

## Chapter 5

### Parent-Child Relationships and Dyadic Friendship Experiences as Predictors for Behavior Problems in Early Adolescence

This chapter is based on  
Sentse, M., & Laird, R. D. (2009). Parent-child relationships and dyadic friendship  
experiences as predictors for behavior problems in early adolescence. Resubmitted to  
*Journal of Clinical Child and Adolescent Psychology*.

### **Abstract**

This study focused on associations between behavior problems and support and conflict in parent-child relationships and dyadic friendships in a sample of early adolescents (T2:  $n = 182$ ;  $M$  age 12.9). Support and conflict in the parent-child or friendship context were hypothesized to augment and moderate the effects of experiences in the other context. Perceived support and conflict with parents and friends were tested as predictors of rule-breaking behavior and depressed mood (T2) while controlling for stability in these behavior problems (T1). Results revealed that (1) parent-child relationship experiences explained more variance in adolescents' depressed mood than did friendship experiences; (2) depressed mood was the lowest among adolescents who experienced high levels of support in both relationship contexts, and; (3) positive associations between behavior problems and conflict in either relationship context were diminished by high levels of support in the other relationship context.

### Introduction

Having good relationships with significant others is of critical importance for development and mental health in childhood and later in life (Armsden & Greenberg, 1987; Tracy & Ainsworth, 1981). The quality of relationship with significant others can contribute positively or negatively to the realization of need-related goals in early adolescence, such as autonomy and the need to belong (Lindenberg, 2008). In turn, the facilitating or thwarting of goal realization can create both internalizing and externalizing behavior (Sentse, Lindenberg, Omvlee, Ormel, & Veenstra, in press). The affective nature of the parent-child relationship as indicated by levels of acceptance, supportiveness, rejection, and conflict, in particular, has been found to have implications for adolescent's socio-emotional and behavioral adjustment. Low levels of acceptance and support and high levels of rejection and conflict have been linked to higher levels of externalizing problems like aggression and rule-breaking behavior as well as to higher levels of internalizing problems such as depression and anxiety (Buehler & Gerard, 2002; Rohner & Britner, 2002; Rothbaum & Weisz, 1994). During late childhood and early adolescence, establishing and maintaining supportive friendships appears to have similar implications for adolescents' behavioral adjustment (Hartup, 1996). Although the individual importance of parents and friends has been established (Khaleque & Rohner, 2002; Rubin, Bukowski, & Parker, 2006), less is known about how experiences in the two relationship contexts work together or interact in relation to adolescents' behavior problems.

The present study thus examined the relative contribution of two affective experiences (i.e., support and conflict) in two types of dyadic relationships to the prediction of behavior problems in early adolescence. In addition, we were interested in two possible ways that experiences in the two relationship contexts may interact. On the one hand, experiences across the two relationship contexts may strengthen the individual effects of each relationship. That is, adolescents experiencing supportive relationships with both parents and friends may have fewer behavior problems than would be expected from the additive main effects of support in both relationship contexts individually. Likewise, adolescents experiencing highly conflictual relationships with both parents and friends may have higher levels of behavior problems than would be expected from the additive effects of conflict in both relationship contexts individually. On the other hand, positive experiences in one relationship context may buffer against negative experiences in the other

relationship context. In other words, having a highly supportive or low conflict relationship in one context may buffer against having an unsupportive or highly conflictual relationship in the other context. As such, only adolescents with poor parent-child *and* peer relationships would be expected to experience behavior problems as having one good relationship would be sufficient to avoid behavior problems.

### *The Relative Importance of Relationships with Parents and Friends*

We focus on support and conflict as key affective dimensions of parent-child relationships and friendships. The distinction between these two dimensions is important, because although support and conflict are modestly negatively correlated, experiencing low levels of support does not necessarily imply high levels of conflict, and low levels of conflict does not necessarily imply high levels of supportiveness. Previous research has found that perceived parental acceptance and supportiveness are related to higher self-esteem and social competence, and to lower rates of depression and behavior problems in adolescence (Kerns, Klepac, Cole, 1996; Robertson & Simons, 1989; Rhoner & Britner, 2002). Similarly, friendships characterized as high in social support, help, and acceptance have been associated with lower levels of internalizing and externalizing problems in both (early) childhood and adolescence (Cohen & Wills, 1985; Hartup, 1996; Kupersmidt & Coie 1990; Parker & Asher, 1993). Conversely, high levels of parent-child conflict and perceived parental rejection are associated with more aggression, hostility, and depression, and with a negative worldview (Buehler & Gerard, 2002; Khaleque & Rhoner, 2002; Sentse, Veenstra, Lindenberg, Verhulst, & Ormel, 2009). Likewise, conflict with friends is strongly associated with several forms of maladjustment in adolescence (Burk & Laursen, 2005). Although prior studies have shown that support from, and conflict with, parents and friends have great relevance for adolescents' behavioral adjustment researchers have rarely considered both relationship contexts simultaneously.

The first aim of this paper is to examine the relative importance of the affective experiences in dyadic relationships with parents and friends as predictors of behavior problems in early adolescence. Some (e.g., Bowlby, 1973) have argued that the relationship with the primary attachment figure is most important for mental health. Evidence attesting to the importance of high quality relationships with parents mainly comes from research focused on young children, but there is evidence that this influence remains strong in early adolescence (Steinberg, 2001). On the other hand, Harris (1995) argued

that relationships with friends gradually replace some of the main functions of the parent-child relationship toward early adolescence and that the peer context becomes more important than parent-child relationships during adolescence. Adolescents spend more time with their peers than with their parents and rely more on their peers for help solving problems (Agnew, 2003), suggesting that peers become the “socializing agents” during adolescence (Buehler, 2006; Fuligni & Eccles, 1993). Thus, early adolescence would appear to be an ideal developmental period to study the relative contributions of parent-child relationships and friendships.

