.). This could account for children's peer competence aside from social coaching qualities.

It is also very likely that children's social competence accounts, in part, for parents' social coaching qualities. Laird et al. (1994) found that children initiate conversation more often than mothers, and so the child most likely plays a very important role. Both paths of influence most likely play a role and are bidirectional. It would also be interesting to measure what the child takes away from these conversations and how much they remember from these conversations and if the discussions stay with them. Similarly, children's previous interactions with peers and their history of relational and physical aggression, most likely influences the quality and degree of mother's social coaching. Children that may have had more conflicts with peers might induce more or less degrees of social coaching.

In summary, in this study we found partial support for the hypothesis that maternal social coaching influences children's peer competence. Mothers had unique coaching qualities and proposed strategies in response to physical aggression compared to relational aggression. Mothers elaborated more and communicated higher levels of rule violation after reading physical conflicts and talked more about how characters in the story felt after reading relational conflicts. Mothers' coaching abilities were also significantly associated with child physical aggression, prosocial behavior, and empathy, but not relational aggression. Specifically, mothers who elaborated less on conflicts and left their child uninformed about rules had more physically aggressive children. On the other hand, mothers who articulated clearly that a social or moral convention had been violated had more prosocial and empathetic children. In response to scenarios depicting physical aggression, mothers proposed more strategies that encouraged the child to directly handle the situation with the peer as well as seek an authority figure. Mothers who proposed authority seeking strategies had children who were more relationally aggressive. This finding and the lack of findings for social coaching influences on relational aggression illustrates that mothers may not be as clear as they are about physical aggression with regard to providing advice about relational aggression. Future research on indirect and direct parental contributions to relational aggression is needed.

References

Bandura, A. (1969). Social learning theory of identificatory processes. In D.A. Gosli (Ed.), *Handbook of socialization theory and research* (pp. 213-262). Chicago: Rand McNally.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bauman, S. & Del Rio, A. (2006). Preservice teachers' responses to bullying scenarios: Comparing physical, verbal, and relational bullying. *Journal of Educational Psychology, 98*, 219-231.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs, 75*, 43-88.

Belsky, J., Pasco Fearon, R.M, Bell, B. (2007). Parenting, attention and externalizing problems: testing mediation longitudinally, repeatedly and reciprocally. *Journal of Child Psychology and Psychiatry, 12*, 1233-1242,

Bjorkqvist, K., Osterman, K, Kaukiainen, A. (2000). Social intelligence – empathy = aggression? *Aggression and Violent Behavior, 5*, 191-200.

Bjorkqvist, K., Osterman, K, & Lagerspetz, K.M.J. (1994). Sex differences in covert aggression among adults. *Aggressive Behavior, 20*, 27-33.

Bonica, C. Arnold, D.H., Fisher, P.H., Zeljo, A. & Yershova, K. (2003). Relational aggression, relational victimization, and language development in preschoolers. *Social Development, 12*, 551-562.

Brendgen, M., Boivin, M., Vitaro, F., Bukowski, W.M., Dionne, G., Tremblay, R.E. et al. (2008). Linkages between children's and their friends' social and physical aggression: Evidence for gene-environment interaction? *Child Development, 79*, 13-29.

Brown, S., Arnold, D. H., Dobbs, J., & Doctoroff, G. L. (2007). Parenting predictors of relational and overt aggression among school-age children. *Early Childhood Research Quarterly, 22*, 147-159.

Brown, J.R. & Dunn, J. (1991)."You can cry, mum": The social and developmental implications of talk about internal states. *British Journal of Developmental Psychology, 9*, 237-256.

Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development, 79*, 1185-1229.

Caron, A., Weiss, B., Harris, V., & Catron, T. (2006). Parenting behavior dimensions and child psychopathology: Specificity, task dependency, and interactive relations. *Journal of Clinical Child and Adolescent Psychology, 35*, 34-45.

Casas, J.F., & Crick, N.R. (2007). Response evaluation processes and aggression in preschool. Manuscript in preparation

Casas, J.F., Weigel, S.M., Crick, N.R., Ostrov, J.M., Woods, K.E., Jansen Yeh, E.A., Huddleston-Casas, C.A. (2006). Early parenting and children's relational and physical aggression in the preschool and home contexts. *Applied Developmental Psychology, 27*, 209-227.

