Abstract

This study examined the associations between reasoning during inter-parental conflict and autonomous adolescent conflict negotiation with peers over time. Participants included 133 adolescents and their parents, peers, and romantic partners in a multi-method, multiple reporter, longitudinal study. Inter-parental reasoning at adolescent age of 13 predicted greater autonomy and relatedness in observed adolescent–peer conflict one year later and lower levels of autonomy undermining during observed romantic partner conflict five years later. Inter-parental reasoning also predicted greater satisfaction and affection in adolescent romantic relationships seven years later. Findings suggest that autonomy-promoting behaviors exhibited in the inter-parental context may influence adolescents’ own more autonomous approaches to subsequent peer and romantic conflict. Possible explanatory models are discussed, including social learning theory and attachment theory.

Keywords: reasoning; autonomy relatedness; adolescent romantic relationships; observed conflict

Introduction

There is little dispute that inter-parental abuse and negative conflict styles in the marital relationship have adverse sequelae for children and adolescents. Chronic conflict between parents has been linked to a host of negative outcomes for children, such as maladaptive cognitive and social development, delinquency, and aggression in peer relationships (Davies & Cummings, 1994; Fosco & Grych, 2008; Wierson, Forehand, &
McCombs, 1988). Hostility and aggression between mother and father has also been linked with negative outcomes in adolescence, such as lower self esteem, internalizing and externalizing problems, poor social skills, and adolescent partner aggression (Allen, Hauser, O’Connor, Bell, & Eickholt, 1996; Kitzmann, Gaylord, Holt, & Kenny, 2003; Moretti, Obsuth, Odgers, & Reebye, 2006; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). Research shows that adolescents who witness violence between their parents are more likely to engage in aggressive acts (Moretti et al., 2006), and boys exposed to aggressive inter-parental conflict are more likely to judge aggression as acceptable within romantic relationships (Kinsfogel & Grych, 2004). These research findings suggest that adolescents often use their parents as models for their own behavior in various relationship contexts, consistent with Bandura’s (1977) Social Learning Theory.

In addition to the witnessing of parental conflict, the parent–child relationship also appears to be a mechanism through which parental aggression is linked to important qualities of offspring friendships and romantic relationships. For example, offspring aggressed upon by their parents are more likely to seek out deviant peers and are more likely to bully others within their peer group (Dishion, Andrews, & Crosby, 1995; Shields & Cicchetti, 2001; Wolfe, Scott, Wekerle, & Pittman, 2001). Reese-Weber and Bartle-Haring (1998) found that adolescents frequently used the same conflict style in arguments with a romantic partner as they used in arguments with their parents. Thus it seems that both modeling and socialization may serve as potential mechanisms by which inter-parental conflict tactics lead to the development of children’s own conflict styles in peer and romantic relationships.

Though aggressive marital conflict has consistently predicted negative outcomes for adolescents, some studies suggest that different types of conflict styles lead to very different psychosocial outcomes for offspring. Davies and Cummings (1994) proposed an emotional security hypothesis which characterizes different inter-parental conflict tactics in terms of how they might affect children’s security about the future stability of their parents’ relationships. Using the emotional security hypothesis, Goeke-Morey, Cummings, and Harold (2003) classified parental conflict tactics as either constructive or destructive, according to children’s immediate emotional responses to video representations of strangers in a hypothetical argument situation. Further, a hostile argument style between parents has been found to be more closely linked with adolescent problem behaviors than the frequency of argument (Buehler, Krishnakumar, & Stone, 1998). These findings suggest that what matters is not simply that an argument occurred, but how it is handled by the parents (Du Rocher Schudlich & Cummings, 2003).

More recently, researchers have begun examining the association between parents’ use of constructive conflict tactics and psychosocial outcomes among children. Cummings, Goeke-Morey, and Papp (2004) found that in the short term, destructive inter-parental conflict tactics predicted increased aggression in children whereas constructive tactics were associated with decreased aggressive behavior. Constructive conflict tactics have also been linked with lower levels of internalizing symptoms in children (Du Rocher Schudlich & Cummings, 2003). With the exception of these studies, little research has been done on constructive inter-parental conflict tactics, and virtually none have considered long-term implications of such constructive strategies for the social development of adolescent offspring.

One specific facet of constructive inter-parental conflict that is gaining increasing empirical attention is that of autonomy negotiations within family relationships. The family unit often sets the foundation by which adolescents learn to assert their autonomy.
and individuality while still maintaining connections to those around them. Similar to more destructive inter-parental conflict tactics, family autonomy negotiations may influence the adolescent’s own autonomy negotiation styles via different mechanisms; the adolescents may witness autonomy promoting, inter-parental conflict negotiation, or they may engage directly in parent–adolescent conflict.

