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# Russian Parenting: Interactions with Relational Aggression over Time

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RUSSIAN PARENTING: INTERACTIONS WITH AGGRESSION

by

Emily K. Keister

A thesis submitted to the faculty of

Brigham Young University

in partial fulfillment of the requirements for the degree of

Master of Science

Department of Marriage, Family, and Human Development

Brigham Young University

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BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

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

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

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## ABSTRACT

### RUSSIAN PARENTING: INTERACTIONS WITH RELATIONAL AGGRESSION OVER TIME

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The current study considers Russian parenting (psychological control) and child relational aggression across a decade. We used parent and child driven path analyses to test whether peer-directed and romantic relational aggression is associated with psychological control both concurrently as well as longitudinally. Using AMOS, parent and child driven models were compared and the parent driven models were found to have more significant concurrent and longitudinal linkages. Maternal psychological control was significantly stable over time; relational aggression was also stable over time for girls. Maternal psychological control at Time 1 was associated with relational aggression for girls at Time 1 and with peer-directed and romantic relational aggression for boys and girls at Time 2. Paternal psychological control was also associated with relational aggression for boys and girls at Time 2. Consistent with previous research, psychological control is particularly associated with relational aggression.

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## INTRODUCTION

A search for books about relational aggression on the popular online shopping site, amazon.com, yields almost 600 results. With recurrent news coverage of so-called “mean girls,” movies about “queen bees,” and songs about popular girls, it is easy to see the reflection of people’s interest in relational aggression in the media. Such widespread attention is not surprising when one considers that being victimized by a relationally aggressive male or female is likely to occur at some point in life. Recent research has shown that relational bullying can start in children as young as preschoolers (McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, 1996; Ostrov, Woods, Jansen, Casas, & Crick, 2004). However, the extent to which early relational aggression may persist into adolescence or adulthood is still unclear. In addition, the concurrent and predictive risks and correlates associated with relational aggression require more examination.

Research on the stability of physical aggression suggests that aggressive preschoolers rarely engage in physical aggression as adolescents or adults (Côté, Vaillancourt, LeBlanc, Nagin, & Tremblay, 2006). Unfortunately, a parallel study using relational aggression has not been conducted, since almost all the current longitudinal studies on relational aggression have been short-term (less than a year). This limits analyses to one developmental time period, such as early childhood. To address true developmental changes, longer-term studies need to be conducted.

In addition, studies have noted that physical aggression generally decreases in childhood while relational aggression increases (Côté et al., 2006). Since children are

expected to become more socially skilled and respect social norms as they grow older (Eisenberg & Morris, 2004) it is likely that more obvious forms of aggression (such as fighting) are replaced by more subtle forms of aggression (such as snubbing others) by adolescence. Finally, although little is known about relational aggression in romantic relationships, it is possible that peer-oriented aggression could transition into relational aggression between romantic partners. Therefore, the first aim of this study was to examine the development of relational aggression over time by comparing forms of relational aggression from preschool to adolescence.

Next, because decades of research have shown that parents' early socialization processes can greatly influence antisocial behavior (see Dodge, Coie, & Lynam, 2006 for review), many researchers are interested in the potential role parenting plays in the development and stability of aggression. Currently, many researchers believe that psychological control, a type of negative parenting, is so similar to relational aggression that it is more likely to predict relational aggression than other parenting typologies (Nelson & Crick, 2002). Therefore, to complement research on the stability of relational aggression, it is important to study the association of psychological control with relational aggression concurrently and across time. As part of this effort, the stability of psychological control will also be assessed.

Previous studies of parenting and children's relational aggression have typically focused on concurrent associations. For example, Sandstrom (2007) examined concurrent linkages between parents and children and found that parents who engage in more negative forms of parenting, such as authoritarian and permissive styles, have children who display increased relational aggression (Sandstrom, 2007; Casas, et al., 2006).

Longitudinal research has also shown that harsh and hostile parenting predicts later relational aggression in children (Vitaro, Brendgen, & Tremblay, 2002). This study assesses the concurrent and predictive relationships (over time) between parental psychological control and child outcomes.

In addition, there are few analyses that examine the reciprocal relationships between parents and children, despite many theoretical conceptualizations that assume bidirectional influences (e.g., Kuczynski, 2003; Collins & Madsen, 2003; Nurmi, 2004; Anderson, 1981; Bell, 1979; Lerner, 1982). Almost all empirical studies have focused on the effect that parents have on children's socialization. This is problematic for several reasons. First, more studies are emerging that demonstrate the impact children have on parents' childrearing decisions (Jaffee et al., 2004; Stoolmiller, 2001). Second, bidirectional influences are even more relevant during adolescence as the parent-child relationship moves from a vertical to a more horizontal relationship (Collins & Laursen, 2004). Therefore, the third aim of this study was to examine potential reciprocal effects between relational aggression and parenting concurrently and over time.

Finally, the relationship between parental psychological control and relational aggression has helpfully been addressed in a number of cultures. To date, participants have included European-American and Latino adolescents (Loukas, Paulos, & Robinson, 2005) and Chinese (Nelson, Hart, Yang, Olsen, & Jin, 2006) and Russian (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998) preschoolers. This study further assesses the relationship between parental psychological control and child relational aggression in a non-Western culture, with an ethnic Russian sample of preschoolers who are followed into adolescence.

## REVIEW OF LITERATURE

### Overview

Chapter 2 provides the theoretical and conceptual framework for the review of the extant literature on children's aggressiveness and parenting. This chapter is divided into four sections. The first section reviews the history of aggression, gender differences in aggression, the stability of relational aggression, and the development of romantic relational aggression. The second section reviews the history of parenting and the development of parenting styles and dimensions popularized by Baumrind (1966). In addition, the differences between behavioral control and psychological control are presented. In considering studies of parental psychological control, the stability of psychological control is specifically considered. The third section evaluates the conceptual and empirical linkages between psychological control and relational aggression in young children and adolescents. Reciprocal effects between parents and children are also explored in this section. The fourth section summarizes literature on the modern-day Russian family and the bidirectional influences that are expected between Russian parents and children. Lastly, research questions and hypotheses will be presented.

### Aggression

#### *History of Aggression*

Much has been written on childhood and juvenile aggression, partly because such anti-social behavior has been linked to greater interpersonal problems and later delinquency. Recently, Dodge and colleagues (2006) have conceptualized aggression as

behavior aimed at intentionally harming others. In seeking to harm others, aggression can come in many forms, two of which are physical and relational aggression.

Early researchers primarily studied physical aggression as a type of psychological undercontrol (Rubin & Burgess, 2002) found mainly in males (Block, 1983). Thus, it was assumed that girls were the non-aggressive gender (Loukas, et al., 2005). In the mid-1990s, researchers began to test this assumption by examining gender differences in aggression. They became particularly interested in how females exhibit aggression in non-physical ways (Crick & Grotpeter, 1995). Depending on the research study, this more subtle type of aggression is referred to as either indirect (Bjorkqvist, Lagerspetz, & Kaukianen, 1992), social (Galen & Underwood, 1997), or relational (Crick & Grotpeter, 1995) aggression. Although small differences among the definitions exist, they are all based on the same construct (Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008). For the purpose of this study, relational aggression will be the primary term used.

### *Relational Aggression*

Relational aggression is defined as “harming others through purposeful manipulation and damage of their peer relationships” (Crick & Grotpeter, 1995, p. 711). Recent interest in relational aggression can be attributed to several factors. First, relational aggression occurs as frequently (if not more frequently) among girls than boys, unlike physical aggression which occurs more frequently among boys (see Dodge, et al., 2006 for review). Second, relational aggression has been identified in a wide range of age groups, such as three year olds (Crick, Casas, & Mosher, 1997), preschoolers (McNeilly-Choque et al., 1996), pre-adolescent children (Archer, Pearson, & Westeman, 1998), adolescents (Leadbeater, Banister, Ellis, & Yeung, 2008), and young adults (Nelson,

Springer, Nelson, & Bean, 2008). Third, many researchers have been interested in a range of variables associated with relational aggression, such as peer rejection, internalizing behaviors (Nelson & Crick, 2002), and social adjustment problems (Crick, Ostrov, & Werner, 2006).

### *Gender Differences*

Because physical aggression is much easier for external observers to notice and measure, for years researchers erroneously assumed that girls were not capable of being as aggressive as boys (Conway, 2005; Bowie, 2007). When Crick and Grotpeter (1995) developed a peer-report measure that included items such as “When mad, gets even by keeping the other person from being in their group of friends” (p. 713), researchers were finally able to measure relational aggression reliably. Thus, numerous recent studies have been able to discover that, by considering relational aggression, overall girls engage in similar levels of aggression as boys.

Researchers have found consistent trends at various time points in development. In general, males display more overt and physical aggression (Card, Stucky, Sawalani, & Little, 2008; Harris, 1992; Maccoby & Jacklin, 1980) while females display more relational aggression (Card et al., 2008). These gender trends can be found in various age groups. Crick and associates (1997) used peer and teacher reports to identify aggressive boys and girls as young as three (Crick et al., 1997), and found that young girls are significantly more likely to use relational aggression. Additional studies that verify these findings have examined elementary school children (Crick & Grotpeter, 1995; Murray-Close, Ostrov, & Crick, 2007), adolescents (Rose, Swenson, & Waller, 2004), and adults (Werner & Crick, 1999). A meta-analysis conducted by Archer (2004) suggested that

girls between age 6 and 17 are more likely than boys to use indirect (relational) aggression, and the gender difference is most robust from ages 11 to 17.

Physical and relational aggression are both associated with poor social adjustment, such as peer rejection (Crick et al., 1997). However, some interesting gender differences emerge. For example, relational aggression in preschool boys is related to both peer acceptance and peer rejection (Crick et al., 1997) while relational aggression is associated with only peer rejection for preschool girls. In contrast, a study by Cillessen and Mayeux (2004) found that both relational and physical aggression in adolescent boys was associated with greater perceived popularity while Rose et al. (2004) found that only relational aggression in adolescent females was significantly related to increased perceived popularity. Recent research also suggests that relationally aggressive boys experience greater social adjustment problems than relationally aggressive girls (Crick et al., 2006). Finally, Vaillancourt, Miller, Fagbemi, Côté, and Tremblay (2007), who studied children from age 2 to 10, found that indirect (relational) aggression was a stable variable over time. However, stabilities were higher for girls. The authors note that this finding could be attributed to the higher use of relational aggression used by girls in their sample at all five time points (every two years).

