

SIBLING CONFLICT AND RELATIONSHIP QUALITY DURING THE
TRANSITION TO EMERGING ADULTHOOD

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SIBLING CONFLICT AND RELATIONSHIP QUALITY DURING THE
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ABSTRACT

In recent years, family researchers have acknowledged the importance of sibling relationships across the lifespan, but there has been little investigation of the emerging adult years and how this relationship functions during the transition from adolescence to emerging adulthood. Therefore, the present study sought to contribute to this relatively sparse area of research by investigating dyadic perceptions of two domains of sibling conflict and three aspects of relationship quality from first-born and second-born siblings from 48 families during first-borns' transition to college. In addition to identifying longitudinal trajectories of conflict and relationship quality across this transition, we also utilized the Actor-Partner Interdependence Model (APIM; Kenny, Kashy & Cook, 2006) to examine associations (both actor and partner effects) between sibling conflict during the year before first-borns entered college and relationship quality the following year, as well as associations between relationship quality and sibling conflict the following year. Our findings suggest that not only does the sibling relationship appear to maintain many of its prior longitudinal trajectories during the first year after first-born children leave the natal home, but there appear to be important longitudinal links between sibling conflict and relationship quality across this transition, indicating that in some ways, and for some siblings, this relationship during the adolescent years may have important implications for its long-term functioning into the adult years.

CHAPTER 1

INTRODUCTION

Among family researchers, there has recently been an increased awareness in the need to expand our studies of children and their families from a limited view of parent-child relationships to also include the study of sibling relationships (see Brody, 1998; Dunn, 2002; McHale, Kim, & Whiteman, 2006 for reviews). The importance of understanding sibling relationships during childhood and adolescence is easily justified when considering the fact that sibling relationships serve as a major contributor to family harmony and discord, as well as to individual children's development (Brody, 2004). There has also been a wealth of research investigating the importance of sibling relationships later in life, which has generally found that maintaining some contact with a sibling during adulthood and old age is positively related to well-being (see Cicirelli, 1995 for a review).

Given what is known thus far about the importance of sibling relationships in both early and later periods of life, it is surprising that there has of yet been little investigation of the sibling relationship during emerging adulthood, which is generally categorized as years 18 to 25 (Arnett, 2000). In general, it has been suggested that the period of emerging adulthood is characterized by a major "recentering" of close relationships as emerging adults establish greater independence from their natal family and transition into new roles (Conger & Little, 2010). It would therefore seem that during this point in development, when one is no longer living in the natal home, yet not yet leading the life of a full-fledged adult, the sibling relationship in particular might undergo some drastic

changes. While siblings generally remain associated with one another to some degree through kinship ties alone, their day-to-day relationship suddenly becomes far more voluntary than ever before, and as a result, the nature of their relationship may change significantly in several different ways. The present study aims to contribute to the relatively new process of uncovering what some of these changes may be by investigating changes in sibling conflict and relationship quality during the transition from adolescence to emerging adulthood, or more specifically to the present study, during the transition to college. In addition to examining these longitudinal changes, the present study will investigate the associations between sibling conflict during the year before adolescents enter college and sibling relationship quality the following year, as well as associations between relationship quality before entering college and sibling conflict the following year. This study will also expand on previous research by examining these changes not only from the transitioning adolescent's perspective, but from the perspective of their younger sibling as well.

Emerging Adulthood: A Unique Developmental Stage

It is important to differentiate emerging adulthood from adolescence and adulthood, because it is quite separate from both. According to Arnett (2000), both adolescence and adulthood are characterized by unique sets of norms, but during emerging adulthood, there is a relative sense of normlessness. During emerging adulthood, one is no longer required to attend school and live with one's parents, yet one is also not expected to lead a truly "adult" life by being financially independent, getting married and having children. Emerging adulthood is rather a transitional period between the two stages where there is considerable independence from social roles such that its

members are able to explore a variety of possible directions in love, work and worldviews, often through the avenue of attending college (Arnett, 2000). In 2010, approximately 41% of 18 through 24-year-olds in the United States were enrolled in either 2- or 4-year colleges (U.S. Department of Education, 2011), indicating that attending college is a salient part of emerging adulthood for many Americans.

As older adolescents establish independence from their natal families and move into emerging adulthood, it is likely that they experience an important recentering of major life relationships, including those between members of their family, friends, and romantic partners (Conger & Little, 2010). The examination of the sibling relationship during this period of recentering is one way to provide insight into the changing nature of such relationships, and is especially important to consider given the important support roles that siblings appear to have later in life (Aquilino, 2006). Although most emerging adult siblings no longer live together to the extent that they did while growing up, and while they may not feel as though they are required to maintain their relational ties to the extent that they did before, the task for emerging adults may be to maintain relationships with siblings that are just strong enough to form the basis of a long-term relationship, even if it does not seem to hold primary importance at the time (Aquilino, 2006). A key transitional point in sibling relationships, therefore, may be the period just after emerging adults leave their natal homes for the first time, be it to begin post-secondary education or to enter the work force. It is important to consider that such a transition may have implications for both the emerging adult as well as for his or her family members who stay behind (Whiteman, McHale, & Crouter, 2011).

Sibling Relationship Quality

Because of the importance of sibling relationships later in life, it may be particularly fruitful for researchers to study sibling relationship quality during this transition to emerging adulthood to gain a better understanding of how the foundation for such long-lasting relationships are formed. If sibling relationships are to last a lifetime, it would seem that a major task for emerging adult siblings would be to eliminate power imbalances in the relationship. While sibling relationships are arguably considerably less hierarchical than parent-child relationships to begin with, there still appears to be a significant power imbalance in the sibling relationship during the childhood and adolescent years such that older siblings tend to hold more power in the relationship (Perlman, Siddiqui, Ram, & Ross, 2000). However, by late adolescence, sibling relationships generally become much more egalitarian and less asymmetrical (Buhrmester & Furman, 1990). In an observational study of college-aged siblings conducted by Shortt and Gottman (1997), it was found that siblings generally did a good job at resolving such power differences in their relationships. However, siblings who were not close did struggle to resolve these power imbalances, indicating that a failure to achieve a more symmetric sibling relationship during emerging adulthood may coincide with lower relationship quality overall. Similarly, Aquilino (2006) has suggested that in order for siblings to remain close later in life, they must achieve a sufficiently egalitarian relationship. Due to the significant lifestyle changes that typically occur at the beginning of emerging adulthood, it seems plausible that some of these changes in sibling power differential may take place within the first year that the older sibling leaves home.

In addition to the increasingly egalitarian nature of the sibling relationship over the course of adolescence, Buhrmester and Furman (1990) have also indicated that the

sibling relationship becomes less intense, which is accompanied by a decrease in both warmth and closeness across this period. However, despite these declines in relationship “positivity” throughout adolescence, research on emerging adult siblings has shown that they do, in fact, have quite warm feelings for one another. In a cross-sectional Israeli sample, Scharf, Shulman, and Avigad-Spitz (2005) showed that emerging adults had less conflicted, yet warmer relationships with their siblings than did adolescents with their siblings. Further, emerging adults rated their relationships with their siblings more positively than did adolescents, indicating that there must be some type of rebound effect after the end of adolescence in terms of these positive relationship quality factors. Whiteman and colleagues (2011) have shed some light on this important change through their finding that such a rebound of intimacy (as experienced by both siblings) may occur as early as the first year after the firstborn leaves home for college. It is important to note, however, that these results were only found when the older sibling actually moved out of the family home.

As in adolescence, researchers have found some evidence of gender differences in sibling warmth among emerging adults such that dyads including at least one female sibling tend to be warmer than those without any females (Milevsky, Smoot, Leh, & Ruppe, 2005; Stocker, Lanthier, & Furman, 1997). Further, emerging adult sister-sister dyads have been found to perform more of Bank and Kahn’s (1975, 1976) sibling functions than any other dyad combination, specifically in terms of trying new roles and behaviors with one another before enacting them in front of others (mutual regulation), interpreting each other’s and other family members’ behaviors to one another, and providing direct services to one another (as cited in Weaver, Coleman, & Ganong, 2003).

Sister-sister dyads were also found to perform the functions of influencing one another's identity formation and teaching each other new skills more than mixed-sex dyads. In addition, the performance of these functions were found to be related to higher levels of warmth in the relationship (Weaver et al., 2003).

Sibling Conflict

Another particularly important area of research that may have implications for both sibling relationship quality, as well as issues of adjustment, is sibling conflict. Research has found sibling conflict during adolescence to be related to poor adjustment outcomes including depressive symptoms, anxiety symptoms, decreased self-esteem (Campion-Barr, Bassett Greer, & Kruse, 2012; Kim, McHale, Crouter, & Osgood, 2007; Pike, Coldwell, & Dunn, 2005; Stocker, Burwell, & Briggs, 2002); long-term aggressive behavior, academic difficulties, poor peer relationships (Dunn, 2002; Kim et al., 2007); and increased risk-taking behaviors by younger siblings who have risk-taking older siblings (e.g., East, 1998), though in the context of younger siblings of teen mothers, higher levels of sibling conflict have actually been found to be protective against younger siblings' risky sexual behaviors (East & Khoo, 2005). Other positive benefits of sibling conflict have also been noted, including its utility in teaching siblings effective conciliation and negotiation strategies (Vandell & Bailey, 1992), as well as its ability to teach siblings how to understand the perspectives of others; these skills are all important for the development of social understanding, relationships with friends, and school adjustment (Howe & Recchia, 2008). It is therefore important to develop a better understanding of the trajectory of sibling conflict through the end of adolescence and into

emerging adulthood in order to be better informed about the long-term implications of this common phenomenon.

As is the case with other elements of the sibling relationship, sibling conflict tends to decline throughout adolescence (Buhrmester & Furman, 1990), and seems to be even less prevalent during emerging adulthood (Scharf et al., 2005). However, in their longitudinal analysis of family relationships during the firstborn's transition to college, Whiteman et al. (2011) found that sibling conflict only decreased after the firstborn actually left home, and that sisters generally did not experience as rapid of a decline in conflict as brothers did. Similarly, Stocker and colleagues (1997) found that those emerging adult sibling dyads that included at least one female were more conflictive than those that did not include any females, and that in general, same-sex sibling dyads experienced more conflict than did mixed-sibling dyads. However, it is important to note that despite the presence of higher levels of conflict among dyads including females, these dyads also experienced warmer relationships as well, indicating that one must avoid interpreting conflictual relationships as poor overall. Indeed, relationships between sisters tend to be the most affectively intense of all other sibling dyad gender combinations in that they tend to experience the highest levels of both warmth and conflict, even in emerging adulthood (Scharf et al., 2005).

In light of these findings, it may therefore be valuable to examine the specific nuances of sibling conflict processes by differentiating between various types of conflict during this transitional phase. While there has not yet been such an examination on emerging adult siblings, Campione-Barr and Smetana (2010) have investigated different types of conflict among adolescent siblings informed by a social domain perspective. In a

cross-sectional comparison of both the intensity and frequency of different types of conflict among early, middle and late adolescents and their younger siblings, Campione-Barr and Smetana (2010) found that conflicts over the invasion of the personal domain (e.g., borrowing without permission) and issues of equality and fairness (e.g., who gets to choose which TV show to watch) emerged as two common types of conflict.

Furthermore, they found that conflicts tended to be more frequent than intense, and that siblings experienced more conflicts over the invasion of personal space than over those involving issues of equality and fairness. Similar to previous findings (Buhrmester & Furman, 1990), sibling conflict, particularly over the invasion of the personal domain, was more common when the older sibling was in early adolescence. Campione-Barr and Smetana (2010) also found that more frequent and intense conflicts over the invasion of the personal domain, but not over issues of equality and fairness, were related to poorer sibling relationship quality (quantified using measures of trust and communication), though due to the cross-sectional nature of their data, it is not clear whether conflict preceded poorer relationship quality, or vice-versa. Finally, with regard to gender differences, they found that adolescent same-sex dyads were closer than were mixed-sex dyads, and exploratory analyses suggested that sister-sister dyads were closer than brother-brother dyads.

In a later study, Campione-Barr, Bassett Greer and Kruse (2012) utilized these same types of conflict (invasion of the personal domain, equality and fairness) to examine differences in conflict type between adolescents and their siblings in relation to emotional adjustment. Using the Actor-Partner Interdependence Model (APIM) to examine bidirectional influences of conflict on emotional adjustment, and vice versa, between

both adolescents and their younger siblings, they found that not all types of sibling conflict influence emotional development in the same way, particularly in regard to symptoms of anxiety and depression, and self-esteem. Specifically, conflicts over the invasion of the personal domain were related to increased levels of anxiety and decreased self-esteem one year later (especially for mixed-sex dyads). This type of conflict may be especially distressing due to the fact that it threatens one's sense of self and agency. Campione-Barr and colleagues (2012) also found that a higher frequency of conflicts regarding issues of equality and fairness was related to higher levels of depressive symptoms one year later. The researchers reasoned that these results were not surprising given that when siblings engage in this type of conflict, they are focusing on social comparisons to one another at an increased level, which according to social comparison theory (Festinger, 1954), tends to result in poorer emotional adjustment. In the same study, Campione-Barr et al. (2012) also examined these issues in the reverse direction to see if emotional adjustment influenced conflict. They found that increased levels of depressive and anxious symptoms were related to increased conflict of both types one year later, while higher levels of self-esteem appeared to be protective against sibling conflict.

The Present Study

The current study attempted to advance the findings obtained by Campione-Barr and Smetana (2010) and Campione-Barr et al. (2012) by investigating these two types of sibling conflict in relation to sibling relationship quality during the first-born's transition from adolescence to emerging adulthood. This particular developmental transition has been understudied in many areas, particularly in family research, and by examining

sibling conflict and relationship quality, it became possible to shed light on some of the processes that lay the foundation for life-long sibling relationships. The current study also improved upon the design of many previous studies by employing a longitudinal design that directly captured the transition between late adolescence and emerging adulthood. The current study examined sibling conflict and relationship quality among first-born adolescents either during or immediately following their senior year of high school, as well as the following year after they entered college and no longer lived at home year-round. Data was also collected on the same issues from the emerging adults' next-youngest sibling to examine transactional processes in the relationship, particularly because while sibling conflict and relationship quality may change dramatically for older siblings who transition into emerging adulthood, their younger siblings at this same point in time are likely still in the midst of adolescence when sibling conflict is still very much a salient and frequent issue. In addition, family systems theory recognizes that transitions experienced by one family member are consequently a challenge for the entire family system (Minuchin, 1985), so it was therefore important to consider how younger siblings react to their older siblings' movement into emerging adulthood. Consequently, more advanced statistical analyses, including the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006), were utilized in the present study to attempt to uncover nuanced dyadic and bidirectional explanations of these processes.

Hypotheses. Given the important developmental transition that occurs for first-borns over the course of this study (Arnett, 2000; Conger & Little, 2010), we expected to see several changes in both sibling conflict and relationship quality from Time 1 to Time 2 as reported by both the first-borns (hereafter referred to as emerging adults) and their

younger siblings (referred to as siblings). Readers may find Figure 1 to be a helpful guide in visualizing the hypotheses drawn from our model. It may also be helpful to note that the horizontal lines in the model indicate “actor” effects, which illustrate the effects of one’s own characteristics on his or her own outcomes, while the diagonal lines indicate “partner” effects, which illustrate the effects of one’s own characteristics on a partner’s outcome (Cook & Kenny, 2005).

Associations between conflict (T1) and relationship quality (T2).

1A. Frequency and intensity of conflicts over the invasion of the personal domain will be associated with decreased positivity and increased negativity one year later, as reported by both emerging adults and siblings (actor effects; lines a and b). Campione-Barr and Smetana (2010) have previously established that among adolescent siblings, more frequent and intense conflicts over the invasion of the personal domain are related to poorer relationship quality. While their data was not longitudinal in nature, and only included trust and communication as relationship features, it seemed that these effects could have longitudinal implications and still be applicable during the transition to emerging adulthood. Because they did not find this pattern of associations with regard to conflicts over issues of equality and fairness, and because these issues relate more to the shared use of household resources, which are not likely to occur if siblings no longer share household resources, we did not expect to see this pattern when considering conflicts over equality and fairness issues.

1B. Conflict, especially that over issues of equality and fairness, will be associated with greater power differential 1 year later (actor effects; lines a and b). We expected this pattern to emerge given Shortt and Gottman’s (1997) findings that negative

or conflictive discussions between emerging adult siblings often reveal important power distinctions that are still present in the relationship despite the general trend of decreasing asymmetry in the relationship through the end of adolescence. We expected to see this increase in power differential as a result of conflicts about issues of equality and fairness in particular, given Campione-Barr et al.'s (2012) finding that these types of conflicts are related to increased levels of depressive symptoms. The authors argued that this association with depression was likely due to a heightened level of social comparison between siblings in the context of these conflicts, which could also translate into effects on perceptions of power differential. If one is consistently comparing oneself to one's sibling, then it would seem that this would likely be a mechanism used to either maintain or gain more dominance in the relationship. If one sibling (presumably the older sibling; Perlman et al., 2000) consistently "wins" conflicts over issues of equality and fairness, which likely elicit social comparison, then it would be logical to assume that the dominance of that sibling would be maintained or increased with the presence of more of these types of conflicts, at least as perceived by both the emerging adult and sibling (lines *a* and *b*).

2A. Frequency and intensity of conflicts as reported by emerging adults will be associated with decreased positivity, increased negativity, and increased power differential as reported by younger siblings one year later (partner effects; line c). This hypothesis was made with similar reasoning to that given for Hypotheses 1A and 1B, but given our ability to analyze partner effects (e.g., reports from emerging adults at Time 1 predicting reports from siblings at Time 2) using APIM, we expected that the perceptions of one sibling at Time 1 would be associated with their sibling's perceptions at Time 2.

2B. Frequency and intensity of conflicts as reported by younger siblings will be associated with decreased positivity, increased negativity, and increased power differential as reported by emerging adults one year later (partner effects; line d).

Similar to Hypothesis 2A, we predicted that instead of emerging adult reports of conflict being associated with later reports of relationship quality from younger siblings, reports of conflict from younger siblings would be associated with later reports of relationship quality from emerging adults.

Associations between relationship quality (T1) and conflict (T2). Because Campione-Barr and Smetana (2010) only examined associations between sibling conflict and relationship quality through cross-sectional research, one cannot make any firm conclusions as to the directionality of their findings about these dynamic processes. While we previously predicted that reports of sibling conflict at Time 1 would be associated with reports of relationship quality at Time 2, it was equally possible that reports of relationship quality at Time 1 could predict reports of sibling conflict at Time 2. We therefore made the following hypotheses going in the opposite direction.

3A. Higher levels of relationship positivity will be associated with lower levels of both types and domains of conflict one year later, as reported by both emerging adults and younger siblings (actor effects; lines e and f). If one sibling generally feels that their relationship includes many positive qualities, then it stands to reason that he or she would likely not engage in (or perceive) as much conflict with the other sibling a year later, particularly since levels of conflict typically decrease through adolescence (Buhrmester & Furman, 1990; Campione-Barr & Smetana, 2010) and continue to be low in emerging adulthood (Scharf et al., 2005). Research has shown this to be especially true if the

emerging adult no longer lives at home year-round (Whiteman et al., 2011), as is the case with our sample.

3B. High levels of negativity at Time 1 will be associated with higher frequency and intensity of both types of conflict at Time 2, as reported by emerging adults and siblings (actor effects; lines e and f). Although we expected that the level of conflict overall would decrease from Time 1 to Time 2 due to previous findings that conflict decreases through the end of adolescence (Buhrmester & Furman, 1990), as well as the fact that siblings who no longer live together simply have fewer opportunities in which to engage in these types of behaviors with one another, we still expected to find an association between negativity and conflict one year later. That is, if siblings still experience a relatively negative relationship with one another at Time 1, toward the latter years of adolescence when it would normatively be improving, then for those siblings, there should be an increase in conflict at Time 2 since there would likely be systemic problems in the relationship to begin with.

3C. High levels of power differential at Time 1 will be associated with increased conflict of both types at Time 2, as reported by emerging adults and siblings (actor effects; lines e and f). Because a major task of emerging adulthood appears to be the resolution of power imbalances in the sibling relationship (Aquilino, 2006), emerging adults should still have more power in their sibling relationship at Time 1 than their siblings to some extent. Once the emerging adult leaves home to attend college, however, the younger sibling who remains at home assumes the role of the “oldest” sibling for all day-to-day household purposes. As a result, the younger sibling might “push” to regain much of the power that they lacked when they did not have such a role when their older

sibling still lived at home. Indeed, it has been suggested (e.g., Smetana, Campione-Barr, & Metzger, 2006) that parent-adolescent conflict increases when adolescents seek more autonomy and power in the context of that relationship, so it would seem that the same would occur in the sibling relationship. We therefore hypothesized that as a result of this “push,” larger power differentials between siblings at Time 1 would be related to increased conflict of both types the following year.

4A. Increased levels of positivity, as reported by emerging adults and younger siblings, will be associated with decreased levels of both domains and types of conflict as reported by younger siblings and emerging adults, respectively, 1 year later (partner effects; lines g and h, respectively). Once again, given our ability to analyze partner effects, we used similar reasoning to that used in Hypothesis 3A in developing this hypothesis. Thus, we expected to find similar “partner” effects in lines *g* and *h* of the model to those that we found in lines *e* and *f*.

4B. Increased levels of negativity, as reported by emerging adults and younger siblings, will be associated with increased levels of conflict (particularly conflict intensity), as reported by younger siblings and emerging adults, respectively, 1 year later (partner effects; lines g and h, respectively). This hypothesis was developed using similar reasoning to that for Hypothesis 3A, but we expected that in this case, this relationship would be more likely to affect the intensity rather than frequency of conflicts because conflict in general should occur less often when the siblings no longer live together year-round.

4C. High levels of power differential, as reported by emerging adults and younger siblings, will be associated with increased levels of both types and domains of conflict, as

reported by younger siblings and emerging adults, respectively, 1 year later (partner effects; lines g and h, respectively). Once again, using similar reasoning to that used in Hypothesis 3B, we expected large power differentials at Time 1 to be related to increased levels of conflict the following year due to the younger sibling's new "push" for more power in the relationship.

Moderations of gender and ordinal position.

5A. The analyses will be moderated by emerging adult and younger sibling gender. It has been well-established that males and females judge their satisfaction in and closeness of their relationships differently (e.g., Wood & Inman, 1993). Specifically, it has been shown that males tend to value shared activities more, while females tend to also rely significantly on the sharing of intimate, disclosive information when judging just how close their relationship with another person is (Floyd & Parks, 1995). Because of these differences in how relationships are perceived, we expected the associations between conflict and relationship quality to differ based on gender composition. We therefore predicted to find a moderation of both emerging adult and sibling gender in our results, as well as possible interactions such that different combinations of emerging adult and sibling genders would differentially impact some of the processes being investigated.