Regardless of the exact mechanism by which autonomy processes are transmitted across generations, negotiating this balance between autonomy and relatedness successfully often has implications for adolescent psychosocial adjustment, as well as adolescents’ own intimate relationships over time. These autonomy negotiations are understood to be an integral developmental task in the adolescent years (Allen, Hauser, Bell, & O’Connor, 1994). In fact, failures to negotiate autonomy and relatedness successfully in the parent–adolescent context have been linked to adolescent internalizing and externalizing symptoms (Allen, Hauser, Eickholt, Bell, & O’Connor, 1994; Allen, Hauser, O’Connor, & Bell, 2002; Bender et al., 2007; Fauber, Forehand, Thomas, & Wierson, 1990; Loeber & Dishion, 1983).

Autonomy and relatedness negotiations in the context of disagreement have been measured and conceptualized in various ways, including self-report and observational methods. Self-reports of more adaptive, autonomy-promoting negotiation styles often assess perceptions of the degree to which one can use objective evidence to back up their point, without trying to use influential tactics that ‘personalize’ the argument, and thus undermine the other’s autonomy. Autonomy processes are measured quite similarly in the context of observational data, yet this methodology often provides a richer portrayal of such conflict negotiations at work. Autonomy promoting has been measured by the degree to which one utilizes objective reasoning and confident tone to support one’s position in the context of a disagreement. Behaviors that are autonomy undermining are often measured by the use of pressuring behaviors, lack of objective reasoning to support one’s position, and over-personalizing statements as exhibited by one individual toward a close other in the context of a disagreement. Further, behaviors that undermine relatedness include the use of rude and hostile remarks whereas behaviors that promote relatedness include higher levels of warmth, collaboration, and validation as exhibited in a dyadic disagreement (Allen et al., 2000). Such processes are often assessed similarly across parent–child, peer, and romantic relationships, as successful autonomy-relatedness negotiation appears to be a marker of healthier functioning across relationship contexts.

Further, when investigating autonomy-negotiation processes in peer or parental contexts, it is often useful to consider how such processes manifest at the dyadic rather than individual level. This is because autonomy negotiations are often transactional in nature, in that when one adolescent exhibits rudeness or hostility during conflict, this may influence their peer to directly respond in kind and/or respond with similarly pressuring behaviors in future relationships. In fact, one recent study found that adolescents whose best friends were observed engaging in pressuring behavior during disagreement were more likely to exhibit relational aggression in their romantic relationships over time (Schad, Szwedo, Antonishak, Hare, & Allen, 2008). These findings also highlighted the particular importance of the negative influence of the best friend, as compared to the influence of the larger peer network, highlighting the need to closely assess both adolescent and close peer dynamics when conducting research on autonomy negotiations.

Further, parent–child displays of autonomy and relatedness have been specifically linked to greater autonomy and connectedness in the children’s peer and romantic
relationships, suggesting continuity of autonomy processes across relationship contexts (Smetana & Gettman, 2006; Taradash, Connolly, Pepler, Craig, & Costa, 2001). Maternal use of reasoning (one indicator of autonomy-promoting behavior) has been positively associated with children’s own constructive conflict negotiation with friends (Herrera & Dunn, 1997). Unfortunately, less research has examined how more autonomous inter-parental conflict relates to specific qualities of adolescent romantic relationships over time. The inter-parental exchange seems to be a natural dyadic context by which adolescents may learn more (or less) adaptive ways to assert their individuality while maintaining ties to close others, particularly in the context of an affectively charged disagreement. However, to the best of our knowledge, no research to date has examined the long-term relationships between more adaptive marital conflict styles and more adaptive conflict management in offspring peer and dating relationships. Further, few studies have included paternal perceptions of inter-parental conflict as the majority of studies on family processes exclusively utilize maternal reports.

When examining potential influences of autonomy negotiation and adolescent relationships from a developmental perspective, it is important to consider the role of different peer contexts over time. The majority of extant investigations have considered joint peer and family influences on subsequent pathology in adolescence (see Beyers & Seiffge-Krenke, 2007; Dishion, Patterson, Stoolmiller, & Skinner, 1991; Linder & Collins, 2005; Shortt, Capaldi, Dishion, Bank, & Owen, 2003). However, few longitudinal studies have examined the role of earlier peer and romantic influences on future romantic relationship qualities during the transition to adulthood despite the fact that romantic involvement becomes an increasingly central developmental task during this period (Beyers & Seiffge-Krenke, 2007).