#### *Stability of Aggression*

Aggression in some young children is so pronounced and frequent that parents, teachers, and researchers are understandably concerned about the trajectory and frequency of aggression over time. Recently, scholars have conducted empirical longitudinal studies to address the issue. For example, Pellegrini and Long (2003) examined boys and girls from elementary (fifth grade) to middle school (seventh grade)

and found that physical bullying and victimization first increased and then decreased over time. Many other studies have established the stability of overt or physical aggression (Huesmann & Eron, 1984; Côté, et al., 2006). Murray-Close and colleagues (2007) theorized that studying developmental trajectories and changes associated with aggression is important because of associations between externalizing behaviors and psychopathology.

To complement the work regarding the stability of physical aggression, research studies have established individual stability in peer-directed relational aggression among preschoolers (Ostrov, Ries, Stauffacher, Godleski, & Mullins, 2008; Ostrov, 2008), elementary school children (Crick, 1996; Murray-Close, et al., 2007), and adolescents (Rose et al., 2004; Schad, Szwedlo, Antonishak, Hare, & Allen, 2007). These studies suggest that relational aggression increases for both preschool (Ostrov, 2008) and elementary school girls (Murray-Close et al., 2007; Zimmer-Gembeck, Geiger, & Crick, 2005; Crick et al., 2006). In addition, there is some evidence that relational victimization increases from early to middle adolescence (Halpern, Oslak, Young, Martin, & Kuper, 2001; Pepler, Craig, Connolly, Yuile, McMaster, & Jiang, 2006), which could suggest that aggression is simultaneously increasing.

Unfortunately, many of these longitudinal studies are limited from the beginning. In particular, most are short-term studies that span less than a year (e.g., Ostrov, 2008; Murray-Close et al., 2007) although recent studies have spans as long as three (Zimmer-Gembeck, et al., 2005; Schad et al., 2007), five (Xie, Swift, Cairns, & Cairns, 2002), or six years (Vaillancourt et al., 2007). An additional limitation stems from how aggression is measured over time. Many measures of relational aggression that are

appropriate for preschoolers may not remain valid for adolescents since socially wiser adolescents may use more subtle forms of aggression. As Goldstein, Chesir-Teran, and McFaul (2008) note,

Given that the topography of relationally aggressive behavior changes throughout development (e.g., Archer & Coyne, 2005), one task of researchers focusing on later developmental periods is to adapt measures so that they are developmentally salient...It is critical to include these types of items in measurement for the sake of maintaining ecological and developmental validity (p. 262).

### *Romantic Relational Aggression*

One of the unique forms of relational aggression in adolescence is that of romantic relational aggression. This aggression subtype is defined as “any effort to use a romantic relationship as a means of manipulating or psychologically harming a romantic partner” (Schad et al., 2008) and is exemplified by behaviors such as acting jealous, cheating, or threatening to break up with one’s romantic partner when mad at him or her (Morales & Crick, 1998). Romantic relational aggression has been associated with various psychosocial maladjustment characteristics, such as mistrustfulness (Linder, Crick, & Collins, 2002), loneliness (Bagner, Storch, & Preston, 2007) and depression (Bagner, et al., 2007; Goldstein et al., 2008) for the perpetrators.

However, the current literature, which is primarily limited to cross-sectional analyses, is unable to answer a major question about the development of aggression within a romantic context. Does peer-oriented relational aggression in young children simply continue as peer-oriented aggression in adolescents or young adults? Or, do peer-

oriented relational aggressors transition into aggressors in romantic relationships?

Finally, it is also possible that both scenarios could occur, depending on the individual.

Since social relationships in early to middle childhood mainly revolve around peer networks, relational aggression is generally peer-oriented in the early years. Research indicates that when children become adolescents and begin to form romantic relationships, their romantic partners become as influential as friends on their thoughts, feelings, and behaviors (Adams, Laursen, & Wilder, 2001). Consistent with this research, Simon, Aikins, and Prinstein (2008) showed that highly aggressive early adolescents were more relationally aggressive a year later if they dated a romantic partner who was similarly relationally aggressive.

It is also probable that adolescents who are accustomed to behaving aggressively towards peers could resort to similar tactics in an emotionally charged conflict between romantic partners (Leadbeater et al., 2008). In fact, Leadbeater and associates found that adolescents who used relational aggression against peers were more likely to concurrently use it against their romantic partners (Leadbeater et al., 2008). Pepler and colleagues (2006) similarly found that elementary students who engaged in bullying were more likely to be physical and indirectly relational romantic aggressors in early adolescence. However, the authors discovered that girls were just as likely to use relational aggression in a dating relationship whether or not they engaged in bullying as an elementary school child. The authors did not define what “bullying” referred to, so it is difficult to know whether this study can establish a relationship between earlier peer-oriented relational aggression and later romantic relational aggression. In summary, the

research literature is clearly lacking in finding a connection between peer-oriented and later romantic relational aggression, although some studies are suggestive.

### Parenting

In the context of stability of aggressive behavior, another question for researchers to consider is what contributes to the long-term development of aggression. As stated in the introduction, a major contribution to children's social development is the family. Therefore, this section will discuss parenting and the linkages between negative parenting and relational aggression.

#### *Historical Context*

Although records of parenting and family life have been found from many ancient civilizations, such as Egypt, Greece, and Rome (French, 2002), formalized studies on parenting have only emerged in the past century. Early researchers' struggles with organizing parenting practices into meaningful and empirically-based constructs are well-documented (Darling & Steinberg, 1993).

Eventually, researchers came to use both dimensional and typological approaches to categorize parenting socialization practices (Hart, Newell, & Olsen, 2003). The dimensional approach places parental behaviors on a continuum, such as control-democracy (Baldwin, 1948) or love-hostility (Schaffer, 1965). On the other hand, the typological approach to parenting (Baumrind, 1966) diverged from the dimensional by primarily grouping parental authority into three qualitatively different categories: authoritarian, permissive, and authoritative parenting (Darling & Steinberg, 1993). Baumrind (1971) also illuminated the roles that warmth and autonomy play in defining these parenting constructs.

In 1983, researchers Maccoby and Martin furthered the conceptualization of parenting by focusing on both parental responsiveness and demandingness to distinguish each style. Thus, from decades of research emerged four distinct parenting styles: (1) authoritative, which combines high levels of control, high levels of warmth, and developmentally appropriate amounts of autonomy, (2) permissive, which includes low levels of control and high levels of warmth and autonomy, (3) authoritarian, which joins high levels of control, lower levels of warmth, and less autonomy, and (4) neglectful, which combines low levels of control and warmth with high levels of autonomy. Research has predominantly focused on the first three styles, which are discussed in more detail in the following sections.

### *Parenting Styles*

*Authoritative* parenting is composed of three dimensions that comprise authoritative parenting: connection, regulatory control, and autonomy granting (Hart, et al., 2003). Connection has been described as positive emotional bonds that are consistent over time with specific caregivers (Barber & Olsen, 1997). It has also been referred to as involvement, or the extent to which parents participate and are knowledgeable about their child's life (Grolnick & Ryan, 1989). Connection has also been linked with sensitive caregiving and secure attachment (Stevenson-Hinde & Verschueren, 2002). Overall, the literature suggests that a warm bond between caregiver and child is crucial to later secure relationship development with others.

The second dimension is regulation. Regulation (control) occurs when parents move into a more vertical relationship with their child and focus on correction and discipline (Hart, et al., 2003). Reasoning oriented regulation (e.g., explaining rules and

consequences and following through when violations occur) is an important aspect of authoritative regulatory control (Baumrind, 1971; 1996; Hart, et al., 2003). Appropriate control has been linked to fewer power struggles between parents and children (Chamberlain & Patterson, 1995; Smetana, 1995) and a greater internalization of societal rules (Pratt, Arnold, Pratt, & Diessner, 1999).

Autonomy granting includes democratic parenting, which Baldwin (1948) describes as allowing children input into family rules and increased freedom. Autonomy granting also means children are allowed to make personal choices within acceptable parental limits (Hart et al., 2003). Autonomy granting becomes increasingly important as children approach adolescence, when biological and cognitive maturation makes autonomy more developmentally normative (Collins & Laursen, 2004).

*Permissive* parenting consists of lenient and accepting practices such as making few restrictions on children's behaviors, allowing children to freely express themselves, or overindulging their wishes (Hart, et al., 2003; Baumrind, 1967). Some hypothesized permissive constructs include "not following through," "ignoring misbehavior," and "no self confidence." Permissive parenting is associated with both positive and negative child outcomes. For example, Barber and Olsen (1997) found that families who allowed greater autonomy had adolescents who were less likely to be depressed and antisocial. However, children and adolescents are also more likely to be more impulsive, lack self-control, and exhibit aggressiveness (Baumrind, 1967).

*Authoritarian* parents are significantly different from authoritative parents in the level and manner of control they exert. Authoritarian parents emphasize behavioral control that is strict, harsh, and often arbitrary. Some authoritarian dimensions include

verbal hostility, corporal punishment, punitive discipline strategies, and directiveness. Accordingly, these parents produce more physical and verbal hostility, display more negative affect, and exert more behavioral and/or psychological control over their children (Baumrind, 2006; Hart, Olsen, Robinson, & Mandlco, 1997). In return, children are more likely to immediately comply without the ability to regulate themselves in the future (Hart, et al., 2003) and are more likely to have problems with externalizing (Ho, Bluestein, & Jenkins, 2008) and internalizing behaviors.

### *Psychological Control*

Psychological control is a multi-dimensional construct, comprised of behaviors such as love withdrawal, guilt induction, personal attack, invalidating feelings, erratic emotional behavior, and other manipulative actions (Nelson, Yang, Coyne, & Hart, 2009). Nelson and colleagues note that the dimensions can reflect manipulation of parental acceptance (e.g., love withdrawal, erratic emotional behavior) or insensitivity to children's autonomy (e.g., invalidation of feelings, constraining verbal expressions), or induce feelings of shame and hurt (e.g., negative criticism, guilt induction). What these dimensions have in common is an underlying need for control.

Recent studies have augmented our knowledge of control by distinguishing behavioral from psychological control. Most early studies that conceptualized control either focused exclusively on behavioral control or combined psychological and behavioral control (Barber, Olsen, & Shagle, 1994). To clarify the difference, Barber (1996) defines psychological control as parent intrusion upon the emotional and psychological development of a child, a uniformly negative form of control. In contrast, behavioral control encapsulates the need for parents to balance autonomy granting and

regulatory control of behavior. Therefore, behavioral control is a continuum in which authoritarian and permissive parents engage in inappropriate behavioral control (excessive or inadequate). Authoritative parents tend to proactively adapt behavioral control strategies in non-punitive ways to child developmental levels, type of misbehavior, and child temperament characteristics (Hart et al. 2003).

