



Theses and Dissertations

2012-12-14

Does Attachment to Parents Mediate the Relationship Between Couple Conflict and Adolescent Self-Regulation?

Lisa Tensmeyer Hansen
Brigham Young University - Provo

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Family, Life Course, and Society Commons](#)

BYU ScholarsArchive Citation

Hansen, Lisa Tensmeyer, "Does Attachment to Parents Mediate the Relationship Between Couple Conflict and Adolescent Self-Regulation?" (2012). *Theses and Dissertations*. 3385.
<https://scholarsarchive.byu.edu/etd/3385>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Does Attachment to Parents Mediate the Relationship Between Couple Conflict and
Adolescent Self-Regulation?

Lisa Tensmeyer Hansen

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

James M. Harper, Chair
Jeremy B. Yorgason
Jonathan G. Sandberg

School of Family Life
Brigham Young University

December 2012

Copyright © 2012 Lisa T. Hansen

All Rights Reserved

ABSTRACT

Does Attachment to Parents Mediate the Relationship Between Couple Conflict and Adolescent Self-Regulation?

Lisa Tensmeyer Hansen
School of Family Life, BYU
Master of Science

Adolescent self-regulation follows a developmental trajectory over time with ups and downs during maturation. This paper uses growth curve analysis to look at change in self-regulation over time. Although self-regulation scores may increase during latency, adolescents differ in levels of self-regulation due to biological and socialization factors. In addition, exposure to couple conflict has been shown to affect levels of self-regulation. The current study examined the role of attachment to parents as a mediator between couple conflict and adolescent self-regulation outcomes, controlling for gender of child. Participants were 681 families with a child between the ages of 11 and 13 at *time 1* (*M* age of child at *time 1* = 11.33, *S.D.* = 1.02, 47.9% female) who took part in the Flourishing Families survey at *times 1, 2, 3, & 4*. Structural equation modeling confirmed that self-regulation was negatively related to couple conflict overall, although self-regulation in the group of adolescents experiencing the lowest level of conflict increased as couple conflict increased. Self-regulation was also positively related to attachment to father (but not to mother), while gender of adolescent was not significantly related to self-regulation or attachment. There was also evidence that father attachment partially mediated the relationship between couple conflict and adolescent self-regulation outcomes. The discussion focuses on the importance of continued research examining the mechanisms through which the father attachment bond influences the development of adolescent self-regulation.

Keywords: adolescent self-regulation, couple conflict, attachment to parents

Table of Contents

ABSTRACT.....	ii
Introduction.....	1
Self-Regulation.....	2
Couple Conflict and Self-Regulation	3
Hypotheses.....	4
Method	4
Participants	4
Measures.....	5
Self-regulation.	6
Couple conflict.	7
Attachment to parents.....	7
Latent growth curve model.....	8
Results.....	10
Descriptive Statistics and Correlations	10
Couple conflict.	10
Attachment.....	10
Self-regulation	11
Analyses of Study Hypotheses.....	11

Hypothesis 1: Couple conflict has a significant association with the intercept of adolescent self-regulation.....	11
Hypothesis 2: Couple conflict has a significant association with the slope of adolescent self-regulation.....	11
Hypothesis 3: Couple conflict is correlated with attachment to parents.	12
Hypothesis 4: The effect of couple conflict on adolescent self-regulation is mediated by attachment to father and to mother.....	12
Hypothesis 5: Direct and indirect links are the same for adolescents of both genders.	13
Hypothesis 6: Attachment has a stronger effect on the self-regulation of adolescents who experience high couple conflict.....	13
Discussion.....	14
APPENDICES	21
TABLES AND FIGURES	24

Introduction

Children exposed to hostile couple conflict are at increased risk for social, emotional and behavioral problems (Cummings & Davies, 2002; Cummings & Keller, 2006; Goeke-Morey, Cummings, Harold, & Shelton, 2003; Grych & Fincham, 1990; Sturge-Apple, Davies, & Cummings, 2006). Children who experience deleterious levels of couple conflict are likely to score lower on measures of self-regulation, and lower self-regulation scores are often predictive of children's subsequent negative social and emotional behavior (Eisenberg & Fabes, 1992; Eisenberg, Zhou, Spinrad, Valiente, Fabes & Liew, 2005; Fox, 1994). Discovering factors that mediate or moderate the relationship between couple conflict and negative child outcomes may suggest protections for children from the negative effects of couple conflict (Laurent, Kim & Capaldi, 2008). Protection from such negative effects is likely to lead to increased positive mental health for children and adolescents. Prior research has suggested that longitudinal assessment of protective effects in the link between couple conflict and child outcomes is essential (Cummings, Davies & Campbell, 2000). A strength of this study is that it measures adolescent self-regulation at three different time points.

Previous research suggests that low emotional support received by children who experience couple conflict mediates the impact of that conflict on children's outcomes (Kaczynski, Lindahl, Malik & Laurenceau, 2006). Because emotional support is conceptually linked with attachment to parents (Bowlby, 1988), it is possible that attachment to parents may mediate the relationship between hostile couple conflict and negative child self-regulation. This paper seeks to understand how the distress experienced during couple conflict relates to adolescent attachment to parents as reflected in adolescent self-regulation scores. Where couple

conflict exists, does a stronger attachment to mother and/or father affect the development of adolescent self-regulation?

Self-Regulation

Self-regulation has been described as a child or adolescent's ability to regulate emotion, to exercise effortful control of behavior and to internalize appropriate conduct (Eiden, Edward & Leonard, 2007; Grolnick & Farkas, 2002). The relationship between children's social, emotional and behavioral problems and self-regulation is well established (Eisenberg et al., 2005; Grolnick & Ryan, 1989; Steinberg, Elmen, & Mounts, 1989). Self-regulation is often the study (dependent) variable of choice for analysis of associations between predictor (independent) variables and child outcomes (Baumrind, 1991; Dennis, 2006; Eiden, et al., 2007; Fonagy & Target, 2002). Even studies which do not use the term *self-regulation* often use measures of emotional and behavioral responsiveness which correspond to self-regulation measures (e.g., Cummings, Goeke-Morey, Papp & Dukewich, 2002; Goeke-Morey et al., 2003).