Most of the research has focused on individual effects of parent-child or peer relationships, whereas analyzing additive (or incremental) effects of parent-child and peer relationships is necessary to compare the two relationship contexts in terms of importance or predictive power (see Criss, Shaw, Moilanen, Hitchings, & Ingoldsby, 2009). There are only a few studies focusing on the additive effects of parent and peer measures and many of them analyze data collected longitudinally from the same sample. Some (e.g., Lansford, Criss, Pettit, Dodge, & Bates, 2003) found that only the parent context was incrementally related to adolescent externalizing problems whereas others (e.g., Schwartz, Dodge, Pettit, & Bates, 2000) conclude that only the peer context is predictive. Yet other investigations found that both the parent and peer context were incrementally related to early adolescent externalizing behavior and social skills (Criss et al., 2009; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Gauze, Bukowski, Aquan-Assee, & Sippola, 1996) or internalizing problems (Rubin et al., 2004). Taken together, evidence on the relative importance of parents and friends is far from conclusive. Taking into account comparable affective dimensions of both relationship contexts simultaneously in the current study should provide key information on the relative contribution of parent-child relationships and friendships to the prediction of behavior problems in early adolescence.

### *The Interaction between Relationships with Parents and Friends*

The second aim of the current study is to examine whether affective experiences in one relationship context moderate associations between behavior problems and experiences in the other relationship context. For example, if friendships function similarly to relationships with parents (i.e., serving as sources of intimacy, support, and aid, Furman & Buhrmester, 1985), then one may expect that high quality friendships can buffer early adolescents from the anticipated negative effects of low quality parent-child

relationships (see also Criss et al., 2002; Patterson, Cohn, & Kao, 1989) and vice versa. Previous studies have provided evidence consistent with the former possibility although the studies encompass a wide range of family and peer characteristics. Researchers have found that friendship quantity or acceptance by the broader peer group can buffer the effects of experiencing some risky family environments. For example, having a reciprocal friendship buffered the risks associated with parental maltreatment among elementary school-aged children such that severe maltreatment was not associated with low self-esteem among children with one or more reciprocated friendship (Bolger, Patterson, & Kupersmidt, 1998). In a similar vein, peer acceptance and having a relatively large number of friends buffered the risk-effect of harsh discipline for externalizing problems among 5-year olds (Criss et al., 2002). Likewise, it was found that family adversity (e.g., early harsh discipline, maternal hostility) was linked with higher levels of peer victimization for 9-year old children with few friendships, but not for children with many friendships (Schwartz et al., 2000). Thus, there is evidence that positive peer relationship experiences can buffer children from the anticipated consequences of negative family experiences.

In addition to the studies documenting the moderating role of friendship quantity or acceptance by the broader peer group there are a few studies that examined the interaction between characteristics of dyadic friendships and the broader family environment. Supportive friendships buffered the concurrent effects of risky family environments, such that low family cohesion and adaptability were linked with lower levels of adolescents' social competence and global self-worth, but the associations were less strong among adolescents with supportive friendships (Gauze et al., 1996). In addition, Lansford et al. (2003) showed that more parental (as compared to adolescent or joint) decision-making was associated with more externalizing behavior for adolescents with low quality friendships, but the association between decision-making and externalizing behavior was less strong among adolescents with high quality friendships. The question remains, however, whether a high quality relationship with parents can buffer the potential negative ramifications of low quality friendships in adolescence, and whether comparable affective experiences in both relationship contexts are more powerful than the combined individual (incremental) effects. Also, it is unclear whether the moderating effects would be different for boys and girls. Girls place more emphasis on friendships than boys (Maccoby, 1998), and girls are more sensitive than boys to negative interpersonal communication and

depression in general (Hankin & Abrahamson, 2001; Hale, van der Valk, Engels, & Meeus, 2005; Nolen-Hoeksema & Girgus, 1994). These gender differences suggest that gender may interact with relationship experiences, but they do not directly suggest higher order interactions indicating gender differences in the moderating role of parent-child relationships and friendships. Previous research on the interaction between family and peer characteristics either did not test for gender differences (Bolger et al., 1998; Criss et al., 2009; Lansford et al., 2003) or did not find gender differences (Criss et al., 2002; Gauze et al., 1996). We therefore will test for gender differences on an exploratory basis.

The current study builds directly on two previous studies. In a cross-sectional study of early adolescents, Rubin et al. (2004) found that friendship quality buffers the impact of low perceived maternal support. Low maternal support was associated with more internalizing problems for early adolescent girls with low quality friendships, but not for girls with high quality friendships. In addition, low maternal support was more strongly related to lower social competence for early adolescent boys with low quality friendships than for boys with high quality friendships (Rubin et al., 2004). Our study extends this line of work by considering two affective dimensions of dyadic relationships with parents and friends and by testing for all possible interactions between the relationship experiences. We also build on a study that tested the simultaneous and moderating effects of parent and peer acceptance and rejection on problem behavior in early adolescence (Sentse, Lindenberg, Omvlee, Ormel, & Veenstra, in press). Sentse et al. (in press) found that the strong negative influence of parental rejection could be buffered by peer acceptance, such that parental rejection was less strongly related to both externalizing and internalizing problems for early adolescents who were more accepted by their peers as compared to those who were less accepted. Although this previous study provided evidence that experiences in the parent and peer context can moderate one another's effects, there were some limitations that can be overcome in the current study. First, in Sentse et al.'s (in press) study it was not possible to test the relative importance of parents and peers because the measures were not comparable. Assessments of parent-child relationship experiences relied on adolescents' perspectives whereas assessments of peer relationship experiences were based on peers' perspectives via sociometric methodology. In the current study, adolescents reported their perceptions of both the parent-child relationship and their dyadic friendships, thus tests of additive effects should give us a better idea of

the relative contribution of each relationship context. Second, the Sentse et al. (in press) study focused on classroom peer relations. Dyadic friendships, however, may be of greater importance with regard to their provision of intimacy, help, and support as compared to the larger peer group. Therefore, the present study focuses on adolescents' relationship with their current best friend instead of their acceptance within a larger peer group. Lastly, in Sentse et al.'s (in press) study, relationship experiences were assessed during late childhood (around age 11) and the outcome variables were assessed in early adolescence (around age 13.5). Children transitioned from elementary to secondary school in between assessments and a change of school can change peer contexts and friendships (see Veenstra et al., 2009). It would thus be more advantageous to assess experiences in relationships with parents and friends and adolescents' behavior problems following the transition into middle school while controlling for adolescents' behavior at an earlier time point. Hence, the current study focused on associations between perceived conflict and support in dyadic relationships with parents and friends and behavior problems in early adolescence following the transition into middle school while controlling for pre-transition behavior problems.