5B. The analyses will be moderated by ordinal position. We also expected there to be a moderation of ordinal position in our results such that we expected the associations between conflict and relationship quality to differ based on whether emerging adults (older siblings) or siblings (younger siblings) reported on their relationships (5B). For example, previous longitudinal research (Campione-Barr, Lindell, Bassett Greer, & Morgan, in preparation) investigating adolescent sibling relationships has shown that

older and younger siblings' perspectives of their interactions with each other differentially predict relationship quality, such that younger sibling perspectives, but not older sibling perspectives, predicted relationship negativity one year later. It is therefore likely that the perspectives that emerging adults and their younger siblings have on their conflicts would similarly differentially predict relationship quality. To help uncover whether these and other potential differences existed due to ordinal position, and in an effort to tease apart some of the effects of age and ordinal position, we controlled for the age of each youth in the dyad while examining the moderating effect of ordinal position.

CHAPTER 2

METHOD

Participants

Participants included 48 sibling dyads that were initially recruited, along with at least one parent/adoptive parent, as part of a larger 4-year longitudinal study. For the larger study, 145 families with first-born adolescents in 8th, 10th or 12th grade were recruited, along with the next-youngest sibling in the family (less than five years younger). Participants' data was utilized in the present study if the sibling dyad participated in the larger study during both the older sibling's senior year of high school (or the summer immediately following; henceforth referred to as Time 1) and either during the older siblings' first year of college or the summer immediately following the older sibling's first year of college (Time 2). Twenty dyads came from Waves 1 and 2 of the initial data collection, 8 dyads came from Waves 2 and 3, and 20 dyads came from Waves 3 and 4. Dyads from the different waves did not vary significantly in terms of ethnicity, household income, parent education or parent marital status. At Time 1, first-born siblings (emerging adults) averaged 17.56 years of age ($SD = .50$) and second-born siblings (siblings) averaged 14.54 years of age ($SD = 1.17$). The mean age difference between siblings was 3.02 ($SD = 1.18$) years. Sibling dyad gender composition for the present sample included 11 older sister-younger sister dyads, 14 older brother-younger brother dyads, 17 older sister-younger brother dyads, and 6 older brother-younger sister dyads. Most siblings reported their ethnicity as White (84.4%), while the remaining

siblings reported Black or African-American (9.4%), Hispanic (2.1%) or other ethnicities (4.2%).

Parents reported a median household income of \$70,000 to \$84,999 (12.5%).

Parents who completed at least a college degree made up 70.9% of the sample, with 25.0% reporting some college coursework. Intact families made up 75.0% of the sample, with 14.6% reporting that they were single as the result of divorce or separation.

Measures

Sibling conflict. The Sibling Issues Checklist (Campione-Barr & Smetana, 2010) examines 20 every-day issues that adolescent siblings typically fight about. For each issue, sibling dyads reported on the frequency of the conflict on a scale from 1 (not at all) to 5 (very often) as well as the intensity of the conflict on a scale from 1 (calm) to 5 (angry). Sample items included “Borrowing something without permission” and “Whose turn it is to do chores.” Because previous research (Campione-Barr & Smetana, 2010) has found that certain issues within this scale load on to two specific types of sibling conflict (invasion of the personal domain and issues of equality and fairness), mean scores for each type of conflict were computed and used separately in the analyses. Chronbach alphas were as follows for Time 1 and Time 2: emerging adult invasion of the personal domain conflict frequency (.77; .68), emerging adult equality and fairness conflict frequency (.71; .66), emerging adult invasion of the personal domain conflict intensity (.79; .70), emerging adult equality and fairness conflict intensity (.70; .84), sibling invasion of the personal domain conflict frequency (.80; .82), sibling equality and fairness conflict frequency (.84; .84), sibling invasion of the personal domain conflict intensity (.84; .85) and sibling equality and fairness conflict intensity (.80; .85). In the

final analyses, separate mean scores for frequency and intensity of both types of conflict, for both emerging adults and siblings at Time 1 and Time 2 were used.

Relationship quality. The Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985) is a 39-item measure designed to assess relationship quality. The measure includes 13 3-item subscales that have been shown to load on three factors (Adams & Laursen, 2007; Furman, 1996): relationship positivity (affection, companionship, instrumental help, intimacy, nurturance, reliable alliance, support, and admiration of sibling), relationship negativity (conflict, criticism, antagonism, and dominance) and relative power. Sample items included “How much do you share your secrets and private feelings with [your sibling]?” (positivity), “How much do you and [your sibling] get annoyed with each other’s behavior?” (negativity), and “Out of you and [your sibling], who tends to be the boss in the relationship?” (relative power). Participants reported how often their other participating sibling exhibited each of the items in the measure on a scale of 1 (little or none) to 5 (the most). Chronbach alphas were as follows for Time 1 and Time 2: emerging adult positivity (.97; .94), emerging adult negativity (.92; .95), emerging adult relative power (.79; .81), sibling positivity (.96; .96), sibling negativity (.90; .89), and sibling relative power (.72; .83). Mean scores for positivity, negativity and relative power, as reported by both emerging adults and siblings at Times 1 and 2, were used in the final analyses.

Procedures

Participants were recruited as part of a larger 4-year study from three junior high and three high schools in a small Midwestern city school district. Families with an adolescent in 8th, 10th or 12th grade received letters and phone calls with an invitation to

participate, and those families that were interested contacted the researchers to schedule a session at the lab. At Wave 1, at least one parent, the adolescent, and their next-youngest sibling visited the lab to complete questionnaires and participate in other tasks. For Waves 2 through 4, participants were recruited through letters and phone calls, and those who agreed to continue their participation received questionnaires to complete at home either through e-mail or in the mail (along with a stamped return envelope). Family members were asked to return the questionnaires to the researchers separately at their earliest convenience. Participants were compensated at each wave of data collection.

CHAPTER 3

RESULTS

Although only sibling dyads where both siblings participated at both time points were included in the present study, not all participants completed all of the items or measures, resulting in some missing data. Therefore, because Little's MCAR test indicated that the missing data was likely missing at random ($\chi^2 = 2162.04$, $df = 34318$, $p = 1.00$), we followed a procedure of multiple estimation using Expectation Maximization (EM; Schafer, 1997) in SPSS in order to retain all of the data for analysis.

Before conducting the primary analyses, we conducted several descriptive statistics, including calculating means and standard deviations of, as well as correlations between, the various constructs measured. We also computed several repeated-measures ANOVAs to investigate changes in each type of conflict and element of relationship quality over the course of the two time points.

In order to test our central hypotheses, influences of Time 1 sibling conflict (invasion of the personal domain, equality and fairness issues) on Time 2 relationship quality (positivity, negativity, relative power), as well as influences of Time 1 relationship quality on Time 2 sibling conflict, as reported by both emerging adults and siblings, were tested using the Actor-Partner Interdependence Model (APIM) through a multilevel modeling approach (Kenny et al., 2006). APIM has been shown to be an effective method of fully utilizing data from both participants in order to uncover bidirectional influences in nested samples where participants are expected to influence one another. In the present study, siblings are nested within families, and for the purpose

of the analyses, the unit of measurement was the dyad rather than the individual siblings. As a result, and as in multilevel modeling, the true sample size is estimated to be between the number of individuals (96 in the present study) and the number of dyads (48) in the sample for purposes of calculating power and determining degrees of freedom. In the present study, parameters were estimated using Mixed procedures in SPSS 20. In addition, due to the large number of analyses conducted and to better correct the resulting Type I error rate, we employed the Šidák-Bonferroni correction (Šidák, 1967), which has been found to be more powerful than a Bonferroni correction (Maxwell & Delaney, 2004). Accordingly, the appropriate significance level for our analyses remained the traditional $p < .05$.

In the present study, a total of 18 models were examined. The first six models examined (separately for conflict frequency and intensity) the influence of both conflicts over issues of equality and fairness and invasion of the personal domain issues from both siblings' perspectives (Actor and Partner ratings) on sibling relationship quality one year later (separately for positivity, negativity, and relative power). An additional 12 models examined the influence of sibling relationship qualities (separately for positivity, negativity, and relative power) on sibling conflict one year later (separately for frequency and intensity of both types of issues). For example, one model tested the influence of the frequency of conflicts over both issues of equality and fairness and conflicts over the invasion of the personal domain on relationship positivity one year later, while another model tested the influence of relationship negativity on the intensity of conflicts over the invasion of the personal domain one year later. It is important to note that the APIM models examined the frequency and intensity of both types of conflict separately because

previous research has shown that they impact relationships (Montemayor, 1983) and development (Laursen, Coy, & Collins, 1998) differently. The main effects of the independent variables as well as the interactions between the independent variables and emerging adult gender, sibling gender, and ordinal position were included in each model.

Associations among Conflict Ratings and Relationship Quality Ratings

Correlations. As seen in Table 1, both emerging adults' and siblings' reports of the different types of conflict were correlated from Time 1 to Time 2, with emerging adults showing low, but significant, to moderate correlations from Time 1 to Time 2, and siblings showing moderate to high correlations between the time points. In general, many participants reported similarly about their perceptions of both types of conflict at both Time 1 and Time 2, and were often in agreement with their sibling's reports of these issues. However, this was clearly not uniform across all instances, as younger siblings' reports of conflict only correlated with their older siblings' reports at Time 1 (not Time 2). Therefore, further examination of the associations between different siblings' reports of conflict is warranted. In addition, while the frequency and intensity of conflicts were generally highly correlated with one another, and conflicts over the invasion of the personal domain and those over issues of equality and fairness were moderately to highly correlated, these patterns were not an entirely consistent pattern, thus providing support for the idea that both conflict frequency and intensity, and conflicts over the invasion of the personal domain and over issues of equality and fairness, are related, yet separate constructs. Means for reports of conflicts, delineated based on gender and ordinal position, are presented in Table 3.

Similarly, both emerging adults' and siblings' reports of the different aspects of relationship quality were correlated from Time 1 to Time 2, as seen in Table 2, but while emerging adults' reports tended to be highly correlated from Time 1 to Time 2, younger sibling reports were correlated at only low (yet significant) or moderate levels, indicating more stability

in older siblings' feelings of relationship quality during this period, and somewhat less stability on the part of younger siblings. While there was some agreement between siblings on their ratings of positivity, negativity, and relative power, this was not always the case. Specifically, although older and younger siblings' reports of positivity were consistently moderately correlated, their reports of negativity were highly correlated at Time 1, but were just barely significantly correlated at Time 2, suggesting that there is more agreement on positivity than negativity during this developmental transition. Interestingly, older and younger siblings' reports of relative power were not correlated at all. Further, the different aspects of relationship quality were not strongly associated with one another, with only negativity and relative power showing low to moderate correlation, and negativity and positivity, as well as positivity and power, showing no significant correlation with one another, highlighting the importance of examining these three aspects of relationship quality separately. Means for reports of relationship quality, delineated based on gender and ordinal position, are presented in Table 4.

Mixed model ANOVAs. We also computed several Mixed Model ANOVAs to highlight differences in both conflict and relationship quality across the two waves of data and the gender and birth order characteristics of the siblings.

Conflict frequency. A 2 (Birth Order; older, younger) X 2 (Conflict Domain; invasion of the personal domain, issues of equality and fairness) X 2 (Time; 1, 2) X 4 (Gender Composition; older brother-younger brother, older sister-younger sister, older brother-younger sister, older sister-younger brother) Mixed Model ANOVA was conducted to investigate differences in conflict frequency across these groups. The analysis indicated a significant main effect of time, such that across both domains of conflict and all possible sibling gender compositions, conflicts were more frequent at Time 1 ($M=1.79$, $SE=.08$) than at Time 2 ($M=1.53$, $SE=.06$), $F(1,44) = 16.70$, $p < .01$.

Conflict intensity. Next, a 2 (Birth Order) X 2 (Conflict Domain) X 2 (Time) X 4 (Gender Composition) Mixed Model ANOVA was conducted to investigate differences in conflict intensity. There was a significant main effect of time, such that across both domains of conflict and all possible sibling gender compositions, conflicts were more intense at Time 1 ($M=1.61$, $SE=.08$) than at Time 2 ($M=1.43$, $SE=.05$), $F(1,44) = 9.94$, $p < .01$. There was also a significant main effect of conflict domain, such that conflicts over the invasion of the personal domain ($M=1.64$, $SE=.07$) were more intense than conflicts over issues of equality and fairness ($M=1.39$, $SE=.06$), $F(1, 44) = 37.70$, $p < .01$.

Conflict domain x gender composition interaction. However, the main effect of conflict domain was qualified by a significant 2-way Domain X Gender Composition interaction, $F(3, 44) = 5.55$, $p < .01$. T-tests indicated that for brother-brother pairs, conflicts over the invasion of the personal domain ($M=1.76$, $SD=.54$) were more intense than conflicts over issues of equality and fairness ($M=1.47$, $SD=.42$), $t(13) = 3.09$, $p < .01$. Similarly, for sister-sister pairs, conflicts over the invasion of the personal domain ($M=1.77$, $SD=.31$) were more intense than conflicts over issues of equality and fairness ($M=1.28$, $SD=.28$), $t(10) = 6.66$, $p < .01$. However, the two domains of conflict were not significantly different from one another in intensity in dyads with older brothers and younger sisters, $t(5) = 1.46$, $p = .21$, and for dyads with older sisters and younger brothers, conflicts over the invasion of the personal domain ($M=1.41$, $SD=.43$) were only marginally more intense than conflicts over issues of equality and fairness ($M=1.32$, $SD=.36$), $t(16) = 2.01$, $p = .06$.

Together, these results indicate that conflicts over the invasion of the personal domain were more intense than conflicts over issues of equality and fairness in particular for same-gender sibling dyads, but not for mixed-gender sibling dyads.

Relationship positivity. We next conducted a 2 (Birth Order; older, younger) X 2 (Time; 1, 2) X 4 (Gender Composition; older brother-younger brother, older sister-younger sister, older brother-younger sister, older sister-younger brother) Mixed Model ANOVA to investigate differences in relationship positivity across these groups.

Birth order X time X gender composition interaction. The results of the ANOVA indicated that there was a significant 3-way Birth Order X Time X Gender Composition interaction, $F(3, 44) = 3.68, p = .02$. T-tests revealed that for younger brothers who had older brothers, positivity decreased from Time 1 ($M=3.21, SD=.98$) to Time 2 ($M=2.71, SD=.87$), $t(13) = 2.28, p = .04$. No other t-tests were significant, but there were two marginally significant t-tests. At Time 1, older brothers in brother-brother dyads reported marginally lower positivity ($M = 2.84, SD = .76$) than younger brothers ($M = 3.21, SD = .98$), $t(13) = -1.85, p = .09$. For sister-sister dyads, older sisters reported marginally more positive relationships at Time 1 ($M = 3.55, SD = 1.19$) than at Time 2 ($M = 3.14, SD = .98$), $t(10) = 1.94, p = .08$.

These results illustrated that younger brothers of brother-brother dyads perceived a decrease in positivity from Time 1 to Time 2, while there appeared to be a similar (marginal) reaction among older sisters of sister-sister dyads.

Relationship negativity. We conducted another 2 (Birth Order) X 2 (Time) X 4 (Gender Composition) Mixed Model ANOVA, but this time to investigate differences in relationship negativity across these groups. There was a significant main effect of Birth

Order, such that older siblings ($M=2.19$, $SE=.11$) reported less negativity in their sibling relationships than did younger siblings ($M=2.58$, $SE=.11$), $F(1, 44) = 10.80$, $p < .01$.

Birth order X time X gender composition interaction. However, the main effect of birth order was qualified by a significant 3-way Birth Order X Time X Gender Composition interaction, $F(3, 44) = 3.33$, $p = .03$. T-tests indicated that among sister-sister dyads, younger sisters reported a decrease in negativity from Time 1 ($M = 3.13$, $SD = .88$) to Time 2 ($M = 2.62$, $SD = .77$), $t(10) = 2.37$, $p = .04$. Among older sister-younger brother dyads, older sisters also reported a decrease in negativity from Time 1 ($M = 1.90$, $SD = .76$), to Time 2 ($M = 1.68$, $SD = .63$), $t(16) = 2.50$, $p = .02$, but at Time 2, younger brothers ($M = 2.25$, $SD = .76$) reported more negativity than their older sisters ($M = 1.68$, $SD = .63$) did, $t(16) = -3.21$, $p < .01$. Among older brother-younger sister dyads, younger sisters reported more negativity at Time 1 ($M = 2.52$, $SD = .55$) than did older brothers ($M = 2.00$, $SD = .48$), $t(5) = -4.00$, $p < .01$. Similarly, in these dyads, younger sisters reported marginally more negativity at Time 2 ($M = 2.74$, $SD = .90$) than did older brothers ($M = 1.79$, $SD = .74$), $t(5) = -2.49$, $p = .06$. No other significant t-tests were produced.

Together, these results suggest that younger sisters with older sisters, as well as older sisters with younger brothers, perceived a decrease in negativity from Time 1 to Time 2. In addition, younger siblings in older sister-younger brother dyads perceived more negativity at Time 2 than did their older siblings, while younger siblings in older brother-younger sister dyads also perceived more negativity at Time 2 (marginally), as well as at Time 1, than did their older siblings.

Relative power. We conducted a final 2 (Birth Order) X 2 (Time) X 4 (Gender Composition) Mixed Model ANOVA to investigate differences in the perception of relative power across these groups. There was a significant main effect of Birth Order, such that older siblings perceived that they had more power in their sibling relationships ($M=1.88, SE=.10$), while younger siblings perceived that they had less power in their sibling relationships ($M=2.80, SE=.12$), $F(1, 44) = 37.22, p < .01$. This indicates that in general, older and younger siblings were in agreement that older siblings had more power in the relationship than did younger siblings.

Longitudinal Associations between T1 Conflict Frequency and T2 Relationship Quality

In this section of analyses, the associations between conflict frequency and the three aspects of relationship quality one year later were tested. Three separate APIM models were run: one each for positivity, negativity and relative power, with control variables of age, gender, ordinal position, and the Time 1 report of the aspect of relationship quality being tested included in the models (see Table 5). The main effects of both types of conflict frequency (issues of equality and fairness, invasion of the personal domain), as well as interactions between gender and ordinal position, were included in the models as well. No significant 4-way interactions were produced for any of the models, so they were dropped and the models were re-run. Further, for the model examining relative power, there were no significant 3-way interactions either, so they were also dropped from that particular model.

Positivity. In the model examining associations between conflict frequency and relationship positivity, the control variables of the interaction between partner gender and

ordinal position, and Time 1 positivity, as well as the main effects of actor reports of both types of conflict frequency (issues of equality and fairness, invasion of the personal domain) were significantly associated with Time 2 positivity (Hypothesis 1A).

These significant main effects were qualified by two interactions, however. There was a marginally significant 3-way interaction ($t = 1.75, p = .09$) for Actor Gender X Partner Gender X Actor ratings of the Frequency of Conflicts over the Invasion of the Personal Domain (Hypotheses 1A, 5A). However, despite the marginally significant interaction, no significant slopes were produced. Therefore, no further interpretations were made.

There was also a marginally significant 3-way interaction ($t = -1.75, p = .09$) for Partner Gender X Birth Order X Actor ratings of the Frequency of Conflicts over Issues of Equality and Fairness (Hypotheses 1A, 5A, 5B). Simple slopes analyses revealed that the more frequent emerging adults with younger sisters reported conflicts over issues of equality and fairness, the higher they rated the positivity of their relationship a year later ($t = 3.23, p < .01$; see Figure 2.A), but there was no association between this type of conflict frequency and positivity for emerging adults with younger brothers ($t = 1.10, p = n.s.$). There was also no association between conflict reported by the younger siblings of either male ($t = .64, p = n.s.$) or female ($t = -.20, p = n.s.$) emerging adults and their ratings of positivity one year later. These results suggest that high frequencies of conflicts over issues of equality and fairness, but not necessarily conflicts over the invasion of the personal domain, may actually be beneficial to siblings, at least when emerging adults have younger sisters.

Negativity. In the model examining associations between conflict frequency and relationship negativity, the control variables of the interaction between actor gender, partner gender and ordinal position and Time 1 negativity were significantly associated with Time 2 negativity. There were no significant main effects of conflict frequency, but there were several significant interactions.

There was a significant 3-way interaction ($t = 2.21, p = .03$) for Actor Sex X Birth Order X Partner ratings of the Frequency of Conflicts over Issues of Equality and Fairness (Hypotheses 2B, 5A, 5B). Simple slopes revealed that the less frequent younger siblings of female emerging adults reported conflicts over issues of equality and fairness, the more negativity their older siblings reported in their relationship a year later ($t = -2.59, p = .02$; see Figure 3.A), but there was no association between this type of conflict and relationship quality for younger siblings of male emerging adults ($t = .36, p = n.s.$). There was also no association between conflict reported by emerging adults and negativity reported by younger sisters ($t = 1.26, p = n.s.$) or brothers ($t = -.46$) one year later.

There was also a marginally significant 3-way interaction ($t = -1.85, p = .07$) for Actor Sex X Birth Order X Partner ratings of the Frequency of Conflicts over the Invasion of the Personal Domain (Hypotheses 2A, 2B, 5A, 5B). However, despite the marginally significant 3-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Finally, there was a significant 3-way interaction ($t = 3.12, p < .01$) for Partner Sex X Birth Order X Actor ratings of the Frequency of Conflicts over the Invasion of the Personal Domain (Hypotheses 1A, 5A, 5B). Simple slopes revealed that the less frequent

emerging adults with younger sisters reported conflicts over the invasion of the personal domain, the more negativity they reported in their relationship a year later ($t = -3.29$, $p < .01$; see Figure 3.B), but there was no association when reports were made by emerging adults with younger brothers ($t = .14$, $p = \text{n.s.}$), or younger siblings of either male ($t = -1.18$, $p = \text{n.s.}$) or female emerging adults ($t = .71$, $p = \text{n.s.}$).

Like the findings for positivity, these results suggest that conflict may actually be good for sibling relationships. The results examining associations between conflict frequency and later relationship negativity suggest that lower frequencies of both types of conflict are actually related to more negative perceptions of sibling relationships the following year, particularly when there is at least one sister in the dyad. Specifically, the relationships of dyads that include older sisters may be especially affected by too few conflicts over equality and fairness issues, while those that include younger sisters may be at particular risk when there are too few conflicts over the invasion of the personal domain.