In sum, the current study focuses on the perceptions of both mother and fathers’ autonomy-promoting conflict negotiation styles and the association of these styles with observed adolescent peer and romantic relationship conflict negotiation and self-reported romantic relationship quality across a span of eight years—from early adolescence into emergent adulthood. We utilized observations of both target adolescent and peer autonomy and relatedness promoting behavior as well as adolescent and romantic partner autonomy-undermining behavior across several time points in order to more closely capture autonomy negotiations at the dyadic level. More specifically, this study evaluated the following hypotheses: Firstly, it was hypothesized that high levels of inter-parental reasoning during conflict would predict higher levels of autonomy and relatedness promoting behaviors in observed conflict between adolescents and their same gender peers one year later at age of 14. Further, it was hypothesized that inter-parental reasoning would predict lower levels of autonomy-undermining behaviors between adolescents and romantic partners in observed conflict five years later at age of 18. Additionally, it was hypothesized that inter-parental reasoning would predict more adaptive romantic relationship qualities in adolescents’ own intimate relationships seven years later at age of 20. Lastly, possible mediating relationships were examined. Specifically, possible explanatory pathways from inter-parental conflict to later adolescent romantic relationship qualities via early adolescent peer relations were tested. To address the confounds associated with social desirability effects and bias often found with single reporter, self-report paper and pencil measures, this study employed a prospective, multi-method, multi-informant design, utilizing information from adolescents, their parents, peers, and romantic partners.
Method

Participants

This report is drawn from a larger longitudinal investigation of adolescent psychosocial functioning in the context of family and peer relationships. The larger study included 184 seventh- and eighth-graders assessed annually for the past 10 years. From this larger sample, the current study focused upon 133 adolescents (42% males and 58% females) whose parents were in marital or long-term committed relationships at time 1. The sample was racially/ethnically and socioeconomically diverse: 66% of participants identified themselves as Caucasian, 22% as African American, and 12% as being from other or mixed ethnic groups. Parents reported a median family income in the $40 000 to $59 999 range (11% of the sample reported annual family income less than $20 000, and 42% reported annual family income greater than $60 000).

At time 1, data used were obtained from both mothers and fathers of the target adolescents (M age of adolescent at time 1 = 13.33, SD = .62). At time 2, data were obtained from adolescents (M age at time 2 = 14.23, SD = .78) and their peers (M age at time 2 = 14.48, SD = .89). At time 3 of the current investigation, data were obtained from adolescents (M age at time 3 = 18.33, SD = 1.28) and their romantic partners of at least two months duration (M age at time 3 = 19.33, SD = 3.17). Romantic relationships at time 3 ranged in duration from approximately two months to 64 months in duration (M = 15.33, SD = 13.89). At time 4, data were obtained from adolescents (M age = 20.73, SD = .97) and their romantic partners of at least two months (M age = 22.27, SD = 3.55), 32% of whom were the same romantic partners as in time 3. Romantic relationships at time 4 ranged in duration from approximately two months to 96.24 months in duration (M = 20.72, SD = 20.71).

Adolescents and their parents were initially recruited for the larger longitudinal investigation from the seventh and eighth grades at a public middle school drawing from suburban and urban populations in the southeastern USA. An initial mailing to parents of students in the relevant grades in the school gave them the opportunity to opt out of any further contact with the study. Only 2% of parents stated they did not want the study to contact them further about the opportunity to participate. Of all students eligible for participation, 63% agreed to participate either as target participants or as peers providing collateral information. The full sample of 184 appeared generally comparable to the overall population of the school in terms of racial/ethnic composition (37% non-white in sample vs. approximately 40% non-white in school) and socioeconomic status (mean household income = $44 900 in sample vs. $48 000 for community at large). The adolescents provided informed assent, and their parents provided informed consent before each interview session. The same active, informed assent/consent procedures were also used for collateral peers, romantic partners, and their parents. Interviews took place in private offices within a university academic building. Parents, adolescents, and peers were all paid for their participation.

Procedure

In the initial introduction to the study and throughout all sessions, confidentiality was assured to all participants, and adolescents were told that their parents would not be informed of any of the answers they provided. Participants’ data were protected by a Confidentiality Certificate issued by the US Department of Health and Human
Services, which further protects information from subpoena by federal, state, and local courts. If necessary, transportation and childcare were provided to participants.

At time 1, our subsample of 133 parents of the target adolescents completed measures on their inter-parental conflict strategies. At time 2 follow-up, 89% of the total sample of 133 target adolescents (N = 118) participated in observed conflict interactions with their peers. T-tests revealed that families of adolescents who participated in time 2 with a close peer reported a significantly higher household income than those adolescents who did not participate at time 2. There were no other significant differences found between those adolescents who participated at time 2 and those who did not participate at time 2 on demographic or primary predictor variables. At time 3, 42% of the adolescents in the original sample of 133 (N = 56) were in a romantic relationship of at least two-month duration and participated in an observed conflict task with their romantic partners. T-tests revealed that families of adolescents who participated in time 3 with a romantic partner reported a significantly lower household income at baseline than families of adolescents who did not participate in time 3. There were no other significant differences found between those adolescents who participated at time 3 and those who did not participate on demographic or primary predictor variables. At time 4, 57% of the adolescents in the original sample of 133 (N = 76) completed measures of relationship functioning with their romantic partners. T-tests revealed that those adolescents who participated at time 4 with a romantic partner were more likely to be female than those who did not participate. Otherwise, no differences were observed among demographic or primary predictor measures.