Self-regulation predicts psychological pathologies and levels of achievement in school (Posner & Rothbart, 2009), development of conscience (Kochanska, Murray, Jacques, Koenig & Vendegeest, 1996), resilience to peer influence (Grolnick & Farkas, 2002; Steinberg & Silverberg, 1986) and later adult functioning (Fonagy & Target, 2002). Self-regulation also reflects children's ability to manage arousal and initiate behavioral and emotional changes during emotionally charged situations (Dennis, 2006; Denham, 1998; Saarni, 1999). Self-regulation's dependence on dopamine levels and the structure of the anterior cingulate have been the explicit focus of neuroscience research as well (Posner, Rothbart, Sheese & Tang, 2007).

Couple Conflict and Self-Regulation

Children's reports of perceived threats resulting from couple conflict appear more relevant to child and adolescent emotional outcomes than are parental reports of couple conflict (Crockenberg & Forgays, 1996; Grych, 1998; Harold & Conger, 1997). Children may, in fact, be more reliable reporters of the destructiveness of couple conflict than are their parents (Cummings & Davies, 2002; Cummings & Keller, 2006). A strength of this study is that it measures couple conflict by child report.

According to the *emotional security hypothesis* (Cummings & Keller, 2006), destructive couple conflict is harmful because children perceive from the conflict negative implications for the family and for personal well-being. Insecure children may fear that parental conflict is unlikely to be resolved, leading to family disintegration. Children with insecure attachments may also expect parents who are angry to be emotionally unavailable, or view themselves as partially or entirely responsible for the couple discord (Cummings & Keller, 2006).

Minuchin & Fishman (1981) might suggest that a child who experiences attachment with one parent and is significantly disturbed by couple conflict may be destructively enmeshed with that parent, disrupting generational structural boundaries necessary for appropriate family interaction. This may be especially true if the child experiences triangulation in parental conflict (pressure for the child to take sides). In this case, higher levels of attachment might be associated with lower self-regulation.

Laurent et al. (2008) indicated that hostile parental conflict predicts lower child security with father than with mother. Because of these findings, this study examined attachment to parents separately to evaluate whether attachment as a moderating factor was influenced by parent gender.

Hypotheses

This study uses a latent linear growth model to test the following hypotheses:

- 1) Couple conflict has a significant association with the *intercept* of adolescent self-regulation.
- 2) Couple conflict has a significant association with the *slope* of adolescent self-regulation.
- 3) Couple conflict is correlated with attachment to father and/or to mother.
- 4) The association of couple conflict with adolescent self-regulation is mediated by attachment to father and/or to mother.
- 5) Direct and indirect links are the same for adolescents of both genders.
- 6) Attachment has a stronger effect on the self-regulation of adolescents who experience high couple conflict.

Method

Participants

Data are taken from a four-wave study of family life in two major areas of the Northwestern and western U. S. (*Flourishing Families*). The families were primarily recruited using a purchased national telephone survey database (Polk Directories/ InfoUSA) and were selected from targeted census tracts which mirrored the socio-economic and racial stratification of reports of local school districts. All families with a child between the ages of 10 and 13 living within the target areas were deemed eligible to participate and were contacted directly using a multi-stage recruitment protocol. First, a letter of introduction was sent to potentially eligible families. Second, interviewers made home visits and phone calls to confirm eligibility and willingness to participate in the study. Once eligibility and consent were established, interviewers made an appointment to come to the family's home to conduct an assessment

interview. In addition to the random selection protocol described above, families were recruited into the study through family referral of participating families. Follow-up surveys were conducted with participating families each year for the subsequent three years.

This study examined 681 families (72% with married parents and 28% with single parents at *time 1*), examining the covariates of child self-regulation across three waves of subsequent data collection. At *time 4*, participant adolescents averaged 14.3 years of age, while mothers averaged 46.2 years and fathers averaged 48.3 years. Four hundred eighty-three families (71%) were of European American ethnicity, 60 (9%) were African American, with smaller numbers for Hispanics (< 1%) and Asian Americans (1%). One hundred eleven families (16%) were categorized as multi-ethnic, based on a combination of two or more ethnicities among family members and 3% of the participants did not report ethnicity. Fourteen families (2%) of the sample reported at least one gay, lesbian, or bisexual parent at *time 1*. In terms of parental education, 56% of mothers and approximately 58% of fathers had at least a bachelor's degree. One-fourth (25%) of the families reported an annual income less than \$36,000 while one-fifth (20%) reported income of \$90,000 or more. Nearly one-third (31%) reported income in the \$37,000 - \$59,000 range, and one-fourth (24%) reported income in the \$60,000 – 89,000 range.

Missing data were detected in 38 cases, and the *Full Informational Maximum Likelihood* (FIML) feature of *Mplus* (Muthén and Muthén, 2000) was used to account for the missing data.

Measures

At *time 1* adolescents completed measures of attachment to each parent, a measure of perception of couple conflict, and a measure of self-regulation. At *times 2, 3, & 4*, adolescents completed the same measure of self-regulation. At *time 1* each parent completed a measure of

attachment to the adolescent. At *times 2, 3, & 4*, each parent completed a measure of the adolescent's self-regulation. (At *time 1* the parental measure of self-regulation was completed by the mother only, so the *time 1* measure for both parents was omitted from this study).

Self-regulation. Measures of child self-regulation vary across studies, but most researchers accept that self-regulation is multi-dimensional (emotional, cognitive, behavioral). The adolescent's self-regulation was assessed at *time 2, 3 & 4* from mother, father, and adolescent reports of behavioral, emotional, and cognitive self-regulation using 12 items from a revised 13-item version of the Novak and Clayton (2001) self-regulation measure (The thirteenth item was omitted from the parent survey in the 2nd through 4th waves. In order to maintain consistency, the 13th item was omitted from all uses of the scale in this study. The 13-item scale is included in Appendix D). Cronbach's α 's for the three subscales were .96 (emotional subscale), .96 (cognitive subscale) and .94 (behavioral subscale). In the current study, mother ($\alpha = .88$, factor loading = .86), father ($\alpha = .86$, factor loading = .85), and adolescent ($\alpha = .81$, factor loading = .72) reports were used to create a latent variable representing self-regulation means for each wave.

Adolescent ratings. Participant adolescents responded to how much they agreed or disagreed with statements such as *I get distracted by little things, I have difficulty controlling my temper, When I have a goal I make a plan how to reach it*. Responses ranged from 1 (never true) to 4 (*always true*). After reverse coding for items 1, 2, 3, 4, 5, 8, 10, 11, and 12, higher scores represented the child's ability to regulate emotions (items 1 – 5), cognitions (6 – 8) and behavior (9 – 12). For the research sample, the Cronbach's α 's for child-reporting were .77 (emotional subscale), .70 (cognitive subscale) and .72 (behavioral subscale).