To further distinguish the two types, research has found evidence that appropriate levels of behavioral control can be beneficial. For example, Hoffman (1970) noted that more effective mothers were ones who appropriately and flexibly used multiple disciplinary techniques. Bean, Bush, McKenry, and Wilson (2003) found that the presence of behavioral control was related to higher academic achievement and self esteem in adolescents. Barber and colleagues (1994) also describe how the absence of enough behavioral control is a risk factor for adolescents (as in the case of permissive parenting). The presence of psychological control, on the other hand, *creates* a risk. No studies have suggested that psychological control, at any level, is linked to any positive outcomes.

Both inappropriate behavioral control and psychological control have repeatedly been linked to an increase in children's externalizing behaviors such as physical aggressiveness and disruptiveness (Barber, Olsen, & Shagle, 1994; Hart, Nelson, et al., 1998). Whereas the use of psychological control has recently been associated with more externalizing behavior for girls, punitive behavioral control has been linked to more externalizing behavior for boys (Nelson, Hart et al., 2006). However, psychological control tends to be more often associated with more internalizing behaviors, such as passivity and inhibition (Beavers, 1982; Barber, et al., 1994), and lower self-confidence

and increased depressed mood (Conger, Conger, & Scaramella, 1997). Finally, as discussed below, there is a strong theoretical conceptualization that suggests psychological control should be uniquely related to relational aggression.

#### *Development and Stability of Psychological Control*

One factor in the predictive value of psychological control is the amount of stability in parental engagement in this style of parenting. The few longitudinal studies that have examined the stability of psychological control have all found similar results. In Verhoeven, Junger, Aken, Deković, and Aken's (2007) year-long study, mothers and fathers of toddlers both reported significant increases in psychological control. Keller, Cummings, Davies, and Mitchell (2008) also found that psychological control was highly stable over a one-year time span for parents of kindergarteners. In addition, Shek (2007; 2008) studied Chinese students from grade 7 to 9. The authors discovered that while parental behavioral control declined, psychological control increased significantly from grades 7 to 8 (2007) as well as grades 7 to 9 (2008). Accordingly, short-term longitudinal studies suggest that psychological control is either stable or increasing in frequency as children mature and perhaps engage in greater levels of misbehavior (suggesting a bidirectional effect).

#### Psychological Control and Relational Aggression

As discussed earlier, parenting that intrudes upon the psychological and emotional development of a child is referred to as psychological control (Barber, 1996). Many studies have identified psychological control as a risk factor for children's maladjustment, and as an especially salient risk factor for increased relational aggression (Nelson & Crick, 2002). A review of the literature offers several hypotheses for the

linkage, with the most popular theory being the social learning perspective. In other words, children model their peer relationships from the parent-child relationship (Nelson & Crick, 2002; Soenens et al., 2008; Nelson, Nelson, Hart, Yang, & Jin, 2006).

Therefore, children or teenagers who are exposed to intrusive or manipulative behaviors from their parents are more likely to adopt relationally aggressive behaviors (Nelson & Crick, 2002).

### *Theoretical Background*

In addition, the compatibility and parallels between some dimensions of psychological control and dimensions of relational aggression further strengthens the argument for the social learning perspective (Nelson & Crick, 2002; Yu & Gamble, 2008; Nelson, Hart, Yang et al., 2006). The motives of parents who use love withdrawal, for example, compare to the goals of children who engage in relational aggression. Both strategies attempt to manipulate and damage the relationship in order to achieve a goal (Reed, Goldstein, Morris, & Keyes, 2008). They differ, of course, but the similarities between the two behaviors are striking.

Others have hypothesized that psychological control leads to an increase in children's relational aggression because it undermines a basic human need for relatedness. This in turn leads to increased frustration, which in turn increases aggression (Soenens et al., 2008). This frustration might be especially salient during adolescence, when teenagers are trying to increase autonomy and are particularly sensitive to intrusive parenting (Barber, 1996; Hill & Holmbeck, 1986). In addition to frustration, Soenens and colleagues (2008) suggested that psychological control leads to increased insecurity. Children not only feel less secure in the parent-child relationship but also could expect to

be rejected and only conditionally accepted by their peers. To compensate, children engage in more relational aggression.

Another perspective is that social manipulation has rewarded parents in their adult relationships and therefore they might carry over those expectations to the tactics they use with their children. Reed and colleagues (2008) used mother's self-reports of psychological control and relational aggression with peers in conjunction with teacher reports of children's relational aggression. As hypothesized by the authors, mothers who were more relationally aggressive with their own peers were more likely to use psychological control on their children.

Several empirical studies have confirmed the association between parental psychological control and relational aggression in both Western and non-Western cultures, such as Belgium, China, and Russia (Loukas et al., 2005; Kuppens, Grietens, Onghena, & Michiels, in press; Hart, Nelson, et al., 1998; Nelson & Crick, 2002; Nelson, Hart, Yang et al., 2006; Yang et al., 2004). For example, using peer nominations of relational aggression and spousal reports of psychological control, Nelson, Hart, Yang, Olsen and Jin (2006) noted some significant associations between parents and preschoolers in a Chinese sample. Most notably, the authors used a latent sum-and-difference structural equation model to conclude that when both parents are psychologically controlling, daughters tend to use more relational and physical aggression with peers.

Other studies that have analyzed mothers and fathers in separate models have found similar associations. However, studies that account for parent and child gender have produced inconsistent findings. Depending on the study, the significant parent-child

dyad is either a same-sex or an opposite-sex pair. For example, maternal psychological control has been linked with overt aggression for sons and daughters (Loukas et al., 2005; Hart, Nelson et al., 1998). It has also been significantly associated with social aggression in Latino adolescent males (Loukas et al., 2005) and relational aggression in Chinese preschool girls (Yang et al., 2004). In contrast, paternal psychological control and daughter's use of relational aggression were significant in another study (Nelson & Crick, 2002). Furthermore, in a sample of Chinese preschoolers, Nelson and colleagues (2006; Yang et al., 2004) found significant relationships between mother's and father's combined use of psychological control and girl's relational aggression. Next, Casas et al. (2006) studied multiple same-sex and opposite-sex parent-child dyads and found more significant relationships for same-sex dyads. Finally, Kuppens, et al. (in press) conducted a series of studies using a middle-childhood sample and found that gender of child did not moderate connections between parenting and child aggression subtypes. Soenens et al. (2008) suggest that the current literature is contradictory because of methodological differences across studies. Requiring the child and both parents to report on psychological control is important for future research.

Finally, studies are beginning to examine the linkage between parental psychological control and the amount of relational aggression young adults display in romantic relationships. For example, Leadbeater et al. (2008) asked college students to self-report on the frequency of relational aggression in their romantic relationships as well as both parents' use of psychological control. Leadbeater and colleagues found that mothers' psychological control was associated with increased relational aggression in their teenager's dating relationships. Linder and colleagues (2002) also found that

alienation from mothers predicted increased relational aggression in young adults' romantic relationships. The authors suggest that parental use of such behaviors decrease the individual's chance to develop the capacity to manage stressful interactions within an intimate dyad. Although only a handful of studies have addressed the relationship between parenting and romantic relational aggression, it appears that negative parenting increases the likelihood of romantic relational aggression.

### Bidirectional Effects

The parent-child relationship is one of the most commonly studied themes in behavioral science. Despite widespread recognition that the interactions between parents and children are reciprocal in nature, most studies have focused solely on the effects of parents on children. In addition, very few have investigated bidirectional associations between parenting and aggression in children or adolescents.

### *Child Effects*

The relationship between parents and children can be largely influenced by the child's behavior, temperament, and agency (Kuczynski, 2003). In addition, child effects are not limited to one age group, but span all developmental periods. Kent and Pepler (2003) reviewed the effects of aggression on parent-child interactions across four developmental periods: infancy, preschool, middle childhood, and adolescence and explained how each age group affected parents differently.

For example, temperamentally difficult infants and toddlers, such as those displaying overactivity and unpredictability, are more likely to have less responsive and nurturing parents (Vaughn, Taraldson, Chrichton, & Egeland, 1981; Kent & Pepler, 2003). This sets the stage for troubled interactions during the preschool years, when

parents are particularly anxious to set limits and raise behavioral expectations. Kent and Pepler (2003) note that aggressive preschoolers result in mothers who feel a need to engage in a high level of child control exchanges. These control exchanges carry over to middle childhood where aggressive children tend to maintain the control over their parents' lives (Webster-Stratton, 1998). Finally, by the time children enter adolescence, unless parents are willing to foster exploration of autonomy, it is unlikely the child will be willing to share personal information with parents (Stattin & Kerr, 2000).

In addition to aggression, other child variables have been found to influence poor parenting. Research has shown that for early adolescents, problems such as low academic achievement (Dotterer, Hoffman, Crouter, & McHale, 2008), externalizing or internalizing behavior (Reitz, Dekovic, Meijer, & Engels, 2006) and alcohol use (Otten, van der Zwaluw, van der Vorst, & Engels, 2008) predict parent-child conflict and parent deficits. In turn, poor parenting predicts greater behavioral problems.

### *Bidirectional Relations*

No published studies have analyzed the reciprocal interactions between parents and relationally aggressive children. The closest comparison comes from research using externalizing behavior measures. For example, Reitz and colleagues (2006) examined the bidirectional relationships among parents and early adolescents' friends and adolescents' externalizing and internalizing problem behaviors. Externalizing behavior was partially measured by an aggression sub-scale. Although the authors did not specifically use relational aggression as a variable, the analytical models and theoretical conceptualizations could serve as useful comparisons for the current study.

Using structural equation modeling, two latent variable models were tested separately for externalizing and internalizing problem behavior. The models tested for the stability of parenting (responsiveness, quality of parent-child relationship, and parental knowledge), adolescents' problem behavior, and friends' deviance over two time points, each a year apart. In addition, cross-lagged paths were included in order to address the reciprocal nature of the parent-child and peer-child relationships. Parenting at Time 1 was not associated with concurrent child problems but both externalizing and internalizing behavioral problems at Time 1 were negatively associated with parenting at Time 2. Reitz and colleagues suggested that parents' tolerance of negative behavior and discouragement increases during adolescence which in turn leads to decreased control attempts or responsiveness. In conclusion, our knowledge of the reciprocal effects between parents and relationally aggressive children is so limited that any future research on this topic would enhance our understanding.