Cillessen, A. H. N., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development,75*, 147 – 153.

Coie, J. D., & Dodge, K. A. (1988). Multiple sources of data on social behavior and social status in the school: A cross-age comparison. *Child Development, 59*, 815 – 829.

Collins, W.A. , Maccoby, E. , Steinberg L. , Hetherington, E.M ., Bornstein, M. (2000). Contemporary research on parenting: the case for nature and nurture. *American Psychologist, 55*, 218 – 232.

Colwell, M.J., Mize, J., Pettit, G.S., & Laird, R.D. (2002). Contextual determinants of mothers' interventions in young children's peer interactions. *Developmental Psychology, 38,* 492-502.

Coyne, S.M. & Archer, J. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review, 9*, 212-230.

Crick, N. R. (1996). The role of overt aggression, relational aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development*, *67*, 2317-2327.

Crick, N.R., Casas, J.F., Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology, 33*, 579-588.

Crick, N.R., & Dodge, K.A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin. 115,* 74-101.

Crick, N.R., & Grotpeter, J.K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66,* 710-722.

Crick, N.R., Grotpeter, J.K., & Bigbee, M.A. (2002). Relationally and physically aggressive children's intent attributions and feelings of distress for relational and instrumental peer provocations. *Child Development, 73,* 1134-1142.

Crick, N. R., Ostrov, J. M., Burr, J. E., Cullerton-Sen, C., Jansen Yeh, E., & Ralston, P. (2006). A longitudinal study of physical and relational aggression during early childhood. *Journal of Applied Developmental Psychology, 27*, 254-268.

Crick, N. R., Ostrov, J. F., & Kawabata, Y. (2007). Relational aggression and gender: An overview. In D. J. Flannery, I. Waldman, & A. Vazsonyi (Eds.), *The cambridge handbook of violent behavior and aggression*. pp. 245-259. New York, NY: Cambridge University Press.

Crick, N.R., Ostrov, J.F., Werner, N.E. (2006). A longitudinal study of relational aggression, physical aggression, and children's social-psychological adjustment. *Journal of Abnormal Child Psychology, 34*, 131-142.

Crick, N.R., Werner, N.E., Casas, J.F., O'Brien, K.M., Nelson, D.A., Grotpeter, J.K., & Markon, K. (1999). Childhood aggression and gender: A new look at an old problem. In D. Bernstein (Ed.) *Gender and motivation*. *Nebraska symposium on motivation (*pp. 75-141). Lincoln, NE: University of Nebraska Press.

Criss, M. & Shaw, D.S., Ingoldsby (2003). Mother-son positive synchrony in middle childhood: relation to antisocial behavior. *Social Development, 12*, 279-400.

Darling, N. & Steinberg, L. (1993). Parenting style as a context. *Psychological Bulletin, 113*, 487-496.

Denham, S.A. (1997). "When I have a bad dream, my mommy holds me": Preschoolers conceptions of emotions, parental socialization, and emotional competence. *International Journal of Behavioral Development, 20*, 301-319.

Denham, S.A., Zoller, D. Couchoud, E.A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology*, *30*, 928–937.

Dunn, J. (2006). Moral development in early childhood and social interaction in the family. In M. Killen & J.G. Smetana (Eds.), *Handbook of moral development* (pp.331-350). Mahwah, New Jersey: Erlbaum.

Eisenberg, N., Spinrad, T.L., & Sadovsky, A. (2006) Empathy related responding in children. In M. Killen & J.G. Smetana (Eds.), *Handbook of moral development* (pp. 517–548). Mahwah, New Jersey: Erlbaum.

Estrem, T.L. (2005). Relational and physical aggression among preschoolers: The effect of language skills and gender. *Early Education & Development, 16*, 207-232.

Findlay ,L.C., Girardi, A., & Coplan, R.J. (2006). Links between empathy, social behavior, and social understanding in early childhood. *Early Childhood Research Quarterly, 21,* 347-359.

Garner, P.W. (2003). Child and family correlates of toddlers' emotional and behavioral responses to a mishap. *Infant Mental Health Journal, 24*, 580-596.

Garner, P.W., Dunsmore, J.C., Southam-Gerrow, M. (2008). Mother-child conversations about emotions: Linkages to child aggression and prosocial behavior. *Social Development, 17*, 259-277.