### *The Present Study*

To summarize, in the current study we will (1) test two affective experiences in dyadic relationships with parents and friends as potential additive predictors of externalizing (i.e., rule-breaking behavior) and internalizing (i.e., depressed mood) behavior problems; (2) test the hypothesis that experiences in one relationship context (whether positive or negative) will strengthen the association between comparable experiences in the other context and adolescents' behavior problems, such that supportive friendships will strengthen the effect of supportive parent-child relationships and vice versa, whereas conflictual friendships will strengthen the effect of conflictual parent-child relationships and vice versa; and (3) test the hypothesis that a positive experience in one relationship context can buffer the association between negative experiences in the other relationship context and behavior problems, such that supportive friendships may buffer the effect of conflictual parent-child relationships and vice versa. Because previous research either did not find or did not test for gender differences we included gender and interactions with gender in our analyses on an exploratory basis.

### Method

#### *Participants*

Mother-adolescent dyads ( $n = 218$ ) completed home interviews in the summer following the early adolescent's fifth grade school year (T1: Adolescent  $M$  age = 11 years, 11 months,  $Range = 10$  years, 7 months to 13 years, 9 months; Mother  $M$  age = 39.6 years,  $Range = 27$  to 66 years). The sample was 51% female and 73% of the adolescents lived in a two-parent home when the data were collected. 49.1% of the adolescents were European American, non-Hispanic, 47.2% were African American, 2.8% were Asian, and 1% was Hispanic. Mother education level varied with 2.8% not having completed high school, 10.1% having a high school diploma, 39.4% having attended college or technical school, 27.5% having a bachelor's degree, and 19.7% having a graduate degree. The demographic characteristics of the sample generally correspond to those of the community and schools from which they were recruited. Specifically, Census 2000 data show that 68% of the households in the community with 6-17 years old children were headed by married couples, and enrolment figures from the National Center for Educational Statistics indicate that the great majority of students in the schools are of European American (47.2%) or African American (49.6%) background.

The sample was re-interviewed one year later following the adolescents' first year in middle school. Eighty-four percent of the sample was retained ( $n = 182$ ) at the post-sixth grade (T2) interview. Attrition was primarily due to residential mobility. The retained sample was 51% female and 73% of the adolescents lived in a two-parent home. Of the adolescents, 48.6% were White, non-Hispanic, 45.7% were African-American, 3.3% were Asian, and 1% was Hispanic. Mother education level varied with 2.8% not having completed high school, 10.5% having a high school diploma, 37.0% having attended college or technical school, 29.8% having a bachelor's degree, and 19.9% having a graduate degree. Ongoing participants did not differ from drop-outs on any of the T1 behavior problem measures described in this report,  $t(216)s = .17$  to  $.85$ ,  $ps = .87$  to  $.40$ , gender,  $\chi^2(1) = .54$ ,  $p = .46$ , or ethnicity,  $\chi^2(2) = 4.32$ ,  $p = .12$ .

#### *Procedure*

Following institutional review board (IRB) and school administrator approval, participating families were recruited from 20 elementary schools

serving citizens of a mid-sized city in the southern United States. Information letters were distributed by research assistants in 5<sup>th</sup> grade classrooms during the spring of 2006 and 2007. Interested parents returned a postcard to the principal investigator (in 2006) or a form to the adolescents' school (in 2007) indicating their willingness to participate and were contacted to schedule a home interview. Postcards or forms were returned by 20% of the 5<sup>th</sup> grade students enrolled in the schools and interviews were completed with 94% of the families we contacted via telephone.

Home-based interviews were conducted with mothers and adolescents. Mothers and adolescents were provided an overview of the interview procedure before mothers provided consent and adolescents provided assent. Following the consent discussion, adolescents and mothers were interviewed in separate locations within the home. Interviewers read questions aloud and mothers and adolescents recorded their responses to the questions on an answer sheet. Participants were compensated \$25 and \$35 for participating in the T1 and T2 interviews, respectively.

### *Measures*

*Behavior problems.* Adolescents reported the frequency of their involvement in rule-breaking behavior using six items (e.g., "In the last month, how many times did you break a rule at school?") from Bosworth and Espelage's (1995) Teen Conflict Survey, assessing the frequency of rule-breaking behavior at home, school, and in the community during the last month of the school year. Each item was scored on a five-point scale from "never" (scored 0) to "7 or more times" (scored 4). The mean of the six items was computed to index adolescent-reported rule-breaking behavior ( $\alpha = .80$  at T1,  $\alpha = .85$  at T2). Parents also reported the rule-breaking behavior of their adolescents using a modified version of the same six items (e.g., "In the last month of school, how many times did your son or daughter break a rule at school?"). Parents responded using a 5-point modified frequency scale from "never" (scored 0) to "7 or more times" (scored 4). The mean of the six items was computed to index parent-reported rule-breaking behavior ( $\alpha = .77$  at T1,  $\alpha = .80$  at T2).