Parent ratings. Each parent answered the same self-regulation items completed by the adolescent (with the exception that each question used *my child* language in the place of *I*). Responses were based on a 4-point Likert-type scale ranging from 1 (*never true*) to 4 (*always true*). After reverse coding for items 1, 2, 3, 4, 5, 9, 10, 11, and 12, higher scores represented the parents' assessment of their adolescent's ability to regulate emotions (items 1 – 5), cognitions (6 – 8) and behavior (9 – 12). For the parent research sample, Cronbach's α 's were found to be .87 (emotional subscale), .86 (cognitive subscale) and .80 (behavioral subscale).

Couple conflict. Couple conflict was assessed at time 1 by adolescent-report only, using 5 items of a modified version of the *Children's Perception of Interparental Conflict Scale* (Grych, Seid & Fincham, 1992). Adolescents responded how much they agreed or disagreed with statements such as *I see my parents arguing or disagreeing*, and *They may not think I know it, but my parents disagree a lot*. Responses ranged from 1 (*never true*) to 5 (*always true*), with higher scores representing greater couple conflict. (The full 5-item scale is included in Appendix A.) Higher scores on items 1-5 indicated higher levels of adolescent-perceived couple conflict. Cronbach's α for the frequency subscale was previously found to be .70 (Grych, Seid & Fincham, 1992). Cronbach's α for the research sample for the frequency subscale was found to be .90. Regarding current validity, the frequency subscale combined with the intensity and resolution subscales (Grych, Seid & Fincham, 1992) was significantly related to parent-rated measures of couple conflict such as Porter and O'Leary's (1980) *O'Leary Porter Scale* (OPS) [$r(81) = .30$] and Strauss' (1979) *Conflict Tactics Scale* [$r(78) = .39$].

Attachment to parents. The adolescent's attachment to parents was assessed at *time 1* from mother, father, and child reports of attachment.

Adolescent ratings. The adolescent's attachment to each parent was measured using a modified 8-item version of the *Inventory of Parent and Peer Attachment* (Armsden & Greenberg, 1987), which included items such as *My parent respects my feelings* and *My parent accepts me as I am*. (The full 8-item scale is included in Appendix B.) Adolescents responded to how much they agreed or disagreed with the statements. Responses ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Adolescents completed the 8-item scale for each parent. After reverse coding for questions 2, 6, and 7, higher scores indicated a higher degree of attachment between parent and child. Cronbach's α for the research sample was .71 for child report of attachment to mothers and .74 for child report of attachment to fathers. Scores from this inventory correlated significantly with the Moos & Moos (1994) *Cohesion and Expressiveness Scales* ($r = .56$ and $.52$, respectively; $p < .001$).

Parent ratings. Each parent's report of attachment to the adolescent was measured using a 9-item version of the *Social Connectedness Scale* (Lee, Draper, & Lee, 2001). Participants responded how much they agreed with statements such as *I feel distant from my child*, and *I see my child as friendly and approachable*. Responses were based on a 6-point Likert-type scale ranging from 1 (*disagree*) to 6 (*agree*). After reverse coding for questions 1, 2, 3, 5, and 9, higher scores indicated a higher degree of connectedness between parent and adolescent. Cronbach's α 's for the research sample were .85 for mothers and .88 for fathers. In terms of validity, scores for this scale correlated significantly with the Russell et al (1980) *UCLA Loneliness Scale* ($r = -.80$, $p < .01$).

Latent growth curve model. Using *MPlus Version 6.1* software (Múthen & Múthen, 2010), a structural equation model was created to test the mediating effect of attachment variables at *time 1* on the relationship between parental conflict (at *time 1*) and adolescent self-

regulation outcomes at *times 2, 3, & 4* (See Figure 1). Because self-regulation was expected to increase over time as a result of the adolescent's natural development, a latent growth curve model was created to test the increase in self-regulation over the three testing periods. The model created for this study was designed to account not only for the effects of couple conflict and attachment on adolescent self-regulation, but also for effects on the rate of change in self-regulation over time. This statistical model combined features of factor analysis and latent growth curve models into a single model referred to as a *multiple indicator linear growth model* (Muthén & Muthén, 2000). A measurement model related a vector of observed indicators to a wave-specific latent self-regulation factor. Each latent self-regulation factor was modeled as a linear function of latent growth parameters, resulting in a linear growth curve model with a latent intercept representing the level of self-regulation at *time 1* and a latent slope describing latent change in self-regulation as a function of time. Structural parameters from this part of the model provide the basis for assessing effects of key variables on level and change in self-regulation. In addition to the structural parameters, this model yielded estimated variances in latent growth parameters to capture the extent to which latent slopes and intercepts vary across subjects, as well as the estimated covariance between growth parameters, which measures the degree of dependence between initial levels of self-regulation and change over time.

Latent constructs were also created for father attachment and mother attachment. Each of the latent attachment constructs was a combination of two scaled variables (the parent report of attachment to the adolescent and the adolescent's report of attachment to parent). Factor loadings of father's report and mother's report of attachment were both fixed to a variance of 1.

A structural growth curve model was then estimated which defined latent constructs for child self-regulation intercept and slope as outcome variables, analyzing self-regulation data

provided by child, father, and mother report at *times 2, 3 & 4*, as described above. The pathways from the latent self-regulation intercept variable to self-regulation reports at *times 2, 3 & 4* were each constrained to be 1. The pathways from the latent self-regulation slope variable to self-regulation reports were designated as 0 for *time 2*, 1 for *time 3*, and 2 for *time 4*, corresponding to the 1-year intervals between the respective study waves. To help ensure the comparability of the latent constructs of self-regulation over time, the factor loadings were constrained to be equal across time periods.

Couple conflict, attachment to father, attachment to mother, and gender of child were theorized as predictors of the intercept and slope of child self-regulation. The structural model had a χ^2 fit of 32.6 (df15) at $p < .01$, CFI = .99, RMSEA = .04, and SRMS = .04.

Results

Descriptive Statistics and Correlations

Table 1 shows the means and standard deviations for all variables included in the model. *Table 2* shows the correlations between the variables.

Couple conflict. Adolescent perceptions of their parents' couple conflict did not differ statistically by gender (See Table 1).

Attachment. Girls reported greater attachment to mothers than to fathers, $t(df 226) = 3.14, p < .005$, Cohen's $d = .2$, a small effect size. Boys also reported greater attachment to mothers than to fathers, $t(df 242) = 4.18, p < .001$, Cohen's $d = .27$, also a small effect size. Mothers reported greater attachment to daughters than did fathers, $t(df 292) = 4.7, p < .001$, Cohen's $d = .27$, a small effect size, and mothers reported greater attachment to sons than did fathers, $t(df 284) = 4.1, p < .001$, Cohen's $d = .2$, a small effect size.