Grotpeter, J. K. & Crick, N. R. (1996). Relational aggression, overt aggression, & friendship. *Child Development, 67*, 2328-2338.

Grusec, J.E., Dix, T., & Mills, R. (1982). The effects of type, severity, and victim of children's transgressions on maternal discipline. *Canadian Journal of Behavioral Science, 14*, 276-289.

Grusec, J.E. & Goodnow, J.J. (1994) Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental Psychology, 30*, 4-19.

Guralnick , M.J., Neville, B., Hammond, M.A., & Connor , R.T. (2007). Linkages between delayed children's social interactions with mothers and peers. *Child Development, 78*, 459-473.

Harris, J.R. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review, 102*, 458-489.

Harris, J.R. (1998). *The nurture assumption: Why children turn out the way they do*. New York: The Free Press.

Harris, J.R. (1999). How to succeed in childhood. In S.J. Ceci & W.M. Williams (Eds.), *The nature-nurture debate: The essential readings* (pp.84-95). Malden, MA: Blackwell.

Harrist, R.T., A., Smith, A. G., Dodge, K., & Bates, J. (1994). Dyadic synchrony in mother-child interaction. *Family Relations, 43*, 417-424.

Hart, C.H., Nelson, D.A., Robinson, C.C., Olsen, S.F., McNeilly-Choque, M.(1998). Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages. *Developmental Psychology, 34*, 687-697.

Hastings, P.D., Zahn-Waxler, C., & McShane, K. 2006. We are, by nature, moral creatures: biological bases of concern for others. In M. Killen, J. Smetana (Eds.), *Handbook of moral development* (pp. 483–516). Mahwah, NJ: Erlbaum.

Hastings, P.D., Zahn-Waxler, C., Robinson, J., Usher, B., & Bridges, D. (2000). The development of concern for others in children with behavior problems. *Developmental Psychology, 36*, 531-546.

Hawley, P.H. (2003). Strategies of control, aggression and morality in preschoolers: An evolutionary perspective. *Journal of Experimental Child Psychology, 85*, 213-235.

Hazler ,R.J. Miller, D.L., Carney, J.V. & Green, S. *(*2001*).* Adult recognition of school bullying situations*. Educational Research, 43*, 133-146.

Hoffman, M.L. (2000). *Empathy and moral development: Implications for caring and justice.* New York, NY: Cambridge University Press.

Kahen, V., Fainsilber, K., & Gottman, J. (1994). Linkages between parent-child interaction and conversations of friends. *Social Development, 3*, 238-254.

Krevans, J. & Gibbs, J. C. (1996). Parents' use of inductive discipline: Relations to children's empathy and prosocial behavior. *Child Development, 67*, 3263–3277.

Kaukiainen, A., Bjorkqvist, K., Lagerspetz, K., Osterman, K., Salmivalli, C., Rothberg, S. & Ahlbom, A. (1999). The relationships between social intelligence, empathy, and three types of aggression. *Aggressive Behavior, 25*, 81-89.

Ladd, G.W., Le Sieur, K.D. & Profilet, S.M. (1993). Direct parental influences on young children's peer relations. In S. Duck (Ed.), *Learning about relationships (pp. 152-183).* Newbury Park, Ca: Sage.

Ladd, G.W., & Pettit, G.S. (2002). Parenting and the development of children's peer relationships. In M.H. Bornstein (Ed.), *Handbook of parenting: Vol. 5: Practical parenting* (2nd ed.), pp 269-309; Mahwah, NJ: Lawrence Erlbaum Associates.

Lagattuta, K.H. & Wellman, H. M. (2002). Differences in early parent-child conversations about negative versus positive emotions: Implications for the development of psychological understanding. *Developmental Psychology, 38*, 564-580.

Laible, D. (2004). Mother-child discourse in two contexts: Links with child temperament, attachment security, and socio-emotional competence. *Developmental Psychology, 40*, 979-992.

Laird, R., Pettit, G., Mize, J., Brown, E. & Lindsey, E. (1994). Mother-child conversations about peers: Contributions to competence. *Family Relations, 43*, 425-432.

Leadbeater, B. J., Boone, E. M. Sangster, N. A. & Mathieson, L. C. (2006). Sex differences in the costs and benefits of relational and physical aggression in high school. *Aggressive Behaviors*, *32*, 409-419.