Relative power. In the model examining associations between conflict frequency and relative power, the control variables of the interaction between actor gender and partner gender, and Time 1 relative power were significantly associated with Time 2 relative power. There were no significant main effects of conflict frequency, but there were several significant interactions.

There was a marginally significant 2-way interaction ($t = 1.92$, $p = .06$) for Actor Sex X Partner ratings of the Frequency of Conflicts over Issues of Equality and Fairness (Hypotheses 2A, 2B, 5A). However, despite the marginally significant 2-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

There was also a significant 2-way interaction ($t = -2.68, p = .01$) for Partner Sex X Actor ratings of the Frequency of Conflicts over Issues of Equality and Fairness (Hypotheses 1B, 5A). However, despite the significant 2-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Finally, there was a significant 2-way interaction ($t = 3.92, p < .01$) for Partner Sex X Actor ratings of the Frequency of Conflicts over the Invasion of the Personal Domain (Hypotheses 1B, 5A). Simple slopes revealed that the more frequent participants with brothers reported conflicts over the invasion of the personal domain, the more power they felt their brothers had in their relationship a year later ($t = 2.41, p = .02$; see Figure 4.A), but there was no association between power and this type of conflict when participants with sisters reported on these issues ($t = -1.73, p = n.s.$). This suggests that for dyads including at least one brother, relationships characterized by high levels of conflicts over the invasion of the personal domain may be at particular risk for experiencing male-powered relationships later on.

Longitudinal Associations between T1 Conflict Intensity and T2 Relationship Quality

In this section of analyses, the associations between conflict intensity and the three aspects of relationship quality one year later were tested. Three separate APIM models were run: one each for positivity, negativity and relative power, with control variables of age, gender, ordinal position, and the Time 1 report of the aspect of relationship quality being tested included in the models (see Table 6). The main effects of both types of conflict intensity (issues of equality and fairness, invasion of the personal domain), as well as interactions between gender and ordinal position, were included in

the models as well. Significant 4-way interactions were produced only in the model for relative power, so these interactions were dropped in the models for positivity and negativity and the models were re-run.

Positivity. In the model examining associations between conflict intensity and positivity, only the control variable of positivity at Time 1 was significantly associated with Time 2 positivity. However, there was one marginally significant 3-way interaction ($t = 1.94$, $p = .06$) for Actor Gender X Partner Gender X Actor ratings of the Intensity of Conflicts over the Invasion of the Personal Domain (Hypotheses 1A, 5A). Yet, despite the marginally significant interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Negativity. In the model examining associations between conflict intensity and relationship negativity, the control variables of the interaction between actor gender, partner gender and ordinal position, as well as Time 1 negativity were significantly associated with Time 2 negativity. Further, the main effect of the actor report of the intensity of conflicts over issues of equality and fairness was significant, and the main effect of the actor report of the intensity of conflicts over the invasion of the personal domain was marginally significant (Hypothesis 1A).

These main effects were qualified by several interactions, however. There was a significant 3-way interaction ($t = 2.65$, $p = .01$) for Actor Sex X Birth Order X Partner ratings of the Intensity of Conflicts over Issues of Equality and Fairness (Hypotheses 2B, 5A, 5B). Simple slopes revealed that the more intense younger siblings of female emerging adults reported conflicts over issues of equality and fairness, the lower negativity female emerging adults reported in their relationship a year later ($t = -2.40$, $p =$

.02; see Figure 5.A), but there was no association between this type of conflict and negativity for younger siblings of male emerging adults ($t = 1.23, p = \text{n.s.}$). There was also no association between conflict reported by male ($t = .08, p = \text{n.s.}$) and female ($t = .79, p = \text{n.s.}$) emerging adults and their younger siblings' ratings of negativity one year later. These findings mirror those for associations between the frequency of this type of conflict and later negativity.

Additionally, there was a significant 3-way interaction ($t = -2.04, p = .05$) for Partner Sex X Birth Order X Actor ratings of the Intensity of Conflicts over Issues of Equality and Fairness (Hypotheses 1A, 5A, 5B). Simple slopes revealed that the less intense emerging adults with younger sisters reported conflicts over issues of equality and fairness, the lower negativity they reported in their relationship a year later ($t = 3.04, p = .01$; see Figure 5.B), but there was no association between this type of conflict and negativity for emerging adults with younger brothers ($t = .65, p = \text{n.s.}$). There was also no association between conflict reported by younger siblings of either male ($t = 1.22, p = \text{n.s.}$) or female ($t = .09, p = \text{n.s.}$) emerging adults and their own rating of negativity one year later.

Finally, there was a significant 3-way interaction ($t = 2.34, p = .02$) for Partner Sex X Birth Order X Actor ratings of the Intensity of Conflicts over the Invasion of the Personal Domain (Hypotheses 1A, 5A, 5B). Simple slopes revealed that the less intense emerging adults with younger sisters rated conflicts over the invasion of the personal domain, the more negativity they reported in their relationship a year later ($t = -2.17, p = .04$; see Figure 5.C), but there was no association between this type of conflict and relationship quality for emerging adults with younger brothers ($t = .27, p = \text{n.s.}$). There

was also no association between conflict reported by younger siblings of either male ($t = -1.10, p = \text{n.s.}$) or female ($t = .37, p = \text{n.s.}$) emerging adults and their own rating of negativity one year later.

These findings suggest several nuanced patterns, particularly for dyads including at least one sister. While more intense conflicts over issues of equality and fairness as reported by younger siblings with older sisters are related to lower reports of negativity from older sisters the following year, for older siblings with *younger* sisters, it is rather *less* intense conflicts of this type that are related to less negativity. In contrast, for these older siblings with younger sisters, less intense conflicts over the invasion of the personal domain are actually related to *greater* negativity the next year. Therefore, it seems that later negativity is differentially associated with the ordinal position of sisters, as well as conflict type when considering the intensity of these conflicts.

Relative power. In the model examining associations between conflict intensity and relative power, only the control variable of relative power at Time 1 was significantly associated with Time 2 positivity. There were no significant main effects of either type of conflict intensity.

However, there was a significant 4-way interaction ($t = -2.70, p = .01$) for Actor Sex X Partner Sex X Birth Order X Actor ratings of the Intensity of Conflicts over Issues of Equality and Fairness (Hypotheses 1B, 5A, 5B). Simple slopes revealed that the more intensity younger sisters of female emerging adults reported in conflicts over issues of equality and fairness, the more power they felt their emerging adult sisters had over them a year later ($t = 2.27, p = .03$; see Figure 6.A), and that the more intensity female emerging adults with younger sisters reported in conflicts over issues of equality and

fairness, the more power they felt their younger sisters had over them a year later ($t = 2.04, p = .05$). It was also revealed that the more intense younger brothers of female emerging adults rated these types of conflicts, the more power they felt they had (in relation to their sister) in the relationship one year later ($t = -2.22, p = .04$). However, there were no associations when reports of the intensity of conflicts over issues of equality and fairness and power were made by younger brothers of male emerging adults ($t = -1.01, p = \text{n.s.}$), younger sisters of male emerging adults ($t = -1.53, \text{n.s.}$), male emerging adults with younger brothers ($t = -1.74, p = \text{n.s.}$), male emerging adults with younger sisters ($t = 1.54, p = \text{n.s.}$) or female emerging adults with younger brothers ($t = .56, p = \text{n.s.}$).

There were also significant Birth Order X Actor ratings of the Intensity of Conflicts over Issues of Equality and Fairness ($t = 2.00, p = .05$) and Partner Sex X Actor ratings of the Intensity of Conflicts over Issues of Equality and Fairness ($t = -2.86, p = .01$) interactions, but since they were qualified by the significant 4-way interaction, they were not examined further.

There was a significant 2-way interaction ($t = 2.27, p = .03$) for Partner Sex X Actor ratings of the Intensity of Conflicts over the Invasion of the Personal Domain (Hypotheses 1B, 5A). Yet, despite the significant interaction, no significant slopes were produced. Therefore, no further interpretations were made.

There was a significant 2-way interaction ($t = -2.57, p = .01$) for Birth Order X Actor ratings of the Intensity of Conflicts over the Invasion of the Personal Domain (Hypotheses 1B, 5B). Simple slopes revealed that the greater intensity older siblings rated in conflicts over the invasion of the personal domain, the more power they felt they had

(in relation to their siblings) in their relationship one year later ($t = -2.84$, $p = .01$; see Figure 6.B), but there was no association between this type of conflict and relative power when reported by younger siblings ($t = -1.74$, $p = \text{n.s.}$).

There was a significant 2-way interaction ($t = 2.51$, $p = .02$) for Actor Sex X Partner ratings of the Intensity of Conflicts over Issues of Equality and Fairness (Hypotheses 2A, 2B, 5A). Simple slopes revealed that the greater intensity siblings of males rated in conflicts over issues of equality and fairness, the more power their brothers felt they had (in relation to their siblings) in their relationship a year later ($t = 2.64$, $p = .01$; see Figure 6.C), but there was no association between this type of conflict as reported by siblings of females and the power their sisters reported one year later ($t = -1.13$, $p = \text{n.s.}$).

Finally, there was a significant 2-way interaction ($t = -2.30$, $p = .03$) for Actor Sex X Partner ratings of the Intensity of Conflicts over the Invasion of the Personal Domain (Hypotheses 2A, 2B, 5A). However, despite the significant interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Taken together, these results indicate that, at least for issues of equality and fairness, both older and younger siblings in sister-sister dyads tend to perceive a loss in power if their conflicts of this type are intense the year before. In contrast, if older sisters have younger brothers, younger brothers actually perceive that they have the upper hand in the relationship the following year. Indeed, when examining any sibling dyad with at least one brother, intense conflicts of this type were associated with brothers perceiving that they had more power in the relationship the following year.

With regard to conflicts over the invasion of the personal domain, for older siblings, more intense conflicts of this type were typically associated with their perception of more power in the relationship the following year.

Longitudinal Associations between T1 Relationship Positivity and T2 Conflict Frequency

In these analyses, the associations between relationship positivity and the two types of conflict frequency one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with control variables of age, gender, ordinal position, the Time 1 report of the frequency of the type of conflict being tested in the model, and the Time 2 report of the type of conflict frequency not being tested in that particular model (see Table 7). The main effects of both actor and partner reports of positivity, as well as interactions between gender and ordinal position, were included in the models as well. No significant 4-way interactions were produced for any of the models, so they were dropped and the models were re-run. Further, for the model examining conflicts over issues of equality and fairness, there were no significant 3-way interactions either, so they were also dropped from that particular model.

Invasion of the personal domain. In the model examining associations between relationship positivity and the frequency of conflicts over the invasion of the personal domain, the control variables of Time 1 invasion of the personal domain conflict frequency and Time 2 equality and fairness conflict frequency were significant. There were no significant main effects of positivity.

There was, however, a significant 3-way interaction ($t = 2.02, p = .05$) for Actor Sex X Birth Order X Actor reports of Positivity (Hypotheses 3A, 5A, 5B). Simple slopes revealed that the less positivity that emerging adult females reported in their relationship, the more frequent they reported conflicts over the invasion of the personal domain one year later ($t = -2.40, p = .02$; see Figure 7.A), but there was no association between positivity and this type of conflict when reports were made by emerging adult males ($t = .70, p = \text{n.s.}$), or younger sisters ($t = -.38, p = \text{n.s.}$) or brothers ($t = -.77, p = \text{n.s.}$) of emerging adults.

Equality and fairness. In the model examining associations between relationship positivity and the frequency of conflicts over issues of equality and fairness, the control variables of the interaction between actor gender and ordinal position, Time 1 invasion of the personal domain conflict frequency and Time 2 equality and fairness conflict frequency were significant. There were no significant main effects of positivity.

There was a significant 2-way interaction ($t = -2.72, p = .01$) for Partner Sex X Actor reports of Positivity (Hypotheses 3A, 5A). Simple slopes revealed that the less positivity that siblings of males reported in their relationship, the more frequent they reported conflicts over issues of equality and fairness one year later ($t = -2.08, p = .04$; see Figure 8.A), but there was no association between positivity and this type of conflict when reports were made by siblings of females ($t = .18, p = \text{n.s.}$).

There was a marginally significant 2-way interaction ($t = 1.83, p = .07$) for Birth Order X Actor reports of Positivity (Hypotheses 3A, 5B). Simple slopes revealed that the more positivity that emerging adults reported in their relationship, the more frequent they reported conflicts over issues of equality and fairness one year later ($t = 2.59, p = .01$; see

Figure 8.B), but there was no association between positivity and this type of conflict when reports were made by younger siblings ($t = .18, p = n.s.$).

Taken together, the results of the models examining both types of conflict frequency suggest that positivity is differentially related to each type, largely depending on who is reporting. While lower positivity as reported by older sisters is related to greater frequencies of conflicts over the invasion of the personal domain the following year, it is actually higher positivity (as reported by older siblings in general) that is related to more equality and fairness issues the following year. Conversely, higher positivity as reported by siblings with brothers is related to lower occurrences of conflicts over equality and fairness issues.

Longitudinal Associations between T1 Relationship Negativity and T2 Conflict Frequency

In these analyses, the associations between relationship negativity and the two types of conflict frequency one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with the same control variables and main effects as in the previous set of analyses examining these associations with relationship positivity (see Table 8). There were significant 4-way interactions for the model examining the frequency of conflicts over issues of equality and fairness, but 4-way, 3-way, and 2-way interactions were ultimately dropped for the model examining the frequency of conflicts over the invasion of the personal domain.

Invasion of the personal domain. In the model examining associations between relationship negativity and the frequency of conflicts over the invasion of the personal

domain, the control variables of Time 1 invasion of the personal domain conflict frequency and Time 2 equality and fairness conflict frequency were significant, as was age and ordinal position. However, there were no significant main effects of negativity, and no interactions were included in the model. Therefore, no further interpretations were made.

Equality and fairness. In the model examining associations between negativity and the frequency of conflicts over issues of equality and fairness, the control variables of the interactions between actor gender and partner gender, as well as between actor gender and ordinal position were significant. Additionally, the control variables of Time 1 equality and fairness conflict frequency and Time 2 invasion of the personal domain conflict frequency were significant.

There was a marginally significant 4-way interaction ($t = -1.931$, $p = .060$) for Actor Sex X Partner Sex X Birth Order X Actor reports of Negativity (Hypotheses 3B, 5A, 5B). However, despite the marginally significant 4-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

There was also a marginally significant 2-way interaction ($t = -1.74$, $p = .09$) for Actor Sex X Partner reports of Negativity (Hypotheses 4B, 5A). However, despite the marginally significant interaction, no significant slopes were produced. Therefore, no further interpretations were made.

The largely non-significant findings from this set of analyses suggest that perhaps negativity is not robustly related to later conflict frequency. This stands in contrast to associations between conflict frequency and later negativity, which suggested that

relatively frequent conflicts of both types were protective against relationship negativity the following year.

Longitudinal Associations between T1 Relative Power and T2 Conflict Frequency

In these analyses, the associations between relative power and the two types of conflict frequency one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with the same control variables and main effects as in the previous set of analyses examining these associations with relationship positivity and negativity (see Table 9). No significant 4-way or 3-way interactions were produced for any of the models, so they were dropped and the models were re-run. Further, for the model examining conflicts over the invasion of the personal domain, there were no significant 2-way interactions either, so no interactions were included in that model.

Invasion of the personal domain. In the model examining associations between relative power and the frequency of conflicts over the invasion of the personal domain, the control variables of Time 1 invasion of the personal domain conflict frequency and Time 2 equality and fairness conflict frequency were significant, as was ordinal position. However, there were no significant main effects of relative power, and no interactions were included in the model. Therefore, no further interpretations were made.

Equality and fairness. In the model examining associations between relative power and the frequency of conflicts over issues of equality and fairness, the control variables of Time 1 equality and fairness conflict frequency and Time 2 invasion of the personal domain conflict frequency were significant.

There were no significant main effects of relative power, but there was a marginally significant 2-way interaction ($t = -1.76, p = .08$) for Actor Sex X Actor reports of Power (Hypotheses 3C, 5A). However, despite the marginally significant 2-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Together, these two models examining associations between relative power and later conflict frequency suggest that relative power may not be particularly related to conflict frequency. Even in the models described previously that examined associations between conflict frequency and later relative power, only one simple slope was significant. It may simply be that the frequency of sibling conflicts and the power structure of these relationships are not particularly related to one another.

Longitudinal Associations between T1 Relationship Positivity and T2 Conflict Intensity

In these analyses, the associations between relationship positivity and the two types of conflict intensity one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with control variables of age, gender, ordinal position, the Time 1 report of the intensity of the type of conflict being tested in the model, and the Time 2 report of the type of conflict intensity not being tested in that particular model (see Table 10). The main effects of both actor and partner reports of positivity, as well as interactions between gender and ordinal position, were included in the models as well. There were significant 4-way interactions in the model examining conflicts over the

invasion of the personal domain, but these were dropped in the model examining conflicts over issues of equality and fairness.

Invasion of the personal domain. In the model examining associations between relationship positivity and the intensity of conflicts over the invasion of the personal domain, the control variables of Time 1 invasion of the personal domain conflict intensity and Time 2 equality and fairness conflict intensity were significant. There were no significant main effects of positivity.

There was a significant 4-way interaction ($t = -2.28, p = .03$) for Actor Sex X Partner Sex X Birth Order X Actor ratings of Positivity (Hypotheses 3A, 5A, 5B). Simple slopes revealed that the less positivity female emerging adults with younger sisters reported in their relationship, the more intensity they reported in conflicts over the invasion of the personal domain a year later ($t = -2.27, p = .03$; see Figure 9.A), but that the less positivity male emerging adults with younger sisters reported in their relationship, the less intensity they reported in conflicts over the invasion of the personal domain a year later ($t = 2.77, p = .01$). However, there was no association between positivity and this type of conflict when reports were made by younger brothers ($t = -1.20, p = \text{n.s.}$) or sisters ($t = .16, p = \text{n.s.}$) of male emerging adults, younger brothers ($t = -1.91, p = \text{n.s.}$) or sisters ($t = .27, p = \text{n.s.}$) of female emerging adults, male emerging adults with younger brothers ($t = .74, p = \text{n.s.}$), or female emerging adults with younger brothers ($t = .86, p = \text{n.s.}$).

There were also significant or marginally significant Actor Gender X Birth Order X Actor ratings of Positivity ($t = 2.98, p < .01$), Actor Gender X Partner Gender X Actor ratings of Positivity ($t = -1.89, p = .06$), and Birth Order X Actor ratings of Positivity

(2.60, $p = .01$) interactions, but since they were qualified by the significant 4-way interaction, they were not examined further.

Together, these results suggest that the relationship between positivity and the intensity of later conflicts over the invasion of the personal domain largely depends on the gender of the older sibling, at least when the younger sibling is female. While these older sisters report more intense conflicts of this type if they reported low positivity the previous year, older brothers actually reported less intense conflicts.

Equality and fairness. In the model examining associations between relationship positivity and the intensity of conflicts over issues of equality and fairness, the control variables of Time 1 equality and fairness conflict intensity and Time 2 invasion of the personal domain conflict intensity were significant, as was the interaction between Actor Gender and Partner Gender. There were no significant main effects of positivity.

There was a significant 3-way interaction ($t = -2.22$, $p = .03$) for Partner Sex X Birth Order X Actor reports of Positivity (Hypotheses 3A, 5A, 5B). Simple slopes revealed that the less positivity emerging adults with younger brothers reported in their relationship, the greater intensity they reported in their conflicts over issues of equality and fairness a year later ($t = -2.08$, $p = .04$; see Figure 9.B). However, there was no association when reports of positivity and this type of conflict were made by emerging adults with younger sisters ($t = 1.77$, $p = \text{n.s.}$), or the younger siblings of either male ($t = .06$, $p = \text{n.s.}$) or female ($t = -2.63$, $p = \text{n.s.}$) emerging adults.

There was a significant 3-way interaction ($t = 2.45$, $p = .02$) for Partner Sex X Birth Order X Partner reports of Positivity (Hypotheses 4A, 5A, 5B). However, despite

the significant 3-way interaction, no significant slopes were produced. Therefore, no further interpretations were made.

Taken together, these two models examining relationship positivity and later conflict intensity suggest that despite the gender differences in effects, it is the older sibling's perceptions of positivity that are related to later conflict intensity, rather than perceptions from younger siblings.

Longitudinal Associations between T1 Relationship Negativity and T2 Conflict Intensity

In these analyses, the associations between relationship negativity and the two types of conflict intensity one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with control variables of age, gender, ordinal position, the Time 1 report of the intensity of the type of conflict being tested in the model, and the Time 2 report of the type of conflict intensity not being tested in that particular model (see Table 11). The main effects of both actor and partner reports of negativity, as well as interactions between gender and ordinal position, were included in the models as well. There were no significant 4-way or 3-way interactions in either of the models, so they were dropped and analyses were re-run. For the model examining conflicts over issues of equality and fairness, there were also no significant 2-way interactions, so these were dropped from that particular model as well.

Invasion of the personal domain. In the model examining associations between relationship negativity and the intensity of conflicts over the invasion of the personal domain, the control variable of Time 2 equality and fairness conflict intensity (but not

Time 1 issues of equality and fairness conflict intensity) was significant. There was also a significant main effect of Actor reports of Negativity ($t = 2.583, p = .01$), indicating that the greater negativity participants reported in their relationships, the more intense they rated these types of conflicts the following year (Hypothesis 3B).

There was also a marginally significant 2-way interaction for Actor Sex X Actor ratings of Negativity ($t = 1.76, p = .08$) and a significant 2-way interaction for Birth Order X Actor ratings of Negativity ($t = 2.36, p = .02$), but no significant slopes were produced for either interaction (Hypotheses 3B, 5A, 5B). Therefore, no further interpretations were made.

Equality and fairness. In the model examining associations between relationship negativity and the intensity of conflicts over issues of equality and fairness, the control variables of Time 1 equality and fairness conflict intensity and Time 2 issues of equality and fairness conflict intensity, as well as the interaction between Actor Gender and Partner Gender were significant. However, there were no further associations between negativity and this type of conflict.

Together, the findings from these two models suggest that relationship negativity is associated with later intensity with regard to conflicts over the invasion of the personal domain, but not to those over issues of equality and fairness. Given that relationship negativity was not particularly strongly associated with the frequency of either type of conflict in those models, perhaps negativity is uniquely associated with later intensity of conflicts over the invasion of the personal domain.