Self-regulation. At *time 2* (the first time measured), girls' and boys' self-regulation scores did not differ statistically, $t(df\ 325) = 1.9, p = .064$. Girls' self-regulation scores also did not differ statistically from the reports of their parents, but boys tended to report higher self-regulation than either parent reported for them, $t(df\ 317) = -3.9, p < .001$, Cohen's $d = .7$, a medium effect size. At *time 3*, boys' and girls' self-regulation scores still did not differ significantly, and boys' self-regulation scores did not differ significantly from their parents' scores for them. For girls, however, mothers reported self-regulation scores higher than the girls scored themselves, $t(df\ 307) = 3.8, p < .001$, Cohen's $d = .2$, a small effect size, and both fathers and mothers reported daughters as having higher self-regulation than the parents reported for sons (mothers' $t = 3.64, p < .001$; fathers' $t(df\ 242) = 2.96, p < .005$, Cohen's $d = .2$, a small effect size. At *time 4*, both fathers and mothers reported daughters as having higher self-regulation than the daughters reported for themselves (mothers' $t(df\ 240) = 4.3, p < .001$, Cohen's $d = .2$, a small effect size; fathers' $t(df\ 156) = 3.3, p < .005$, Cohen's $d = .3$, a small effect size. Boys' self-regulation scores did not differ significantly from their parents' report at *time 4*.

Analyses of Study Hypotheses

Hypothesis 1: Couple conflict has a significant association with the intercept of adolescent self-regulation. The model estimated a negative effect ($\beta = -0.23, p < .001$) of couple conflict at *time 1* on the intercept of child self-regulation, suggesting that as couple conflict increased by one measured interval, the intercept of child self-regulation decreased by .23 of a standard deviation. The first hypothesis was confirmed.

Hypothesis 2: Couple conflict has a significant association with the slope of adolescent self-regulation. The model estimates suggest that the slope of adolescent self-

regulation was not significantly predicted by scores on couple conflict at time 1. The second hypothesis was not confirmed.

Hypothesis 3: Couple conflict is correlated with attachment to parents. This hypothesis was confirmed in the case of father attachment. The model estimated a negative correlational effect ($\beta = -.35, p < .001$) of couple conflict with attachment to father, suggesting that as couple conflict increased by one measured interval, attachment to father decreased by .35 of a standard deviation. The model also estimated a negative correlational effect ($\beta = -.26, p < .001$) of couple conflict with attachment to mother, suggesting that as couple conflict increased by one measured interval, attachment to mother decreased by .26 of a standard deviation. The third hypothesis was confirmed for both fathers and mothers, and the effect was larger for fathers than for mothers.

Hypothesis 4: The effect of couple conflict on adolescent self-regulation is mediated by attachment to father and to mother. The model estimated a negative indirect effect ($\beta = -0.23, p < .001$) of couple conflict on the intercept of self-regulation, mediated by attachment to parents. The mediation of attachment to mother was not significant, but the mediation of attachment to father accounted for most of the change ($\beta = -.19, p < .001; z = -3.749$) in self-regulation attributed to the indirect effects of attachment. Bootstrapping was used to obtain corrected standard errors, which indicated the significant indirect effect of couple conflict on self-regulation (mediated through attachment to father). Sobel's test confirmed the mediation at $-3.97 (p < .001)$. This model accounted for 40% of the variation in adolescent self-regulation at time 2 (the first time self-regulation was measured). The fourth hypothesis was confirmed in that attachment to fathers (but not mothers) partially mediated the negative relationship between couple conflict and adolescent self-regulation.

Hypothesis 5: Direct and indirect links are the same for adolescents of both genders. To test for group differences as a function of gender of the adolescent, multigroup models were estimated and compared using *chi-square* difference tests. Structural and measurement invariance were examined by comparing a model where factor loadings, error variances, and regression paths were constrained to be equal across gender to a model where they were free to vary across gender. Comparing the fully constrained model with the fully unconstrained model did not significantly decrease the model fit, χ^2 difference (7 *df*) = 9.7, $p < .05$, suggesting measurement invariance of the factor loadings, error variances, and regression paths as a function of child gender. The fifth hypothesis was confirmed.

Hypothesis 6: Attachment has a stronger effect on the self-regulation of adolescents who experience high couple conflict. To test whether adolescents who experienced higher levels of couple conflict differed from those who experienced lower levels of couple conflict, the potential interaction of conflict and attachment was tested using ANOVA. Only the adolescent report of attachment was used for this test. The main effects of conflict and attachment to each parent on the dependent variable self-regulation were confirmed (See *Table 4*), but the interaction term was not significant for either parent. For self-regulation scores at *time 2* (the first measurement) and attachment and couple conflict scores at *time 1*, ANOVA yielded the following equation (co-efficients are standardized):

$$Y_{\text{self-regulation}} = 8.511 + -.111 \text{ couple conflict} + .254 \text{ attachment to mother} + .292 \text{ attachment to father}.$$

To further explore differences between adolescent experience of high, moderate, and low couple conflict, the 665 cases which included a couple conflict score were divided into three groups (222 high conflict, 221 moderate conflict, and 222 low conflict). Results of ANOVA comparisons are shown in *Table 5*. For the high conflict groups, the expected association

between couple conflict and attachment was confirmed, $F = 11.3$ (df 208), $p < .005$.

Unexpectedly, the negative association between couple conflict and self-regulation did not appear for the group experiencing the lowest levels of conflict. For this group, increased self-regulation was associated with increased couple conflict $F = 25.9$ (df 212), $p < .001$, although the effect size was small.

Discussion

Structural equation modeling confirmed that self-regulation was negatively related to couple conflict overall, although self-regulation in the group of adolescents experiencing the lowest level of conflict increased as couple conflict increased. Self-regulation was also positively related to attachment to father (but not to attachment to mother), while gender of adolescent was not significantly related to self-regulation or attachment. There was also evidence that father attachment partially mediated the relationship between couple conflict and adolescent self-regulation outcomes.

Although prior research has confirmed the negative relationship between couple conflict and child/adolescent self-regulation, this study suggests three additional considerations regarding that relationship. First, it appears that attachment to parents, particularly to father, partially mediates the association between conflict and self-regulation. Second, although couple conflict is associated with the intercept of adolescent self-regulation, it does not appear to vary with the slope of self-regulation. Third, for adolescents experiencing the lowest levels of parental conflict, increases in conflict were associated with an increase in self-regulation scores.