Linder, J.R., Crick, N., & Collins, A. (2002). Relational aggression and victimization in young adult's romantic relationships: Associations with perceptions of parent, peer, and romantic relationship quality. *Social Development, 11*, 69-86.

Lipsey, M. W. (2002). Meta-analysis and program outcome evaluation. *Socialvetenskaplig Tidskrift, 9*, 194-208.

Loudin, J.L., Loukas, A., & Robinson, S. (2003). Relational aggression in college students: Examining the roles of social anxiety and empathy. *Aggressive Behavior, 29*, 430–439.

Lovett, B.J. & Sheffield, R.A. (2007). Affective empathy deficits in aggressive children and adolescents: A critical review. *Clinical Psychology Review, 27*, 1-13.

Luby, J.L., Sullivan, J., Belden, A., Statlets, M., Blankenship, S., & Spitznagel, E. (2006). An observational analysis of behavior in depressed preschoolers: Further validation of early-onset depression. *Journal of American Academy of Child and Adolescent and Child Psychiatry, 45,* 203-212.

Lyle, K.A. & Werner, N.E. (2009). Mothers' cognitions about aggression, qualities of proposed intervention strategies, and preschoolers' aggression. Poster presented at the biennial meeting of the Society for Research in Child Development, Denver, CO.

MacBrayer, E. K., Milich, R., Hundley, M. (2003). Attributional biases in aggressive children and their mothers. *Journal of Abnormal Psychology, 112*, 698-708.

MacQuiddy, S.L., Maise, S.J. and Hamilton, S.B. (1987). Empathy and affective perspective-taking skills in parent-identified conduct-disordered boys. *Journal of Clinical Child Psychology, 16*, 260-268.

Mayberry, M. L. Espelage, D. L. (2007). Associations among empathy, social competence, & reactive/proactive aggression subtypes. *Journal of Youth and Adolescence, 36*, 787-798.

McDowell, D., Parke, R., & Wang, S. (2003). Differences between mothers' and fathers' advice giving style and content: Relations with social competence and psychological functioning in middle childhood. *Merrill-Palmer Quarterly, 49*, 55-76.

McFadyen-Ketchum, S. A., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1996). Patterns of change in early childhood aggressive-disruptive behavior: Gender differences in predictions from early coercive and affectionate mother-child interactions. *Child Development, 67,* 2417-2433

McGue, M., Elkins, I., Walden, B. & Iacono, W.G. (2005). Perceptions o the parent-adolescent relationship: A longitudinal investigation. *Developmental Psychology, 41*, 971-984.

Miller, P.A. & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin, 103*, 324-344.

Mize, J., & Ladd, G.W. (1990). A social-cognitive learning approach to social skill training with low-status pre-school children. *Developmental Psychology, 26,*

388-397.

Mize, J., & Pettit, G.S. (1997). Mothers' social coaching, mother-child relationship style, and children's peer competence: is the medium the message? *Child Development, 68*, 312-332.

Mize, J., Pettit, G.S., & Brown, E.G. (1995). Mothers' supervision of their children's peer play: relations with beliefs, perceptions, and knowledge. *Developmental Psychology, 31,* 311-321.

Murphy, B.C., Shepard, S.A., Eisenberg, N., Fabes, R.A., Guthrie, I.K. (1999). Contemporaneous and longitudinal relational of dispositional sympathy to emotionality, regulation, and social functioning. *The Journal of Early Adolescence, 19*, 66-97.

Murray-Close, D., Ostrov, J. M., Crick, N. R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology, 19*, 187-203.

Nelson, D.A., & Crick, N.R. (2002). Parental psychological control: Implications for childhood physical and relational aggression. In B.K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 161-189). Washington, D.C.: American Psychological Association.

Nelson, D.A., Hart, C.H., Yang, C., Olsen, J.A., & Jin, S. (2006). Aversive parenting in china: Associations with child physical and relational aggression. *Child Development, 77*, 554-572.

Ontai, L. L., & Thompson, R. A. (2002). Patterns of attachment and maternal discourse effects on children's emotion understanding from 3- to 5-years of age. *Social Development*, *11*, 433-450.

Ostrov, J. M. (2008). Forms of aggression and peer victimization during early childhood: A short-term longitudinal study. *Journal of Abnormal Child Psychology*, 36, 311-322.