Adolescents reported on their depressed mood using the six-item (e.g., "In the last month, how often were you very sad?") Modified Depression Scale (Orpinas, 1993). Each item was scored on a five point scale from "never" (scored 0) to "always" (scored 4). The mean of the six items was computed to index adolescent-reported depressed mood ( $\alpha = .75$  at T1,  $\alpha = .74$  at T2).

Parents reported the depressed mood of their child on the same six items (e.g., "In the last month, how often was your son or daughter very sad?"), with the mean of the items computed to index parent-reported depressed mood ( $\alpha = .70$  at T1,  $\alpha = .75$  at T2).

Because the parent and adolescent reports are both valid and partly contain different information, meaning that they each hold different perspectives and have access to behavior across different contexts, we used the mean of the standardized parent and adolescent reports scores as measures of rule-breaking behavior and depressed mood in this study. Although parent and adolescent reports are only modestly correlated ( $r_s = .14$  to  $.30$ ), the reliabilities for the multi-informant scores based on a total of 12 items are comparable to, or even better than, those for the separate reports for *rule-breaking* behavior at T1 and T2 ( $\alpha = .78$  and  $\alpha = .85$ , respectively) and *depressed mood* at T1 and T2 ( $\alpha = .72$  and  $\alpha = .76$ , respectively). Previous research has shown that combining outcome measures reported by different informants is valid and reduces mono-informant inflation in associations (Criss et al., 2009; Sentse et al., in press).

*Parental-child relationship experiences.* Items used to measure parents' support (T2) were taken from the Children's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965; Schludermann & Schludermann, 1988). The validity of this measure has been found to be satisfactory (see Schaefer, 1965). Fourteen items from the parental acceptance subscale were used to measure support provided by parents. Adolescents reported how much these items reflect their mother's behavior on a 5-point scale from "not at all like her" to "a lot like her". An example item is "My mother tells me she loves me". The mean of the fourteen items was computed to index parental support ( $\alpha = .93$ ). A measure of parent-adolescent conflict (T2) was modeled on Robin and Foster's (1989) assessment and weights the amount of negative affect by the frequency of conflict across ten issues. Evidence of the discriminant and construct validity of this conflict measure was provided by Buehler and Gerard (2002). Five of Robin and Foster's forty-four original items were found to be the most frequent or intense sources of conflict during pilot testing (i.e., cleaning your room, talking back to parents, lying, volume on TV too loud, and getting in trouble at school) and conflict scores computed using the five-item subset were very strongly correlated with scores computed using the full 44-item assessment ( $r > .90$ ). To minimize the length of the interview, the five-item subset was combined with five items specifically developed to assess parent-child conflict regarding peer relationships and unsupervised time

(how time is spent with friends, free time spending, unsupervised time spending, TV shows that are being watched or music that is being listened to, and hanging out with friends that parents do not like) to better address the goals of the larger project for which these data were collected. For each item, adolescents reported the frequency of conversation during the past four weeks using a 3-point scale from "never" (coded 0) to "lots of times" (coded 2). For items that were discussed, adolescents also responded to a question assessing the anger expressed during the discussions using a 3-point scale from "calm" (coded 0) to "very angry" (coded 2). Following Robin and Foster's (1989) scoring procedure, the frequency and anger scores were multiplied for each item. A parent-adolescent *conflict* composite score was computed as the mean of the 10 items ( $\alpha = .73$ ). Higher conflict scores indicate more frequent and intense conflict.

*Friendship experiences.* Support and conflict with participants' current best friend were measured at T2 using selected items from the Friendship Quality Scale (FQS; Bukowski, Hoza, & Boivin, 1994). To minimize the length of the interview, the three highest loading items from each of the help, security, and closeness sub-scales were used to assess support provided by the best friend (e.g., "If other kids were bothering me, my friend would help me") and the four highest loading items from the conflict subscale were used to assess conflict with friends (e.g., "I can get into fights with my friend"). During the interviews, adolescents were told that the next set of items asked about their best friend. If an adolescent reported that they did not have a best friend, they were instructed to skip the questions. If an adolescent reported that they had multiple best friends, they were instructed to think about the "best of the best friends" when answering the questions. Only 1 participant skipped the best friend questions. Adolescents responded to the questions about their current best friend on a 5-point scale from "never" to "always". An index for friendship *support* was computed from the mean of the nine support items ( $\alpha = .91$ ) and an index of friendship *conflict* was computed as the mean of the four conflict items ( $\alpha = .73$ ).

### *Analyses*

Gender differences in the variables were examined using *t*-tests. Bivariate associations between all variables involved in the present study were tested using Pearson correlations. Multiple linear regression analyses were used to test the associations between relationships with parents and friends and behavior problems in early adolescence (T2), while controlling for earlier

behavior problems (T1) and gender. The control variables were entered in the first block. In subsequent blocks, the main effects of the relationship variables were added as predictors of behavior problems. The change in explained variance in the outcome measures by the control variables, parent-child relationship variables, and friendship variables was calculated for each variable set after controlling for all other variable sets. In a final block, the set of four interactions between the parent-child relationship and friendship measures were added to the models. All analyses were conducted separately for rule-breaking behavior and depressed mood. To ease the interpretation of the coefficients, all continuous variables were standardized to  $M = 0$  and  $SD = 1$  prior to the analyses and before interaction terms were computed. To facilitate interpretation of the interaction effects, simple slopes were calculated with low and high levels of the predictors indicating one standard deviation below and above the mean, respectively, while holding all other variables to their sample means (Aiken & West, 1991). Given the standardization procedure, main effect betas can be interpreted as the effect at mean levels of all other variables in the analysis and interaction term betas indicate the change in the in the main effect beta at +1 SD above the mean on the moderator.

### Results

#### *Descriptive Statistics*

Table 1 contains the means and standard deviations of the parent-child and friendship variables (before they were standardized) and the problem behavior variables. *T*-tests showed that there were significant gender differences for four variables. Compared to girls, boys had higher levels of rule-breaking behavior at T1 and T2,  $t(180) = -2.51$  and  $-3.73$ ,  $ps < .01$ , whereas compared to boys, girls reported higher levels of parental support,  $t(178) = 2.30$ ,  $p < .05$ , and friendship support,  $t(179) = 6.08$ ,  $p < .01$ .