Measures

Inter-parental Conflict Tactics. Mothers and fathers reported on their own and their partners’ use of reasoning tactics during inter-parental arguments using the three-item reasoning subscale of the conflict tactics scale (Straus, 1979). Parents rated how often they and their partners had engaged in certain behaviors in the context of inter-parental conflict. The measure was on a 7-point Likert scale, with responses ranging from 1 (never) to 7 (more than 20 times). Items include calm discussion, backing up arguments with information, and bringing in someone else to help resolve problems. Mother self-report and partner report about mother subscales and father self-report and partner report about father subscales were combined for a total sum scale of inter-parental reasoning, for the purposes of the current study. Before self- and partner-report of inter-parental reasoning were aggregated, correlation analyses were run to assess the relation between the four constructs. Mother self-report of reasoning was correlated with partner report of mom reasoning (.22*), father self-report (.18+), and mother report of father reasoning (.81**). Father self-report of reasoning was correlated with mother report of father reasoning (.31**) and father report of maternal reasoning (.79***). Mother report of father’s reasoning was correlated with father’s report of maternal reasoning (.28**). Cronbach’s alpha for this summary scale was .69, which indicated acceptable internal consistency.

Inter-parental Physical Aggression. Mothers and fathers reported on their own and their partners’ use of physically aggressive conflict tactics during inter-parental arguments using the 12-item physical assault subscale of the conflict tactics scale (Straus, 1979). Self- and partner-report subscales assessing inter-parental physical aggression
were combined for analyses in the current study. Responses ranged from 1 (never) to 7 (more than 20 times). Parents rated how often their partners and themselves ever exhibited certain physically violent argument behaviors. Items ask whether the partners pushed, grabbed, shoved, slapped, kicked, bit, hit, choked, beat up, threatened, or used a weapon during arguments. Mother self-report and partner report about mother’s aggression and father self-report and partner report about father’s aggression were combined for a total sum scale of inter-parental physical aggression for the purposes of the current study. Before self- and partner-report of inter-parental aggression were aggregated, correlation analyses were run to assess the relation between the four constructs. Mother self-report of aggression was correlated with partner-report of mom aggression (.26**), and mother report of father aggression (.36***). Mother self-report of aggression was not significantly correlated with maternal report of father’s aggression (.16). Father self-report of aggression was correlated with mother report of father aggression (.47***) and father report of maternal aggression (.56***). Mother report of father’s aggression was correlated with father’s report of maternal aggression (.20*). Overall, Cronbach’s alpha for this subscale was .71, which indicated acceptable internal consistency.

Adolescent and Peer Autonomy/Relatedness. Each adolescent–close friend dyad participated in an 8-min videotaped task in which they were presented with a hypothetical dilemma that involved deciding which seven out of a possible 12 fictional patients with a rare disease should be selected for a limited amount of antidote, which was based on the sinking-ship dilemma (Pfieffer & Jones, 1974). Adolescents and their close friends first made their decisions separately, and then the dyad was brought together in a revealed differences paradigm so that they could compare their answers (Strodtbeck, 1951). They were then asked to try to come up with a consensus list of seven patients. The autonomy-relatedness coding system for peer interactions was used to code these interactions (Allen, Porter, & McFarland, 2001). This coding system is an adaptation of the autonomy and relatedness (AR) coding system (Allen et al., 2000). Autonomy/relatedness-promoting codes were utilized for the current analyses; codes for promoting autonomy were based on participants’ reasoning abilities and confidence during the argument, and promoting relatedness codes were based on levels of collaboration and warmth/engagement exhibited by adolescents and peers during the task. The only code utilized in the current study that was modified from the original AR coding system was that of the positive autonomy code—displays of reasoning. This modification was believed to yield a more valid overall picture of the degree to which reasoning was employed as part of the disagreement.

Codes were rated individually for peers and adolescents, and scores were later averaged across the dyads for analyses in the current study. The intra-class correlation coefficient for this measure was .82, which indicated good reliability.

Adolescent and Romantic Partner Undermining Autonomy/Relatedness. Adolescents and their romantic partners participated in a conflict interaction task (i.e., deciding what characters to pick to participate in a hypothetical reality show). After making their decisions separately, adolescents and partners were brought together, told of one another’s decisions, and then engaged in an 8-min videotaped interaction task during which they attempted to resolve their areas of disagreement. The adolescent and partner’s use of autonomy and relatedness during the videotaped observation were assessed using a modified version of the original AR coding system, referred to
as the Autonomy-Relatedness Coding Manual for Adolescent Romantic Partner Dyads (Allen et al., 2000, 2007). This manual was revised to more closely address the dynamics of romantic as opposed to same gender nonromantic peer interactions. Dimensions for undermining autonomy behaviors were utilized for the present study; codes for undermining autonomy were assessed based on the participant’s use of rudeness, over-personalizing, and pressuring tactics during the argument. Codes were rated individually for partners and adolescents, and autonomy undermining scores were later averaged across the dyads for analyses in the current study. The intra-class correlation coefficient for this measure was .76, which indicated good reliability.