Longitudinal Associations between T1 Relative Power and T2 Conflict Intensity

In these analyses, the associations between relative power and the two types of conflict intensity one year later were tested. Two separate APIM models were run, one for conflicts over the invasion of the personal domain and one for conflicts over issues of equality and fairness, with control variables of age, gender, ordinal position, the Time 1 report of the intensity of the type of conflict being tested in the model, and the Time 2 report of the type of conflict intensity not being tested in that particular model (see Table 12). The main effects of both actor and partner reports of relative power, as well as interactions between gender and ordinal position, were included in the models as well. There significant 4-way interactions in the model examining conflicts over the invasion of the personal domain, but both 4-way and 3-way interactions were ultimately dropped from the model examining conflicts over issues of equality and fairness.

Invasion of the personal domain. In the model examining associations between relative power and the intensity of conflicts over the invasion of the personal domain, the control variables of Time 2 equality and fairness conflict intensity and Time 1 invasion of the personal domain conflict intensity were both significant, as was age and the interaction between actor gender and birth order. The main effect for actor reports of relative power was only marginally significant ($t = 1.66$, $p = .10$) (Hypothesis 3C).

There was a significant 4-way interaction ($t = -2.22$, $p = .03$) for Actor Sex X Partner Sex X Birth Order X Actor reports of Power (Hypotheses 3C, 5A, 5B). Simple slopes revealed that the more power younger brothers felt their older brothers had in their relationship, the more intensity they reported in conflicts over the invasion of the personal domain a year later ($t = 2.16$, $p = .04$; see Figure 10.A), and that the more power older brothers thought their younger sisters had in their relationship, the more intensity

they reported in conflicts over the invasion of the personal domain a year later ($t = 2.41, p = .02$). However, there was no association between power and this type of conflict when reports were made by younger sisters of female ($t = -1.24, p = \text{n.s.}$) or male ($t = .28, p = \text{n.s.}$) emerging adults, younger brothers of female emerging adults ($t = -1.31, p = \text{n.s.}$), female emerging adults with younger sisters ($t = -1.45, p = \text{n.s.}$) or brothers ($t = 1.01, p = \text{n.s.}$), or male emerging adults with younger brothers ($t = .46, p = \text{n.s.}$).

There were also marginally significant Partner Gender X Birth Order X Actor reports of Power ($t = -1.71, p = .09$) and Actor Gender X Actor reports of Power ($t = 1.66, p = .10$) interactions, but because these were qualified by the 4-way interaction, they were not investigated further.

There was a significant 2-way Birth Order X Partner reports of Power ($t = -2.16, p = .03$) interaction (Hypotheses 4C, 5B). Simple slopes revealed that the more power younger siblings thought they had in their relationship, the less intensity their older siblings reported in conflicts over the invasion of the personal domain one year later ($t = 2.69, p = .01$; see Figure 10.B), but there was no association for older siblings who reported on the relative power in their relationship ($t = 1.77, p = \text{n.s.}$).

Finally, there was a significant 2-way Actor Gender X Partner reports of Power ($t = -2.08, p = .04$) interaction (Hypotheses 4C, 5A). Simple slopes revealed that the more power siblings with sisters reported in their relationships, the less intensity their sisters reported in conflicts over the invasion of the personal domain one year later ($t = 2.69, p = .01$; see Figure 10.C), but there was no association for siblings with brothers who reported on the relative power in their relationship ($t = .66, \text{n.s.}$).

These results suggest that in general, if there is an older brother in the sibling dyad, then the less power one perceives having in the relationship, the more intense they perceive their conflicts over the invasion of the personal domain. In contrast, the more power that older siblings generally think they have, and the more power that siblings who have sisters think they have, the *less* intense *their siblings* perceive these types of conflict, indicating that actor and partner effects for these associations are distinct from one another.

Equality and fairness. In the model examining associations between relative power and the intensity of conflicts over issues of equality and fairness, the control variables of Time 2 invasion of the personal domain conflict intensity and Time 1 issues of equality and fairness conflict intensity were both significant. There were no significant main effects of relative power.

There was a significant 2-way interaction ($t = -2.05, p = .04$) for Actor Sex X Actor reports of Power (Hypotheses 3C, 5A). Simple slopes revealed that the more power females reported that their siblings have in their relationship, the more intensity they reported in their conflicts over issues of equality and fairness one year later ($t = 3.27, p < .01$; see Figure 10.D), but there was no association when reports of power and this type of conflict were made by males ($t = .80, p = \text{n.s.}$).

There was also a significant 2-way interaction ($t = 2.91, p = .01$) for Actor Sex X Partner reports of Power (Hypotheses 4C, 5B). Simple slopes revealed that the more power that siblings of females thought their female siblings had in their relationship, the less intensity females reported in their conflicts over issues of equality and fairness one year later ($t = -3.40, p < .01$; see Figure 10.E), but there was no association between

power as reported by siblings of males and the power males reported one year later ($t = .07, p = \text{n.s.}$).

There was a significant 2-way interaction ($t = -2.63, p = .01$) for Birth Order X Actor reports of Power (Hypotheses 3C, 5B). Simple slopes revealed that the more power that younger siblings think their older siblings have in their relationship, the more intensity they reported in their conflicts over issues of equality and fairness one year later ($t = 3.27, p < .01$; see Figure 10.F) but there was no association between power and this type of conflict when reports were made by emerging adults ($t = .04, p = \text{n.s.}$).

These findings generally suggest that if females have more power in their sibling relationship (whether perceived by themselves or by their siblings), then they perceive less intense conflicts over issues of equality and fairness the following year. In addition, if younger siblings think their older siblings have more power in the relationship, then they perceive more intense conflicts over issues of equality and fairness the next year. This is in contrast to findings examining conflicts over the invasion of the personal domain, which suggested that the more power older siblings perceived they had, the less intense their younger siblings reported their invasion of the personal domain conflicts. Together, this indicates that when power is held by older siblings, it may be related to more intense conflicts over issues of equality and fairness, but less intense conflicts over the invasion of the personal domain.

CHAPTER 4

DISCUSSION

The present study sought to examine both older and younger siblings' perceptions of their conflicts and relationship quality during an important developmental event: older siblings' transitions to college. We were interested in not only the general longitudinal trajectory of siblings' perceptions of two types (frequency, intensity) and domains (equality and fairness, invasion of the personal domain) of sibling conflict and three aspects of their relationship quality (positivity, negativity, relative power), but also the associations between conflict and relationship quality across this transition. Specifically, we hoped to determine whether sibling conflict was associated with later relationship quality, and whether relationship quality was associated with later conflict. With regard to these longitudinal associations, we were interested in not only actor effects (e.g., older siblings' perceptions at Time 1 being associated with their own perceptions at Time 2), but also partner effects, such that the perspective of one sibling at Time 1 would be associated with the other sibling's perspective at Time 2. Overall, our results indicated that, in general support of our hypotheses, sibling conflict is related to later relationship quality during this transition, and sibling relationship quality is related to later conflict, though these associations differ based on the content of the conflicts, the aspect of relationship quality investigated, and structural features of the sibling relationship.

Our findings advance the study of sibling relationships in several important ways. While a growing body of literature has examined this life-long relationship in both early (e.g., Brody, 1998, Dunn, 2004) and later years of life (e.g., Cicirelli, 1995), relatively

little is known about emerging adult sibling relationships, and even less is known about this relationship during the transition from adolescence to emerging adulthood (e.g., Whiteman et al., 2011). The present study is only the second study to our knowledge that has longitudinally examined the sibling relationship in the years immediately before and after first-born children moved away to college (Whiteman et al., 2011), and it is the first to examine how sibling conflict and relationship quality are associated during this transition. The fact that many of the significant associations we found differed based on the sibling gender composition of the dyad (Hypothesis 5A) and the birth order of the reporting sibling (Hypothesis 5B) adds support to the idea that not all sibling relationships are the same, and that even within the same family, two siblings may perceive their relationship quite differently from one another.

Further, our results suggest that despite the fact that previous research (Tsai, Telzer, & Fuligni, 2012) has suggested that relationship quality trajectories often stabilize or improve between children and their parents during this transition, our findings indicate that similar patterns may not yet occur in the sibling relationship during the first year after older siblings leave home.

Developmental Trajectory of Sibling Conflict and Relationship Quality

Sibling conflict tends to decrease throughout adolescence (Buhrmester & Furman, 1990), and not surprisingly, our findings suggest that this trend continues through the first-born's transition to college, though conflicts over the invasion of the personal domain seem to remain more salient (in terms of intensity) than conflicts over issues of equality and fairness. It is not surprising that conflicts over issues of equality and fairness appear to lose their prominence in sibling relationships during this transition. This

particular domain of conflict revolves around shared household resources (at least as it was operationally defined by our measure), and siblings who no longer live together simply have fewer opportunities to engage in these conflicts. Conflicts over the invasion of the personal domain, however, may continue to be perceived as particularly problematic to both older and younger siblings because they tend to encroach on one's personal domain, defined by social domain theorists as including issues of privacy, bodily integrity and control, and one's personal choices and preferences (Smetana, 2006). As adolescents strive to attain more autonomy and independence as they move closer to adulthood, (e.g., Dornbusch, Ritter, Mont-Reynaud, & Chen, 1990; Smetana, Campione-Barr, & Daddis, 2004) more and more issues begin to fall within their personal purview (Smetana, 2000). Thus, they view threats to their personal domain as more problematic since issues such as their bedroom and friend choices are considered private concerns that should not be interfered with by others, including siblings.

Research investigating changes in sibling relationship quality through childhood and adolescence has suggested that siblings perceive decreasing levels of both positivity and negativity in their relationships (Buhrmester & Furman, 1990). Our results suggest that this trajectory generally continues, at least during the first year that older siblings leave home. Specifically, positivity tended to continue to decline among same-sex dyads once the older sibling left home, in contrast with findings from Whiteman et al. (2011), who found that sibling relationships began to improve as early as the first year after older siblings moved out of the natal home to attend college.. In terms of negativity, while younger siblings generally viewed their relationships more negatively than older siblings across all time points, both younger sisters with older sisters and older sisters with

younger brothers reported less negative relationships once older siblings left for college, in line with prior trajectories of negativity found during the adolescent years (Buhrmester & Furman, 1990). Together, these results indicate that the quality of the sibling relationship may not begin to change course until after older siblings have been away from home for some time.

Our results also indicate that despite the notion that a major task of emerging adulthood might be to eliminate major power imbalances in the sibling relationship (Aquilino, 2006), older and younger siblings were in agreement that older siblings still held more power in the relationship at Time 2. It may well be that these power imbalances take longer to correct in sibling relationships than our one-year follow-up was able to capture. In our sample, younger siblings were still living in their natal home at Time 2, so it seems likely that once they also exit their home, their older siblings will begin to observe their independence, and their relationship will then begin to look more symmetrical.

Associations between Conflict and Later Relationship Quality

In general, we expected that higher levels of conflict frequency and intensity would be associated with lower positivity, higher negativity, and less egalitarian relationships one year later (Hypotheses 1A, 1B, 2A, 2B), given previous research (Campione-Barr & Smetana, 2010) that has found cross-sectional associations between these constructs during the adolescent years. However, our hypotheses were only somewhat supported, indicating that there might be something unique about the transition to college that upsets these prior trajectories and associations.

First, we found that more frequent conflicts over issues of equality and fairness were related to more positivity in dyads with younger sisters, and less negativity among dyads with older sisters after the oldest sibling moved to college. We also found that more frequent conflicts over the invasion of the personal domain were related to older siblings' perceptions of less negative relationships the next year if they had younger sisters (Hypothesis 1A). These results indicate that higher frequencies of conflict when siblings are living together may actually be beneficial for their relationship later on. Research has shown that sibling conflict helps facilitate social competence (Howe & Recchia, 2008; Vandell & Bailey, 1992), so perhaps with more experience in conflicts, siblings are capable of more enriching and satisfactory relationships despite their squabbles. It is also possible that due to the simple fact that siblings no longer live together, siblings who once struggled with frequent conflicts now view their relationship in a more positive light due to a period of separation where they get a "break" from one another. This especially seems to be the case for dyads with younger sisters, where more conflicts over the invasion of the personal domain were associated with lower negativity the following year, as reported by older siblings. For these older siblings, it is possible that they perceive less negativity in their relationship because they are given some separation from their younger sisters, who likely tried to emulate them in the past by invading their personal domain.

We found partial support for our hypothesis that more conflict would be related to an increased power differential in the relationship the following year (Hypotheses 1B, 2A, 2B) in that more frequent conflicts over the invasion of the personal domain were associated with more male-dominated relationships the following year, as reported by

their siblings. This did not appear to be the case for females, or with regards to conflicts over issues of equality and fairness; however, it is not clear whether males in this case initiated or were recipients of these conflicts over the invasion of the personal domain. If brothers tended to initiate these types of conflict, then it could be said that by encroaching on the personal domain of their sibling, they gained power over them. On the other hand, if it was the brother's personal domain that was being invaded, then perhaps he was able to utilize some type of strategy to overcome this invasion to either maintain or increase his power in the relationship.

With regard to the association between conflict intensity and later relationship quality, we only found partial support for our hypotheses that greater intensity would be related to lower positivity and greater negativity (Hypotheses 1A, 2A, 2B), though the intensity of conflicts does not appear to necessarily benefit siblings to the extent that conflict frequency does. Specifically, we did not find any relationship between conflict intensity and later positivity, indicating that perhaps sibling positivity is influenced by factors outside of the "hotness" of discussions. We did, however, find that intense conflicts over the invasion of the personal domain were related to lower levels of negativity for dyads with younger sisters, indicating that these types of conflicts may have some beneficial qualities for siblings, though as predicted, in these same dyads, the intensity of conflicts over issues of equality and fairness were related to more negativity the following year. This provides further evidence of the importance of looking at multiple domains of sibling conflict (Campion-Barr et al., 2012; Campione-Barr & Smetana, 2010), as they do appear to differentially impact relationships.

Our hypothesis that greater conflict intensity would be associated with later power differences (Hypotheses 1B, 2A, 2B) produced particularly interesting findings. We found partial support for our hypothesis in that more intense conflicts over the invasion of the personal domain were associated with older siblings' perceptions of more power the following year, maintaining the common pattern from childhood and adolescence that older siblings hold more power in the relationship (Perlman et al., 2000). These findings suggest that this particular type of conflict may hinder the development of more egalitarian relationships. A key component of establishing symmetry at this stage in the sibling relationship may therefore lie in sibling deidentification (Feinberg, McHale, Crouter, & Cumsille, 2003; Schachter, Shore, Feldman-Rotman, Marquis, & Campbell, 1976), the process through which siblings actively seek to pursue and excel in different domains of their lives to minimize competition and thereby conflict. Perhaps parents should encourage younger siblings to forge their own paths so that they will be less interested in invading their older siblings' personal domain (presumably with the intent of emulating them), in order to achieve an appropriately egalitarian relationship later on.

Despite the support for our hypothesis with regard to the intensity of conflicts over the invasion of the personal domain, it was not supported with regard to conflicts over issues of equality and fairness (Hypotheses 1B, 2A, 2B) in that more intense conflicts within this domain were related to younger brothers' perceptions of *more* power in the relationship. Typically, older siblings have more power in their relationship, at least during childhood and adolescence (Perlman et al., 2000), so the fact that younger brothers perceived that they held more power in the relationship indicates that the relationship was likely relatively egalitarian the following year. It may be that intense

pushes for equality from younger siblings may be an effective means to improve their level of power in the relationship, at least for younger brothers.

Associations between Relationship Quality and Later Conflict

In examining associations between relationship quality and later conflict, we predicted that greater relationship positivity would be related to lower levels of conflict the following year (Hypotheses 3A, 4A), and that greater negativity (Hypotheses 3B, 4B) and power differential (Hypotheses 3C, 4C) would be related to higher levels of conflict the following year. Similar to our analyses examining the influence of conflict on relationship quality, only some of our hypotheses were supported, once again suggesting that the transition to emerging adulthood may result in changing trajectories for some aspects of sibling relationships.

We expected that positivity would be negatively related to later conflict (Hypotheses 3A, 4A), and our hypothesis was generally supported. However, there were important gender differences present. For older sisters, especially those with younger sisters, lower levels of positivity were related to more frequent and intense conflicts over the invasion of the personal domain the following year, as predicted, but for older brothers who had younger sisters, low levels of positivity were actually related to less intense conflicts of this type a year later. It may be that it takes older sisters more time to achieve harmonious sibling relationships than it does for older brothers. A possible explanation that merits further investigation is the idea that perhaps older sisters remain close and connected with their siblings even after they leave the natal home due to gendered socialization expectations of being active in intimate relationships and providing emotional support to those with whom they are close (Howe, Aquan-Assee,

Bukowski, Lehoux, & Rinaldi, 2001), which would therefore maintain many of the patterns found in their relationship in previous years. In contrast, older brothers may separate from their siblings more willingly, resulting in a natural decline in conflict.

Our prediction that greater relationship negativity would be associated with more frequent and intense conflicts the following year (Hypotheses 3B, 4B) was only supported in terms of later intensity of conflicts over the invasion of the personal domain. It appears that the level of negativity is not particularly related to conflict frequency, which makes sense given that if two siblings do not get along particularly well, then their separation once the older sibling leaves home would likely be met with a desire to avoid one another, and hence the siblings would have fewer opportunities to fight. However, consistent with Campione-Barr and Smetana's (2010) cross-sectional findings, for these siblings exhibiting high negativity, their conflicts over the invasion of the personal domain are still quite intense when they do occur, suggesting that although they may mature out of conflicts over the division of household resources (equality and fairness issues), the more personal nature of these siblings' conflicts may be particularly problematic. Previous research (Campione-Barr et al., 2012) has suggested that during the adolescent years, conflicts over the invasion of the personal domain are related to higher anxiety and lower self-esteem the following year, and it seems that if siblings have a particularly negative relationship (which is not normative in late adolescence; Buhrmester & Furman, 1990), then there may be some underlying problems in the relationship, which may manifest in more conflicts of a personal nature that target the dyad members' senses of self.

Although relative power was not related to later conflict frequency, we did generally find support for our hypothesis that a larger power differential at Time 1 would be associated with more intense conflicts at Time 2 (Hypotheses 3C, 4C). We found that more asymmetrical relationships were related to more intense conflicts over issues of equality and fairness the following year (particularly for females and younger siblings), which makes sense given that the less powerful sibling in the relationship would likely attempt to “push” intensely for more equal footing. We also found similar results with regard to conflicts over the invasion of the personal domain, indicating that perhaps if siblings differentiate from one another early on and presumably achieve a relatively symmetrical relationship (Schachter et al., 1976), then they would likely have no desire to encroach on the other’s personal domain later. Also in line with our predictions, our data indicate that in brother-brother dyads, greater power differential is related to more intense conflicts over the invasion of the personal domain the next year. It may be that for these brothers, they may use these types of conflicts to encroach on one another in order to assert or maintain their power in the relationship. However, it is not clear whether this is a tactic utilized more by older or younger brothers.

Limitations, Implications and Contributions

The present study advances the study of sibling relationships by examining their trajectory, as well as longitudinal associations between conflict and relationship quality, but future research should address some key limitations to our study. First, the scale we used to measure conflict (Campion-Barr & Smetana, 2010) was developed based on pilot data from 6th to 9th graders, but clearly our study encompassed an older group of siblings. It is quite possible that some of the conflict issues in the scale are no longer

applicable issues to late adolescent sibling pairs, and there may be new issues more salient to these siblings that were not relevant for younger adolescent siblings. Furthermore, it is possible that additional domains of conflict may arise during the emerging adult years. Future research should investigate other potential sources of conflict between siblings, such as issues surrounding driving behaviors and shared use of vehicles, dating, and maturity.

On a related note, while the Sibling Issues Checklist (Campione-Barr & Smetana, 2010) effectively delineates between the frequency and intensity of conflicts, it does not ask siblings to report on which sibling typically initiates the different conflict issues. While research suggests that older siblings tend to be the aggressors in sibling conflicts among preschoolers and school-age children since younger siblings of this age tend to submit more easily to their older siblings (see Vandell & Bailey, 1992 for a review), this pattern is less clear in adolescence and beyond when younger siblings are more capable of standing their ground against their older siblings. We speculate that younger siblings would be more likely to invade on the personal domain of their older siblings than vice versa since these types of conflicts likely involve younger siblings wanting to “tag along” with their older sibling, but in this case the conflict likely originates from the older sibling who does not want the younger sibling’s company; if the younger sibling’s behavior was not unwanted, the older sibling would not initiate a fight. However, we cannot be sure of these patterns, so this will be an important addition for later research on sibling conflict.

All of our first-born participants moved out of their natal home and attended college at Time 2 of the data collection, but certainly not all high school graduates attend

college, and of those who do, many live at home while they pursue their education. Further, our sample was quite homogenous in that most of our participants were white and of the middle- to upper-middle class. As a result, many sibling relationships may follow a very different course than what has been highlighted here. Preliminary evidence that these may be important factors for sibling relationships during this transition has been found by Whiteman et al. (2011), who illustrated that both parent-child and sibling relationships only improve during the transition to college if the first-born child actually leaves the natal home to attend college, providing preliminary evidence that it may be the actual act of leaving home that improves or stabilizes family relationships. Future work should examine whether the same relational processes highlighted in the present study also apply to siblings when the oldest does not move away to attend college, when the oldest sibling pursues a path other than a college education, and among minority groups and families with a lower SES.

Finally, the present study examines only the one-year transitional period between when oldest siblings were seniors in high school and when they were college freshmen. Although an important transition was captured over the course of this carefully selected year, it is likely that many changes that occur in the sibling relationship in preparation for adulthood do not manifest in such a short span of time, particularly in terms of resolving power imbalances in the relationship. It will be important to continue to follow siblings throughout the course of the emerging adult years to gain a better understanding of when these relationships improve or stabilize more.

Despite these important limitations, the present study offers several important contributions to the study of sibling relationships. Because of the transactional and dyadic

nature of sibling relationships, our study utilized the APIM (Kenny et al., 2006) to effectively capture both actor and partner effects in associations between sibling conflict and relationship quality during this developmental transition. Our data indicated several significant partner effects which would have gone unnoticed had the APIM not been used, indicating that at least among sibling dyads, the perception of one dyad member is often related to the subsequent perceptions of the other across time. Our study also examined and found important differences between siblings of different gender compositions, highlighting the fact that the gender of both siblings is a contributing factor to many aspects of their relationship.

While a growing body of research continues to examine the nature and significance of sibling relationships during both childhood and adolescence, the emerging adult years appear to be a particularly important period for sibling relationships. For the first time, the relationship is relatively voluntary and not exclusively enforced by parents, so siblings have the opportunity to develop their relationship on a new level in preparation for their relationship as adults. While much emphasis has been placed on the importance of peers during these years, one should not underestimate the role that siblings can play for one another, particularly in terms of support (Aquilino, 2006). By understanding how sibling relationships evolve from childhood relationships into adult relationships, we might gain a better understanding of how the early years set-up siblings for enriching familial relationships in their adult lives.