#### Culture and the Russian Family

The sample in the proposed study is unique in that it incorporates a Russian sample. Accordingly, it is important to address the concepts of parental psychological control and child relational aggression in cultural context. The social, economic, and political upheavals Russia experienced during and since the fall of the Union of Soviet Socialist Republics (USSR) in 1991 provide an interesting background for social scientists. To understand the Russian family today, one must first recognize the childrearing methods endorsed by prominent researcher Urie Bronfenbrenner and Soviet educator Anton Makarenko prior to the fall of the USSR. In this section of the literature

review, a summary of the small number of articles on Russian parenting and children's aggression will be presented after an examination of the history of the Russian family.

Early communist party leaders viewed the traditional Bolshevik notion of the family as extremely patriarchal and bourgeois (Gehring, Bowers, & Wright, 2005). To combat male domination and allow women to have more freedom, the Communist party passed laws that some considered as anti-family, such as making the divorce process easier. Makarenko, a popular writer and educator, successfully compromised with both sides by calling the family a "social education collective" (Bowen, 1965, p. 172). Thus, the family became an important factor in educating the child collective and eventually establishing a new society.

Bronfenbrenner, an American psychologist, noted that the Russian family was openly connected and influenced by Soviet ideals such as loyalty to the state; in contrast, the American family during the late twentieth century viewed itself as a much more separate entity (Bronfenbrenner, 1970; Nelson, Hart, Keister, & Piassetskaia, in press). As mentioned earlier, for Soviets, teaching children the value of conformity to governmental authority and to the collective was one of the main purposes of the family. Makarenko (1954) endorsed this view by defining the family as "an organic part of Soviet society [where parents'] authority is only the reflection of social authority" (as cited in Bronfenbrenner, 1970, pp. xi-xii).

The Soviet parenting ideology was also characterized by an emphasis on parental support and responsiveness (Grigorenko & Sternberg, 2000). Makarenko (1954, as cited in Bronfenbrenner, 1970, xi-xiii) explained that the government "relies . . . on your parental love. If you wish to give birth to a citizen and do without parental love, then be

so kind as to warn society . . . People brought up without parental love are often deformed people. . . .” These historical influences stemming from decades of collectivistic ideology are important for modern day researchers to recognize.

The Russian concept of family still seems to be one of closeness and support (Stetsenko, 2000). For example, Nurmi, Liiceanu, and Liberska (1999) found that youth, especially girls, in Eastern European countries, including Russia, considered a family to be important for their future life. In addition, Eastern European youth felt high levels of social responsibility, which included caring for parents and being useful to their country. Similarly, Jose et al. (1998) found that compared to American teenagers, Russian adolescents reported higher levels of concern for broader issues such as family concerns, living arrangements, or health worries. American teens reported relatively higher levels of concern for more personal issues, such as weight gain or boredom. Finally, interviews with Russian teens conducted by Markowitz (1999) suggested that children in middle-class families have close family relationships and think highly of their parents.

However, some evidence suggests that the effects of a totalitarian state and mentality have influenced parents to become more authoritarian (Kagan, 1992, as cited by Glebova, 2002). Glebova’s own work suggests that Russian girls perceive their mothers as more controlling, less involved, and more psychologically controlling than American girls and hypothesizes that these findings stem from decades of communistic ideology. Based on this evidence, we can expect the parent-child linkages in our study to be as strong as or stronger than a U.S. sample. In addition, Grigorenko and Sternberg (2000) found that more educated and intelligent Russian parents were likely to be less accepting of their children. However, as an interesting counterargument, the authors

argue that because the USSR emphasized protectiveness and responsiveness so much, modern-day parents are seeking a change in the way they raise children. Although the authors do not agree on why Russian parents display high levels of authoritarian parenting, their findings suggest that coercive parenting is very much present in Russian society.

Studies on Russian authoritarian parenting still have significant limitations since almost all of them focus on behavioral control instead of psychological control. Moreover, Hart and colleagues provide the only Russian studies that have analyzed the relationship between psychological control and relational aggression (Hart, Nelson, et al., 1998; Olsen et al., 2002; Hart, et al., 2000; Nelson et al., 2006). Although limited in number, all of them together provide a similar story with a few variations.

More authoritarian practices were related to negative child behavioral outcomes in all the studies. In addition, some specific findings emerged. Using structural equation modeling to compare the use of psychological control among Russian, Chinese, and American mothers, the authors found that Russian mothers used psychological control the most (Olsen et al., 2002). Olsen and colleagues noted the influence that the Soviet government played in encouraging the use of psychological control such as socially ostracizing non-conformists. Although psychological control may be more expected and acceptable in Russia, maternal psychological control is still linked with more overt aggression in Russian preschoolers (Hart, Nelson, et al., 1998).

Hart and colleagues have also studied parent-child linkages by gender. Maternal psychological control was related to greater internalizing behaviors for boys and more externalizing problems for girls (Olsen et al., 2002). In another study, the authors noted

that more maternal coercion was related to more relational aggression for girls (Hart, Nelson, et al., 1998).

Finally, subtypes of aggression, such as proactive and reactive, were found to be significantly associated with parenting styles (Hart, et al., 2000). Multivariate analyses showed that Russian mothers were more psychologically controlling when their children exhibited proactive overt aggression. In addition, children were more likely to use proactive or reactive relational aggression when parents displayed high levels of marital conflict. When mothers used more corporal punishment and verbal hostility and fathers used less responsive parenting practices, children were more likely to use proactive or reactive relational aggression. Although these studies have all focused on preschoolers, there is evidence that parents are harsh with aggressive adolescents as well. Ruchkin, Eisemann, Hägglöf, and Cloninger (1998) conducted a study of Russian adolescent delinquents and found that parents were more likely to reject their children, treat them severely, and show less warmth.

In sum, there seems to be ample reason to believe that parents in Russia who engage in harsh parenting may be influencing aggressive behaviors in their children. It is difficult to ascertain whether Russia's unique cultural history will impact parenting differently than other cultures.

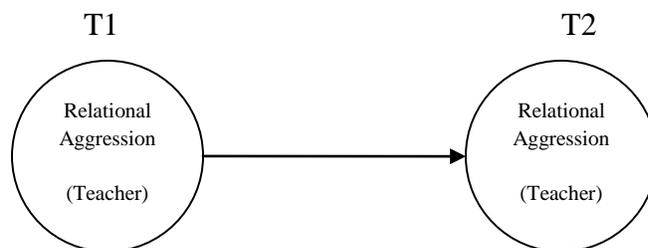
### Research Hypotheses

As noted in the introduction and literature review, several gaps remain in the current research. This study will attempt to build upon previous research and increase the field's knowledge by analyzing a sample of Russian parents, teachers, preschoolers, and

adolescents at two time points over 10 years. The research questions and hypotheses are as follows:

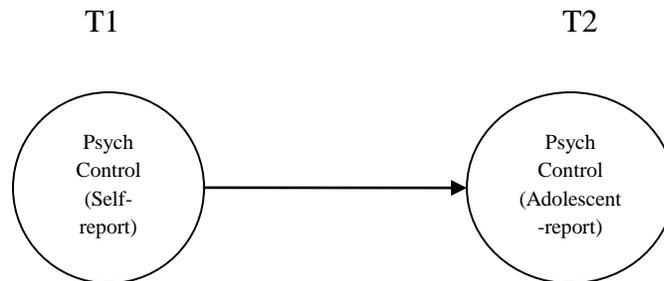
*Research Question 1:* Does peer-directed relational aggression in preschool predict peer-directed relational aggression and romantic relational aggression in the same students 10 years later in adolescence?

*Hypothesis 1:* It is expected that peer-directed relational aggression will be stable over time. More specifically, peer-directed relational aggression measured by preschool teachers will predict teacher reports of peer-directed relational aggression in adolescents (Ostrov, et al., 2008; Rose, et al., 2004). It is also expected that peer-directed relational aggression at Time 1 will predict romantic relational aggression at Time 2 (Leadbeater, et al., 2008).



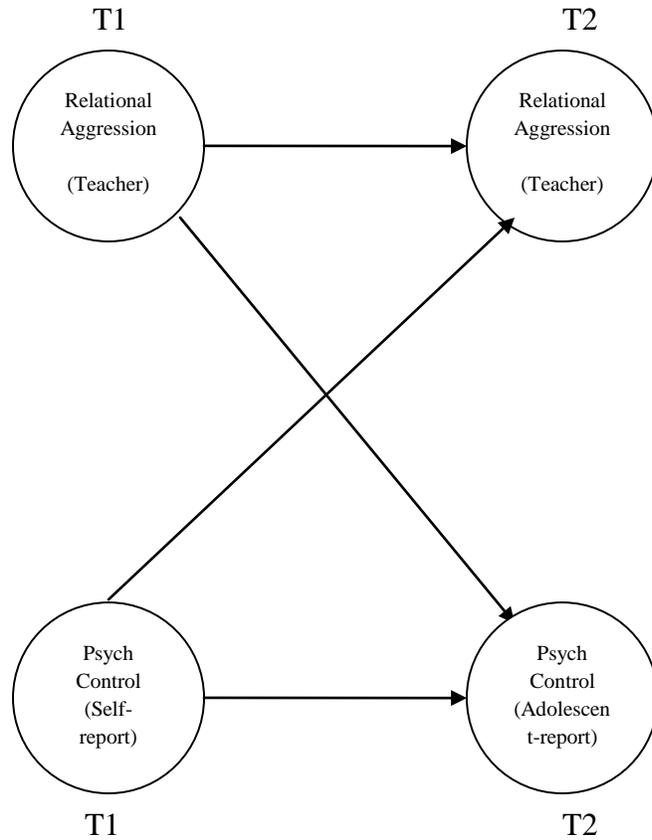
*Research Question 2:* Is psychological control stable over time for mothers and fathers?

*Hypothesis 2:* Self reports of parental psychological control at Time 1 will be significantly associated with adolescent-reported parental psychological control for both parents (Keller, et al., 2008; Verhoeven, et al., 2007).



*Research Question 3:* Are there concurrent and longitudinal reciprocal associations between psychological control and relational aggression?

*Hypothesis 3:* We expect to see both concurrent and longitudinal associations in a structural equation model (Hart, Nelson, et al., 1998; Kuppens, et al., in press; Loukas, et al., 2005)



## METHODS

### Participants

Data were gathered from Voronezh, Russia, a city of approximately one million inhabitants located about 350 miles south of Moscow (Hart, Nelson, et. al. 1998).