Positive Romantic Relationship Qualities. Romantic partners and adolescents rated levels of affection and caring in their relationship using the affection subscale of the network of relationships inventory (Furman & Buhrmester, 1985). The scale contains three items, with responses ranging from 1 (little or none) to 5 (the most). Teen and partner reports of affection were averaged in order to obtain a measure of dyadic affection. In addition, partners and teens rated their level of satisfaction in their current relationship using the relationship assessment scale (RAS; Hendrick, Dicke, & Hendrick, 1998). The scale contains seven items, with responses ranging from 1 (not at all) to 5 (extremely well). Similarly, teen and partner reports of satisfaction were averaged in order to obtain a measure of dyadic satisfaction. Because the two scales assessed similar constructs and were significantly correlated, we standardized each variable and summed them to capture a more global measure of positive relationship quality. Cronbach’s alpha for our new 10-item subscale was .75, which indicated good internal consistency.

Results

To best address any potential biases in longitudinal analyses, full information maximum likelihood (FIML) methods were used with analyses, including all variables that were linked to future missing data (i.e., where data were not missing completely at random) (Muthén & Muthén, 1998–2006). Because these procedures have been found to yield the least biased estimates when all available data are used for longitudinal analyses (vs. listwise deletion of missing data) (Arbuckle, 1996; Enders, 2001; Raykov, 2005), the full sample of adolescents whose parents filled out measures in time 1 were utilized for these analyses. This full sample thus provides the best possible variance/covariance estimates and was least likely to be biased by missing data. FIML analyses do not impute or fill in missing data, nor enhance p values by inflating sample degrees of freedom. Alternative longitudinal analyses using just those adolescents without missing data (i.e., list-wise deletion) yielded results that were substantially identical to those reported below.

Preliminary Analyses

Table 1 presents means, standard deviations, and the results of simple univariate correlations among the primary variables of interest and demographic variables in the study.

As can be seen in Table 1, income is significantly correlated with inter-parental reasoning, such that higher-income parents have more reasoned inter-parental conflict...
Table 1. Means, Standard Deviations, and Correlations among Demographic, Predictor, and Outcome Variables

<table>
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<tr>
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<th>N</th>
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<tbody>
<tr>
<td>1. Inter-parental reasoning (Adolescent age 13)</td>
<td>133</td>
<td>7.68</td>
<td>1.30</td>
<td>-.22**</td>
<td>.28**</td>
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<td>.22*</td>
<td>-.12</td>
<td>.19*</td>
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<td>2. Inter-parental physical aggression (Adolescent age 13)</td>
<td>133</td>
<td>11.94</td>
<td>1.37</td>
<td>—</td>
<td>-.13</td>
<td>.31*</td>
<td>.03</td>
<td>.01</td>
<td>-.17*</td>
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<tr>
<td>3. Adolescent-peer autonomy &amp; relatedness promotion (Adolescent age 14)</td>
<td>118</td>
<td>2.38</td>
<td>.46</td>
<td>—</td>
<td>—</td>
<td>-.30*</td>
<td>-.11</td>
<td>-.01</td>
<td>.15*</td>
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<td>4. Adolescent-partner autonomy undermining (Adolescent age 18)</td>
<td>56</td>
<td>.95</td>
<td>.53</td>
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<td>—</td>
<td>—</td>
<td>-.10</td>
<td>.05</td>
<td>-.23*</td>
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<td>5. Romantic relationship quality (Adolescent age 20)</td>
<td>76</td>
<td>22.31</td>
<td>2.11</td>
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<td>—</td>
<td>—</td>
<td>—</td>
<td>.02</td>
<td>-.02</td>
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<td>6. Gender</td>
<td>—</td>
<td>—</td>
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<td>7. Income</td>
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Note: + p < .10, * p < .05, ** p < .01.
negotiations. No significant correlations between gender and the variables of interest were found. Income and gender were included in all regression analyses, and possible moderating effects for gender and income were examined. Analyses revealed no statistically significant moderator effects of income or adolescent gender for the relationship between inter-parental reasoning and the three adolescent outcomes studied.

Primary Analyses

All analyses were tested using Mplus Version 5.0 (Muthén & Muthén, 1998–2006). We proposed and tested a developmental model in which inter-parental reasoning used during conflict in early adolescence would predict more adaptive conflict negotiation between offspring and same gender peers at age of 14, more adaptive conflict negotiation with romantic partners at age of 18, and positive romantic qualities for these offspring in early adulthood. Further, we sought to gain clarity as to whether inter-parental reasoning was the primary predictor of the quality of subsequent offspring’s peer and romantic relationships in our sample, or whether later romantic outcomes were more consistently predicted by same-gender peer conflict negotiations. We also tested a mediating model that investigated whether inter-parental reasoning would predict late adolescent romantic conflict negotiations via early adolescent peer conflict negotiation tactics. Finally, we tested whether late adolescent romantic conflict negotiations would predict positive relationship quality in romantic relationships at age of 20.