The correlations between the variables were all in the expected direction, but not all of them were significant. Parental support was negatively correlated with rule-breaking behavior and depressed mood, whereas the reverse pattern was found for parent-adolescent conflict. In addition, friendship support was negatively, yet modestly, correlated with rule-breaking behavior and depressed mood. Friendship conflict correlated positively with rule-breaking behavior and depressed mood. Thus, when tested individually, the relationship characteristics all were associated with behavior problems in the expected directions. More parental support was associated with more

## Chapter 5

friendship support, but parent-child relationship conflict was not associated with friendship conflict or support. Rule-breaking behavior and depressed mood were quite stable and correlated highly with each other over the two waves.

Table 1

*Means and Correlations between Problem Behavior, Parent-Child Relations, and Friendship Characteristics*

Variable	M	1	2	3	4	5	6	7
1. Rule-Breaking T1 <sup>1</sup>	.00							
2. Rule-Breaking T2 <sup>1</sup>	.00	.65**						
3. Depressed Mood T1 <sup>1</sup>	.00	.42**	.27**					
4. Depressed Mood T2 <sup>1</sup>	.00	.36**	.42**	.50**				
5. Parental Support	4.14	-.18*	-.23**	-.24**	-.31**			
6. Parent-Child Conflict	3.34	.31**	.35**	.29**	.36**	-.20**		
7. Friendship Support	4.23	-.12	-.17*	-.12	-.17*	.34**	-.03	
8. Friendship Conflict	2.54	.25**	.36**	.16*	.17*	-.01	-.03	-.17*

\*  $p < .05$ , \*\*  $p < .01$ .

<sup>1</sup> These variables were created based on the mean of the standardized parent and child reported scores

### *Regression Analyses*

Tables 2 and 3 contain the standardized regression coefficients for all variables in the regression analyses, for rule-breaking behavior and depressed mood separately. We also tested interactions between gender and all the predictors. None of the two-way or three-way interactions with gender were significant and therefore the interactions were not included in the final analyses nor reported in the tables.

*Rule-breaking behavior.* Table 2 shows the unique effects of the parent-child relationship and friendship measures and their interactions as predictors of early adolescent rule-breaking behavior. After controlling for rule-breaking behavior at T1 and gender, parent-child conflict was significantly associated with more rule-breaking behavior at T2, but parental support was not related to rule-breaking behavior. Likewise, friendship conflict was associated with higher levels of rule-breaking behavior, but friendship support was not associated with rule-breaking. Measures of parent-child relationship experiences and friendship experience explained comparable amounts of unique variance in rule-breaking behavior.

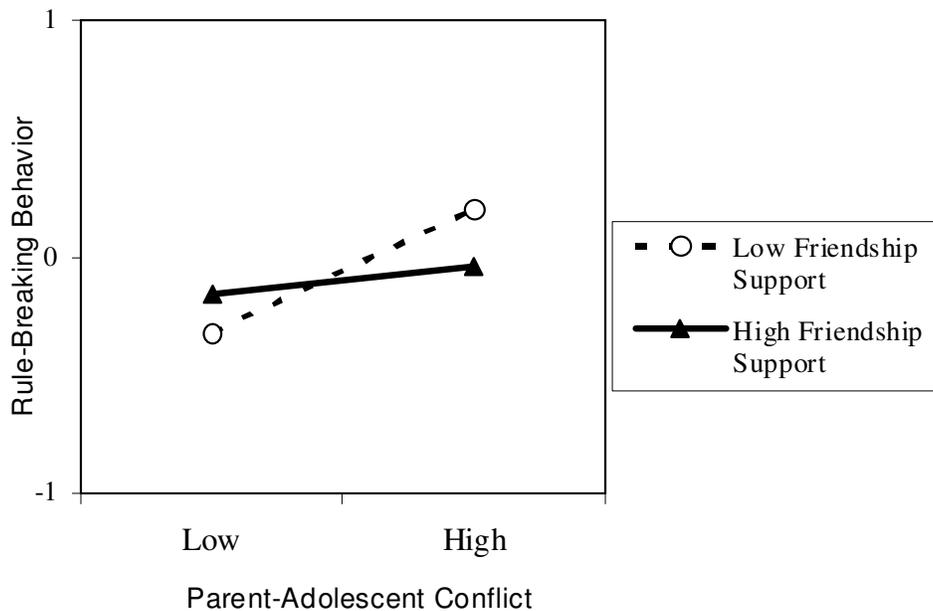
## Parents, Friends, and Problem Behavior

Table 2

*Regression Coefficients of Control Variables, Parent-Child Relations, and Friendship Characteristics in the Prediction of Early Adolescent Rule-Breaking Behavior*

Predictor	Rule-Breaking Behavior T2				Unique R <sup>2</sup>
	R <sup>2</sup> = .512		R <sup>2</sup> = .534		
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	
<i>Controls</i>					R <sup>2</sup> = .241
Rule-Breaking Behavior T1	.54**	.06	.52**	.06	
Gender (being a boy)	.22*	.10	.22*	.10	
<i>Parent-Child Relation</i>					R <sup>2</sup> = .040
Parental Support	-.07	.05	-.08	.05	
Parent-Child Conflict	.15**	.05	.16**	.05	
<i>Friendship</i>					R <sup>2</sup> = .041
Friendship Support	.01	.05	-.02	.06	
Friendship Conflict	.18**	.05	.16**	.05	
<i>Interactions</i>					R <sup>2</sup> = .022
Parental Support*Friendship Support			-.06	.05	
Parent-Child Conflict*Friendship Conflict			-.05	.05	
Parental Support*Friendship Conflict			-.05	.05	
Parent-Child Conflict*Friendship Support			-.10†	.05	

†  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$



*Figure 1.* Interaction between conflict with parents and support from best friend in predicting early adolescent rule-breaking behavior

Next, interactions between relationships with parents and friends were added to the model to test whether the effects of one relationship context are moderated by experiences in the other relationship context. This final model is reported in the second column of Table 2. The Parent-Child Conflict X Friendship Support interaction was marginally significant. As expected, more friendship support buffered the positive association between parent-child conflict and rule-breaking behavior (see figure 1). Simple slopes indicate that conflict with parents was associated with more rule-breaking behavior for early adolescents low on friendship support,  $b = .26$ ,  $t(179) = 3.32$ ,  $p < .01$ , but not for those high on friendship support,  $b = .06$ ,  $t(179) = 0.86$ ,  $p = .39$ .