Table 1

Correlations Among Emerging Adult and Sibling Reports of Conflict

	Means (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1. EA Age (T1)	17.56 (.50)	--																				
2. Sib. Age (T1)	14.54 (1.17)	.20	--																			
3. EA Gender (1=male, 0=female)		-.11	.08	--																		
4. Sib. Gender (1=male, 0=female)		-.13	-.22	.10	--																	
5. EA EF Freq (T1)	1.87 (.64)	-.34*	-.20	.00	.21	--																
6. EA IP Freq (T1)	1.72 (.64)	-.21	-.20	.01	-.04	.56**	--															
7. EA EF Intensity (T1)	1.49 (.54)	-.35*	-.24*	.21	.14	.74**	.48**	--														
8. EA IP Intensity (T1)	1.70 (.70)	-.26*	-.11	.01	-.07	.67**	.80**	.69**	--													
9. EA EF Freq (T2)	1.44 (.55)	-.11	-.19	.19	.08	.39**	.41**	.40**	.33*	--												
10. EA IP Freq (T2)	1.41 (.50)	-.06	-.20	.12	-.02	.13	.31*	.24*	.19	.71**	--											
11. EA EF Intensity (T2)	1.23 (.43)	-.10	-.28*	.09	.17	.41**	.38**	.48**	.40**	.79**	.66**	--										
12. EA IP Intensity (T2)	1.45 (.56)	-.13	-.17	.15	.02	.19	.37**	.37**	.31*	.66**	.86**	.64**	--									
13. Sib. EF Freq (T1)	1.83 (.76)	-.24*	.03	.17	-.06	.52**	.30*	.53**	.50**	.24*	.11	.28*	.15	--								
14. Sib. IP Freq (T1)	1.74 (.74)	.01	.24*	.09	-.24*	.20	.34*	.11	.40**	.01	-.01	.03	-.01	.61**	--							
15. Sib. EF Intensity (T1)	1.45 (.55)	-.23	.03	.17	.01	.52**	.34*	.49**	.50**	.27*	.14	.31*	.16	.94**	.65**	--						
16. Sib. IP Intensity (T1)	1.75 (.87)	-.01	.31*	.13	-.14	.18	.26*	.11	.26*	.06	.08	.02	.06	.62**	.76**	.70**	--					
17. Sib. EF Freq (T2)	1.52 (.62)	-.11	.12	.14	-.29*	.40**	.16	.27*	.36*	.22	-.02	.06	.03	.62**	.44**	.67**	.37**	--				
18. Sib. IP Freq (T2)	1.57 (.59)	-.04	.23	.18	-.18	.35*	.15	.28*	.35*	.12	-.09	-.03	-.03	.65**	.61**	.71**	.54**	.85**	--			
19. Sib. EF Intensity (T2)	1.33 (.48)	-.02	.14	.21	-.18	.38**	.17	.35*	.37*	.24*	.01	.07	.05	.61**	.45**	.70**	.48**	.90**	.87**	--		
20. Sib. IP Intensity (T2)	1.59 (.65)	.12	.32*	.20	-.20	.16	.06	.23	.20	.04	-.01	-.03	.01	.58**	.60**	.66**	.64**	.63**	.86**	.74**	--	

Note. + $p < .10$ * $p < .05$ ** $p < .01$. EA = Emerging Adult (older sibling). Sib = Sibling (younger sibling). EF = Equality and Fairness Issues. IP = Invasion of the Personal Domain.

Freq = Conflict Frequency. Intensity = Conflict Intensity. T1 = Time 1 report. T2 = Time 2 report.

Table 2

Correlations Among Emerging Adult and Sibling Reports of Relationship Quality

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. EA Age (T1)	Means (SD)															
		17.56 (.50)														
2. Sib. Age (T1)	.20	--														
3. EA Gender (1=male, 0=female)	-.11	.08	--													
4. Sib. Gender (1=male, 0=female)	-.13	-.22	-.01	--												
5. EA Power (T1)	1.97 (.83)	-.12	-.02	.03	-.03	--										
6. EA Positivity (T1)	2.99 (.90)	.17	.17	-.17	-.23	.22	--									
7. EA Negativity (T1)	2.28 (.77)	-.21	.05	-.22	.33*	-.16	--									
8. EA Power (T2)	1.80 (.72)	-.05	.13	.17	-.08	.39**	-.06	.30*	--							
9. EA Positivity (T2)	2.98 (.75)	-.06	.12	.07	-.11	.12	.75**	-.18	-.09	--						
10. EA Negativity (T2)	2.09 (.82)	-.30*	-.06	.11	-.17	.38**	-.01	.79**	.55**	.00	--					
11. Sib. Power (T1)	2.94 (.97)	-.05	-.33*	.05	.15	.12	.03	-.07	.06	-.01	.06	--				
12. Sib. Positivity (T1)	3.05 (.91)	-.20	.06	.07	-.04	.13	.47**	-.15	.08	.42**	.16	.17	--			
13. Sib. Negativity (T1)	2.60 (.91)	.02	.06	.13	-.26*	.19	-.07	.60**	.08	.01	.38**	.09	-.28*	--		
14. Sib. Power (T2)	2.72 (.90)	.13	-.28*	-.09	-.06	.05	-.23	-.02	-.04	-.29*	.01	.37*	-.09	.24*	--	
15. Sib. Positivity (T2)	2.82 (.88)	-.14	.02	-.10	-.18	.20	.33*	-.14	.04	.42**	.04	.21	.53**	-.10	.01	--
16. Sib. Negativity (T2)	2.45 (.77)	-.15	-.10	.08	-.21	.17	-.05	.33*	.11	-.04	.32*	.22	-.07	.54**	.51**	-.08

Note. + $p < .10$ * $p < .05$ ** $p < .01$. EA = Emerging Adult (older sibling). Sib = Sibling (younger sibling). T1 = Time 1 report. T2 = Time 2 report.

Table 3

Means (SD) for Emerging Adult and Sibling Reports of Conflict

	Conflict Frequency						Conflict Intensity						
	Time 1			Time 2			Time 1			Time 2			
	EF	IP	EF	IP	EF	IP	EF	IP	EF	IP	EF	IP	
<u>Emerging Adult Males</u>													
w/Younger Brothers (n=14)	1.96 (.57)	1.85 (.63)	1.57 (.44)	1.51 (.56)	1.67 (.60)	1.74 (.68)	1.30 (.47)	1.63 (.60)	1.30 (.47)	1.74 (.68)	1.30 (.47)	1.63 (.60)	1.30 (.47)
w/Younger Sisters (n=6)	1.64 (.47)	1.42 (.42)	1.55 (.66)	1.42 (.62)	1.52 (.75)	1.61 (.78)	1.21 (.34)	1.36 (.59)	1.21 (.34)	1.61 (.78)	1.21 (.34)	1.36 (.59)	1.21 (.34)
w/Younger Siblings (n=20)	1.87 (.55)	1.72 (.60)	1.57 (.50)	1.48 (.56)	1.63 (.63)	1.70 (.69)	1.27 (.43)	1.55 (.59)	1.27 (.43)	1.70 (.69)	1.27 (.43)	1.55 (.59)	1.27 (.43)
<u>Emerging Adult Females</u>													
w/Younger Brothers (n=17)	1.97 (.78)	1.57 (.74)	1.40 (.67)	1.31 (.45)	1.45 (.45)	1.59 (.81)	1.27 (.53)	1.32 (.56)	1.27 (.53)	1.59 (.81)	1.27 (.53)	1.32 (.56)	1.27 (.53)
w/Younger Sisters (n=11)	1.71 (.55)	1.93 (.53)	1.29 (.39)	1.43 (.46)	1.32 (.48)	1.85 (.56)	1.08 (.17)	1.47 (.52)	1.08 (.17)	1.43 (.46)	1.08 (.17)	1.47 (.52)	1.08 (.17)
w/Younger Siblings (n=28)	1.87 (.70)	1.71 (.68)	1.36 (.57)	1.36 (.45)	1.40 (.46)	1.69 (.72)	1.20 (.43)	1.38 (.54)	1.20 (.43)	1.36 (.45)	1.20 (.43)	1.38 (.54)	1.20 (.43)
<u>All Emerging Adults</u>													
w/Younger Brothers (n=31)	1.97 (.68)	1.70 (.70)	1.48 (.58)	1.40 (.50)	1.55 (.53)	1.66 (.75)	1.28 (.49)	1.46 (.59)	1.28 (.49)	1.40 (.50)	1.28 (.49)	1.46 (.59)	1.28 (.49)
w/Younger Sisters (n=17)	1.69 (.51)	1.75 (.55)	1.39 (.50)	1.43 (.50)	1.40 (.57)	1.76 (.63)	1.13 (.24)	1.43 (.53)	1.13 (.24)	1.43 (.50)	1.13 (.24)	1.43 (.53)	1.13 (.24)
w/Younger Siblings (n=48)	1.87 (.64)	1.72 (.64)	1.44 (.55)	1.41 (.50)	1.49 (.54)	1.70 (.70)	1.23 (.43)	1.45 (.56)	1.23 (.43)	1.41 (.50)	1.23 (.43)	1.45 (.56)	1.23 (.43)
<u>Younger Males</u>													
w/Emerging Adult Brothers (n=14)	2.05 (.90)	1.80 (.67)	1.46 (.41)	1.63 (.48)	1.59 (.61)	1.99 (.95)	1.34 (.37)	1.70 (.62)	1.34 (.37)	1.63 (.48)	1.34 (.37)	1.70 (.62)	1.34 (.37)
w/Emerging Adult Sisters (n=17)	1.59 (.67)	1.45 (.55)	1.33 (.40)	1.39 (.46)	1.34 (.52)	1.40 (.64)	1.21 (.34)	1.34 (.53)	1.21 (.34)	1.39 (.46)	1.21 (.34)	1.34 (.53)	1.21 (.34)
w/Emerging Adult Siblings (n=31)	1.80 (.80)	1.61 (.62)	1.39 (.41)	1.50 (.48)	1.45 (.57)	1.67 (.83)	1.27 (.35)	1.50 (.59)	1.27 (.35)	1.50 (.48)	1.27 (.35)	1.50 (.59)	1.27 (.35)
<u>Younger Females</u>													
w/Emerging Adult Brothers (n=6)	1.83 (.73)	1.86 (.90)	2.00 (1.18)	1.86 (.93)	1.50 (.67)	1.64 (.80)	1.71 (.85)	1.87 (.89)	1.71 (.85)	1.86 (.90)	1.71 (.85)	1.87 (.89)	1.71 (.85)
w/Emerging Adult Sisters (n=11)	1.92 (.73)	2.05 (.92)	1.63 (.62)	1.64 (.69)	1.42 (.46)	2.06 (.99)	1.31 (.49)	1.71 (.67)	1.31 (.49)	1.64 (.69)	1.31 (.49)	1.71 (.67)	1.31 (.49)
w/Emerging Adult Siblings (n=17)	1.89 (.71)	1.98 (.89)	1.76 (.84)	1.72 (.76)	1.45 (.53)	1.91 (.92)	1.45 (.64)	1.77 (.73)	1.45 (.64)	1.72 (.76)	1.45 (.64)	1.77 (.73)	1.45 (.64)
<u>All Younger Siblings</u>													
w/Emerging Adult Brothers (n=20)	1.98 (.84)	1.81 (.72)	1.62 (.74)	1.70 (.63)	1.56 (.61)	1.89 (.90)	1.45 (.56)	1.75 (.69)	1.45 (.56)	1.70 (.63)	1.45 (.56)	1.75 (.69)	1.45 (.56)
w/Emerging Adult Sisters (n=28)	1.72 (.70)	1.68 (.76)	1.45 (.51)	1.49 (.56)	1.37 (.49)	1.66 (.84)	1.25 (.40)	1.48 (.60)	1.25 (.40)	1.49 (.56)	1.25 (.40)	1.48 (.60)	1.25 (.40)
w/Emerging Adult Siblings (n=48)	1.83 (.76)	1.74 (.74)	1.52 (.62)	1.57 (.59)	1.45 (.55)	1.75 (.87)	1.33 (.48)	1.59 (.65)	1.33 (.48)	1.57 (.59)	1.33 (.48)	1.59 (.65)	1.33 (.48)

Note. n = # of dyads. Reports were made on a 5-point scale ranging from 1 (not at all) to 5 (very often) for frequency, and 1 (calm) to 5 (angry) for intensity.

Table 4

Means (SD) for Emerging Adult and Sibling Reports of Relationship Quality

	Time 1				Time 2				
	Relative Power	Positivity	Negativity	Relative Power	Positivity	Negativity	Relative Power	Positivity	Negativity
<u>Emerging Adult Males</u>									
w/Younger Brothers (n=14)	2.22 (.70)	2.84 (.76)	2.47 (.76)	2.02 (.72)	3.06 (.65)	2.36 (.88)			
w/Younger Sisters (n=6)	1.50 (.78)	2.73 (.67)	2.00 (.48)	1.78 (.83)	3.00 (.73)	1.79 (.74)			
w/Younger Siblings (n=20)	2.01 (.78)	2.81 (.72)	2.33 (.71)	1.95 (.74)	3.04 (.66)	2.19 (.87)			
<u>Emerging Adult Females</u>									
w/Younger Brothers (n=17)	1.74 (.58)	2.83 (.78)	1.90 (.76)	1.54 (.43)	2.81 (.69)	1.68 (.63)			
w/Younger Sisters (n=11)	2.28 (1.17)	3.55 (1.19)	2.78 (.63)	1.93 (.96)	3.14 (.98)	2.53 (.76)			
w/Younger Siblings (n=28)	1.95 (.88)	3.11 (1.00)	2.25 (.83)	1.69 (.70)	2.94 (.82)	2.01 (.80)			
<u>All Emerging Adults</u>									
w/Younger Brothers (n=31)	1.96 (.67)	2.83 (.76)	2.16 (.80)	1.76 (.62)	2.92 (.67)	1.99 (.82)			
w/Younger Sisters (n=17)	2.00 (1.09)	3.26 (1.09)	2.50 (.69)	1.87 (.90)	3.09 (.88)	2.27 (.82)			
w/Younger Siblings (n=48)	1.97 (.83)	2.99 (.90)	2.28 (.77)	1.80 (.72)	2.98 (.75)	2.09 (.82)			
<u>Younger Males</u>									
w/Emerging Adult Brothers (n=14)	3.09 (.87)	3.21 (.98)	2.83 (.96)	2.65 (.36)	2.71 (.87)	2.42 (.76)			
w/Emerging Adult Sisters (n=17)	3.02 (1.03)	2.86 (.76)	2.09 (.76)	2.69 (1.18)	2.70 (.93)	2.25 (.76)			
w/Emerging Adult Siblings (n=31)	3.05 (.95)	3.02 (.87)	2.42 (.92)	2.67 (.89)	2.70 (.89)	2.33 (.75)			
<u>Younger Females</u>									
w/Emerging Adult Brothers (n=6)	2.77 (.69)	2.91 (.83)	2.52 (.55)	2.56 (.98)	2.72 (.90)	2.74 (.90)			
w/Emerging Adult Sisters (n=11)	2.73 (1.18)	3.21 (1.10)	3.13 (.88)	2.92 (.94)	3.20 (.83)	2.62 (.77)			
w/Emerging Adult Siblings (n=17)	2.74 (1.01)	3.10 (1.00)	2.91 (.82)	2.79 (.94)	3.03 (.86)	2.66 (.79)			
<u>All Younger Siblings</u>									
w/Emerging Adult Brothers (n=20)	2.99 (.82)	3.12 (.93)	2.74 (.85)	2.62 (.59)	2.72 (.86)	2.52 (.79)			
w/Emerging Adult Sisters (n=28)	2.90 (1.08)	3.00 (.91)	2.50 (.95)	2.78 (1.08)	2.90 (.91)	2.40 (.77)			
w/Emerging Adult Siblings (n=48)	2.94 (.97)	3.05 (.91)	2.60 (.91)	2.72 (.90)	2.82 (.88)	2.45 (.77)			

Note. n = # of dyads. Reports were made on a 5-point scale ranging from 1 (little or none) to 5 (the most).

Table 5

Standardized Parameter Estimates for Actor and Partner Reports of T1 Conflict Frequency on T2 Relationship Quality

	Positivity		Negativity		Relative Power	
	Estimate	t-value	Estimate	t-value	Estimate	t-value
Intercept	.10	.92	.15	1.49	-.02	-.17
Age_A	-.29	-1.38	.06	.27	-.37 ⁺	-1.70 ⁺
Sex_A	-.08	-.76	-.16	-1.59	-.13	-1.32
Sex_P	-.04	-.36	-.03	-.33	-.03	-.28
Birth Order	.37 ⁺	1.83 ⁺	-.18	-.90	.04	.21
Sex_A*Sex_P	.07	.51	-.09	-.71	.29*	2.53*
Sex_A*Birth Order	.22*	2.06*	.07	.65	.05	.57
Sex_P*Birth Order	-.03	-.27	-.10	-.99	.03	.35
Sex_A*Sex_P*Birth Order	.03	.03	.34**	3.39**	-.05	-.46
Relationship Quality (T1)	.72**	8.54**	.76**	6.39**	.34**	3.43**
EFFrequency_A	.43*	2.35*	.23	1.29	-.12	-.99
EFFrequency_P	-.06	-.33	.05	.25	.04	.34
IPFrequency_A	-.32*	-2.11*	-.24	-1.58	-.19	-1.58
IPFrequency_P	-.09	-.57	.02	.14	.01	.09
Sex_A*EFFrequency_A	.03	.21	-.11	-.72	-.06	-.39
Sex_A*IPFrequency_A	.09	.71	.10	.77	-.17	-1.41
Sex_P*EFFrequency_A	-.24	-1.53	-.08	-.53	-.40**	-2.68**
Sex_P*IPFrequency_A	.00	.03	.07	.44	.53**	3.92**
Birth Order*EFFrequency_A	.19	1.11	.02	.11	.07	.44
Birth Order*IPFrequency_A	-.06	-.42	.06	.42	-.21	-1.64
Sex_P*EFFrequency_P	.07	.43	.05	.34	.07	.47
Sex_P*IPFrequency_P	.01	.08	.13	1.00	.05	.42
Sex_A*EFFrequency_P	-.19	-1.09	-.06	-.35	.25 ⁺	1.92 ⁺
Sex_A*IPFrequency_P	-.19	-1.14	-.07	-.42	-.09	-.77
Birth Order*EFFrequency_P	-.26	-1.36	-.12	-.68	-.21	-1.31
Birth Order*IPFrequency_P	.07	.46	-.21	-1.38	.08	.62
Sex_A*Sex_P*EFFrequency_A	-.18	-.99	-.03	-.14	--	--
Sex_A*Sex_P*IPFrequency_A	.27 ⁺	1.75 ⁺	-.03	-.19	--	--
Sex_A*Sex_P*EFFrequency_P	-.02	-.12	-.09	-.55	--	--
Sex_A*Sex_P*IPFrequency_P	.01	.10	-.12	-.91	--	--
Sex_A*Birth Order*EFFrequency_A	.00	-.02	-.09	-.50	--	--
Sex_A*Birth Order*IPFrequency_A	-.11	-.70	.18	1.15	--	--
Sex_A*Birth Order*EFFrequency_P	.01	.07	.41*	2.21*	--	--
Sex_A*Birth Order*IPFrequency_P	.26	1.56	-.29 ⁺	-1.85 ⁺	--	--
Sex_P*Birth Order*EFFrequency_A	-.32 ⁺	-1.75 ⁺	-.30	-1.675	--	--
Sex_P*Birth Order*IPFrequency_A	.23	1.55	.45**	3.12**	--	--
Sex_P*Birth Order*EFFrequency_P	.29	1.58	.07	.41	--	--
Sex_P*Birth Order*IPFrequency_P	-.05	-.35	-.14	-.93	--	--

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner. Sex_A = Actor Sex. Sex_P = Partner Sex. Relationship Quality (T1) = Actor's Time 1 report of the Relationship Quality construct (e.g., Positivity, Negativity or Relative Power) being predicted at T2 (a control variable). EFFrequency = Frequency of Conflicts over Issues of Equality and Fairness. IPFrequency = Frequency of Conflicts over the Invasion of the Personal Domain. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 6

Standardized Parameter Estimates for Actor and Partner Reports of T1 Conflict Intensity on T2 Relationship Quality

	Positivity		Negativity		Relative Power	
	Estimate	t-value	Estimate	t-value	Estimate	t-value
Intercept	-.08	-.60	.03	.25	.07	.62
Age_A	-.17	-.81	-.04	-.23	-.15	-.77
Sex_A	-.02	-.15	-.06	-.62	-.18	-1.69 ⁺
Sex_P	-.07	-.62	.02	.20	.03	.25
Birth Order	.32	1.64	-.10	-.58	-.24	-1.22
Sex_A*Sex_P	.16	1.19	.06	.50	.14	1.10
Sex_A*Birth Order	.15	1.33	-.06	-.61	.17	1.53
Sex_P*Birth Order	.11	.99	.02	.18	.10	.90
Sex_A*Sex_P*Birth Order	-.03	-.33	.22*	2.48*	.08	.78
Relationship Quality (T1)	.62**	6.35**	.68**	5.86**	.36**	3.15**
EFIntensity_A	.21	1.12	.40*	2.35*	-.02	-.10
EFIntensity_P	.22	1.20	.02	.15	.10	.51
IPIntensity_A	-.30	-1.52	-.32 ⁺	-1.78 ⁺	-.32	-1.58
IPIntensity_P	-.21	-1.05	.07	.39	.20	.96
Sex_A*EFIntensity_A	.17	.99	-.08	-.49	-.26	-1.46
Sex_A*IPIntensity_A	-.24	-1.33	-.04	-.23	.00	.01
Sex_P*EFIntensity_A	-.24	-1.41	-.07	-.47	-.52**	-2.86**
Sex_P*IPIntensity_A	.23	1.26	.13	.77	.45*	2.27*
Birth Order*EFIntensity_A	-.08	-.49	.14	.92	.37	2.00*
Birth Order*IPIntensity_A	.09	.59	-.16	-1.10	-.48	-2.57**
Sex_P*EFIntensity_P	.16	.97	.02	.13	-.16	-.87
Sex_P*IPIntensity_P	-.28	-1.57	.05	.34	.32	1.57
Sex_A*EFIntensity_P	-.24	-1.38	.05	.30	.80	4.26**
Sex_A*IPIntensity_P	.17	.88	.04	.21	-.50	-2.30*
Birth Order*EFIntensity_P	.01	.07	-.13	-.91	.05	.24
Birth Order*IPIntensity_P	.03	.15	-.03	-.19	-.13	-.62
Sex_A*Sex_P*EFIntensity_A	-.22	-1.32	.00	.02	.22	1.16
Sex_A*Sex_P*IPIntensity_A	.35 ⁺	1.94 ⁺	.07	.43	-.02	-.08
Sex_A*Sex_P*EFIntensity_P	-.04	-.25	-.23	-1.51	-.19	-.99
Sex_A*Sex_P*IPIntensity_P	-.03	-.16	-.01	-.08	-.34	-1.61
Sex_A*Birth Order*EFIntensity_A	.17	.85	.00	-.02	.14	.74
Sex_A* Birth Order*IPIntensity_A	-.13	-.71	-.11	-.63	-.17	-.90
Sex_A* Birth Order*EFIntensity_P	.06	.34	.45**	2.65**	.03	.15
Sex_A* Birth Order*IPIntensity_P	.08	.43	-.23	-1.40	.06	.29
Sex_P*Birth Order*EFIntensity_A	-.08	-.39	-.35*	-2.04*	-.09	-.42
Sex_P* Birth Order*IPIntensity_A	.10	.58	.38*	2.34*	.21	1.03
Sex_P* Birth Order*EFIntensity_P	-.28	-1.40	.04	.23	.15	.79
Sex_P* Birth Order*IPIntensity_P	.17	.89	.00	.01	-.26	-1.25
Sex_A*Sex_P*Birth Order*EFIntensity_A	--	--	--	--	-.51	-2.70**
Sex_A*Sex_P*Birth Order*IPIntensity_A	--	--	--	--	.25	1.30
Sex_A*Sex_P*Birth Order*EFIntensity_P	--	--	--	--	-.06	-.32
Sex_A*Sex_P*Birth Order*IPIntensity_P	--	--	--	--	.29	1.36