Model Predicting Peer and Romantic Relationship Qualities over Time

Path analyses were fitted to investigate the proposed developmental model (see Figure 1). Paths were specified from inter-parental reasoning at adolescent age of 13 to autonomy and relatedness promoting behaviors with peers at age of 14, undermining autonomy behaviors with partners at age of 18, and positive romantic relationship quality at age of 20. Because the path model examined was fully saturated, the focus in examining the model is not upon fit statistics (because the model is a perfect fit to the data by definition) but rather on the significance of the individual paths within the model. The model also specified a path from autonomy and relatedness promoting behaviors with peers at age of 14 to autonomy-undermining behaviors with partners at age of 18. Further, a path was specified from autonomy-undermining behaviors with romantic partners to positive romantic relationship quality at age of 20. Demographic variables (e.g., gender and family income) were also controlled for by specifying paths to all outcomes examined. Additionally, when inter-parental reasoning was examined as a predictor, inter-parental physical aggression was controlled for, in order to determine whether reasoning was predictive of offspring relationship qualities above and beyond inter-parental physical aggression. Figure 1 shows the fully saturated path model with standardized path coefficients for all significant and non-significant paths.

Results indicated that inter-parental reasoning at adolescent age of 13 predicted greater autonomy and relatedness during observed conflict negotiations between adolescents and their close peers at age of 14 ($\beta = .23, p < .01$). Further, inter-parental reasoning predicted lower levels of observed autonomy-undermining behaviors between adolescents and their romantic partners five years later ($\beta = -.34, p < .01$). Inter-parental reasoning predicted higher levels of positive romantic relationship
quality seven years later, as adolescents entered early adulthood ($\beta = .31, p < .05$). No direct relationship was detected between observed peer interactions at age of 14 and observed romantic partner interactions at age of 18, nor was a significant relationship detected between observed romantic partner interactions at age of 18 and positive romantic relationship qualities at age of 20. Inter-parental physical aggression was not significantly predictive of any of the three adolescent outcomes examined. Finally, peer autonomy and relatedness did not mediate the association between inter-parental conflict and later romantic relationship dynamics. Further, autonomy-undermining behaviors in the romantic context did not mediate the association between inter-parental conflict and late adolescent romantic relationship quality.

**Post Hoc Analyses**

After testing our primary hypotheses, we sought to examine whether maternal or paternal reasoning were individually predictive of the above adolescent relationship outcomes. We retested the above model by first examining the relationship between maternal reasoning toward father in predicting peer and romantic relationship qualities. As with the primary analyses, demographic effects and maternal physical aggression toward father were controlled. Results indicated that maternal reasoning was predictive of higher levels of adolescent-peer autonomy-relatedness promotion at age of 14, and greater positive relationship quality at age of 20 ($\beta = .39, p < .01$ and $\beta = .31, p < .01$, respectively). Further, we tested whether paternal reasoning alone was
predictive of adolescent peer and romantic relationship qualities. Results indicated that paternal reasoning was predictive of all three of the adolescent outcomes examined. Paternal reasoning was predictive of higher levels of adolescent autonomy-relatedness promoting behaviors with peers at age of 14 ($\beta = .20, p < .05$), lower levels of adolescent autonomy-undermining behaviors with romantic partners at age of 18 ($\beta = -.33, p < .01$), and greater positive romantic relationship quality at age of 20 ($\beta = .28, p < .05$).

Lastly, we examined whether maternal or paternal reasoning was uniquely predictive of adolescent relationship qualities above and beyond the other parent’s individual reasoning score. Maternal or paternal reasoning were not significant unique predictors of the adolescent outcomes, likely due to the fact that maternal and paternal reasoning were highly correlated ($r = .70, p < .0001$). However, after controlling for paternal reasoning, the relationship between maternal reasoning and greater positive romantic relationship quality in early adulthood approached significance ($\beta = .31, p < .10$).

**Discussion**

As hypothesized, inter-parental reasoning utilized during marital conflict at adolescent age of 13 predicted more frequent autonomy-promoting behaviors and relatedness between adolescents and their peers at age of 14. Further, inter-parental reasoning was predictive of lower levels of autonomy-undermining behaviors between adolescents and romantic partners at age of 18. Inter-parental reasoning was also predictive of greater positive relationship quality (i.e., increased romantic relationship satisfaction and affection) in early adulthood. No associations were found between early peer and later romantic relationship qualities, suggesting that the predictions of future romantic relationship qualities from inter-parental reasoning was direct and not mediated via intervening peer relationships. Lastly, inter-parental reasoning predicted these adolescent outcomes above and beyond measures of inter-parental physical aggression, and inter-parental physical aggression was not uniquely, significantly correlated with the adolescent outcomes examined after controlling for demographic variables. These results are each considered in detail below.