The role of fathers in positive child outcomes has received increasing attention in recent decades. Attachment to fathers has been associated with academic achievement, better cognitive functioning, improved internalizing and externalizing behaviors, and overall improved family

functioning (Buswell, Zabriskie, Lundberg, & Hawkins, 2012; Sarkadi, Kristiansson, Oberklaid, & Bremberg, 2008; Crockett, Eggebeen & Hawkins, 1993), and infant emotion-regulation styles (Diener, Mengelsdorf, McHale, & Frosch, 2002). Couple conflict may disrupt attachment with fathers more than with mothers, leading to diminished adolescent self-regulation. Additional research should consider whether increasing children's attachment to fathers acts as a moderator in the relationship between parental conflict and self-regulation, providing a protecting or buffering effect.

Clinicians working with couples may wish to pay particular attention to father's attachment with children who are affected by couple conflict, noting the mediating role of father attachment in adolescent self-regulation. Further research should explore whether facilitating father attachment increases self-regulation.

Further study should also explore why -- when the overall relationship between conflict and self-regulation was that higher levels of conflict resulted in lower levels of self-regulation -- adolescents experiencing the lowest levels of couple conflict did not report the highest self-regulation. Perhaps a minimum level of couple conflict is necessary for the appropriate development of self-regulation. A lack of observed conflict between an adolescent's parents may suggest unspoken tensions that hinder the development of self-regulation. Future studies should address such questions.

Although parents differed by gender in their assessment of self-regulation, boys' and girls' self-regulation scores did not differ significantly from each other at any time point studied, suggesting that the younger generation's evaluation of self-regulating thoughts, emotions, and behaviors may be more free from gender-bias than their parents. Future studies might address these generational gender differences.

Important limitations of this study include the lack of analysis of single-parent and gay/lesbian families. Although single-parent families and families with gay or lesbian parents were included in the analysis, the number of gay and lesbian parented families was not large enough from which to draw findings, and the data for these families were not analyzed separately. Attachment and self-regulation associations may be different when both parents do not live in the adolescent's home or when parents are not heterosexual. Understanding the association between attachment and couple conflict when both parents are the same gender may help tease out the role of parent gender in influencing attachment and help discover variables other than parent gender that mediate self-regulation.

References

- Armsden, G. D., & Greenberg, M. T. (1987). Inventory of parent and peer attachment: Individual differences and their relationship to psychological well-being in adolescence. *Journal of Youth and Adolescence*, *16*, 427-454.
- Baumrind, D. (1991). *Relation of authoritative upbringing to adolescent outcomes*. Paper presented at the Society for Research in Child Development, Seattle, WA.
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge.
- Busby, D. M., Crane, D. R., Larson, J. H., & Christensen, C. (1995). A revision of the dyadic adjustment scale for use with distressed and nondistressed couples: Construct hierarchy and multidimensional scales. *Journal of Marital and Family Therapy*, *21*, 289-308.
- Busby, D. M., Holman, T. B., & Taniguchi, N. (2001). RELATE: Relationship evaluation of the individual, cultural, and couple contexts. *Family Relations*, *50*, 308-316.
- Buswell, L., Zabriskie, R. B., Lundberg, N., & Hawkins, A. (2012). Contributions of father involvement in family leisure to family functioning: The importance of daily family leisure. *Leisure Sciences*, *34*(1), 1-19.
- Crockenberg, S. B., & Forgays, D. (1996). The role of emotion in children's understanding and emotional reactions to marital conflict. *Merrill-Palmer Quarterly*, *42*, 22-47.
- Crockett, L., Eggebeen, D., & Hawkins, A. (1993). Father's presence and young children's behavioral and cognitive adjustment. *Journal of Family Issues*, *14*, 355-377.
- Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging themes in process-oriented research. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *43*, 31-63.
- Cummings, E. M., Davies, P. T., & Campbell, S. (2000). *Development psychopathology and family processes*. New York, NY: Guilford Press.
- Cummings, E. M., & Keller, P. S. (2006). Marital discord and children's emotional self-regulation. In D. K. Snyder, J.A. Simpson & J. M. Hughes, (Eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health* (163-182). Washington, D.C: American Psychological Association.
- Cummings, E. M., Goeke-Morey, M. C., Papp, L. M., & Dukewich, T. L. (2002). Children's responses to mothers' and fathers' emotionality and tactics in marital conflict in the home. *Journal of Family Psychology*, *16*, 478-492.

- Cummings, E. M., Goeke-Morey, M. C., & Papp, L. M. (2004). Everyday marital conflict and child aggression in the home. *Journal of Abnormal Child Psychology*, 32, 191-202.
- Cummings, E. M., Vogel, D., Cummings, J.S., & El-Sheikh, M. (1989). Children's response to different forms of conflict expression of anger between adults. *Child Development*, 60, 1392-1404.
- Denham, S. A. (1998). *Emotional development in young children*. New York, NY: Guilford.
- Dennis, T. (2006). Emotional self-regulation in preschoolers: The interplay of child approach reactivity, parenting, and control capacities. *Developmental Psychology*, 42, 84-97.
- Diener, M., Mangelsdorf, S. C., McHale, J. & Frosch, C. (2002). Infants' behavioral strategies for emotion regulation with fathers and mothers: associations with emotional expressions and attachment quality. *Infancy*, 3, 153-174.
- Eisenberg, N., & Fabes, R. A. (1992). *Emotion and its regulation in early development: New directions for child development* (Vol 5). San Francisco, CA: Jossey-Bass.
- Eisenberg, N., Fabes, R., Shepard, S., Guthrie, I., Murphy, B., & Riser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, 70, 513-534.
- Eisenberg, N., Zhou, Q., Spinrad, T. L., Valiente, C., Fabes, R. A., & Liew, J. (2005). Relations among positive parenting, children's effortful control, and externalizing problems: A three-wave longitudinal study. *Child Development*, 76, 1055-1071.
- Epstein, S., & Meier, P. (1989). Constructive thinking: A broad coping variable with specific components. *Journal of Personality and Social Psychology*, 57, 332-350.
- Fonagy, P., & Target, M. (2002). Early intervention and the development of self-regulation. *Psychoanalytic Quarterly*, 22, 307-355.
- Fox, M. A. (Ed.). (1994). The development of emotion regulation: Biological and behavioral considerations. *Monographs of the Society for Research in Child Development*, 59, (2-3, Serial No. 240), 152-166.
- Fuendling, J. M. (1998). Affect regulation as a stylistic process within adult attachment. *Journal of Social and Personal Relationships*, 15, 291-322.
- Goeke-Morey, M. C., Cummings, E. M., Harold, G. T., & Shelton, K. H. (2003). Categories and continua of destructive and constructive marital conflict tactics from the perspective of U.S. and Welsh children. *Journal of Family Psychology*, 17, 327-338.