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner. Sex_A = Actor Sex (1 male, 0 female). Sex_P = Partner Sex (1 male, 0 female). Birth Order = Ordinal Position in Family (1 older, 0 younger). Relationship Quality (T1) = Actor's Time 1 report of the Relationship Quality construct (e.g., Positivity, Negativity or Relative Power) being predicted at T2 (a control variable). EFIntensity = Intensity of Conflicts over Issues of Equality and Fairness. IPIntensity = Intensity of Conflicts over the Invasion of the Personal Domain. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 7

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relationship Positivity on T2 Conflict Frequency

	IP Frequency		EF Frequency	
	Estimate	t-value	Estimate	t-value
Intercept	.06	.84	.07	1.01
Age_A	.18	1.45	-.10	-.76
Sex_A	.04	.58	.01	.12
Sex_P	-.01	-.13	.02	.37
Birth Order	-.23 ⁺	-1.76 ⁺	.09	.67
Sex_A*Sex_P	.06	.85	-.14 ⁺	-1.85 ⁺
Sex_A*Birth Order	-.07	-1.00	.21**	3.20**
Sex_P*Birth Order	-.10	-1.40	-.02	-.37
Sex_A*Sex_P*Birth Order	.04	.46	-.02	-.27
Conflict Frequency_A (predicted type) (T1)	.22**	3.19**	.23**	3.27**
Conflict Frequency_A (other type) (T2)	.74**	10.46**	.65**	9.84**
Positivity_A	.03	.33	.09	1.29
Positivity_P	.06	.60	-.03	-.38
Sex_A*Positivity_A	.02	.21	.12	1.54
Sex_A*Positivity_P	.03	.32	.01	.07
Sex_P*Positivity_A	.10	1.22	-.21**	-2.72**
Sex_P*Positivity_P	.00	.04	.09	1.14
Birth Order*Positivity_A	.03	.37	.15 ⁺	1.83 ⁺
Birth Order*Positivity_P	-.03	-.38	-.12	-1.41
Sex_A*Sex_P*Positivity_A	-.14	-1.50	--	--
Sex_A*Sex_P*Positivity_P	.09	.98	--	--
Sex_A*Birth Order*Positivity_A	.19*	2.02*	--	--
Sex_A*Birth Order*Positivity_P	-.04	-.38	--	--
Sex_P*Birth Order*Positivity_A	.02	.19	--	--
Sex_P*Birth Order*Positivity_P	-.15	-1.60	--	--

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Frequency_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable).

Conflict Frequency_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Frequency = Frequency of Conflicts over the Invasion of the Personal Domain. EF Frequency =

Frequency of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 8

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relationship Negativity on T2 Conflict Frequency

	IP Frequency		EF Frequency	
	Estimate	t-value	Estimate	t-value
Intercept	-.01	-.14	.24 ⁺	1.93 ⁺
Age_A	.23*	2.03*	-.03	-.19
Sex_A	.06	.88	-.07	-.63
Sex_P	.00	-.03	.07	.73
Birth Order	-.25*	-2.07*	.09	.62
Sex_A*Sex_P	-.02	-.22	-.27*	-2.11*
Sex_A*Birth Order	-.08	-1.13	.30*	2.44
Sex_P*Birth Order	-.04	-.54	-.21 ⁺	-1.75 ⁺
Sex_A*Sex_P*Birth Order	.04	.52	.02	.16
Conflict Frequency_A (predicted type) (T1)	.18**	2.74**	.25**	3.32**
Conflict Frequency_A (other type) (T2)	.72**	10.94**	.64**	8.94**
Negativity_A	.14 ⁺	1.85 ⁺	-.01	-.09
Negativity_P	-.04	-.49	.07	.57
Sex_A* Negativity_A	--	--	.25	1.53
Sex_A* Negativity_P	--	--	-.28 ⁺	-1.74 ⁺
Sex_P* Negativity_A	--	--	-.20	-1.18
Sex_P* Negativity_P	--	--	.17	1.09
Birth Order* Negativity_A	--	--	.27	1.65
Birth Order* Negativity_P	--	--	-.21	-1.28
Sex_A*Sex_P* Negativity_A	--	--	-.13	-.97
Sex_A*Sex_P* Negativity_P	--	--	-.04	-.30
Sex_A*Birth Order* Negativity_A	--	--	.11	.79
Sex_A* Birth Order* Negativity_P	--	--	.08	.61
Sex_P*Birth Order* Negativity_A	--	--	.10	.70
Sex_P* Birth Order* Negativity_P	--	--	-.10	-.74
Sex_A*Sex_P*Birth Order* Negativity_A	--	--	-.32 ⁺	-1.93 ⁺
Sex_A*Sex_P* Birth Order* Negativity_P	--	--	.14	.85

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Frequency_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable).

Conflict Frequency_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Frequency = Frequency of Conflicts over the Invasion of the Personal Domain. EF Frequency = Frequency of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 9

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relative Power on T2 Conflict Frequency

	IP Frequency		EF Frequency	
	Estimate	t-value	Estimate	t-value
Intercept	-.01	-.08	.01	.10
Age_A	.21 ⁺	1.73 ⁺	-.08	-.57
Sex_A	.04	.60	-.07	-1.04
Sex_P	.00	-.07	.03	.46
Birth Order	-.31*	-2.34*	.13	.98
Sex_A*Sex_P	.02	.25	-.11	-1.33
Sex_A*Birth Order	-.07	-1.03	.07	.72
Sex_P*Birth Order	-.05	-.75	.05	.50
Sex_A*Sex_P*Birth Order	.04	.62	-.01	-.18
Conflict Frequency_A (predicted type) (T1)	.18**	2.716**	.19**	2.62**
Conflict Frequency_A (other type) (T2)	.73**	10.78**	.67**	9.77**
Power_A	-.01	-.08	.10	1.17
Power_P	.07	.95	-.05	-.59
Sex_A* Power_A	--	--	-.13 ⁺	-1.76 ⁺
Sex_A* Power_P	--	--	.10	1.25
Sex_P* Power_A	--	--	.07	.84
Sex_P* Power_P	--	--	.02	.21
Birth Order* Power_A	--	--	-.05	-.59
Birth Order* Power_P	--	--	.03	.42

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Frequency_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable). Conflict Frequency_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Frequency = Frequency of Conflicts over the Invasion of the Personal Domain. EF Frequency = Frequency of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 10

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relationship Positivity on T2 Conflict Intensity

	IP Intensity		EF Intensity	
	Estimate	t-value	Estimate	t-value
Intercept	.10	1.48	-.03	-.42
Age_A	.14	.93	.18	1.07
Sex_A	.05	.62	-.06	-.78
Sex_P	-.03	-.33	.06	.79
Birth Order	-.12	-.80	-.26	-1.55
Sex_A*Sex_P	.12	1.55	-.24**	-3.20**
Sex_A*Birth Order	.08	1.06	.06	.77
Sex_P*Birth Order	-.14 ⁺	-1.73 ⁺	.00	-.01
Sex_A*Sex_P*Birth Order	.01	.12	.03	.37
Conflict Intensity_A (predicted type) (T1)	.24**	2.86**	.34**	3.85**
Conflict Intensity_A (other type) (T2)	.55**	6.37**	.54**	5.40**
Positivity_A	.10	.90	.06	.54
Positivity_P	.02	.17	-.14	-1.25
Sex_A*Positivity_A	.11	1.07	.05	.49
Sex_A*Positivity_P	.07	.68	-.02	-.25
Sex_P*Positivity_A	-.07	-.69	-.08	-.92
Sex_P*Positivity_P	.01	.14	.09	.92
Birth Order*Positivity_A	.25**	2.60**	-.07	-.69
Birth Order*Positivity_P	-.11	-1.08	-.01	-.08
Sex_A*Sex_P*Positivity_A	-.20 ⁺	-1.89 ⁺	.02	.18
Sex_A*Sex_P*Positivity_P	.15	1.41	.08	.76
Sex_A*Birth Order*Positivity_A	.31**	2.98**	.01	.10
Sex_A*Birth Order*Positivity_P	-.04	-.33	-.09	-.89
Sex_P*Birth Order*Positivity_A	-.10	-.90	-.24*	-2.22*
Sex_P*Birth Order*Positivity_P	-.15	-1.46	.26*	2.45*
Sex_A*Sex_P*Birth Order*Positivity_A	-.22*	-2.82*	--	--
Sex_A*Sex_P*Birth Order*Positivity_P	.06	.57	--	--

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Intensity_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable).

Conflict Intensity_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Intensity = Intensity of Conflicts over the Invasion of the Personal Domain. EF Intensity = Intensity of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 11

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relationship Negativity on T2 Conflict Intensity

	IP Intensity		EF Intensity	
	Estimate	t-value	Estimate	t-value
Intercept	.10	1.14	.03	.40
Age_A	.24	1.49	.05	.31
Sex_A	.04	.46	-.10	-1.27
Sex_P	-.04	-.48	.09	1.20
Birth Order	-.21	-1.32	-.16	-1.02
Sex_A*Sex_P	.05	.53	-.18*	-2.21*
Sex_A*Birth Order	.10	1.14	.06	.86
Sex_P*Birth Order	-.03	-.40	-.03	-.34
Sex_A*Sex_P*Birth Order	.00	-.04	.04	.51
Conflict Intensity_A (predicted type) (T1)	.10	1.05	.35**	4.29**
Conflict Intensity_A (other type) (T2)	.60**	7.04**	.52**	5.86**
Negativity_A	.25**	2.583**	-.04	-.36
Negativity_P	-.03	-.35	-.01	-.12
Sex_A* Negativity_A	.19 ⁺	1.76 ⁺	--	--
Sex_A* Negativity_P	-.02	-.19	--	--
Sex_P* Negativity_A	-.07	-.61	--	--
Sex_P* Negativity_P	.02	.15	--	--
Birth Order* Negativity_A	.26*	2.36*	--	--
Birth Order* Negativity_P	-.08	-.74	--	--

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Intensity_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable).

Conflict Intensity_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Intensity = Intensity of Conflicts over the Invasion of the Personal Domain. EF Intensity = Intensity of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Table 12

Standardized Parameter Estimates for Actor and Partner Reports of T1 Relative Power on T2 Conflict Intensity

	IP Intensity		EF Intensity	
	Estimate	t-value	Estimate	t-value
Intercept	.21 ⁺	1.80 ⁺	-.12	-1.41
Age_A	.35*	2.39*	-.02	-.11
Sex_A	.13	1.25	-.10	-1.35
Sex_P	-.15	-1.49	.08	1.11
Birth Order	-.23	-1.55	-.08	-.53
Sex_A*Sex_P	-.12	-.96	-.13 ⁺	-1.79 ⁺
Sex_A*Birth Order	.23*	2.02*	-.12	-1.29
Sex_P*Birth Order	-.08	-.72	.01	.07
Sex_A*Sex_P*Birth Order	-.02	-.22	.01	.09
Conflict Intensity_A (predicted type) (T1)	.19*	2.24*	.33**	4.30**
Conflict Intensity_A (other type) (T2)	.64**	7.43**	.57**	7.07**
Power_A	.17 ⁺	1.66 ⁺	-.03	-.42
Power_P	.10	1.04	-.10	-1.22
Sex_A* Power_A	.16 ⁺	1.66 ⁺	-.16*	-2.05*
Sex_A* Power_P	-.20*	-2.08*	.24**	2.91**
Sex_P* Power_A	.08	.88	-.07	-.90
Sex_P* Power_P	.07	.74	.04	.44
Birth Order* Power_A	.12	1.16	-.21**	-2.63**
Birth Order* Power_P	-.21*	-2.16*	.07	.92
Sex_A*Sex_P* Power_A	-.14	-1.38	--	--
Sex_A*Sex_P* Power_P	.14	1.43	--	--
Sex_A*Birth Order* Power_A	.07	.71	--	--
Sex_A* Birth Order* Power_P	-.15	-1.56	--	--
Sex_P*Birth Order* Power_A	-.17 ⁺	-1.71 ⁺	--	--
Sex_P* Birth Order* Power_P	.07	.722	--	--
Sex_A*Sex_P*Birth Order* Power_A	-.22*	-2.22*	--	--
Sex_A*Sex_P*Birth Order* Power_P	.06	.60	--	--

Note. ⁺ $p < .10$. * $p < .05$. ** $p < .01$. T1 = Time 1. T2 = Time 2. A = Actor. P = Partner.

Sex_A = Actor Sex. Sex_P = Partner Sex. Conflict Intensity_A (predicted type) (T1) = Actor's Time 1 report of the type of conflict being predicted at T2 (a control variable).

Conflict Intensity_A (other type) (T2) = Actor's Time 2 report of the other type of conflict (IP, EF) that is not being predicted at Time 2 (a control variable). IP Intensity = Intensity of Conflicts over the Invasion of the Personal Domain. EF Intensity = Intensity of Conflicts over Issues of Equality and Fairness. When testing each model, if there were no significant higher-order interactions present, those higher-order interactions were dropped from the model and analyses were re-run without them (e.g., if there were no significant 4-way interactions, model was run only including up to 3-way interactions), as indicated by dashed lines in the table.

Figure 1. *Bidirectional Influences of Emerging Adults on Siblings*

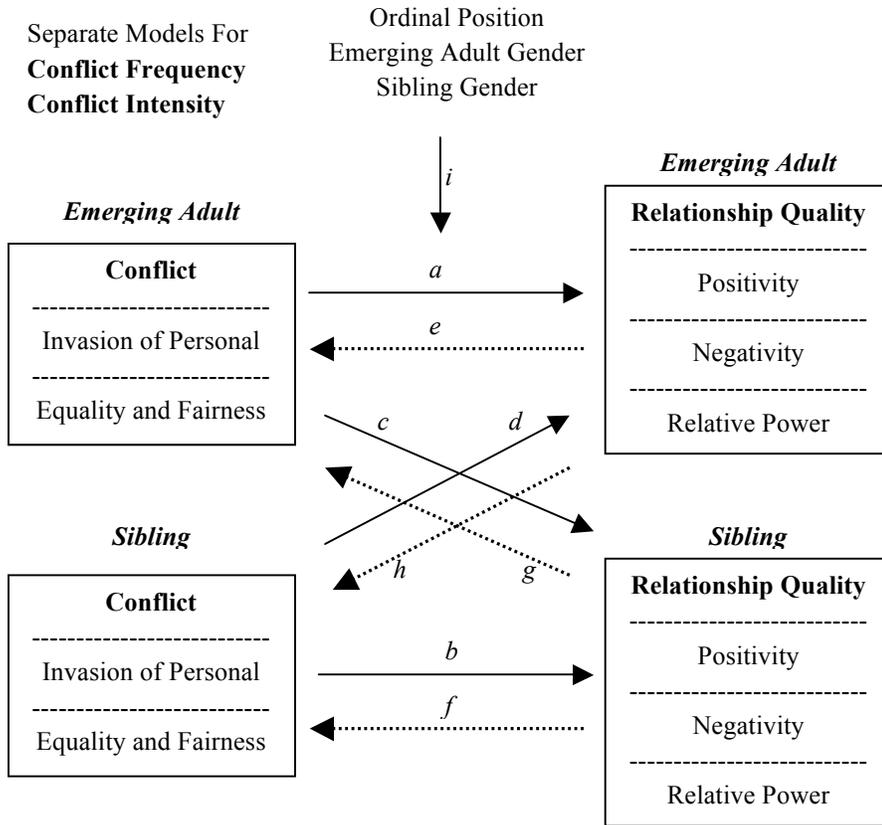
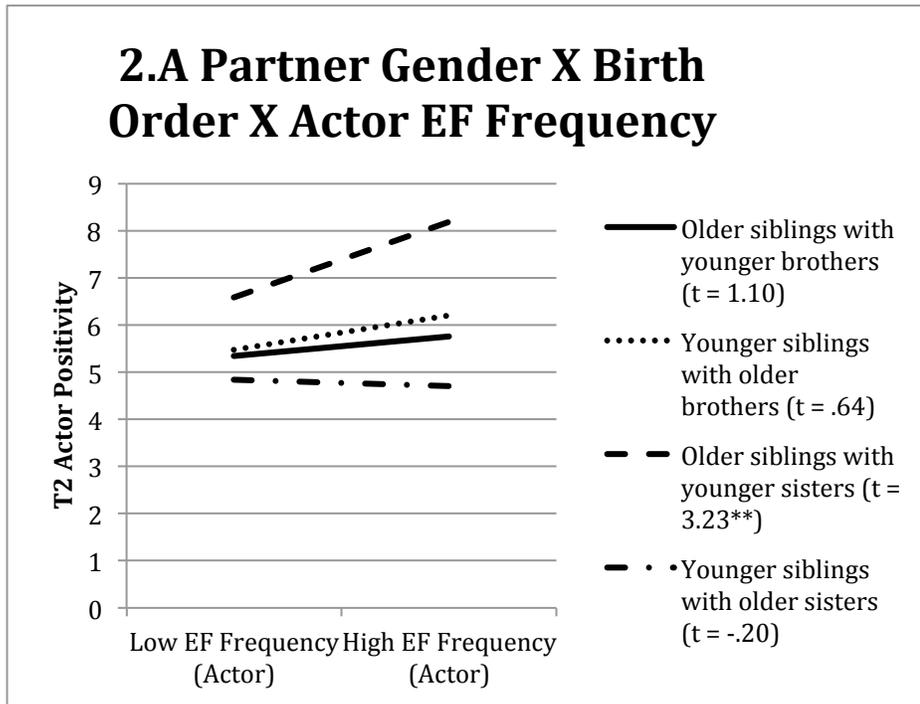
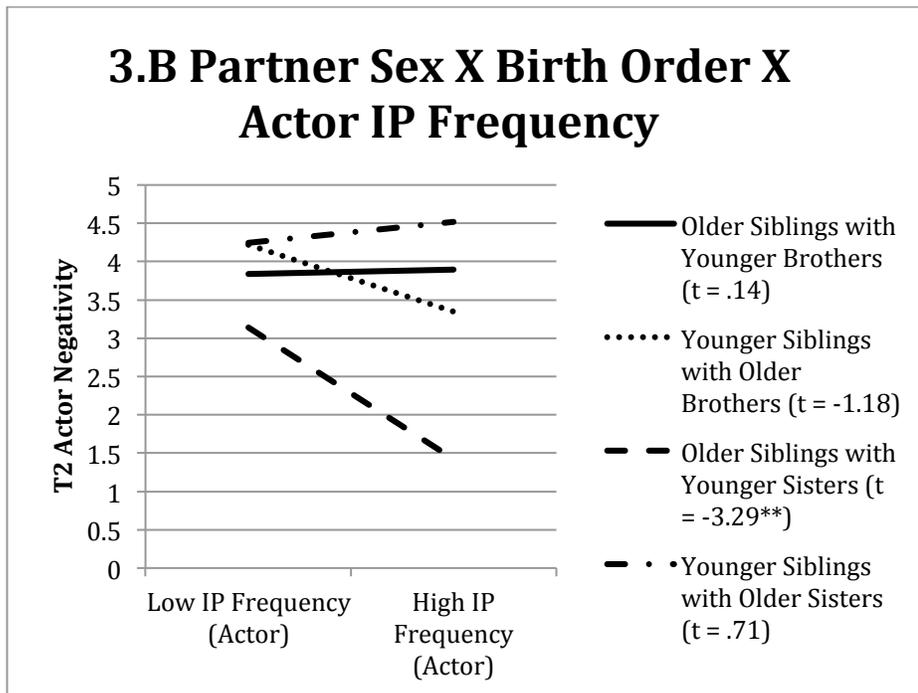
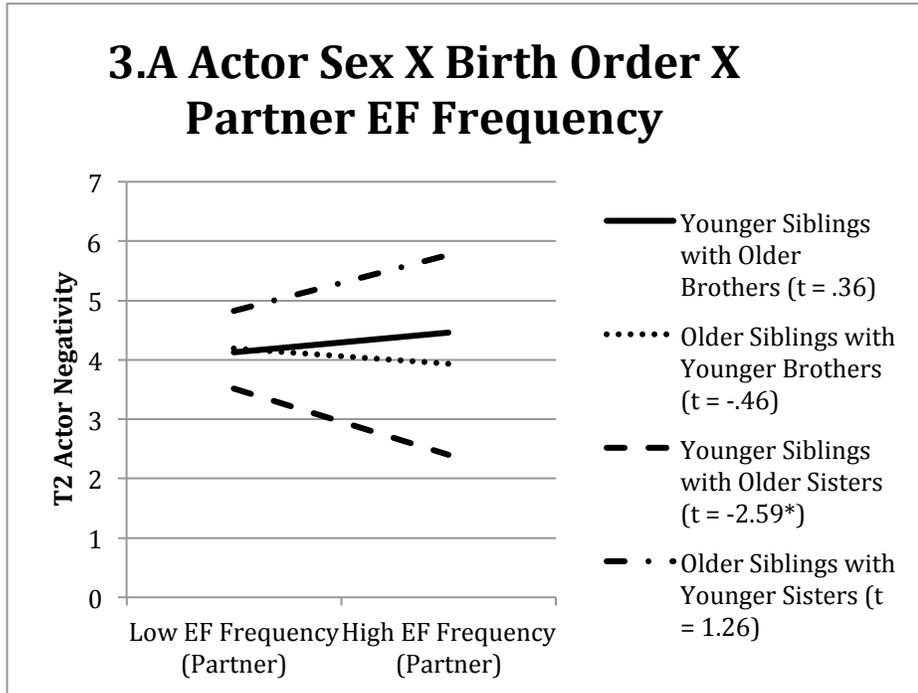


Figure 2.A. Associations between Conflict Frequency and Positivity



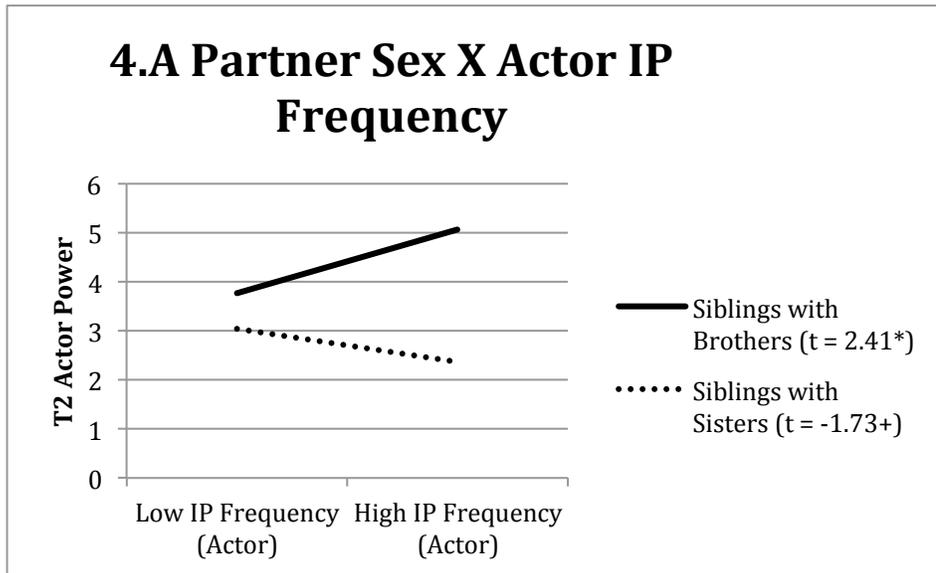
Note. $+p < .10$. $*p < .05$. $**p < .01$. T2 = Time 2. Line labels (e.g., “Older siblings with younger brothers”) indicate Time 1 reporters of conflict.