The observed prediction of adolescent and peer use of autonomy and relatedness from inter-parental reasoning was consistent with previous findings that parents who use more constructive conflict tactics have children and adolescents that exhibit more adaptive conflict negotiation strategies with peers (Cummings et al., 2004). Although these longitudinal predictions cannot establish causal pathways, they are consistent with both modeling and socialization theories that suggest that adolescents may learn about calm reasoning and discussion in part by watching their parents. Findings are also consistent with an attachment theory perspective, which suggests that adolescents may develop working models of attachment, or internalized representations and expectations of themselves and their relationship dynamics based on direct experience with family of origin dynamics (Bowlby, 1988). Such working models, or relationship representations, are often carried forward in adolescents’ own behaviors and emotions in close relationships over time (Ainsworth & Bowlby, 1991). Lastly, it is important to note that inter-parental reasoning was predictive of greater autonomy and relatedness-promoting behaviors by adolescents and their peers. The finding that inter-parental reasoning predicted higher autonomy relatedness on a dyadic level raises the possibility that adolescents whose parents are more autonomous and reasoned during conflict may select peers who are also able to negotiate conflict more adaptively.
Inter-parental reasoning also predicted lower levels of autonomy-undermining behavior between adolescents and romantic partners in late adolescence. This is consistent with the perspective that adolescents may observe their parents’ interactions and take cues for handling conflicts with their own romantic partners. Further, adolescents may develop representations of how to negotiate conflict based on their family of origin, and may replicate such patterns in their own future intimate relationships. Specific associations found between autonomy in the family of origin and autonomy processes in subsequent offspring romantic relationships are consistent with previous research (Taradash et al., 2001). Adolescents who observe more reasoned strategies between parents may be less likely to resort to more autonomy-undermining behaviors in the context of their own intimate conflict, and therefore engage in fewer pressuring, avoidant, or over-personalizing tactics. In addition, the finding of associations between inter-parental reasoning and lower levels of autonomy-undermining processes within the romantic dyad suggests that adolescents growing up observing parents who behave reasonably during conflict may be less likely to seek out (or be tolerant of) partners who display behaviors which undermine adolescents’ autonomy during conflict. From another perspective, adolescents whose parents used less reasoning during conflict were more likely to engage in more pressuring, avoidant, and/or over-personalizing tactics in subsequent conflict negotiations with their own romantic partners. It is possible that other less constructive conflict tactics take the place of reasoning in inter-parental arguments, and adolescents then imitate these maladaptive tactics themselves (Gray & Steinberg, 1999).

Inter-parental reasoning during conflict also predicted higher levels of romantic relationship satisfaction and affection in early adulthood. This finding compliments recent findings that parents’ marital satisfaction is predictive of adolescents’ own satisfaction in late adolescent romantic relationships (Hare, Miga, & Allen, 2009). One potential explanation for this association, consistent with both social learning theory and the emotional security hypothesis, is that adolescents develop healthier representations of relationships as a result of observing more reasoned conflict negotiation between their parents, and subsequently are better able to develop romantic relationships that are both affectionate and satisfying. Consistent with the emotional security hypothesis in particular, developing healthier relationship representations may help offspring regulate the ways in which they subsequently receive, interpret, and respond to conflict in intimate relationships (Davies & Cummings, 1994). Another consideration is that when adolescents witness their parents negotiating conflict in a more autonomous manner, they may feel more efficacious in engaging in more adaptive conflict tactics themselves. As a result of having a greater sense of efficacy during conflict, these adolescents may ultimately experience more satisfaction in their relationships. Lastly, it is worth considering that higher levels of autonomous inter-parental conflict may be representative of a more autonomous parental approach to negotiating all relationships, including parent–child relationships. Such encouragement of autonomy and connection within the parent–child context may help to facilitate an increased sense of esteem, social competence, and higher quality romantic relationships among offspring (Collins & Sroufe, 1999; Connolly & Goldberg, 1999). This implication, while worthy of mention, warrants further exploration and cannot be addressed by the current data. Finally, autonomy-undermining behavior was not predictive of lower romantic relationship quality two years later. One possible explanation for this is that adolescents may not have been dating the same partner when they were
assessed upon follow-up in young adulthood. Therefore, this suggests that perhaps the autonomy-undermining behaviors that manifest between adolescents and their partners in late adolescence do not necessarily generalize to romantic relationships with different partners over time in the current study.