*Depressed mood.* Table 3 shows the unique effects of the parent-child relationship and friendship measures and their interactions when predicting early adolescent depressed mood. After controlling for depressed mood at T1 and gender, more parent-child conflict was significantly associated with higher levels of depressed mood at T2, whereas parental support was marginally associated with less depressed mood. There were no significant incremental effects of friendship support or friendship conflict. The parent-child relationship variables explained a unique 7% of the variance in depressed mood as compared to 1% explained by the friendship measures. Finally, the interactions between relationships with parents and friends were added to the model. This final model is reported in the second column of Table 3. The Parental Support X Friendship Support and Parental Support X Friendship Conflict interactions were significant. Parent support strengthened the association between friendship support and depressed mood (see Figure 2). Simple slopes showed that more friendship support was associated with less depressed mood for early adolescents high on parental support ( $b = -.24$ ,  $t(179) = -2.87$ ,  $p < .01$ ) but not for those low on parental support ( $b = .03$ ,  $t(179) = 0.47$ ,  $p = .64$ ). As for the second interaction, parental support buffered the positive association between friendship conflict and depressed mood (see Figure 3). Simple slopes showed that conflict with friends was associated with more depressed mood for early adolescents low on parental support ( $b = .21$ ,  $t(179) = 3.40$ ,  $p < .01$ ) but not for those high on parental support ( $b = -.09$ ,  $t(179) = -1.33$ ,  $p = .19$ ).

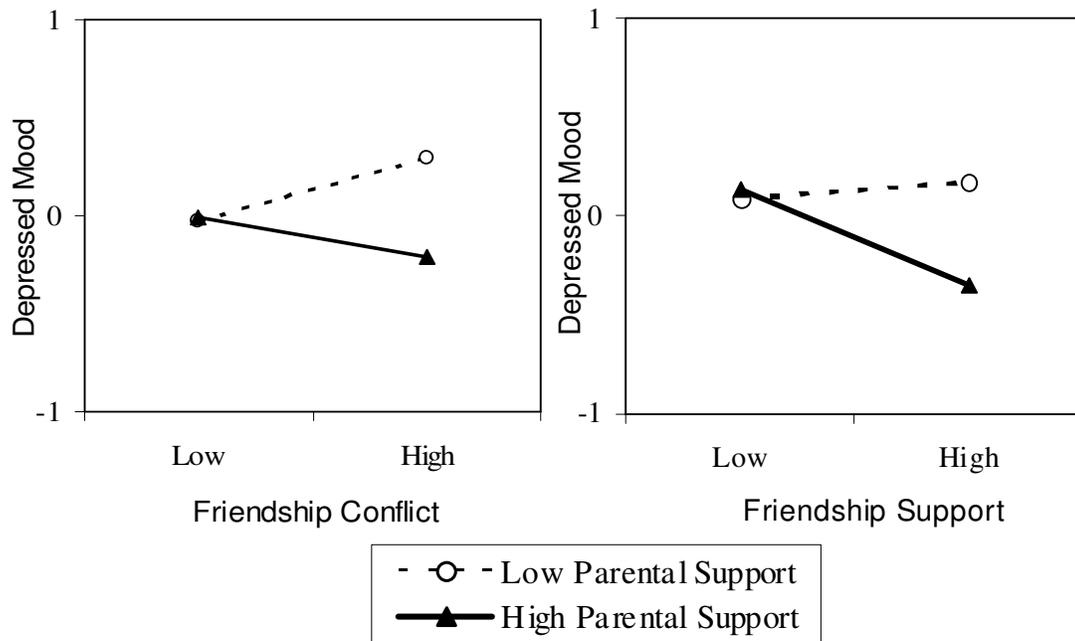
## Parents, Friends, and Problem Behavior

Table 3

*Regression Coefficients of Control Variables, Parent-Child Relations, and Friendship Characteristics in the Prediction of Early Adolescent Depressed Mood*

Predictor	Depressed Mood T2				Unique R <sup>2</sup>
	R <sup>2</sup> = .342		R <sup>2</sup> = .404		
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	
<i>Controls</i>					R <sup>2</sup> = .120
Depressed Mood T1	.39**	.07	.39**	.07	
Gender (being a boy)	.09	.11	.09	.10	
<i>Parent-Child Relation</i>					R <sup>2</sup> = .068
Parental Support	-.11†	.05	-.12*	.05	
Parent-Child Conflict	.17**	.05	.16**	.05	
<i>Friendship</i>					R <sup>2</sup> = .013
Friendship Support	-.05	.06	-.10†	.06	
Friendship Conflict	.08	.05	.03	.05	
<i>Interactions</i>					R <sup>2</sup> = .062
Parental Support*Friendship Support			-.14**	.05	
Parent-Child Conflict*Friendship Conflict			-.06	.05	
Parental Support*Friendship Conflict			-.13**	.05	
Parent-Child Conflict*Friendship Support			-.07	.06	

†  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$



*Figure 2.* Interactions between conflict with friends and support from parents (left side) and between support from parents and friends (right side) in predicting early adolescent depressed mood