Figures 3.A – 3.B. Associations between Conflict Frequency and Negativity



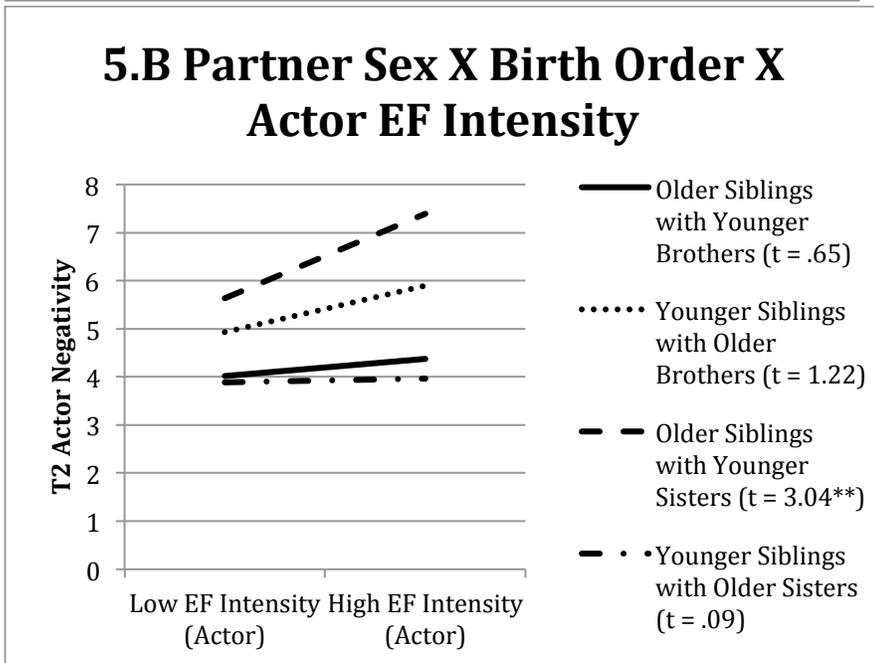
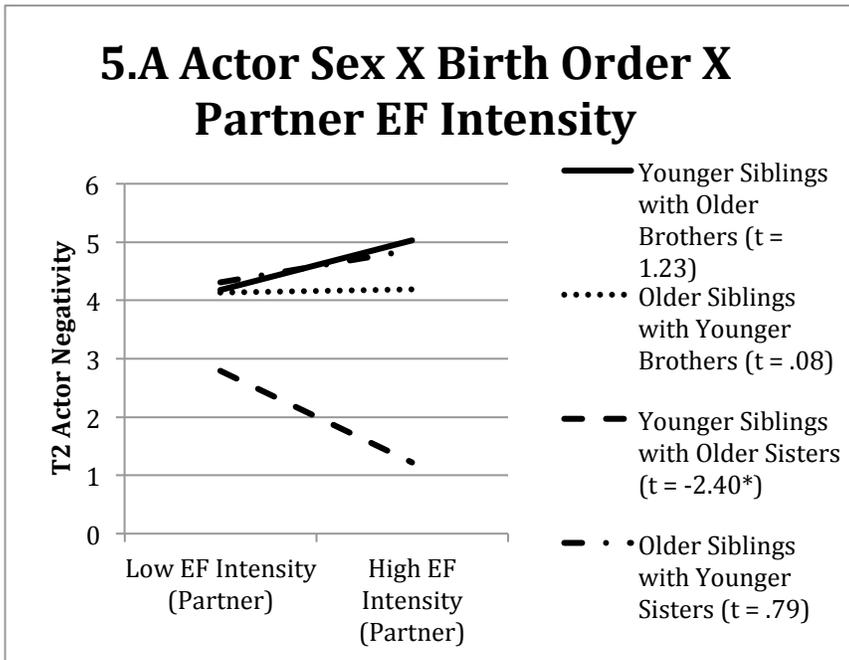
Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Older Siblings”) indicate Time 1 reporters of conflict.

Figure 4.A. Associations between Conflict Frequency and Relative Power

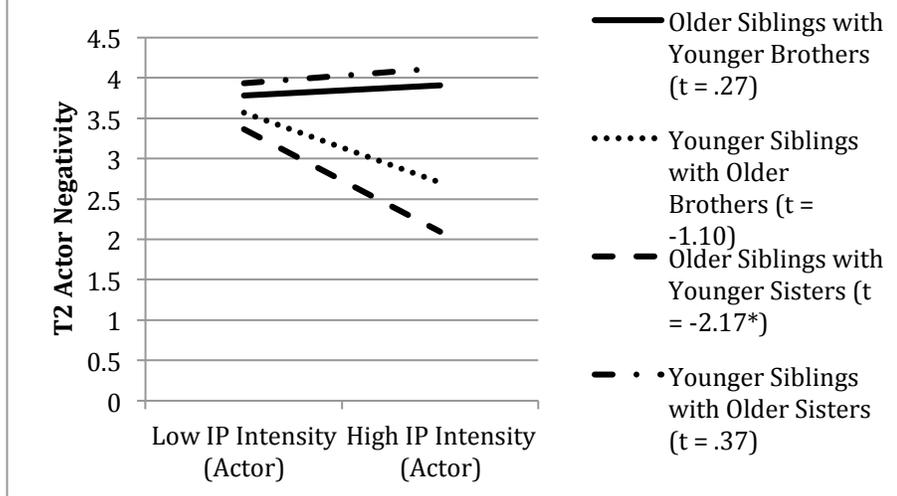


Note. $+p < .10$. $*p < .05$. $**p < .01$. T2 = Time 2. Line labels (e.g., “Siblings with Brothers”) indicate Time 1 reporters of conflict.

Figures 5.A – 5.C. Associations between Conflict Intensity and Negativity

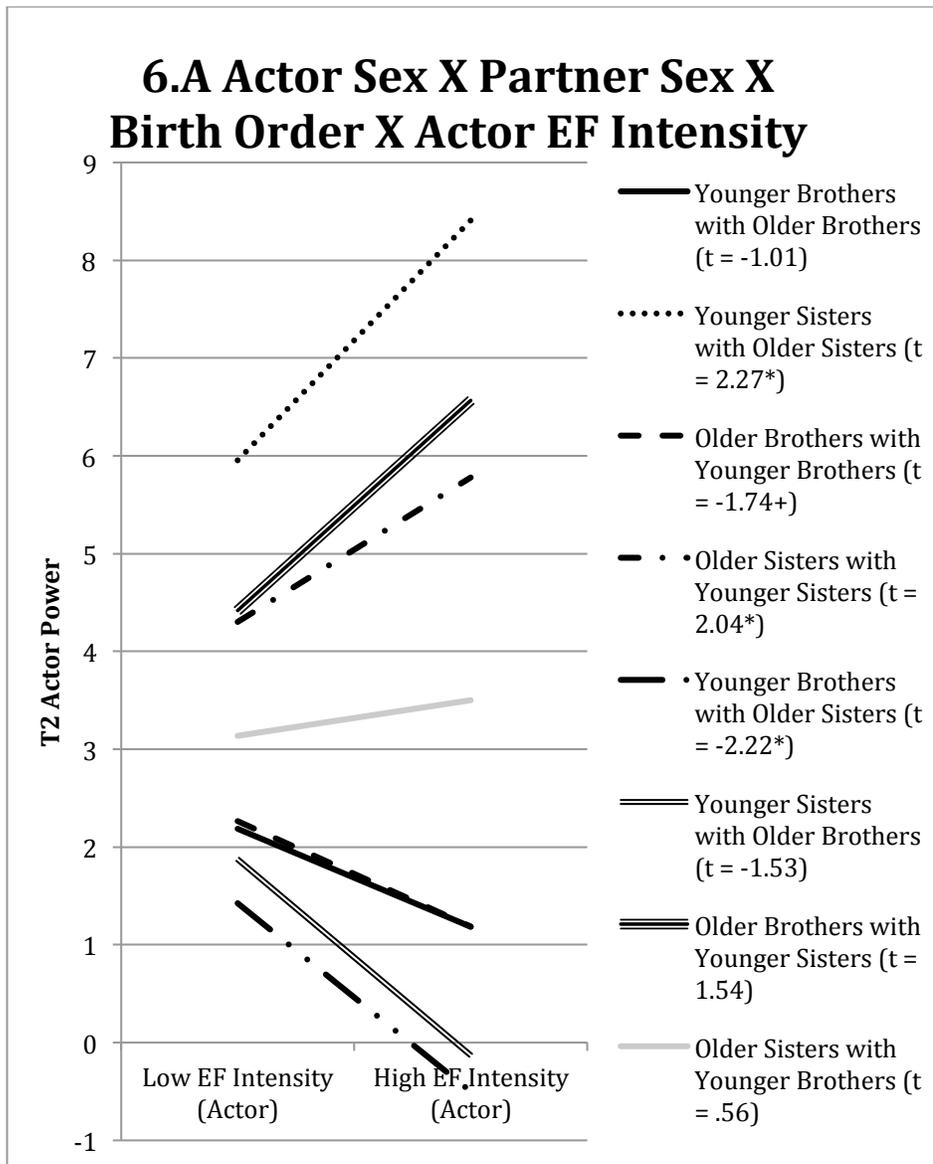


5.C Partner Sex X Birth Order X Actor IP Intensity

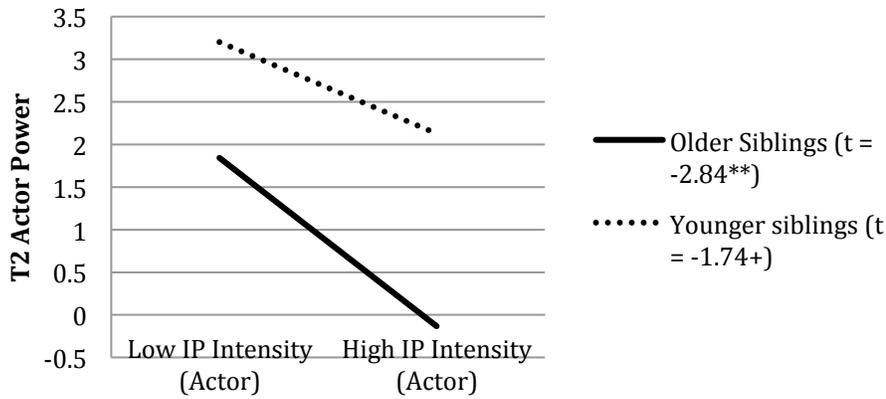


Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Younger Siblings with Older Brothers”) indicate Time 1 reporters of conflict.

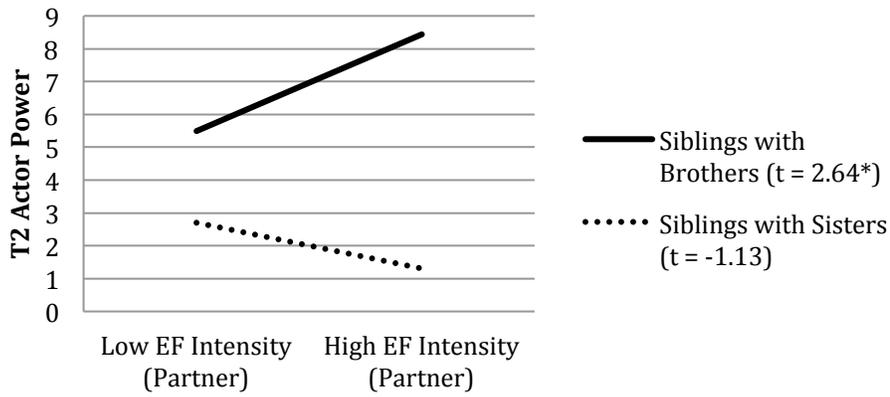
Figures 6.A – 6.C. Associations between Conflict Intensity and Relative Power



6.B Birth Order X Actor IP Intensity

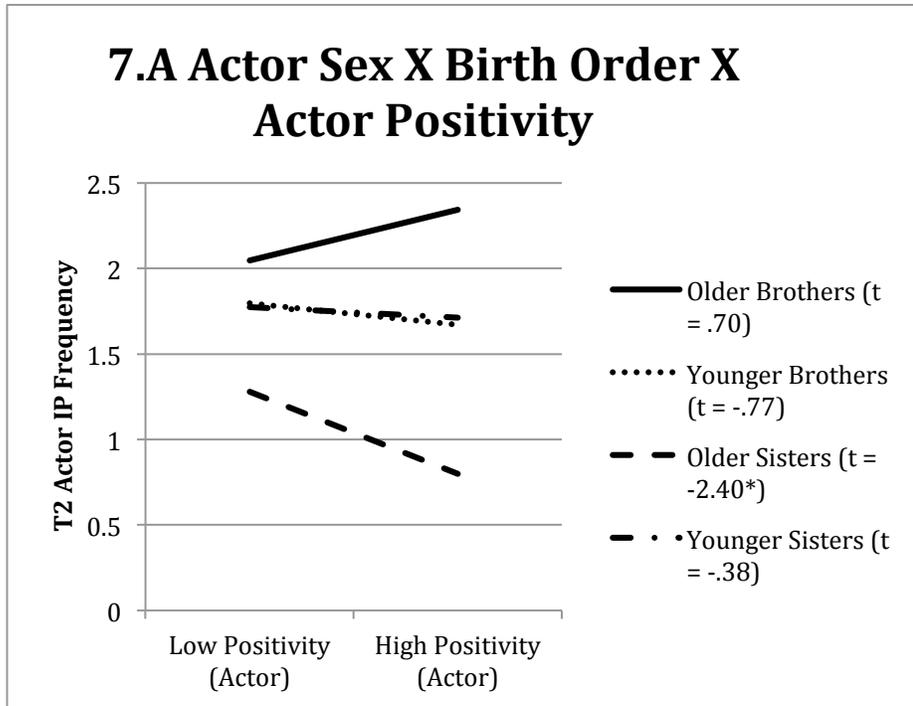


6.C Actor Sex X Partner EF Intensity



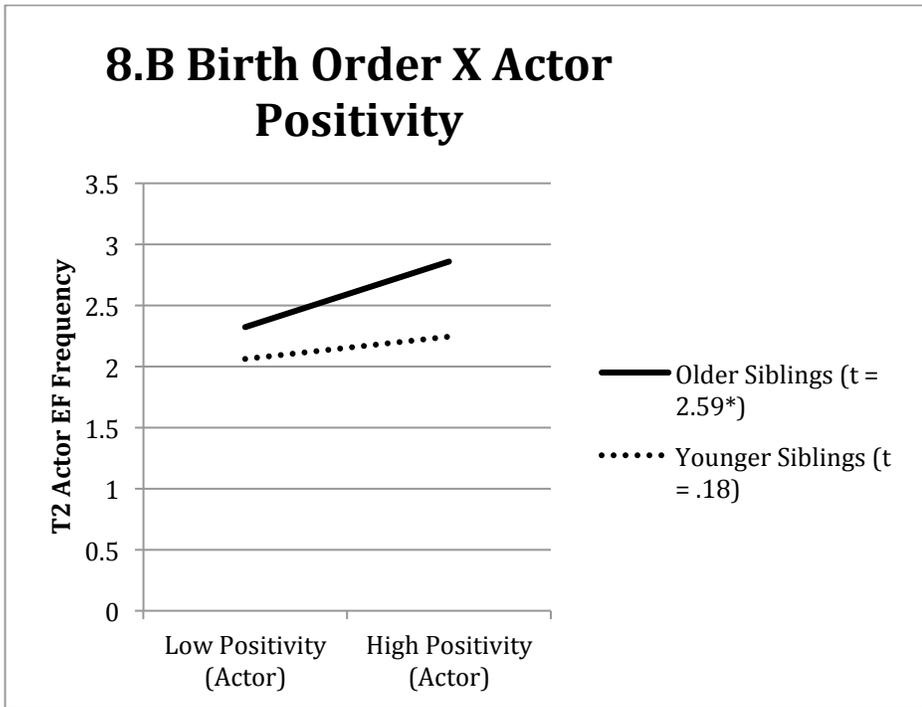
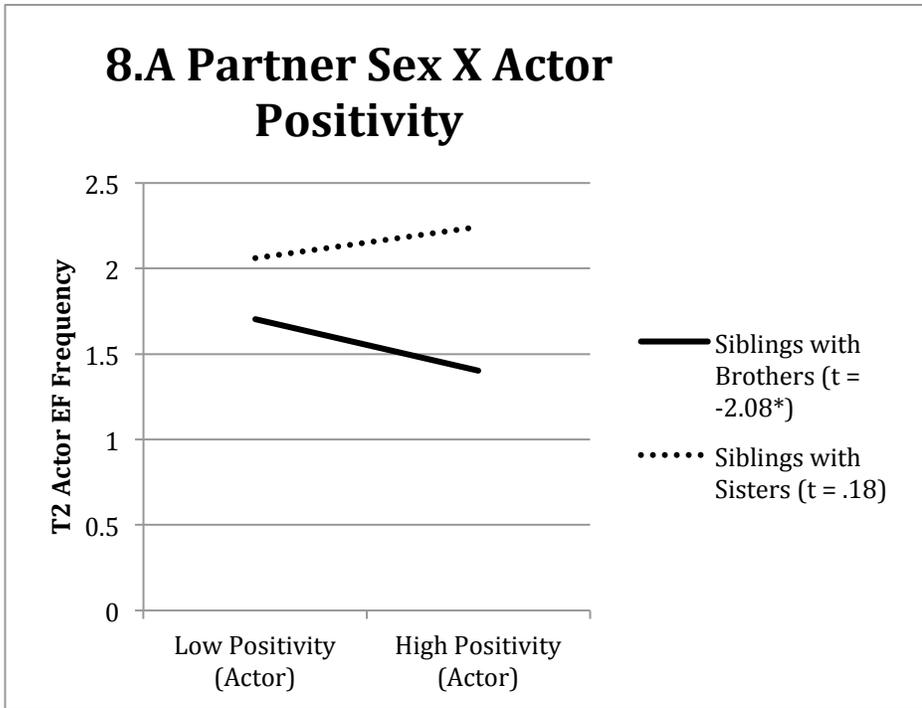
Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Younger Brothers with Older Brothers”) indicate Time 1 reporters of conflict.

Figure 7.A. Associations between Relationship Quality and Invasion of the Personal Domain Conflict Frequency



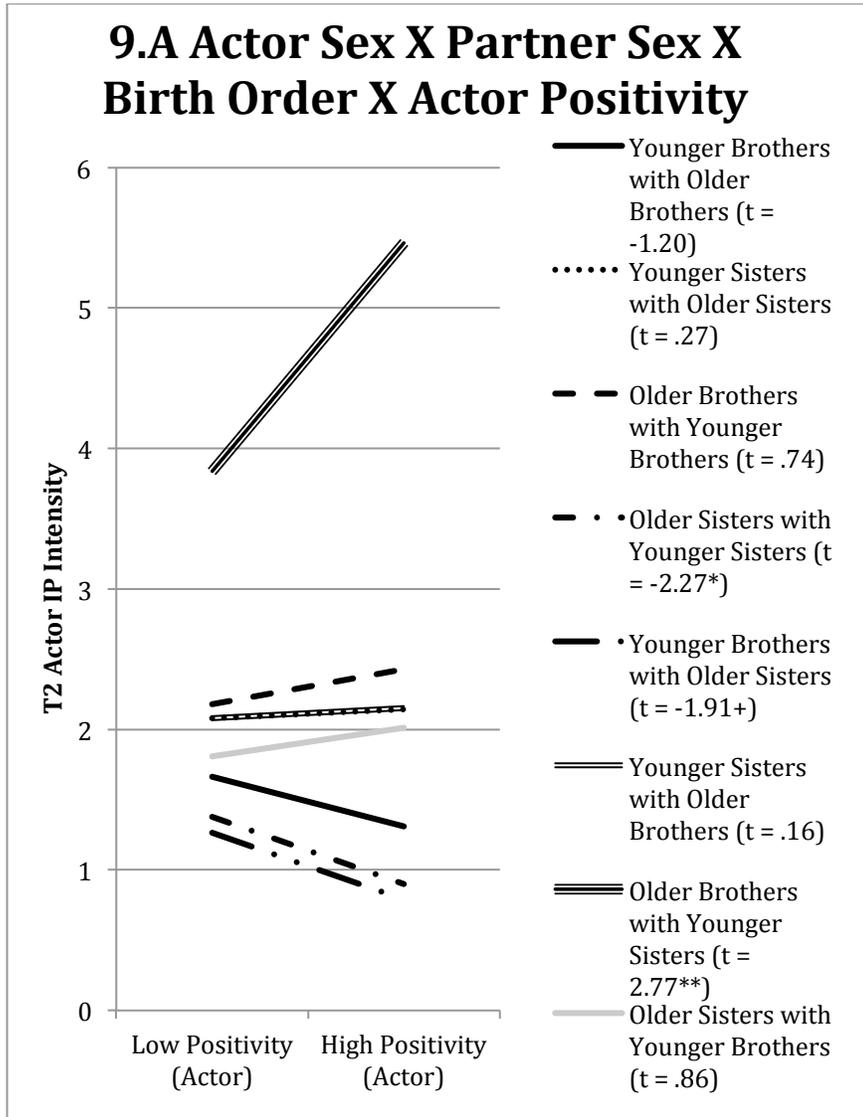
Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Older Brothers”) indicate Time 1 reporters of relationship quality.