Inter-parental perpetration of aggression was not a significant predictor of adolescent relationship outcomes after controlling for demographic effects whereas inter-parental use of reasoning tactics was a significant predictor of more adaptive adolescent and romantic partner conflict strategies. This finding is important because it suggests that more reasoned conflict tactics, which have not been studied thoroughly to date, may explain behaviors and attitudes over and above the negative behavioral constructs that have garnered the greatest attention in marital and parenting research to date. When inter-parental physical aggression was included in the model with inter-parental reasoning, inter-parental reasoning maintained its ability to predict all adolescent outcomes explored in this study, suggesting that inter-parental use of reasoning may have its own unique predictive effect that is worthy of further exploration in future research. In addition to reiterating the potential importance of more adaptive relationship characteristics, this finding also suggests that although reasoning and physical aggression were significantly correlated in the current study, inter-parental reasoning uniquely predicts adolescent outcomes and is not merely the inverse of physical aggression during conflict.

An implication of this finding is that future research may profitably examine more adaptive family of origin predictors of critical adolescent outcomes. Consistent with Seligman’s positive psychology perspective, the current study found that a focus on more adaptive behaviors explained outcomes over and above a simple search for continuity among maladaptive attitudes and behaviors (Seligman & Csikszentmihalyi, 2000). Although the many studies on the dangers of family violence in high-risk samples have been helpful in changing the way parenting is viewed, empirical investigations have not given a great deal of attention to many of the more adaptive behaviors in which parents may engage. A few notable exceptions include the work by Goodman, Barfoot, Frye, and Belli (1999), which investigated the links between constructive parent conflict tactics and adaptive offspring coping styles, and a recent investigation by McCoy, Cummings, and Davies (2009), which found significant links between constructive parental conflict and offspring emotional security and prosocial behavior over time. McCoy et al. (2009) utilize a ‘process-oriented approach’ that emphasizes the importance of investigating specific mechanisms that lead to adaptive psychosocial outcomes for children over time rather than simply looking at basic links between inter-parental conflict and offspring outcomes. The community sample in the current study provides a useful pool for the exploration of how one particular mechanism-autonomy promotion and undermining behaviors- lead to specific qualities of peer and romantic relationships over time. Future research should continue to more closely examine other mechanisms through which parent conflict tactics may correlate positively with adaptive teen outcomes.

Another implication of this study is that both mothers and fathers appear as competent reporters of inter-parental interaction qualities. Given that fathers have received relatively less attention than mothers in studies of adolescent development (Phares & Compas, 1992), this study examined whether maternal and paternal reasoning were separately and individually predictive of the same adolescent outcomes as when maternal and paternal reasoning were combined into one construct. Post hoc analyses indicated that whereas maternal reasoning alone was predictive of peer autonomy and
relatedness in early adolescence and positive relationship quality in early adulthood, paternal reasoning alone was predictive of all three adolescent outcomes, including adolescent autonomy behaviors with their romantic partners. These findings suggest that both parents’ conflict styles may be valuable in predicting offspring conflict management tactics and relationship qualities.

Several limitations should be noted regarding these findings. Firstly, even longitudinal, multi-reporter, multi-method data such as were obtained in this study are not sufficient to establish causal processes. Although we discuss a number of potential explanations that are consistent with these data and existing theory, it also remains possible that other unmeasured factors may have produced the correlations observed. Further, due to the relatively small numbers of adolescents that participated in the follow-up observational task at time 3 with their romantic partners, a smaller proportion of individuals have complete data for all four waves, and power may have been insufficient to fully detect effects that were present. In addition, while utilizing a community sample is ideal for assessing behaviors within a broadly generalizable range, long-term implications of the parental conflict strategies may not generalize to at-risk samples. Future research might profitably explore the ways in which these findings generalize to at-risk samples. Further, while the use of observational assessments of adolescent peer and romantic relationship dynamics was the strength of the current study, inter-parental conflict data was assessed through self-report. Future investigations may benefit from gathering observational assessments of inter-parental reasoning in order to capture a potentially more ecologically valid representation of autonomous inter-parental conflict.

Finally, the current research findings have implications for child and family intervention and public policy. One recent intervention study found that teaching couples specific, adaptive behaviors to help them more constructively negotiate inter-parental conflict led to more adaptive child outcomes over time (Cummings, Faircloth, Mitchell, Cummings, & Schermerhorn, 2008). In keeping with the Cummings et al. (2008) treatment study, the current findings suggest that teaching families (and peers) skills to negotiate conflict in more adaptive, autonomous ways may be particularly useful in promoting healthy offspring peer and romantic relationship negotiations over time. Further, it may behoove clinicians to utilize more autonomy-promoting, reasoning-based strategies themselves when negotiating heated emotional discussions with couples and families. Offering families a model of conflict negotiation that is both high in warmth and autonomy will provide a framework for families to implement such adaptive conflict strategies at home, and help to foster greater psychosocial competence for adolescents as they begin to navigate the tasks of early adulthood.

References