- Grolnick, W. S., & Farkas, M. (2002). Parenting and the development of children's self regulation. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol 5, Practical issues in parenting* (2nd ed., 89-110). Mahway, NJ: Lawrence Erlbaum Associates.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology, 81*, 143-154.
- Grych, J. H. (1998). Children's appraisals of interparental conflict: Situational and contextual influences. *Journal of Family Psychology, 12*, 437-453.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive contextual framework. *Psychological Bulletin, 108*, 267-290.
- Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective: The children's Assessment of Parental Conflict Scale. *Child Development, 63*, 558-572.
- Harold, G. T., & Conger, R. D. (1997). Marital conflict and adolescent distress: The role of adolescent awareness. *Child Development, 68*, 330-350.
- Kaczynski, K. J., Lindahl, K. M., Malik, N. M., & Laurenceau, J. (2006). Marital conflict, maternal and paternal parenting, and child adjustment: A test of mediation and moderation. *Journal of Family Psychology, 20*, 199-208.
- Kochanska, G., Murray, K., Jacques, T.Y., Koenig, A.L., and Vandegest, K.A. (1995). Inhibitory control in young children and its role in emerging internationalization. *Child Development, 67*, 490-507.
- Laurent, H. K., Kim, H. K., & Capaldi, D. M. (2008). Prospective effects of interparental conflict on child attachment security and the moderating role of parents' romantic attachment. *Journal of Family Psychology, 22*, 377-388.
- Lee, R. M, Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of Counseling Psychology, 48*, 310-318.
- Mikulincer, M., & Florian, V. (1998). The relationship between adult attachment styles and emotional and cognitive reactions to stressful events. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (143-165). New York, NY: Guilford Press.
- Minuchin, S., & Fishman, H. C. (1981). *Family therapy techniques*. Cambridge, MA: Harvard University Press.
- Moos, R. H., & Moos, B. S. (1994). *Family Environment Scale manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

- Muthen, L. K., & Muthen, B. (2010). *Mplus: Statistical analysis with latent variables user's guide*. (6th ed.). Los Angeles, CA: StatModel.
- Nachmias, M., Gunnar, M., Mangelsdorf, S., Partitz, R. H., & Buss, K. (1996). Behavioral inhibition and stress reactivity: The moderating role of attachment security. *Child Development, 67*, 508-522.
- Novak, S. P., & Clayton, R. R. (2001). The influence of school environment and self-regulation on transitions between stages of cigarette smoking: A multilevel analysis. *Health Psychology, 20*, 196-207.
- Porter, B., & O'Leary, K. D. (1980). Marital discord and childhood behavior problems. *Journal of Abnormal Child Psychology, 8*, 287-295.
- Posner, M. I., Rothbart, M. K., Shees, B. E., & Tang, Y. (2007). The anterior cingulate gyrus and the mechanisms of self-regulation. *Journal of Cognitive, Affective and Social Neuroscience, 7*, 391-395.
- Posner, M. I., & Rothbart, M. K. (2009). Toward a physical basis of attention and self-regulation. *Physics of Life Reviews, 6*, 103-120.
- Russell, D., Peplau, L., & Cutrona, C. E. (1980). The Revised UCLA Loneliness Scale: Concurrent and discriminant validity evidence. *Journal of Personal and Social Psychology, 39*, 472-480.
- Saarni, C. (1999). *The development of emotional competence*. New York, NY: Guilford Press.
- Sakardi, A., Kristiansson, R., Oberklaid, F., & Bremberg, S. (2008). Father's involvement and children's developmental outcomes: a systematic review of longitudinal studies. *Acta Paediatrica, 97*(2), 153-158.
- Steinberg, L., Elmen, J. D., & Mounts, N. S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development, 60*, 1424-1436.
- Steinberg, L., & Silverberg, S. (1986). The vicissitudes of autonomy in early adolescence. *Child Development, 57*, 841-851.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage and the Family, 41*, 75-88.
- Sturge-Apple, M. L., Davies, P. T., & Cummings, E. M. (2006). Hostility and withdrawal in marital conflict: Effects on parental emotional unavailability and inconsistent discipline. *Journal of Family Psychology, 20*, 227-238.

APPENDIX A

Parental Conflict – Frequency Scale (as used by the *Flourishing Families Project*)

1. I see my parents arguing or disagreeing
2. They may not think I know it, but my parents disagree a lot.
3. My parents are mean to each other, even when I am around.
4. I see my parents arguing.
5. My parents nag and complain about each other.

The frequency scale actually used by Grych, Seid & Fincham (1992) is as follows:¹

1. I *never* see my parents arguing or disagreeing
 2. They may not think I know it, but my parents *argue or* disagree a lot.
 3. My parents are *often* mean to each other even when I'm around.
 4. I *often* see my parents arguing.
 5. My parents *often* nag and complain about each other *around the house*.
-

APPENDIX B

Parent-Child Attachment Scale (Child Version) used in the *Flourishing Families Project*

1. My parent respects my feelings.
2. I rely on myself (not this parent) when I have a problem to solve.
3. My parent accepts me as I am.
4. When we discuss things, my parent considers my point of view.
5. My parent trusts my judgment.
6. I do not think I can depend on my parent.
7. I do not get much attention at home from my parent.
8. When I am angry about something, my parent tries to be understanding.

The *Inventory of Parent Attachment* Scale actually used by Armsden & Greenberg (1987) is as follows:²

1. **My parents respect my feelings.** (Trust Subscale)
2. I feel my parents are successful as parents. (Trust Subscale)
3. I wish I had different parents. (Trust Subscale)
4. **My parents accept me as I am.** (Trust Subscale)
5. **I have to rely on myself when I have a problem to solve.** (Alienation Subscale)
6. I like to get my parents' point of view on things I'm concerned about.
(Communication Subscale)
7. I feel it's no use letting my feelings show (Communication Subscale)

¹ Differences are italicized.

² Items used in the *Flourishing Families Project* (FFP) are highlighted. These have been modified to refer to one parent rather than both parents.