### Discussion

The purpose of the current study was to test parent-child support and conflict and friendship support and conflict as predictors of behavior problems in early adolescence. Findings suggest that characteristics of relationships with parents and friends are additive predictors of adolescents' rule-breaking behavior, and that the potential effects of experiences in one relationship context can be moderated by experiences in the other. The support and conflict dimensions of parent-child relationships and friendships explained comparable portions of variance in early adolescent rule-breaking behavior, whereas the parent-child relationship experiences explained more variance in depressed mood than did friendship experiences. Together, the combination of highly supportive parent-child relationships and friendship were linked with lower levels of depressed mood in early adolescence. That is, friendship support was only associated with less depressed mood when parental support was high as well, and vice versa. Two significant interactions suggest that support in one relationship context can offset the negative effects of conflict in the other relationship context. Specifically, more parent-child conflict only was associated with more rule-breaking behavior when friendship support was low. Likewise, friendship conflict only was associated with more depressed mood when parental support was low. Associations appear to be similar for boys and girls as no interactions involving gender were significant.

The first aim of this paper was to examine the potential additive contributions of relationships with parents and friends to the prediction of behavior problems in early adolescence. In doing so, we focused on positive and negative affective dimensions simultaneously. Our results showed that perceived support from parents was associated with less depressed mood, whereas conflict with parents was associated with more rule-breaking behavior and depressed mood. These findings are in line with previous research showing that the quality of parent-child relationships is related to children's behavioral and emotional adjustment in childhood and adolescence (Khaleque & Rohner, 2002; Simons, Paternite, & Shore, 2001; Steinberg, 2001). Interestingly, parent-child conflict was uniquely and more consistently associated with rule-breaking behavior and depressed mood than was support. Researchers describing developmental changes in conflict between parents and children conclude that some mundane conflict is normative when children transition into adolescence (Steinberg, 2001), but that few parent-adolescent relationships are characterized by intense conflict (Collins & Laursen, 2004).

Yet, even though some conflict is normative, our study of individual differences shows that high levels of parent-adolescent conflict are associated with poor adolescent adjustment (cf. Buehler & Gerard, 2002; Forehand, Long, Brody, & Fauber, 1986).

Conflict with friends was uniquely associated with more rule-breaking behavior but supportive friendships were not uniquely associated with rule-breaking behavior or depressed mood. The former finding is in accordance with the notion that friendships are of developmental significance in adolescence (Burk & Laursen, 2005; Hartup, 1996; Parker & Asher, 1993). Although there has been speculation regarding whether the parent-child or friendship context is of greater importance in adolescence, few researchers have provided empirical evidence to support their statements. For example, Harris (1995) argues that parents, in contrast to peers, are not of critical importance for healthy development of their adolescent children. She based her statements on research findings that may be subject to alternative interpretations. That is, genetic and parental factors were not taken into account although they may explain how and why peers influence adolescents' mental health (Steinberg, 2001). Thus, the apparent influence of peers may actually be caused by an indirect influence of parents. In contrast to Harris' (1995) view, others have argued that relationships with parents are more important than peer relationships in childhood as well as adolescence (Greenberg, Siegel, & Leitch, 1983; Raja, McGee, & Stanton, 1992).

The findings of the present study suggest that adolescents' perceptions of the parent-child relationship is of greater importance than adolescents' perceptions of their best friendship in terms of explaining unique variance depressed mood, but parent-child relationships and friendships appear to be comparable in explaining unique in rule-breaking behavior. The latter finding is in concordance with a study by Criss et al. (2009) in which they concluded that family and peer relationships are incrementally related to antisocial behavior in adolescence. Criss et al (2009) argued that this may indicate that relationships with parents and friends provide unique socialization and learning experiences with regard to externalizing behavior. An explanation for why we found additive effects for rule-breaking behavior but not for depressed mood may be found in factors that were not taken into account in the current study. For example, we did not examine the behavioral characteristics of the friends Adolescents who have friendships with frequent rule-breakers, for instance, may be more likely to be involved in rule-breaking behavior themselves (cf. Buehler, 2006; Laird, Pettit, Dodge, & Bates, 2005;

Lansford et al., 2003) and conflict is more common in friendships with antisocial peers (Laird, Pettit, Dodge, & Bates, 1999). For internalizing problems and depressed mood, in particular, the influence of friends may be less strong as compared to externalizing or rule-breaking behaviors. Our findings thus indicate that provisions of the parent-child relationship differ on some critical points as compared to friendships. It may well be that, in accordance with attachment theory, the relationship with the primary caretakers (parents) forms the basis for development of social skills, self-worth, and so on (cf. Bowlby, 1973). Later in life this may also be derived from friendships, but lacking an affective and supportive relationship with the primary caregiver (parents) seemed to be detrimental in terms of early adolescents' internalizing problems.

The second aim of this study was to examine whether experiences in one relationship context moderate experiences in the other when predicting behavior problems. With regard to interactions between positive relationship experiences, we found that the negative association between friendship support and depressed mood was strengthened by high levels of perceived parental support. In other words, adolescents were least likely to experience high levels of depressed mood when they had highly supportive relationships with both parents and friends. This finding is in line with a study by Laible, Carlo, and Raffaelli (2000), in which it was found that adolescents high on both parent and peer attachment were the most well-adjusted. In contrast, we found no such interaction effects for conflict in the two relationship contexts. Thus, although adolescents had higher levels of rule-breaking behavior and depressed mood when they experienced high levels of conflict with parents or friends as compared to experiencing low levels of conflict, and even though the additive main effects suggest that adolescents experiencing high levels of conflict in both relationship contexts will experience the most behavior problems, there was no indication that the effect of conflict was particularly powerful when it was experienced in both relationship contexts. One reason for this finding might be the relatively strong main effects for conflict in both parent-child relationships and friendships. Apparently, having conflict with parents or friends is already strongly linked with more rule-breaking behavior and depressed mood, in such a way that the association cannot be strengthened by experiencing conflict in the other context as well.