Ostrov, J.M. & Keating, C.F. (2004). Gender differences in preschool aggression during free play and structured interactions: An observational study. *Social Development, 13*, 255-277.

Patridge, T. (2005). Are genetically informed designs genetically informative? Comment on McGue, Elkins, Walden, and Iacono (2005) and quantitative behavioral genetics. *Developmental Psychology, 41*, 985-988.

Pettit, G. S., Brown, E. G., Mize, J., & Lindsey, E. W. (1998). Mothers' and fathers' socialization behaviors in three contexts: Links with children's peer competence. *Merrill-Palmer Quarterly, 44*, 173-193.

Pettit, G.S. & Mize, J. (1993). Substance and style: Understanding the ways in which parents teach children about social relationships. In S. Duck (Ed.), *Learning about relationships (pp.118-151)*. Newbury Park, Ca: Sage.

Prinstein, M.J., Boergers, J., & Vernberg, E.M. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology, 30,* 479-491.

Reed, T.J., Goldstein, S.E. Morris, A.S., Keyes, A.W. (2008). Relational aggression in mothers and children: Links with psychological control and child adjustment. *Sex Roles, 59*, 39-48.

Ridley, M. (2004). *The Agile Gene: How Nature Turns on Nurture*. New York, NY: Harper Collins.

Rose, A. J., Swenson, L. P., & Carlson, W. (2004). Friendships in aggressive youth: Considering the influence of being disliked and being perceived as popular. *Journal of Experimental Child Psychology, 88,* 25–45.

Russel, A. & Finnie, V. (1990). Preschool children's social status and maternal instructions to assist group entry. *Developmental Psychology, 26*, 603-611.

Sandstrom, M.J. (2007). A link between mothers' disciplinary strategies and children's relational aggression. *British Journal of Developmental Psychology, 25*, 399-407.

Scarr, S. & McCartney, K. (1983). How people make their own environments: A theory of genotype – environment effects. *Child Development, 54*, 424-435.

Soenens, B., Vansteenkiste, M., Goossens, L., Duriez, B., Niemiec, C. (2008). The intervening role of relational aggression between psychological control and friendship quality. *Social Development, 17*, 661-681.

Stattin, H. & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development, 71*, 1072-1085.

Storch, E., Werner, N., & Storch, J. (2003). Relational aggression and psychological adjustment in intercollegiate athletes. *Journal of Sport Behavior, 26*, 155-167.

Suveg, C., Zeman, J., Flannery-Schroeder, E., & Cassano, M. (2005). Emotion socialization in families of children with an anxiety disorder. *Journal of Abnormal Child Psychology, 33*, 145–155.

Vernberg, E., Berry, S., Ewell, K., & Abwender, D. (1993). Parents' use of friendship facilitation strategies and the formation of friendships in early adolescence: A prospective study. *Journal of Family Psychology, 7*, 356-359.

Wang, Q. (2001). “Did you have fun?”: American and Chinese mother–child conversations about shared emotional experiences. *Cognitive Development, 16*, 693-715.

Wang, Q. & Fivush, R. (2005). Mother-child conversations of emotionally salient events: Exploring the functions of emotional reminiscing in European American and Chinese families. *Social Development, 14,* 473-495.

Werner, N.E., & Crick, N.R. (1999). Relational aggression and social-psychological adjustment in a college sample. *Journal of Abnormal Psychology, 108,* 615-623.

Werner, N.E., & Crick, N.R. (2004). Maladaptive peer relationships and the development of relational and physical aggression. *Social Development, 13,* 495-514.

Werner, N.E., & Grant, S. (in press). Maternal cognitions about relational aggression: Associations with power assertion, children’s normative beliefs, and peer competence. *Social Development*.

Werner, N.E., Senich, S. & Pzepyszny, K. (2006). Mothers’ responses to preschoolers’ relational and physical aggression. *Journal of Applied Developmental Psychology, 27*, 193-208.

Zahn-Waxler, C., Cole, P.M., Welsh, J.D., & Fox, N.A. (1995). Psycho-physiological correlated of empathy and prosocial behaviors in preschool children with behavior problems. *Development and Psychopathology, 7*, 27-48.

Zahn-Waxler, C., Radke-Yarrow, M. & King, R. (1979).Child rearing and children's prosocial initiations toward victims of distress. *Child Development, 50*, 319-330.