Voronezh is still considered to be a provincial city and the sample in this study was comprised entirely of children and adolescents considered to be ethnic Russian. Time 1 data were gathered in 1995 and Time 2 data in 2005.

*Time 1.* The participants included 222 preschoolers (108 boys, 114 girls) whose ages ranged from 45 to 76 months ( $M = 60.26$ ,  $SD = 7.94$ ) from fifteen classrooms in three nursery schools. Of these 221 children, 203 mothers (91.9%) participated in the study as well, completing self-report parenting measures. Maternal age ranged from 21 to 56 years ( $M = 30.65$ ,  $SD = 5.62$ ). In addition, 163 fathers (73.8%) participated, and paternal age ranged from 22 to 62 years ( $M = 32.40$ ,  $SD = 7.09$ ). The inconsistency between mother and father participation was due to 32 single-mother families and 8 fathers who did not participate. As part of the study, preschool teachers also rated the frequency of children's social behaviors.

In group meetings with the parents, procedures of the study were explained and questions answered. Parents were assured of confidentiality concerning any data that was obtained from parent questionnaires or teacher ratings. They were also informed that they could withdraw from the study at any time. Parents and teachers were reimbursed for time required to complete the questionnaires.

*Time 2.* Of the 203 mothers who participated at Time 1, 155 gave consent for their adolescents to participate in the Time 2 assessment (76.4%, 71 girls, 84 boys, age range = 13-16,  $M = 14.6$ ,  $SD = .69$ ). Of these adolescents, 134 had fathers who completed questionnaires at Time 1. Due to time constraints, parents were not included in this round of questionnaires. However, the adolescents reported on their parents' parenting. The head teacher of each adolescent's school class was asked to provide behavioral ratings of the adolescent. Consistent with Time 1, each participant and teacher was reimbursed for completing the questionnaires.

### Procedures

During the first wave of data collection, a variety of paper-and-pencil measures used in this study as well as measures addressing other research questions (e.g., Hart, Nelson, et al., 1998; Hart, Yang, et al., 1998) were distributed to parents in three packets on three different occasions, each approximately 1 week apart. Teachers independently completed questionnaires regarding the social behavior of each participating child. During the second wave of data collection, paper-and-pencil measures were completed by adolescents in a group setting, and teachers independently completed questionnaires over the course of several weeks.

### Measures

All measures were forward- and back- translated by Russian linguists whose fluency in their native language and English resulted in items that were comparable across both cultures (e.g., Hart, Nelson, et al., 1998; Hart, Yang et al., 1998).

### *Time 1 Questionnaires*

*Parental psychological control.* Parents rated themselves using items adapted from a measure representing Baumrind's parenting styles (Hart, Nelson, et al., 1998; Yang, et al., 2004; Nelson et al., 2006). Mothers and fathers rated their parenting behaviors and interactions with the target child on a 5-point scale (*1=never, 5=always*). Reliability of the psychological control items derived from the overall measure has been established in previous research (Barber, 1996; Yang, et al., 2004; Hart, Nelson, et al., 1998; Nelson et al., 2006). The psychological control scale was designed to incorporate a sufficient number of items to adequately capture many of the specific dimensions that are hypothesized to compose the overall construct of psychological control (e.g., love withdrawal, erratic emotional behavior, personal attack, guilt induction; Barber, 1996). Items selected for the present psychological control scale included the following: (a) "I show erratic emotional behavior around our child," (b) "I tell our child he/she is not as good as we were growing up," (c) "I ignore our child when he/she tries to get attention," (d) "If our child has hurt our feelings, I stop talking to our child until our child pleases me again," (e) "I go back and forth between being warm and critical towards our child," (f) "I tell our child that he/she should be ashamed when he/she misbehaves," (g) "I make our child feel guilty when our child does not meet our expectations," (h) "I don't like to be bothered by our child," (i) "I don't pay attention when our child is talking to us," and (j) "I blame our child for other family members' problems" ( $\alpha = .65$  for mothers;  $\alpha = .73$  for fathers).

*Teacher ratings of child (peer-directed) relational aggression.* Measurement of child relational aggression was based on the experience of teachers with each

participating child. In particular, teachers filled out a large item bank which assessed a large number of child behaviors (most of which are beyond the scope of this study). Items were developed and successfully used in a study with North American preschoolers conducted by McNeille-Choque and colleagues (1996). The measure has been shown to have good factor validity and internal reliability (Hart, Nelson et al., 1998). Items are anchored on a 3-point scale (0 = *never*, 1 = *sometimes*, 2 = *often*) and those selected for inclusion in the relational aggression scale ( $\alpha = .84$ ) include the following: (a) "Says to peers, 'I won't be your friend if you don't do things my way,'" (b) "Tells a peer that he/she won't play with them if he/she doesn't do what is asked," (c) "Tells a peer that they won't be invited to a birthday party unless he/she does what the child wants," and (d) "Tries to exclude other children who want to play."

### *Time 2 Questionnaires*

*Adolescent report of parental psychological control.* Adolescents rated their mother's and father's parenting practices using a 49-item, multi-dimensional questionnaire, which included items adapted from Barber's (1996) psychological control measure. Adolescents rated the frequency of their parents' engagement in psychological control on a 3-point scale with responses anchored from 0 (*not like him/her*) to 2 (*a lot like him/her*). Similar to the measure of psychological control at Time 1, the Time 2 psychological control scale was composed of a sufficient number of items to capture multiple dimensions (e.g., erratic emotional behavior, guilt induction, constraining verbal expression) of psychological control. In particular, the following 10 items were used: "My mother/father is a person who . . . (a) changes the subject, whenever I have something to say," (b) ridicules me," (c) is rude to me," (d) often interrupts me," (e) is

less friendly with me, if I do not see things her/his way,” (f) punishes me for things she/he previously told me were okay,” (g) is always trying to change how I feel or think about things,” (h) if I have hurt her/his feelings, stops talking to me until I please her/him again,” (i) lets me do something one day and the next day I get into trouble for doing the same thing,” and (j) frequently changes the rules I am supposed to follow.” The Cronbach’s alpha for maternal psychological control was .63 and the alpha for paternal psychological control was .65.

We chose to use adolescent reports at Time 2 because according to Luyckx, Soenens, Vansteenkiste, Goossens, and Berzonsky (2007), parent and adolescent reports of psychological control yield results that are highly similar. In addition, these authors note that because reports of parental treatment are so subjective, adolescent reports might be the most valid method. Shared method variance between time 1 and time 2 assessments of parenting is also avoided by using adolescent reports at time 2.

*Teacher ratings of adolescent relational aggression.* During the second wave of data collection, current teachers were asked to answer a 106-item questionnaire that measured students’ use of aggression and a host of other social behaviors that are beyond the scope of this study. Subtypes of relational aggression were assessed, including a peer-directed relational aggression scale ( $\alpha = .85$ ), composed of the following four items: (a) “When mad at a person, this student tries to make sure that the person is excluded from group activities,” (b) “This student spreads rumors about a person just to be mean,” (c) “This student threatens to share private information about his/her friends with other people in order to get friends to comply with this student’s wishes,” and (d) “When this student has been angry at, or jealous of someone, he/she has tried to damage that person’s

reputation by gossiping about that person or by passing on negative information about that person to other people.” The romantic relational aggression scale ( $\alpha = .80$ ) was composed of the following four items: (a) “This student threatens to break up with a romantic partner in order to get him/her to do what he/she wants,” (b) “When this student is mad at a friend, this student may flirt with that friend’s romantic partner,” (c) This student has cheated on his/her romantic partner because this student was angry at his/her romantic partner,” and (d) “When mad at someone, this student tries to get even by stealing that person’s romantic partner”. Teachers rated the frequency of students’ engagement in specific aggressive behaviors utilizing a 5-point Likert-type scale ( $1 =$  *never true*,  $5 =$  *almost always true*).

## RESULTS

### Descriptive Statistics and Preliminary Analyses

Table 1 presents the Pearson product-moment correlations, means, and standard deviations for all the variables used in the study; results for boys and girls are shown separately. The correlation between mother's psychological control at Time 1 and Time 2 was significant for boys ( $r = .35, p < .01$ ) but not for girls ( $r = .06, ns$ ). The correlation between father's psychological control at Time 1 and Time 2 was not significant for boys ( $r = .17, ns$ ) or girls ( $r = .04, ns$ ). There was moderate to high agreement in the levels of psychological control enacted by fathers and mothers at each time point (correlations ranging from .34 - .69). Next, the correlation between boys' relational aggression scores over time was non-significant ( $r = -.11, ns$ ) but boys' concurrent levels of relational aggression and romantic relational aggression at Time 2 were significantly correlated ( $r = .77, p < .01$ ). On the other hand, all the child aggression variables were significant correlated within and across time for girls (with correlations ranging from .36 - .77).

Correlations between parent and child variables showed both similar and different patterns for boys and girls. Beginning with mother-child associations, maternal psychological control was concurrently associated with girls' peer-directed relational aggression at Time 1 ( $r = .25, p < .05$ ). At Time 2, psychological control was significantly correlated with concurrent relational aggression (of both forms) for both boys and girls ( $r = .43, p < .01$  and  $r = .26, p < .05$ ; respectively). Over time, maternal psychological control at Time 1 was significantly correlated with peer-directed relational aggression at Time 2 ( $r = .38, p < .01$  and  $r = .32, p < .01$ , for boys and girls respectively). In addition, Time 1 maternal psychological control was also significantly correlated with boys'

romantic relational aggression at Time 2 ( $r = .38, p < .01$ ) but not for girls ( $r = .19, ns$ ). Of interest is the lack of correlation between Time 1 peer-directed relational aggression and Time 2 maternal psychological control.

The number of significant findings for father-child dyads was less pronounced, and all findings were within the second time period. Specifically, for fathers and sons, the only significant pathway was between paternal psychological control and peer-directed relational aggression at Time 2 ( $r = .38, p < .01$ ). For fathers and daughters, the same pathway is also the only significant correlation ( $r = .39, p < .01$ ). In sum, although these preliminary analyses did not adequately address our hypotheses, they did provide sufficient validation for conducting further analyses by gender of parent and child.