8. My parents sense when I'm upset about something. (Communication Subscale)
 9. Talking over my problems with my parents makes me feel ashamed or foolish. (Alienation Subscale)
 10. My parents expect too much from me. (Alienation Subscale)
 11. I get upset easily at home. (Alienation Subscale)
 12. I get upset a lot more than my parents know about. (Alienation Subscale)
 13. **When we discuss things, my parents consider my point of view.** (Trust Subscale)
 14. **My parents trust my judgment.** (Trust Subscale)
 15. My parents have their own problems, so I don't bother them with mine. (Alienation Subscale)
 16. My parents help me to understand myself better. (Communication Subscale)
 17. I tell my parents about my problems and troubles. (Communication Subscale)
 18. I feel angry with my parents. (Alienation Subscale)
 19. **I don't get much attention at home.** (Alienation Subscale)
 20. My parents encourage me to talk about my difficulties. (Communication Subscale)
 21. My parents understand me. (Trust Subscale)
 22. **I don't know whom I can depend on these days.** (Alienation Subscale)
 23. **When I am angry about something, my parents try to be understanding.** (Trust Subscale).
 24. I trust my parents. (Trust Subscale)
 25. My parents don't understand what I'm going through these days. (Alienation Subscale)
 26. I can count on my parents when I need to get something off my chest. (Communication Subscale)
 27. I feel that no one understands me. (Alienation Subscale)
 28. If my parents know something is bothering me, they ask me about it. (Communication Subscale)
-

APPENDIX C

Parent-Child Attachment/Connectedness Scale (Parent Version) used in the *Flourishing Families Project*)

1. I feel distant from my child
2. I do not feel related to my child most of the time.
3. I feel like an outsider with my child.
4. I feel close to my child.
5. Even around my child I do not feel that I really belong.
6. I am able to relate to my child.
7. I feel understood by my child.
8. I see my child as friendly and approachable.
9. I have little sense of togetherness with my child.

The *Social Connectedness* Scale actually used by Lee, Draper & Lee (2001) is as follows:³

1. **I feel distant from people.**
 2. **I don't feel related to most people.**
 3. **I feel like an outsider.**
 4. I see myself as a loner.
 5. I feel disconnected from the world around me.
 6. I don't feel I participate with anyone or any group.
 7. **I feel close to people.**
 8. **Even around people I know, I don't feel that I really belong.**
 9. **I am able to relate to my peers.**
 10. I catch myself losing an sense of connectedness with society.
 11. I am able to connect with other people.
 12. **I feel understood by the people I know.**
 13. **I see people as friendly and approachable.**
 14. I fit in well in new situations.
 15. **I have little sense of togetherness with my peers.**
 16. My friends feel like family.
 17. I find myself actively involved in people's lives.
 18. Even among my friends, there is no sense of brother/sisterhood.
 19. I am in tune with the world.
 20. I feel comfortable in the presence of strangers.
-

APPENDIX D

Child Self-Regulation Scale (Child Version) used in the *Flourishing Families Project*.

1. I have a hard time controlling my temper.
2. I get so frustrated I feel ready to explode.
3. I get upset easily.
4. I am afraid I will lose control over my feelings.
5. I slam doors when I am mad.
6. I develop a plan for all my important goals.
7. I think about the future consequences of my actions.
8. Once I have a goal, I make a plan to reach it.
9. I get distracted by little things.
10. As soon as I see that things are not working, I do something about it.
11. I get fidgety after a few minutes if I am supposed to sit still.
12. I have a hard time sitting still during important tasks.
13. I find that I bounce my legs or fiddle with objects.

³ Items used in the *Flourishing Families Project* (FFP) are highlighted. These have been modified to refer to a child rather than to other people in general.

Table 1

Means, SDs, Alpha Coefficients and Factor Loadings for Variables (N=644 Families)

Variable	Daughters (<i>n</i> = 326) <i>Means (SD)</i>	Sons (<i>n</i> = 318) <i>Means (SD)</i>	α	Factor Loading
Couple Conflict	8.90 (3.89)	8.97 (3.81)	.90	
Attachment to Father	4.08 (.62)	4.06 (.57)	.74	
Attachment to Mother	4.21 (.52)	4.13 (.53)	.71	
Father Report of Attachment	4.82 (.70)	4.75 (.67)	.88	
Mother Report of Attachment	4.98 (.60)	4.95 (.59)	.85	
Child Self-Regulation				
<i>Mothers' Report overall</i>	2.95 (.51)	2.83 (.51)	.88	.86
Time 2	2.92 (.50)	2.76 (.51)		
Time 3	2.97 (.49)	2.82 (.52)		
Time 4	2.95 (.54)	2.90 (.50)		
<i>Fathers' Report overall</i>	2.95 (.47)	2.80 (.49)	.86	.85
Time 2	2.92 (.48)	2.76 (.49)		
Time 3	2.95 (.46)	2.81 (.51)		
Time 4	2.97 (.48)	2.83 (.48)		
<i>Child's Report overall</i>	2.84 (.49)	2.87 (.46)	.81	.72
Time 2	2.86 (.49)	2.87 (.46)		
Time 3	2.86 (.51)	2.88 (.48)		
Time 4	2.80 (.48)	2.87 (.43)		

Note: Mean values represent means of summed scales.