Zhou, Q., Valiente, C., & Eisenberg, N. (2003). Empathy and its measurement. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: the handbook of models and measures* (pp.269-284), Washington, DC: American Psychological Association.

Zimmer-Gembeck, M. J., Geiger, T. A., & Crick, N. R. (2007). Relational and physical aggression, prosocial behavior, and peer relations: Gender moderation and bidirectional associations. In M. Drysdale, & B. J. Rye (Eds.), *Taking sides: Clashing views in adolescence.* New York: McGraw-Hill.

Table 1

Child Variables and Maternal Social Coaching Qualities: Descriptive Statistics

Variables	*M*	*SD*	*N*
Relational aggression			
Time one	1.67	.52	90
Time two	1.52	.62	68
Physical aggression			
Time one	1.29	.47	90
Time two	1.21	.48	68
Prosocial			
Time one	3.87	.71	90
Time two	3.83	.87	68
Empathy			
Time one	15.25	2.85	31
Time two	16.25	3.81	31
Social Coaching Codes			
Elaboration	14.84	3.49	83
Empathy	9.45	3.08	83
Rule violation prov.	10.90	2.58	82
Rule violation retal.	13.76	3.33	81

Note: *N* ranges from 31-90

Table 2

Intercorrelations among Child Variables

Variables	1	2	3	4	5	6	7	8
1. Relational aggression T1	–							
2. Physical aggression T1	.31**	–						
3. Prosocial T1	-.20	-.40**	–					
4. Empathy T1	-.06	-.31	.43*	–				
5. Relational aggression T2	.01	.14	-.19	-.49**	–			
6. Physical aggression T2	-.04	.29*	-.24*	-.61**	.67**	–		
7. Prosocial T2	-.05	-.33**	.40**	.51**	-.50**	-.48**	–	
8. Empathy T2	-.00	-.23	.39*	.84**	-.59**	-.66**	.69**	–

Note: *N* varies from 31-90
*$p < .05$ **$p < .01$

Table 3

Intercorrelations among Social Coaching Qualities

Variables	1	2	3
1. Elaboration	–		
2. Empathy	.61**	–	
3. Rule violation provocation	.64**	.48**	–
4. Rule violation retaliation	.75**	.43**	.48**

Note. Scores are based on sum total across stories. *N* varies from 31-90

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

Table 4

Intercorrelations between Child Variables and Social Coaching Qualities (N = 90)

	Elaboration	Empathy	Rule Violation Provocation	Rule Violation Retaliation
1. Relational aggression T1	.02	-.02	.11	.13
2. Physical aggression T1	-.25*	-.04	-.31**	-.04
3. Prosocial T1	-.02	-.03	.11	-.05
4. Empathy T1	.11	.00	.13	.03
5. Relational aggression T2	-.04	.03	-.14	.03
6. Physical aggression T2	-.08	.01	-.08	-.24
7. Prosocial T2	.22	.22	.34**	.48**
8. Empathy T2	.22	.15	.39*	.08

Note: *N* ranges from 31-90

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

Table 5

Means of Mothers' Social Coaching by Aggression Form

	Provocation		Retaliation	
Social Coaching Qualities	Relational	Physical	Relational	Physical
Elaboration	7.23_a	7.61_b	7.53	7.31
Empathy	4.69	4.75	5.10_c	4.36_d
Rule Violation Provocation	5.31	5.85	5.50	5.40
Rule Violation Retaliation	6.79	6.97	6.65_a	7.11_b

Note: Means with subscripts a and b differ significantly at $p < .05$ and means with subscripts c and d differ significantly at $p < .001$ in a t-test of paired samples. *N* ranges from 31 to 90.

Table 6

Means of Mothers' Proposed Strategies by Aggression Form

	Provocation		Retaliation	
Strategy	Relational	Physical	Relational	Physical
Authority Seeking	$.04_a$	$.18_b$	.07	.14
Direct Assertion	$.21_c$	$.51_d$	.35	.38
Prosocial	.13	.18	$.26_c$	$.05_d$
Withdrawal	.14	.11	.10	.15

Note: Means with subscripts a and b differ significantly at $p < .05$ and means with subscripts c and d differ significantly at $p < .001$ in a t-test of paired samples. *N* ranges from 31 to 90.