With regard to interactions between support and conflict we found that friendship support buffered the anticipated negative effects of parent-child conflict, which is in line with findings from studies on the moderating role

of friends, or peers in general (Criss et al., 2002; Lansford et al., 2003; Sentse et al., in press). That is, conflict with parents was related to more rule-breaking behavior for adolescents with low friendship support, but not for those with high friendship support. This implies that friendships can compensate for some aspects of the parent-child relationship, in terms of their provision of help and support (cf. Furman & Buhrmester, 1985). Most studies have focused on friendships or peer relationships as buffers of negative family experiences rather than parent-child relationships as a potential buffer for negative peer relationship experiences. In the current study we also explicitly tested whether the negative effects of conflict with friends can be buffered by perceived support from parents. We found that more friendship conflict was related to higher levels of depressed mood for adolescents with parents low in support but not for those high on parental support. This finding is in line with results from a study among 6 year old children, in which it was found that maternal warmth could buffer the association between experiencing peer rejection in school and acting out and having learning problems (Patterson et al., 1989). Results from the current study suggest that future research would do well to focus on this type of interaction between parent-child relationships and other relationships. Moreover, focusing on risk-buffering roles of the parent and peer context may be useful for intervention and prevention policies regarding adolescents' maladjustment. Again, these findings provide evidence for the more general notion that relationships with parents and friends can serve as similar sources for the provision of support, meaning that a lack of support in one context can be buffered by experiencing support in the other context.

When results from the current study are compared with results of a previous study by Sentse et al. (in press) which focused on the interaction between parental and peer acceptance and rejection, we note some important differences. Most importantly, Sentse et al. (in press) found that peer acceptance buffered the positive association between parental rejection and externalizing and internalizing problems in early adolescence, but there was no evidence for positive parent-child relationships buffering negative peer relations. In the present study we found some evidence for the latter. The reason for this difference may be that the present study focused on dyadic relationships with friends, whereas the previous study focused on the larger peer group. Dyadic friendships may serve comparable functions (e.g., help, support) to relationships with parents as implied by our findings. Similar functions may not be provided by relationships within the larger peer group.

Being rejected by the larger peer group might therefore not be comparable to negative experiences in dyadic friendships, and thus may not be overcome by positive experiences in parent-child relationships. This possibility, however, awaits more research that explicitly focuses on the buffering role of positive parent-child relationships in the association between negative peer relationship experiences and child and adolescent mental health.

### *Limitations and Strengths*

The current study has several strengths as compared to previous research, such as the focus on the additive effects of relationships with parents and friends, tests of the interactions between experiences in the two relationship contexts, focusing on dyadic relationships with comparable indicators for positive and negative relationship experiences, and considering both externalizing and internalizing behaviors while controlling for stability in these outcomes. In reviewing the findings of the present study, however, some limitations should be considered. First, our measures for characteristics of the dyadic relationship with parents referred to the mother-child relationship only and not to father-child relationships. Previous research indicates that the relationship with father has at least comparable effects on child adjustment to the mother-child relationship (see for a review: Phares & Compas, 1992). Therefore, future research on parent-child relationships and friendships might do well to focus on relationships with both mothers and fathers.

Secondly, the outcome measures covered only a narrow range of externalizing and internalizing behaviors, that is, rule-breaking behavior and depressed mood. Thus, the findings of the current study can be generalized only to those behaviors, and may be less applicable to other indicators of adjustment. Given the choice between more narrowly focused outcome measures available from multiple informants or broader measures that shared method variance with all predictor variables, we chose to use the multi-informant outcome measures to avoid mono-informant bias.

Third, some of the effects we found were only marginally significant so interpretation of these effects should be with caution. Although the current study had sufficient power to detect medium sized main effects (Cohen, 1992), interaction effects among continuous variables are more difficult to detect and require additional statistical power (Cohen, Cohen, West & Aiken, 2003).

Fourth, our sample was recruited from a single geographic region. Although the sample includes both sexes and the demographic characteristics generally reflect the geographic area from which the sample was recruited, well-educated parents and two-parent families are over-represented in the dataset and the convenience sample is likely biased by the desire to collect data through personal interviews in the participants' homes.

Finally, although we took into account one-year stability in rule-breaking behavior and depressed mood, we cannot rule out reversed causality because the predictors were taken from the second wave interview. We elected to use relationship reports from T2 because children transitioned from elementary to secondary school in between the T1 and T2 interviews and it is likely that their friendships may have changed as well.

### *Implications for Research, Policy, and Practice*

The results of this study have several implications for future research as well as the practical field. First, the current study shows that experiences in the friendship context and parental context are interdependent. That is, experiences in the two contexts interact and effects are moderated by one other. Although previous studies focusing on the main effects of parent-child conflict or friendship quality are informative for detecting risks and protective factors for child and adolescent maladjustment, some important information is missing when possible interactions are ignored. That is, risk factors and protective factors may interact, providing the conditions under which a factor is more or less likely to be risky or protective. Thus, future research into child and adolescent maladjustment should focus on interactions involving additional relationship contexts, because some relationship contexts such as friendships and romantic partners may become relatively more important with increasing age (see Lonardo, Giordano, Longmore, & Manning, 2008),.

Second, our findings support a more integrated approach to intervention. Children's problem behavior should be approached in the combined contexts of family and friends. For instance, social skills and school support and counseling should explicitly include students' friends and friendships as part of the interventions as findings show that supportive friendship can buffer the negative effects of family experiences. Moreover, consistent with a strengths orientation, findings suggest that identify and building on supportive relationships, whether with parents or peers, can provide a buffer from difficulties in other relationships. This may be particularly important during the early adolescent period as parent-child

## Chapter 5

---

relationships may be restructured while many adolescents are simultaneously undergoing school transitions and are experiencing biological changes related to puberty (Agnew, 2003).