#### Path Analyses

A series of multiple-group path analyses were conducted in SEM with the Analysis of Moments Structure (AMOS) software (Arbuckle & Wothke, 1999). The analyses were conducted using full information, maximum likelihood estimation in order to account for missing data. The purpose of these path analyses was to further assess the concurrent and longitudinal associations between parents' psychological control and children's use of relational aggression. As noted earlier, we were interested in comparing findings for models that we alternatively specified as parent-driven versus child-driven models. Moreover, each of these models was separately analyzed by gender of parent and child, yielding results for four dyads (mother-son, mother-daughter, father-son, and father-daughter). The parent-driven models utilized maternal or paternal psychological control as independent variables and child relational aggression as dependent variables. Every pathway from Time 1 to Time 2 was specified and all necessary correlations

among error terms were analyzed (see Figures 1 and 2). The child-driven models reversed the direction of the regression paths so that the aggression constructs were the independent variables and the parenting dimensions were the dependent variables. Like the first model, every pathway leading from Time 1 to Time 2 was specified, and all requisite correlated error terms were present (see Figures 3 and 4).

The parent-driven and child-driven models are not directly comparable because they are not nested. However, based on our interest in bidirectional effects, both models were analyzed. Furthermore, because both models were fully saturated, statistical tests for non-nested model comparisons were not possible.

#### *Analysis of Parent-driven Model*

The parent-driven models examined the effect of parenting on relational aggression, concurrently and longitudinally. The results of the maternal model (Figure 1) and paternal model (Figure 2) indicate different findings for boys and girls. In particular, each figure gives two estimates for every path and correlated error term—the first for parent-son dyads, and the second for parent-daughter dyads.

*Mother-son associations.* For boys, maternal psychological control at Time 1 was significantly related to psychological control at Time 2 (see Figure 1). There was no stability in levels of relational aggression over time, however. In addition, Time 1 maternal psychological control was positively correlated with both forms of relational aggression at Time 2. Finally, psychological control at Time 2 was significantly associated with boys' peer-directed relational aggression at Time 2 and marginally related with boys' romantic relational aggression.

*Mother-daughter associations.* For girls, maternal psychological control was not found to be stable over time. In contrast with boys, however, relational aggression in preschool was significantly related to levels of peer-directed and romantic relational aggression in adolescence for females (see Figure 1). Maternal psychological control at Time 1 was concurrently associated with preschool relational aggression and longitudinally related to both forms of relational aggression in adolescence. Likewise, maternal psychological control at Time 2 was significantly linked with both peer-directed and romantic relational aggression in girls at Time 2.

*Father-son associations.* A parent-driven paternal model (Figure 2) resulted in fewer parent-child findings, consistent with the bivariate correlations. For boys, paternal psychological control at Time 1 was not related to concurrent or future relational aggression; significant relationships between parent and child variables only emerged concurrently at Time 2. Consistent with the maternal model, no significant links between boys' relational aggression at Time 1 and Time 2 emerged.

*Father-daughter associations.* A similar story appears for girls (see Figure 2). As with the father-son model, paternal psychological control at Time 2 was concurrently related to both forms of relational aggression in girls. Again, consistent with the maternal model, relational aggression is stable over time for girls.

#### *Analysis of Child-driven Model*

The child-driven model analyzed the same variables that were used in the parent-driven model; however, as noted earlier, the direction of effects were reversed (see

Figures 3 and 4). The child-driven model hypothesized that children's relational aggression would have an effect on parental psychological control concurrently and over time.

*Mother-son associations.* For boys, relational aggression was marginally related to concurrent levels of maternal psychological control at Time 2 (see Figure 3). In this model, maternal psychological control at Time 1 was significantly related to maternal psychological control at Time 2. Unlike the mother-son parent-driven model, no significant parent-child relationships emerged over time.

*Mother-daughter associations.* Preschool girls' relational aggression was significantly associated with concurrent maternal psychological control (see Figure 3). Similar to the parent-driven model results, relational aggression at Time 1 was also associated with both forms of aggression at Time 2. No parent-child paths were significant across time periods.

*Father-son associations.* A child-driven model analyzing fathers and sons yielded very few results, as shown in Figure 4. The only significant pathway is between relational aggression and psychological control at Time 2.

*Father-daughter associations.* A child-driven model analyzing fathers and daughters also found a significant association between relational aggression and psychological control at Time 2. In addition, girls' relational aggression was found to be significantly stable over time (see Figure 4).

## DISCUSSION

As noted in the introduction, the aim of this study was to examine concurrent and longitudinal relationships between parental psychological control and children's relational aggression. Based on the literature review, we hypothesized those relationships would be stable and significant. To a considerable extent, our hypotheses were confirmed and we were able to extend the current literature by using an ethnic Russian sample.

### Stability of Aggression

#### *Peer-directed Relational Aggression*

First, we proposed that peer-directed relational aggression in preschoolers would predict peer-directed and romantic relational aggression in adolescents based on previous longitudinal studies (Vaillancourt, et al., 2007; Murray-Close et al., 2007; Zimmer-Gembeck et al., 2005; Crick et al., 2006). For example, Vaillancourt, Brendgen, Boivin, and Tremblay (2003) measured indirect aggression towards peers in 4-11 year olds and noted that it was stable over a four-year period. However, contrary to their finding that gender did not moderate in the stability of indirect aggression, we found that peer-oriented relational aggression was only significantly stable over time for girls. Our findings may differ for several reasons. First, previous research has noted that peer-directed relational aggression may be more stable for girls than boys because girls engage in more relational aggression during adolescence in particular (Zimmer-Gembeck et al., 2005). Second, because we measured relational aggression at such an early age, boys may not have developed the social skills requisite for successful or stable use of relational

aggression, and that may lead to instability in the enactment of such strategies over time. Third, the stability of relational aggression over time suggests that relational aggression may perhaps be more trait-like for girls. It is striking that such stability emerges given the fact that two different teachers in developmental periods quite distant from each other were the focus of the comparison. Vaillancourt and Hymel (2006) discovered that adolescent girls who possessed peer-valued attributes only enjoyed high perceived popularity when they engaged in relational aggression. Perhaps the same model holds in Russian culture; girls feel a need to engage in relational aggression in order to maintain their social status. This remains to be examined in future research.

#### *Romantic Relational Aggression*

Next, we proposed that peer-directed relational aggression at Time 1 would predict romantic relational aggression at Time 2 since there is evidence that children accustomed to behaving aggressively with their peers behave similarly with their romantic partners (Leadbeater et al., 2008). Our hypothesis was confirmed for girls. Although previous research has found that both boys and girls engage in similar levels of romantic relational aggression (Bagner et al., 2007), it appears that, for girls, relational aggression is a tool they consistently use from childhood all the way through to adolescence. Our findings extend prior research by suggesting that relational aggression is a stable trait in girls, whereas it is perhaps a more sporadic behavioral choice in boys.

Because romantic and peer-oriented relational aggression are constructs that comprise a larger construct of relational aggression, we expected them to be highly correlated, similar to other studies that have found high correlations between physical and

relational aggression (Crick & Grotpeter, 1995; Crick, 1996). For both boys and girls, teacher reports of romantic and peer relational aggression were significantly correlated at Time 2 (see Figures 1-4).

### Stability of Psychological Control

Next, based on literature that suggests psychological control is stable, at least over short periods of time (Verhoeven, et al., 2007; Keller, et al., 2008), we hypothesized that parental psychological control would be stable over our 10-year time span. In the maternal parent-driven and child-driven models, the relationship between Time 1 and Time 2 psychological control was stable for mothers and sons, but not for mothers and daughters or fathers and sons/daughters. It is unclear why this finding was specific to mothers of sons (it is also a fairly moderate association and is perhaps a spurious finding). In any case, our findings suggest that parenting appears to change considerably for most parents over the course of ten years, at least in the Russian culture.

### Parent-Child Relationship

Our third hypothesis proposed significant concurrent and longitudinal relationships between psychological control and relational aggression. Current literature that supports our hypothesis suggests there is a unique relationship between these two constructs because of their tendencies to damage and manipulate relationships (Reed, et al., 2008). Next, as noted in the introduction, we also expected to find separate gender outcomes, depending on whether the parent-child dyad was a same-sex or opposite-sex pair.

### *Parent-driven Findings*

In regard to concurrent findings between parenting and child outcomes in preschool, the only significant association was between maternal psychological control and girls' relational aggression. No other parent-child dyad yielded a significant effect. Our findings are parallel with previous studies that have consistently reported a relationship between maternal psychological control and relational aggression, particularly in preschool (Casas, et al., 2006; Nelson & Crick, 2002; Yang, et al., 2004). In addition, our study is similar to previous studies that have found parental psychological control predominantly related to relational aggression in girls but not in boys. Yang and colleagues (2004) suggest that preschool girls may be more vulnerable to relationally oriented parenting strategies than boys, and our results concur.

Second, concurrent relationships between parental psychological control and peer-directed and romantic relational aggression at Time 2 were all either significant or marginally significant for all parent-child dyads. This finding confirms and extends previous studies that have found significant linkages between maternal and paternal psychological control and adolescent relational aggression (Soenens et al., 2008; Loukas, et al., 2005). It is also consistent with the contention that teenagers may be more sensitive to a psychologically controlling environment than preschoolers. This is based on the idea that psychological control is particularly detrimental in the formation of identity, which is the predominant psychological task of adolescents (Barber, 1996). Also, parents might feel a need to use psychological control because other hostile parenting strategies, such as

coercive control, are less effective with teenagers. Accordingly, the effects of psychological control may be enhanced as parents focus more on its use with adolescents.

In addition to findings within each time point, some significant longitudinal results emerged. Although paternal psychological control during preschool yielded no longitudinal associations, maternal psychological control did emerge as a significant predictor of both peer-directed and romantic relational aggression for both boys and girls. In other words, no matter what the gender of the child, psychological control used by mothers when their child was a preschooler was related to the child's relational aggression ten years later. In addition, maternal psychological control with preschoolers was significantly related to both boys' and girls' use of relational aggression in a romantic setting.

This finding builds upon previous work that has noted that children whose parents are more enmeshed, jealous, or exclusive with their children are more likely to use relational aggression (Crick, Ostrov, & Kawabata, 2007; Hart, Nelson, et al., 1998; Hart et al., 2000). The influence parental behaviors have on adolescents is especially noteworthy given that research shows that young adults who use romantic relational aggression report a desire for high levels of closeness and exclusivity in relationships (Linder et al., 2002). Our findings imply that by the time individuals become teenagers, maternal relational manipulation has had a large impact on aggressive behaviors. It is striking to note that mothers are influencing both teenage boys and girls over time, which implies that maternal effects are substantial and enduring, even at a time when the influence of peer socialization is at its highest.