Table 7

Summary of Hierarchical Regression Analysis for Variables Predicting Child Relational Aggression (N = 90)

	Model 1			Model 2		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Gender	0.17	0.11	0 .14	0.18	0.12	0.15
Age	-0.08	0.06	-0.13	-0.08	0.06	-0.12
Physical Aggression T2	0.85	0.11	0.71***	0.83	0.11	0.69***
Direct Assertion				-0.08	0.06	-0.13
Withdrawal				0.08	0.13	0.06
Prosocial				-0.27	0.16	-0.15
Authority Seeking				0.36	0.16	0.23*
R^2	.50			.07		
F for change in R^2	18.58			2.36		

*$p < .05$. ***$p < .001$

Appendix A

Social Coaching Codes

Note: Only anchor points will be shown for brevity purposes.

Elaboration

This code captures the extent to which the parent goes beyond reading the story and engages in conversation with the child about key issues in the peer conflicts. Low scores on this dimension are given to mothers' who read the story verbatim, simply paraphrase the story, or engage the child in discussion about superficial issues (e.g., naming characters). High scores are given to mothers' who help their child attend to relevant cues and details in the story by:

- Asking questions or making statements about the events in the story, including characters' intentions
- Relating the events to the child's experience
- Refer to the emotions of the characters
- Suggesting and evaluating strategies for handling the situations

Aside from the specificity, relevance and breadth of discussion about the issues above, this code does not take into consideration the quality of the discussion (for example, quality of strategies proposed by mother for handling peer conflict).

1 - Very Low. Mother reads story word for word and engages in little, if any, additional discussion with child. If discussion is present, it is unrelated to the story (e.g. "Do you need a tissue?", "This is a soft couch!"), or limited to superficial aspects, such as asking the child to point out characters ("Which one is Grayson?") or to read parts of the text, or paraphrasing the events in the story.

3 - Moderate. Mother engages in a moderate level of discussion with child about relevant content areas (emotions of characters, intentions/attribution of characters, child's own experiences, or strategies for handling the situation), as indicated by asking several questions, making comments, and/or reinforcing child's comments. Questions and/or comments may be repetitive, and include predominantly yes-no rather than open-ended questions.

5 - High. Mother elaborates extensively on the story by focusing on important cues and details. A score of 5 should be given when the mother elaborates extensively on more than one content area (events in story, emotions of characters, intentions/attributions, child's experience, and strategies). Mother should ask predominantly open-ended questions that engage child in the discussion, and there should be little to no repetition of questioning.

Encouragement of Empathy

This code captures the extent to which mothers' encourage their children to empathize with characters portrayed in each story. We use the term "empathy" to refer to mothers' appeal to the feelings of others when engaged with their child in discussion about the stories. High scores are given to mothers' who highlight the emotions of characters in the story by focusing on relevant emotion cues (e.g., facial expressions, posture), encourage their child to think about how the characters in the story felt (or how child would feel if s/he were the character in story) through making emotional statements or asking questions about emotions. Low scores are assigned when mothers' do not appeal to emotions or feelings of characters in the story, do not respond to child's reference to emotions, or they implicitly, but not explicitly acknowledge others feelings or how behaviors make other people feel.

1 = Very low. Parent neither explicitly nor implicitly appeals to emotions of characters in the stories, talk about feelings, suggest reparations, or respond to / give feedback about child's references to emotional content. When children make unsolicited emotional references, and mothers' do not respond to those statements, a score of 1 should be assigned.

3 = Moderate. Parent engages in a moderate degree of explicit discussion about emotions. Parent makes one or several statements about emotions, but statements are fairly simplistic (e.g., "She looks angry", "That would not feel good.") and moderate in frequency. Parent responds to children's references to emotion with simple reinforcement (e.g., child says, "she's sad" and mother says, "yeah"), but does not ask questions about feelings or emotions that would receive a 4.

5 = Very high. Parent makes *frequent* reference to emotions of characters, and asks child questions about emotional states. Discussion is engaging and specific to the social situation. For example, the parent might ask child why a character would feel a particular way, identify relevant emotion cues (e.g., facial expression), or referring to the child's experience to help him/her relate to the events depicted in the story. The difference between a score of 4 and 5 lies in the frequency or amount of emotion discussion, the balance of statements and questions (not just one or the other), and presence of references to the child's own experience or prior events.