Figures 8.A – 8.B. *Associations between Relationship Quality and Issues of Equality and Fairness Conflict Frequency*

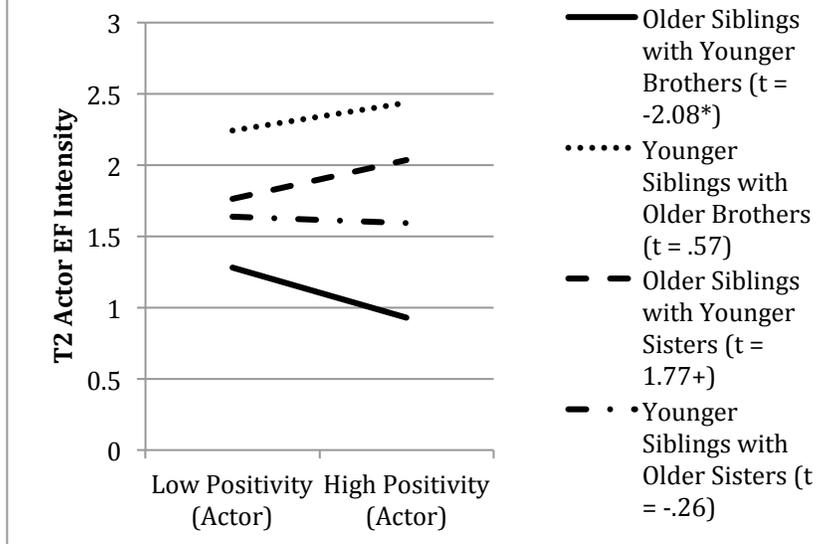


Note. $+p < .10$. $*p < .05$. $**p < .01$. T2 = Time 2. Line labels (e.g., “Siblings with Brothers”) indicate Time 1 reporters of relationship quality.

Figures 9.A – 9.B. *Associations between Relationship Positivity and Conflict Intensity*

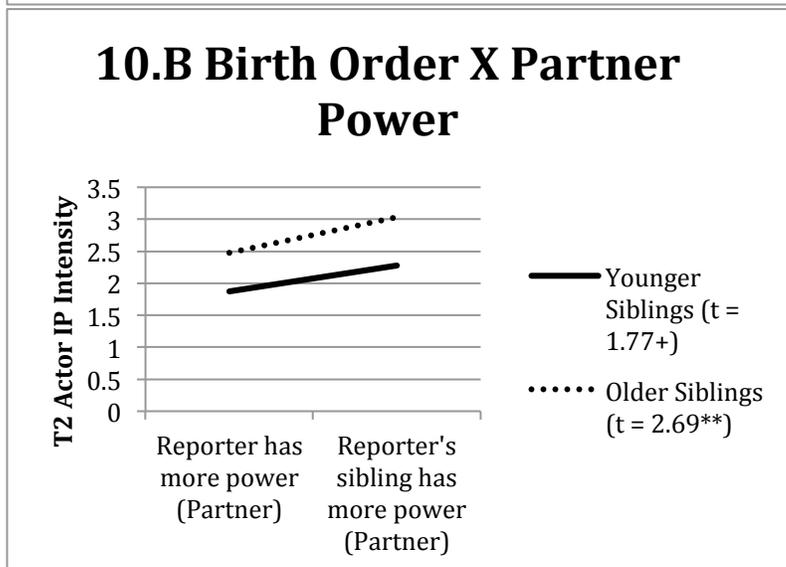
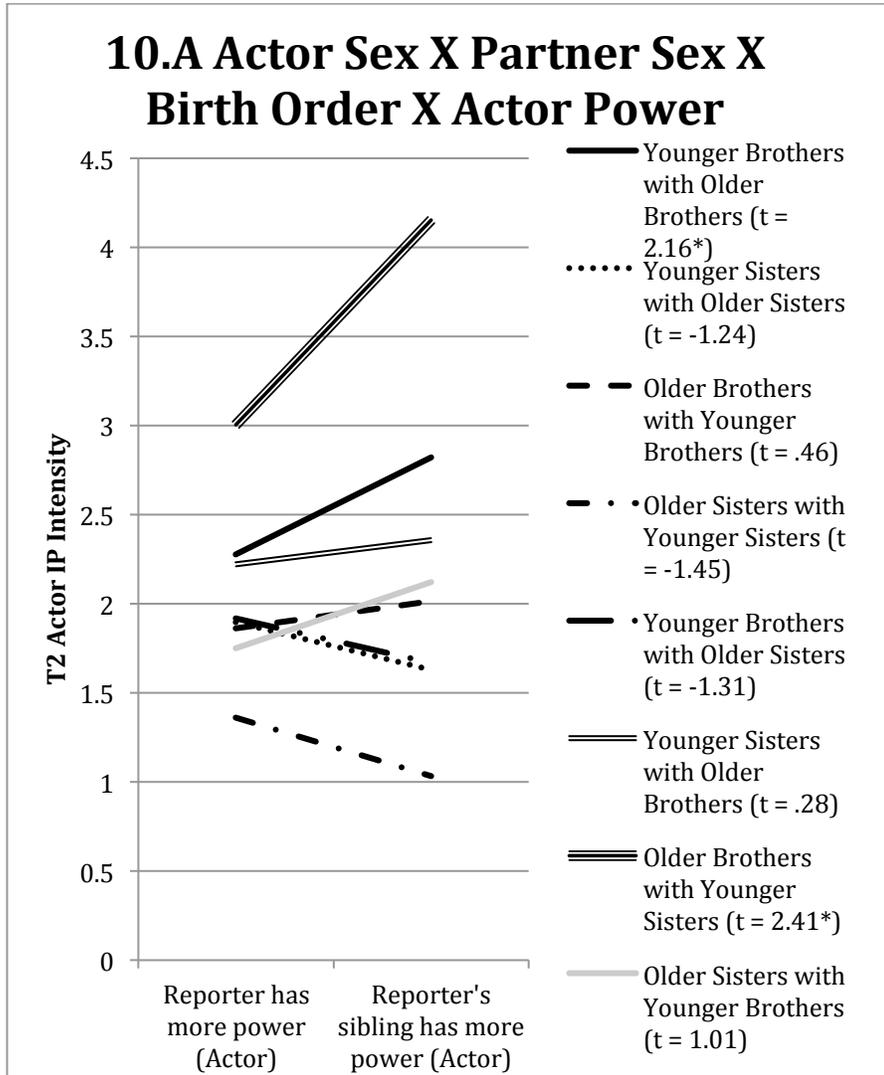


9.B Partner Sex X Birth Order X Actor Positivity

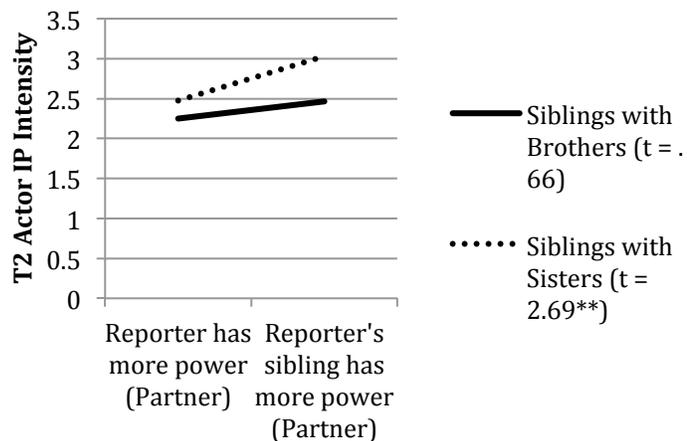


Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Younger Brothers with Older Brothers”) indicate Time 1 reporters of relationship quality.

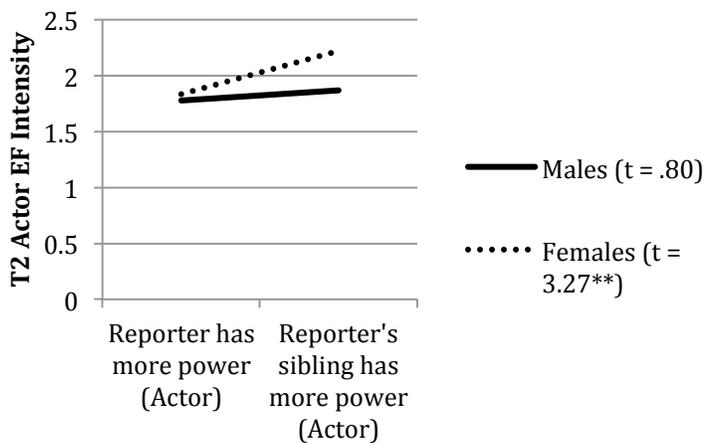
Figures 10.A – 10.F. Associations between Relative Power and Conflict Intensity



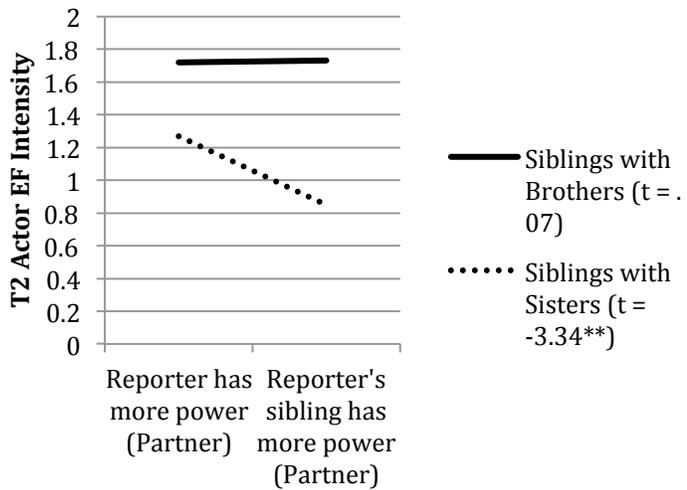
10.C Actor Sex X Partner Power



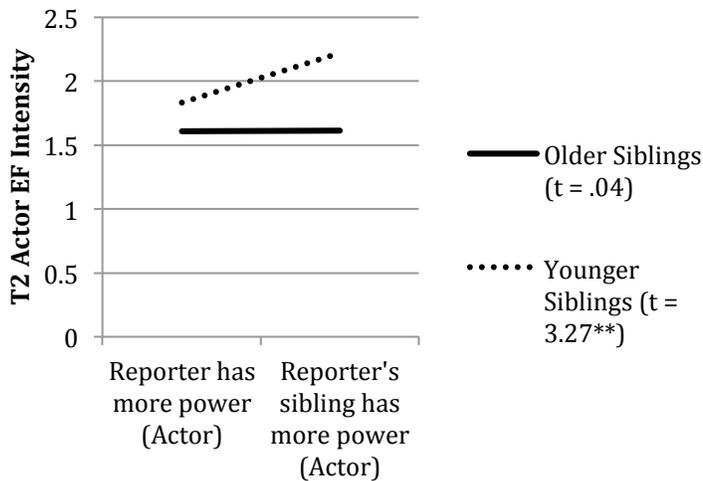
10.D Actor Sex X Actor Power



10.E Actor Sex X Partner Power



10.F Birth Order X Actor Power



Note. + $p < .10$. * $p < .05$. ** $p < .01$. T2 = Time 2. Line labels (e.g., “Older Siblings with Younger Brothers”) indicate Time 1 reporters of relationship quality.

References

- Adams, R. E., & Laursen, B. (2007). The correlates of conflict: Disagreement is not necessarily detrimental. *Journal of Family Psychology, 21*(3), 445-458. doi: <http://dx.doi.org/10.1037/0893-3200.21.3.445>
- Aquilino, W. S. (2006). Family Relationships and Support Systems in Emerging Adulthood. In J. J. Arnett & J. L. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century*. (pp. 193-217). Washington, DC US: American Psychological Association.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469-480. doi: 10.1037/0003-066x.55.5.469
- Brody, G. H. (1998). Sibling relationship quality: Its causes and consequences. *Annual Review of Psychology, 49*, 1-24. doi: 10.1146/annurev.psych.49.1.1
- Brody, G. H. (2004). Siblings' Direct and Indirect Contributions to Child Development. *Current Directions in Psychological Science, 13*(3), 124-126. doi: 10.1111/j.0963-7214.2004.00289.x
- Buhrmester, D., & Furman, W. (1990). Perceptions of sibling relationships during middle childhood and adolescence. *Child Development, 61*(5), 1387-1398. doi: 10.2307/1130750
- Campione-Barr, N., Bassett Greer, K., & Kruse, A. (2012). Differential associations between domains of sibling conflict and adolescent emotional adjustment. *In press*.
- Campione-Barr, N., & Smetana, J. G. (2010). "Who said you could wear my sweater? Adolescent siblings conflicts and associations with relationship quality. *Child Development, 81*(2), 464-471. doi: 10.1111/j.1467-8624.2009.01407.x
- Cicirelli, V. G. (1995). *Sibling Relationships Across the Life Span*. New York: Plenum.
- Conger, K. J., & Little, W. M. (2010). Sibling relationships during the transition to adulthood. *Child Development Perspectives, 4*(2), 87-94. doi: 10.1111/j.1750-8606.2010.00123.x

- Cook, W. L., & Kenny, D. A. (2005). The Actor-Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development, 29*(2), 101-109. doi: 10.1080/01650250444000405
- Dornbusch, S. M., Ritter, P. L., Mont-Reynaud, R., & Chen, Z.-y. (1990). Family decision making and academic performance in a diverse high school population. *Journal of Adolescent Research, 5*(2), 143-160. doi: 10.1177/074355489052003
- Dunn, J. (2002). Sibling relationships. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development*. (pp. 223-237). Malden: Blackwell Publishing.
- East, P. L. (1998). Impact of adolescent childbearing on families and younger siblings: Effects that increase younger siblings' risk for early pregnancy. *Applied Developmental Science, 2*(2), 62-74. doi: 10.1207/s1532480xads0202_1
- East, P. L., & Khoo, S. T. (2005). Longitudinal pathways linking family factors and sibling relationship qualities to adolescent substance use and sexual risk behaviors. *Journal of Family Psychology, 19*(4), 571-580. doi: 10.1037/0893-3200.19.4.571
- Feinberg, M. E., McHale, S. M., Crouter, A. C., & Cumsille, P. (2003). Sibling differentiation: Sibling and parent relationship trajectories in adolescence. *Child Development, 74*(5), 1261-1274. doi: 10.1111/1467-8624.00606
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140. doi: 10.1177/001872675400700202
- Floyd, K., & Parks, M. R. (1995). Manifesting closeness in the interactions of peers: A look at siblings and friends. *Communication Reports, 8*(2), 69-76. doi: 10.1080/08934219509367612
- Furman, W. (1996). The measurement of friendship perceptions: Conceptual and methodological issues. In W. M. Bukowski, A. F. Newcomb & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence*. (pp. 41-65). New York, NY US: Cambridge University Press.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*(6), 1016-1024.

- Howe, N., Aquan-Assee, J., Bukowski, W. M., Lehoux, P. M., & Rinaldi, C. M. (2001). Siblings as confidants: Emotional understanding, relationship warmth, and sibling self-disclosure. *Social Development, 10*(4), 439-454. doi: 10.1111/1467-9507.00174
- Howe, N., & Recchia, H. E. (2008). Siblings and sibling rivalry. In M. M. Haith & J. B. Benson (Eds.), *Encyclopedia of infant and early childhood development* (Vol. 3, pp. 154-164). San Diego: Academic Press.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY US: Guilford Press.
- Kim, J.-Y., McHale, S. M., Crouter, A. C., & Osgood, D. (2007). Longitudinal linkages between sibling relationships and adjustment from middle childhood through adolescence. *Developmental Psychology, 43*(4), 960-973. doi: 10.1037/0012-1649.43.4.960
- Laursen, B., Coy, K. C., & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development, 69*(3), 817-832. doi: 10.2307/1132206
- Maxwell, S. E., & Delaney, H. D. (2004). *Designing Experiments and Analyzing Data: A Model Comparison Perspective* (2nd ed.). New York, NY: Psychology Press.
- McHale, S. M., Kim, J.-Y., & Whiteman, S. D. (2006). Sibling Relationships in Childhood and Adolescence. In P. Noller & J. A. Feeney (Eds.), *Close relationships: Functions, forms and processes*. (pp. 127-149). Hove England: Psychology Press/Taylor & Francis (UK).
- Milevsky, A., Smoot, K., Leh, M., & Ruppe, A. (2005). Familial and contextual variables and the nature of sibling relationships in emerging adulthood. *Marriage & Family Review, 37*(4), 123-141. doi: 10.1300/J002v37n04_07
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development, 56*(2), 289-302. doi: 10.2307/1129720
- Montemayor, R. (1983). Parents and adolescents in conflict: All families some of the time and some families most of the time. *The Journal of Early Adolescence, 3*(1-2), 83-103. doi: 10.1177/027243168331007
- Perlman, M., Siddiqui, A., Ram, A., & Ross, H. S. (2000). An Analysis of Sources of Power in Children's Conflict Interactions. In R. S. L. Mills & S. Duck (Eds.), *The*

Developmental Psychology of Personal Relationships (pp. 155-174). New York, NY US: John Wiley & Sons, Inc.

- Pike, A., Coldwell, J., & Dunn, J. F. (2005). Sibling relationships in early/middle childhood: links with individual adjustment. *Journal of Family Psychology, 19*(4), 523-532. doi: 10.1037/0893-3200.19.4.523
- Schachter, F. F., Shore, E., Feldman-Rotman, S., Marquis, R. E., & Campbell, S. (1976). Sibling deidentification. *Developmental Psychology, 12*(5), 418-427. doi: 10.1037/0012-1649.12.5.418
- Schafer, J. L. (1997). *Analysis of Incomplete Multivariate Data*. London: Chapman & Hall.
- Scharf, M., Shulman, S., & Avigad-Spitz, L. (2005). Sibling Relationships in Emerging Adulthood and in Adolescence. *Journal of Adolescent Research, 20*(1), 64-90. doi: 10.1177/0743558404271133
- Shortt, J. W., & Gottman, J. M. (1997). Closeness in young adult sibling relationships: Affective and physiological processes. *Social Development, 6*(2), 142-164. doi: 10.1111/j.1467-9507.1997.tb00099.x
- Šidák, Z. (1967). Rectangular confidence region for the means of multivariate normal distributions. *Journal of the American Statistical Association, 62*, 626-633.
- Smetana, J. G. (2000). Middle-class African American adolescents' and parents' conceptions of parental authority and parenting practices: A longitudinal investigation. *Child Development, 71*(6), 1672-1686. doi: 10.1111/1467-8624.00257
- Smetana, J. G. (2006). Social-cognitive domain theory: Consistencies and variations in children's moral and social judgments. In M. Killen & J. G. Smetana (Eds.), *Handbook of Moral Development* (pp. 119-154). Mahwah, NJ US: Erlbaum.
- Smetana, J. G., Campione-Barr, N., & Daddis, C. (2004). Longitudinal development of family decision making: Defining healthy behavioral autonomy for middle-class African American adolescents. *Child Development, 75*(5), 1418-1434. doi: 10.1111/j.1467-8624.2004.00749.x
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. In S. T. Fiske, A. E. Kazdin & D. L. Schacter

(Eds.), *Annual review of psychology (Vol 57)*. (pp. 255-284). Palo Alto, CA US: Annual Reviews.

Stocker, C. M., Burwell, R. A., & Briggs, M. L. (2002). Sibling conflict in middle childhood predicts children's adjustment in early adolescence. *Journal of Family Psychology, 16*(1), 50-57. doi: 10.1037/0893-3200.16.1.50

Stocker, C. M., Lanthier, R. P., & Furman, W. (1997). Sibling relationships in early adulthood. *Journal of Family Psychology, 11*(2), 210-221. doi: 10.1037/0893-3200.11.2.210

Tsai, K. M., Telzer, E. H., & Fuligni, A. J. (2012). Continuity and discontinuity in perceptions of family relationships from adolescence to young adulthood. *In press*. doi: 10.1111/j.1467-8624.2012.01858.x

U.S. Department of Education, National Center for Education Statistics. (2011). Table 213: Enrollment rates of 18- to 24-year-olds in degree-granting institutions, by level of institution and sex and race/ethnicity of student: 1967 through 2010. In U.S. Department of Education, National Center for Education Statistics (Ed.). *Digest of Education Statistics* (2011 ed.). Retrieved from http://nces.ed.gov/programs/digest/d11/tables/dt11_213.asp

Vandell, D. L., & Bailey, M. D. (1992). Conflicts between siblings. In C. U. Shantz & W. W. Hartup (Eds.), *Conflict in child and adolescent development*. (pp. 242-269). New York, NY US: Cambridge University Press.

Weaver, S. E., Coleman, M., & Ganong, L. H. (2003). The sibling relationship in young adulthood: Sibling functions and relationship perceptions as influenced by sibling pair composition. *Journal of Family Issues, 24*(2), 245-263. doi: 10.1177/0192513x02250098

Whiteman, S. D., McHale, S. M., & Crouter, A. C. (2011). Family relationships from adolescence to early adulthood: Changes in the family system following firstborns' leaving home. *Journal of Research on Adolescence, 21*(2), 461-474. doi: 10.1111/j.1532-7795.2010.00683.x

Wood, J. T., & Inman, C. C. (1993). In a different mode: Masculine styles of communicating closeness. *Journal of Applied Communication Research, 21*(3), 279-295. doi: 10.1080/00909889309365372