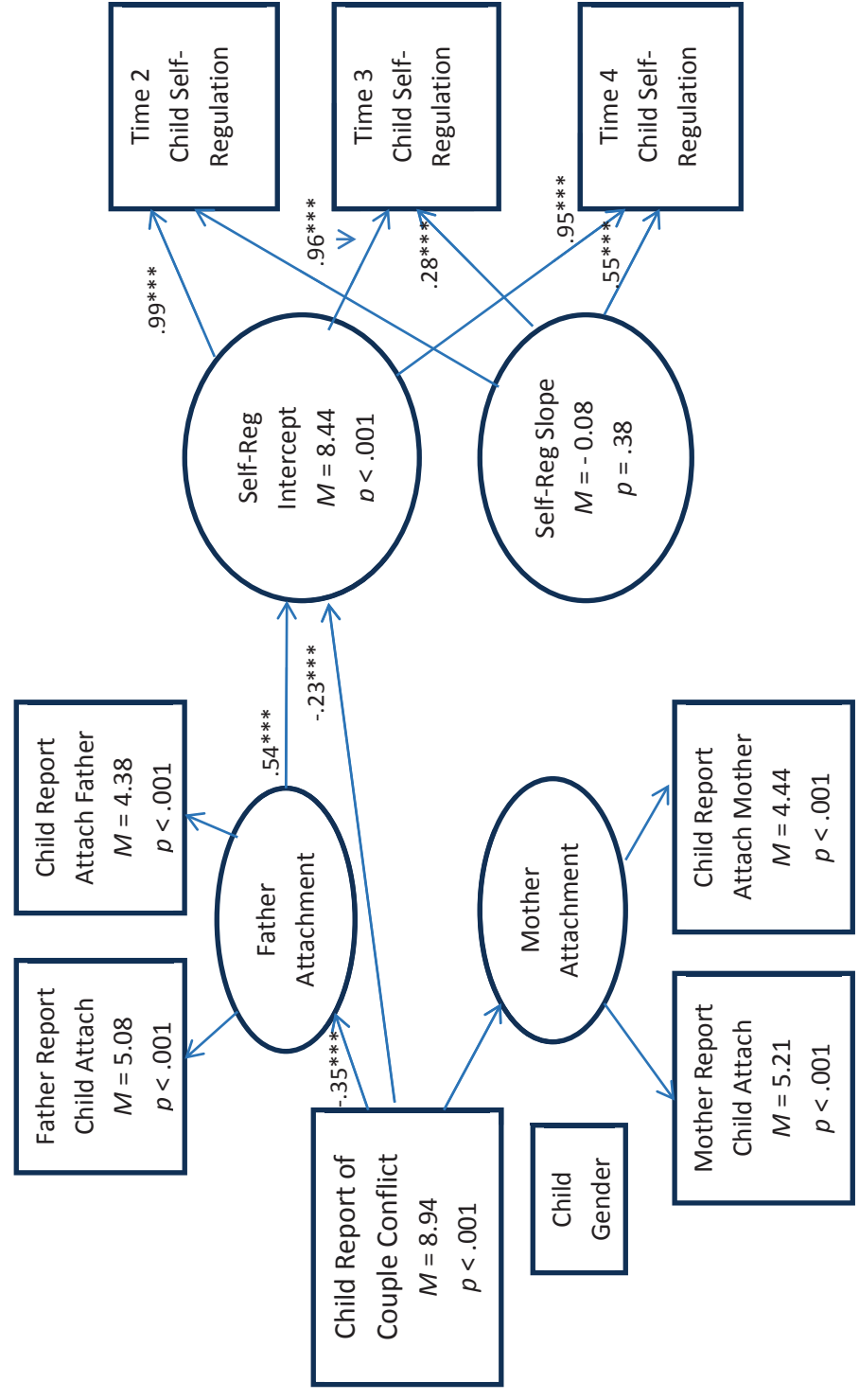
Table 2

Correlations between Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Couple Conflict	1.0													
2. Attachment to Father	-.25 ***	1.0												
3. Attachment to Mother	-.29 ***	.82 ***	1.0											
4. Father Report of Attachment	-.14 *	.22 **	.17 *	1.0										
5. Mother Report of Attachment	-.09	.22 **	.25 ***	.23 **	1.0									
6. Child Report Self-Reg. Time 2	-.26 ***	.22 **	.25 ***	.13	.22 **	1.0								
7. Child Report Self-Reg. Time 3	-.23 **	.18 **	.20 **	.16 *	.18 **	.70 ***	1.0							
8. Child Report Self-Reg. Time 4	-.26 ***	.22 **	.23 **	.19 **	.23 ***	.54 ***	.67 ***	1.0						
9. Father Report Self-Reg. Time 2	-.16 *	.19 **	.22 **	.38 ***	.34 ***	.43 ***	.46 ***	.38 ***	1.0					
10. Father Report Self-Reg. Time 3	-.14 *	.14 *	.22 **	.34 ***	.28 ***	.41 ***	.43 ***	.36 ***	.79 ***	1.0				
11. Father Report Self-Reg. Time 4	-.09	.15 *	.19 **	.39 ***	.29 ***	.35 ***	.41 ***	.42 ***	.76 ***	.83 ***	1.0			
12. Mother Report Self-Reg. Time 2	-.17 *	.17 *	.21 **	.20 **	.36 ***	.43 ***	.42 ***	.35 ***	.83 ***	.62 ***	.62 ***	1.0		
13. Mother Report Self-Reg. Time 3	-.15 *	.16 *	.23 **	.21 **	.32 ***	.34 ***	.39 ***	.37 ***	.76 ***	.66 ***	.63 ***	.85 ***	1.0	
14. Mother Report Self-Reg. Time 4	-.13	.13	.20 **	.22 **	.33 ***	.34 ***	.42 ***	.46 ***	.73 ***	.63 ***	.64 ***	.79 ***	.81 ***	1.0

Note: * $p < .05$. ** $p < .01$. *** $p < .001$

Figure 1. Attachment as a Mediator between Couple Conflict and Children's Self-Regulation (N = 644 families)



Note: χ^2 (15df) = 32.6, p < .01; CFI = .993, RMSEA = .042, SRMS = .04; beta scores shown are standardized

Table 3

Effects of Attachment, Child Gender, and Couple Conflict on Child Self-Regulation from Linear Growth Curve Models (N=644)

	Latent Intercept		Latent Slope	
	β	S.E.	β	S.E.
Father Attachment	.54***	(.11)	-.14 (n.s.)	(.10)
Mother Attachment	.16 (n.s.)	(.11)	-.01 (n.s.)	(.10)
Child Gender	.02 (n.s.)	(.04)	.01 (n.s.)	(.05)
Marital Conflict	.10 (n.s.)	(.05)	-.01 (n.s.)	(.05)

Note: *** $p < .001$, n.s. = not significant

Table 4

ANOVA coefficients from Linear Regression Model of Attachment and Couple Conflict on Child Self-Regulation (N=655).

	β	t	P
Couple Conflict	-.11	-2.61	.009
Attachment to Mother	.25	6.00	.000
Attachment to Father	.29	6.79	.000
Interaction term – conflict * attachment to mother	.06	1.5	.134
Interaction term – conflict * attachment to father	.02	-.86	.39

Table 5

ANOVA Coefficients for Regression of Couple Conflict on Self-Regulation for Groups of Low, Medium, and High Couple Conflict Adolescents (N=665)

	<i>F</i>	<i>P</i>	<i>df</i>	<i>R</i> ²
High Couple Conflict	11.3	.001	208	0.05
Medium Couple Conflict	1.3	.249	205	0.01
Low Couple Conflict	25.9	.000	212	0.11

Figure 2. *Self-Regulation by Couple Conflict Group.*