Finally, the absence of father effects contradicts previous studies in other cultures which have identified unique paternal influence in this regard (e.g., Casas et al., 2006; Nelson & Crick, 2002). It appears that fathers in Russian culture may not be as influential in disciplining young children with psychologically controlling methods, but that their presence is more generally felt as the child matures. The study by Hart, Nelson, and colleagues (1998) of Russian preschoolers suggested that paternal responsiveness, rather than psychological or coercive control, was the most significant predictor of whether the child engaged in aggression. It may be that psychological control is evolving in its effects for father-child dyads in Russia.

As noted in the introduction, some have noted that the effects of a totalitarian government and other cultural factors may have influenced Russian parents to become more authoritarian. As noted earlier, Olsen et al. (2002) found that among Russian, Chinese, and American mothers, Russian mothers admitted to the most psychological control (Olsen et al., 2002). Like other communist states, where the national government seeks to encourage group-think, psychological control and relational aggression parallel the practice of social ostracism of non-conformists. However, even in a society where authoritarian parenting may be more normative, Russian parenting in the form of psychological control is still having a negative impact on children's social development. This findings parallels other studies that have noted negative child effects in cultures where negative forms of parental behavioral control are more normative in practice (Lansford et al., 2005), even though such effects are not as substantial as in cultures where negative parental behavior is less normative. In this sense, this study contributes to a sense that psychological control is a negative influence on child development,

regardless of the culture in which it is practiced, with evidence coming from China, Russia, Belgium, and the United States (e.g., Kuppens et al., in press; Nelson & Crick, 2002; Nelson et al., 2006). However, although measures translated from Western measures appear to have application to the description of Russian parenting, further research is needed to assess how Russian parenting might differ from traditional conceptualizations of parenting typologies and such. Moreover, Russian parents may have unique ways in which they practice psychological control in their parenting attempts.

### *Child-driven Findings*

Our child-driven models were analyzed as a comparison to the parent-driven models and yielded fewer findings, particularly over time. First, in regard to concurrent findings, those obtained largely parallel what we found in the parent-driven models, suggesting that there may be reciprocal influences between parent and child at each time point. In particular, during Time 1, relational aggression and psychological control were significantly related for mothers and daughters. At Time 2, peer-directed relational aggression and psychological control were linked in father-child dyads. In contrast, the child-driven models did not yield associations between maternal psychological control and forms of relational aggression at time 2 for any parent-child dyad. This implies that adolescents may have a greater degree of reciprocal influence over father's use of psychological control than mother's.

Of greatest interest is the finding that relational aggression at Time 1 and psychological control at Time 2 were not significantly related for any parent-child dyad.

Therefore, according to our results, it appears that the direction of effect in these associations between parent and child, at least for mother-child relationships, is predominantly one of parental effects. Because our parent-driven and child-driven models were not nested, we were not able to directly compare pathways. However, we conclude that the relationship between maternal psychological control and relational aggression can best be explained by a parent-driven model.

### Limitations and Future Directions

Although this study has made several important contributions to the literature, particularly the longitudinal findings for parents and children, there are still several limitations. First, all the participants in the study lived in Voronezh, Russia and therefore, our results may not be representative of other cities or areas in Russia. Very different results might emerge in the more Western-oriented cities of Moscow and St. Petersburg, and there are no studies as of yet to assess parenting effect in more rural areas of Russia. We also did not utilize cross-cultural comparisons, which means our findings may not be generalizable to other countries. As noted in the introduction, although Russia has become more Westernized in the past several decades, there are still cultural influences that Russian families experience differently than other Western countries, such as the United States. Therefore, future studies are needed to replicate our findings in other cultures to explore the relationship between psychological control and relational aggression.

Second, we only collected and analyzed data at two time points. A greater number of data points would enable growth curve analysis, which would likely yield more of the

interaction between parenting and child relational aggression, as well as the stability of each over time. Nonetheless, our comparisons of parent- and child-driven analyses yield important insights into how psychological control and relational aggression correspond over time. Nonetheless, this study proved beneficial since it allowed us to compare children's behavior during preschool, when relational aggression begins to develop, and during adolescence, when relational aggression is considered to be at a peak.

Third, in this study, we used parent self-reports of parenting at Time 1. This is generally a limitation because the self-reports could become biased due to social desirability. Some have suggested using a spouse-report paradigm to measure parenting (Nelson, et al., 2006), although such an approach has its inherent potential for different kinds of bias. Therefore, future studies should consider using spouses or other informants as assessors of parenting. Similarly, we used teacher reports at both time points to report on children's aggression. However, given that the adolescents in our sample had stayed in the same cohort since kindergarten, peers would have also been useful informants.

Furthermore, using teachers to report on adolescent's romantic relational aggression may be problematic since the teachers may be removed from seeing most romantic exchanges in a context outside school. Still, the high correlations between peer-directed and romantic relational aggression at Time 2 suggest that teachers are either aware or they are simply not differentiating between the two behaviors. In other words, teachers may assume that an adolescent who engages in peer-directed relational aggression may be highly likely to use romantic relational aggression. However, confidence in our findings increases when cultural and environmental context is taken

into account. For example, in Voronezh, Russia, students stay in a small class of peers for their entire schooling experience, making the peer group very stable, particularly in provincial areas where mobility is limited (we found over 85% of the original sample when seeking to find them ten years later). By the time students are adolescents, the peer group dynamics may be so entrenched that teachers easily pick up on romantic relational behaviors. Similarly, since the peer group is so small and stable, students may feel comfortable enough to exhibit even negative behaviors in public. Finally, teachers may pick up on romantic relational aggression when discussing students amongst themselves or with fellow students. Our findings, therefore, may not generalize to larger, less intimate school settings where teachers may not have such advantages.

Finally, our analyses excluded variables that could have affected parenting or aggression. For example, our only parenting variable was psychological control; however, studies have shown that parents who use excessive behavioral control have children who engage in more relational aggression as well (Hart, Nelson, et al., 1998; Nelson, et al., 2006; Sandstrom, 2007). Next, although previous studies have analyzed the development of overt aggression over time (Vaillancourt et al., 2003) they have not looked at the relationship between psychological control and overt aggression over time (Hart, et al., 1998; Casas, et al., 2006). Lastly, future studies should also consider how genetic features which may interact with parenting in predicting

In conclusion, the current study has added to the extant literature in several important ways. First, this study was the first to study relational aggression and psychological control over a long period of time. All previous studies have been

concurrent in nature. It also extended the current research on parent-child relations by analyzing how gender of parent and child moderates those relations. Finally, this study increased our knowledge of family relationships in a culture outside the United States and has implications for parents and educators around the world.

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Table 1

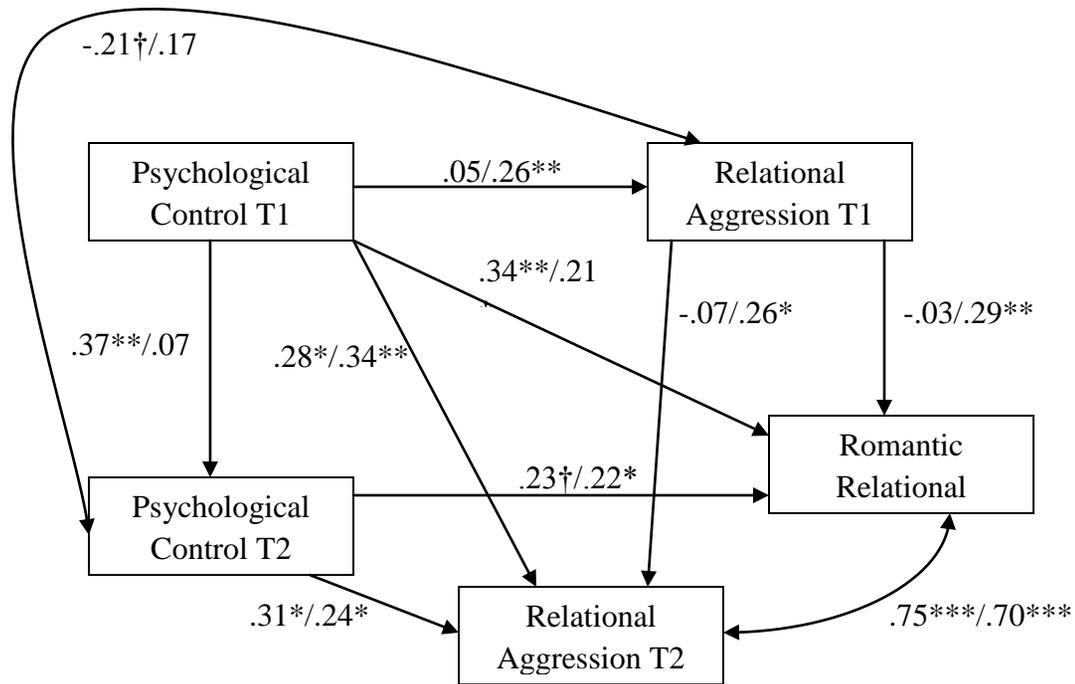
*Descriptive Statistics and Correlations by Gender of Child.*

	1	2	3	4	5	6	7
<i>M</i>	2.23	.40	2.42	1.52	1.62	2.26	.40
<i>SD</i>	.43	.30	.40	.69	.66	.51	.30
1. Maternal Psychological Control T1	---	.35**	.06	.38**	.38**	.34**	.35**
2. Maternal Psychological Control T2	.06	---	-.20	.43**	.39**	.12	.69**
3. Relational Aggression T1	.25*	.18	---	-.11	-.11	-.03	-.01
4. Relational Aggression T2	.32**	.26*	.36**	---	.77**	.06	.38**
5. Romantic Relational Aggression T2	.19	.28*	.39**	.77**	---	.09	.23
6. Paternal Psychological Control T1	.40**	.02	-.03	.04	.00	---	.17
7. Paternal Psychological Control T2	.21	.51**	.22	.41**	.25	.04	---
<i>M</i>	2.19	.44	2.45	1.59	1.59	2.28	.45
<i>SD</i>	.50	.25	.42	.75	.63	.54	.29

*Note.* Upper diagonal: descriptive statistics and correlations for boys; lower diagonal: descriptive statistics and correlations for girls.