Rule Violation: Provocation and Retaliation

This code captures the extent to which the parent verbally communicates clearly to child that the behaviors in the story violated a social or moral convention. Specific elements of this dimension include statements (explicit or implicit) that the aggressive actions are inappropriate and the presence of additional elements that include: explanations of why behavior is wrong, discussion of the consequences of aggression, suggestions of alternative courses of action (i.e., what the children in the story could do differently), and discussion of how to remedy the situation (e.g., by apologizing). High scores are given to mothers' who make explicit statements of rule violation and include additional elements of rule violation in their discussions. Examples of explicit statements include: "He shouldn't do that", "That wasn't the best choice", "That wasn't very nice." Mother may also ask a question in which rule violation is embedded "Is that nice to do?" Examples of implicit statements include (and only count when explicit statement is lacking, otherwise is considered an "additional element"): non-verbal negative reactions to the actions of children in stories, appeals to peers' feelings, suggesting different course of action, explanation of why behavior is wrong, or suggesting reparations. Note that mothers' can communicate rule violation by talking only about the characters in the story and/or by discussing a similar situation faced by the target child (e.g., prior experience at school or with sibling at home). Every attempt should be made to distinguish between the aggressor and the aggressive-victim. However, in some cases mother might make global statements about all children in the stories (e.g., "these kids are not very nice"). In such cases, the code for rule violation can be applied to both the provocation and retaliation.

1 = Very low. Parent does not communicate that behaviors are inappropriate. Parent ignores or fails to acknowledge negative actions on the part of child/ren in story.

3 = Moderate. There are two circumstances under which a parent would receive a score of 3. (1) Parent implicitly, but not explicitly, suggests that behavior was inappropriate are rated as a 3 on this dimension. Implicit examples include suggesting that the child make reparations (i.e., "She should say she's sorry."), recommending a different course of action (e.g, "What would be a better thing to do?"), suggesting alternative or future strategies (e.g., "Next time she should wait her turn in line."), or appealing to feelings (e.g., "That hurt his feelings didn't it?", "Must feel terrible huh?", "He looks sad.") ; yet does **not explicitly** state that the behavior was wrong or unacceptable. (2) Parent makes an explicit statement of rule violation (e.g., "that's not nice", "that wasn't a good choice", "he/she shouldn't do that") but no other elements are present.

5 = Very high. Parent communicates clearly through discussion that the aggressive actions depicted in the story violated a social or moral convention. Parent makes an **explicit** statement and includes two or more additional elements (appeal to feelings, suggesting different course of action, explanation of why behavior is wrong, or suggesting reparations) of rule violation.

Appendix B

Strategy Coding

We identified specific strategies proposed by mothers' and children for handling the peer conflict situations. Strategies indicate what the children in each story "should" do in response to each of the situations, as well as strategies for what children "should have" done.

- We will code several different types of strategies. Essentially, we will code strategies that answer the following questions:
  - **(1)** "*What should happen next?*"
  - **(2)** "*What should the child have done?*"
  - **(3)** "*What will happen next?*"

STEPS IN CODING PROCESS:

1. Identify the target for the strategy: **aggressor (A)**, **victim (V), aggressive-victim (AV)** or **bystander (B)**
   - When the mother asks the child what he/she would do in the situation, indicate which role the child is being asked to consider (typically, the V or B roles, but might also be the A role).
2. Code each strategy according to those listed below.

	STRATEGY CODES
1	**Direct assertion (DA)** – Strategies that involve the target child confronting a peer in a direct and assertive, but not aggressive way, using verbal means to communicate that the behavior is unwanted. Examples include, "I would tell them that is not nice," "Tell them they should not do that", "I would ask for an apology."
2	**Withdrawal / Cease Interaction** – Strategies that involve the cessation of activity or play between target child and peer(s). Examples include, "I would find someone else to play with" or "You should go sit at another table." This is not the same as removing a child as a punishment (i.e., time out).
3	**Appeal to authority** – Strategies in which the target child is encouraged to tell an authority figure or seek help from the authority figure. Examples include, "I would tell the teacher" or "You should go get someone to help you."
4	**Prosocial** – Strategies that involve using prosocial behaviors to respond to the situation, such as inclusion, helping, etc. (e.g., "I would pull up another chair for the kid" or "I would give her an invitation")