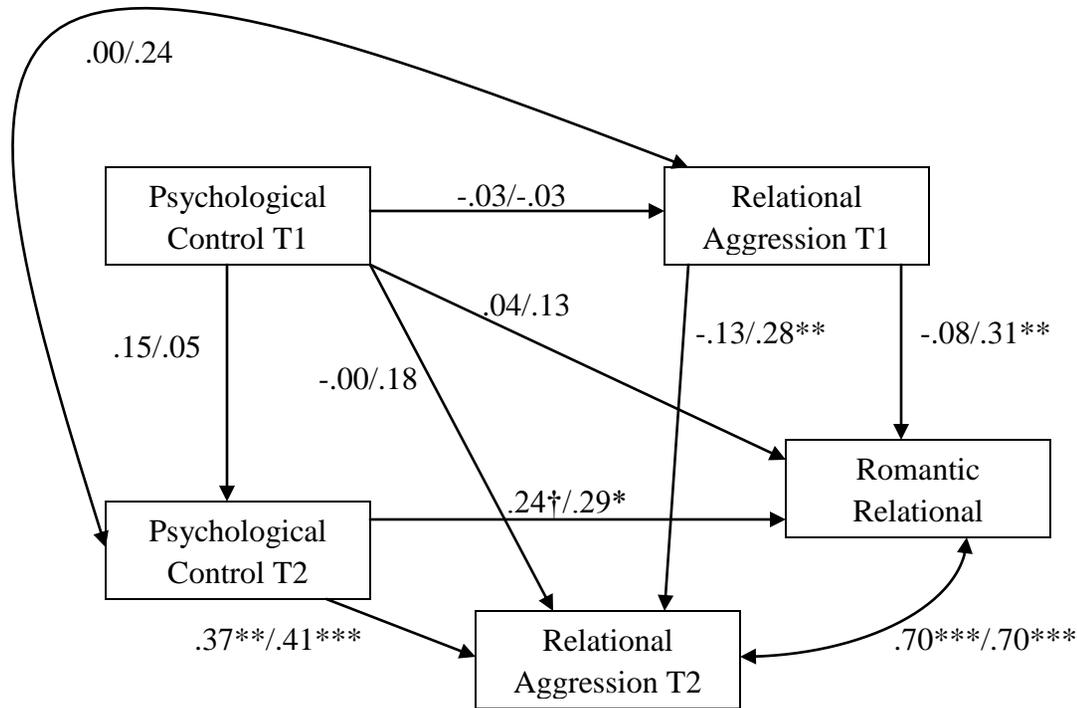
+ $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Figure 1. Parent-driven, Maternal Model



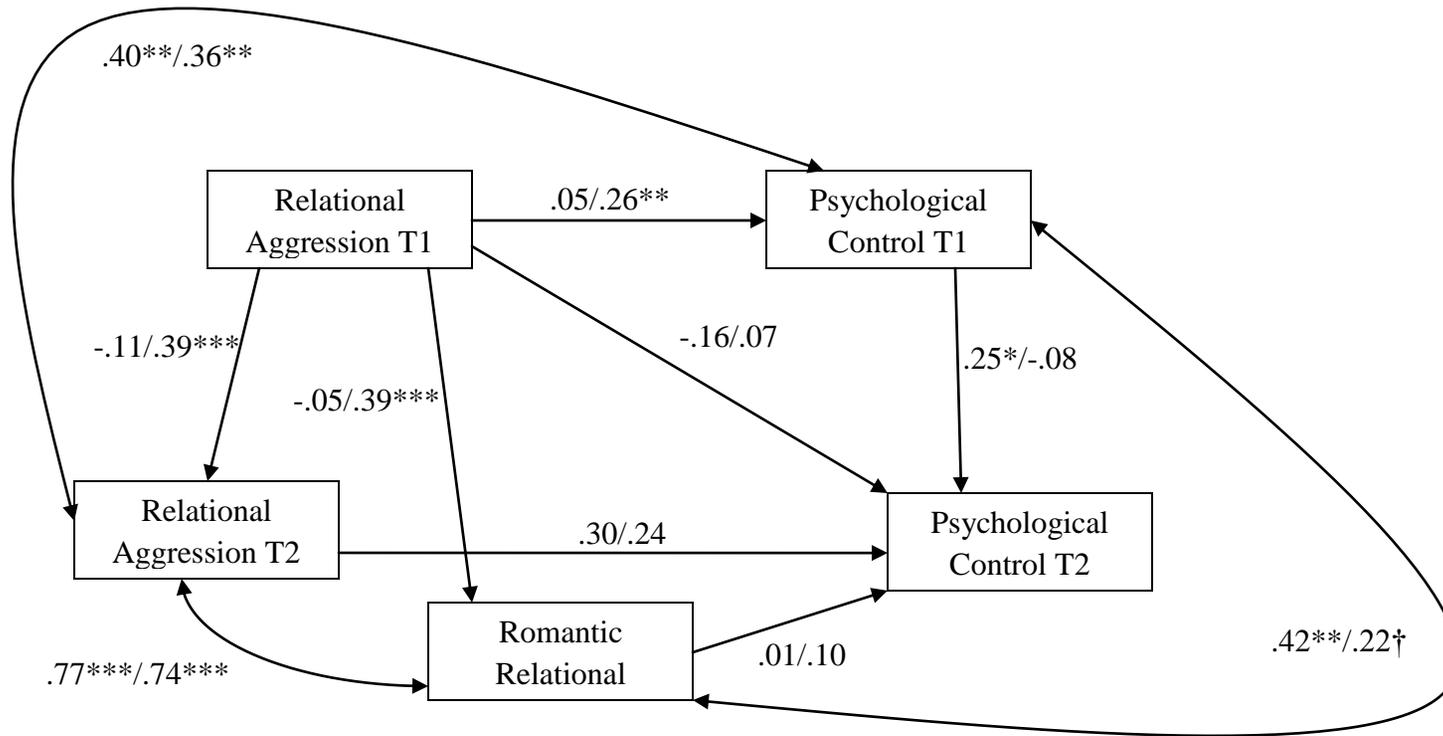
Note: For each path, the first estimate represents the finding for the mother-son analysis of the model, whereas the second estimate represents findings of the mother-daughter analysis of the model.  $+p < .10$ .  $*p < .05$ .  $**p < .01$ .  $***p < .001$ .

Figure 2. Parent-driven, Paternal Model



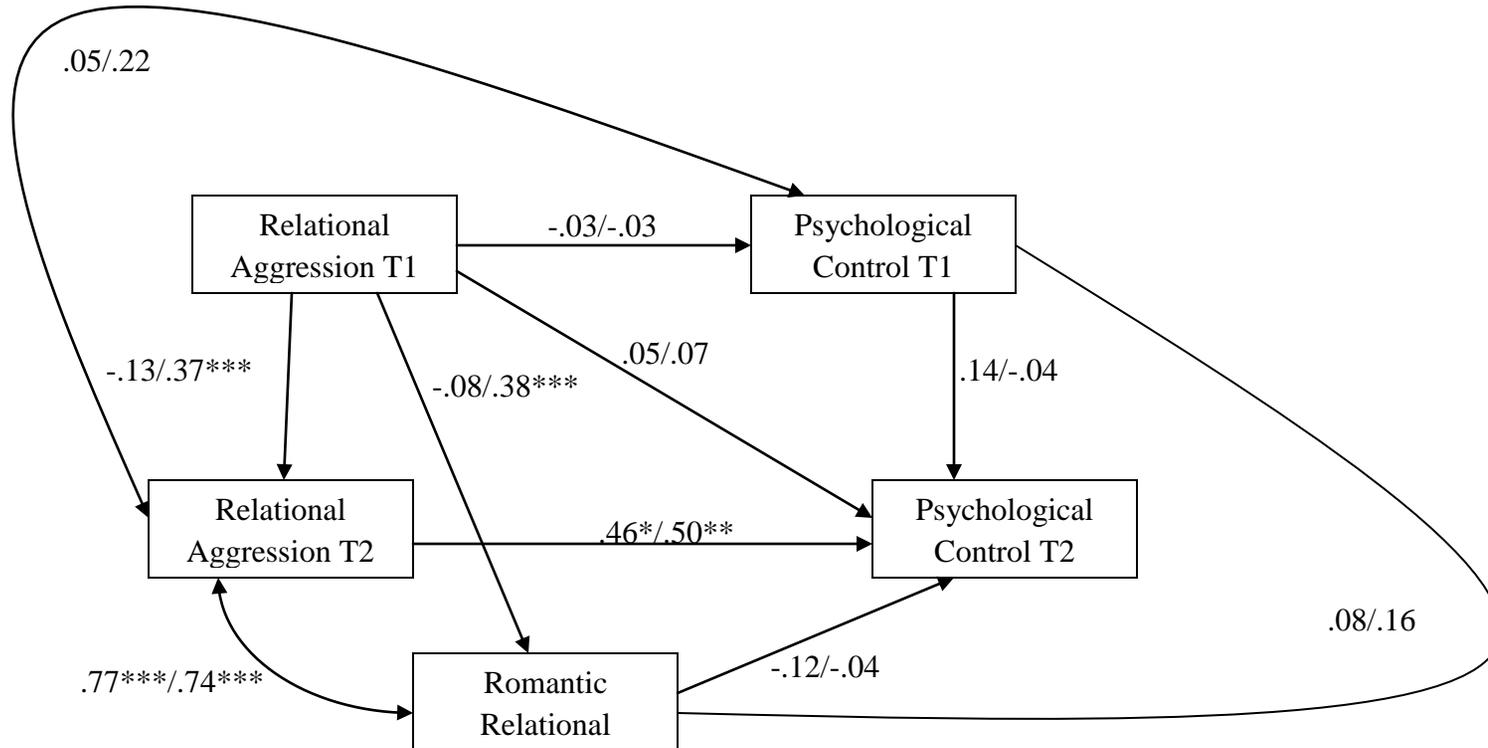
Note: For each path, the first estimate represents the finding for the father-son analysis of the model, whereas the second estimate represents findings of the father-daughter analysis of the model. † $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Figure 3. Child-driven, Maternal Model



Note: For each path, the first estimate represents the finding for the mother-son analysis of the model, whereas the second estimate represents findings of the mother-daughter analysis of the model.  $+p < .10$ .  $*p < .05$ .  $**p < .01$ .  $***p < .001$ .

Figure 4. Child-driven, Paternal Model



Note: For each path, the first estimate represents the finding for the father-son analysis of the model, whereas the second estimate represents findings of the father-daughter analysis of the model.  $+p < .10$ .  $*p < .05$ .  $**p < .01$ .  $***p < .001$ .