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# Spillover in the Home: The Effects of Family Conflict on Parents' Behavior

*Conflict with a spouse or child may generate* spillover*, defined as short-term affective changes in parents that affect their behavior with other family members. In a diverse sample of 86 parents, this 56-day diary study examined daily bidirectional spillover between conflict in the marital or parent–child dyad and parents' irritable, frictional behavior with their child or spouse, respectively. Tests of daily associations between conflict and parent behavior revealed robust spillover effects according to parent as well as spouse and child reports. Parents' daily negative mood and child externalizing behavior contributed to several but not all of these associations. Daily spillover findings were largely unaffected by parents' neuroticism, suggesting that parents' day-to-day fluctuations in negative mood, not average levels of negative affectivity, promoted spillover. Significant direct effects of conflict on parent behavior even when controlling for negative mood, however, implicate additional cognitive or social processes as contributors to conflict spillover in families.*

Friction is a normal part of everyday family life. Parents use conflictual, irritable behavior to communicate that their spouses or children have engaged in unwanted actions. Unfortunately, turbulence in one relationship tends to spread into other relationships, and discord seems to be particularly contagious between the marital and parent–child dyads. The effects of discord in one dyad on the other may amplify the long-term negative outcomes of frequent marital and parent–child conflict that are observed in all members of the family.

Marital discord is associated with parents' harshness, inconsistency, psychological control, and reduced acceptance of and sensitivity with their children (Benson, Buehler, & Gerard, 2008; Buehler, Benson, & Gerard, 2006; Klausli & Owen, 2011; for reviews on this topic, see Erel & Burman, 1995; Krishnakumar & Buehler, 2000). In fact, the link between marital discord and parenting may partly explain the association between highly conflictual marriages and child emotional outcomes (Chung, Flook, & Fuligni, 2009; Schulz, Waldinger, Hauser, & Allen, 2005). In the reverse direction, a more limited literature indicates that difficulties between parents and children also affect marital relationships and parents' emotional distress (Almeida, Wethington, & Chandler, 1999; Jenkins, Simpson, Dunn, Rasbash, & O'Connor, 2005; VanderValk, Spruijt, de Goede, & Meeus, 2007).

Traditional correlational designs limit the potential for new knowledge about the spread of conflict within families. Although tensions in the marital and parent–child dyads are known to be closely linked, the research literature has less to say about the day-to-day mechanisms by which difficulty in one dyad is transmitted

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to the other. As a result, researchers have called for process-oriented research to begin to clarify the *why* and *how* of established associations between marital and parent–child discord (Cummings & Davies, 2002). Examining daily within-family conflict processes offers an opportunity to take a more detailed look at one potential step along the long pathway from one day's conflictual encounters to long-standing patterns of relational, behavioral, and emotional disturbances in parents and children. Furthermore, assessing short-term within-person processes allows the examination of the day-to-day effects of conflict against the backdrop of the individual's own typical behavior (as opposed to the whole sample's typical behavior), which limits the influence of individual traits, shared genes and environments, and Gene × Environment interactions. This process-level examination offers unique information about daily fluctuations in behavior as compared to the broad associations between marital and parent–child conflict described in cross-sectional and long-term prospective studies.

One mechanism by which tension in one family dyad may affect the other dyad on a daily basis is the short-term effects that conflictual encounters have on parents' behavior. *Spillover* occurs when a stressful experience in one context (e.g., marital conflict) has a direct short-term impact on an individual's affect or behavior in another context (e.g., by increasing the parent's irritability in an interaction with a child; Almeida et al., 1999; Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1987, 1994). A handful of studies have examined short-term effects of marital and parent–child conflict on other family dyads using within-subject methods such as daily diaries (Almeida et al., 1999; Bolger, DeLongis, Kessler, & Wethington, 1989; Chung et al., 2009; Kitzmann, 2000; Margolin, Christensen, & John, 1996). These studies have observed a link from marital conflict to tension in the parent–child relationship on the same or the next day, including both affective (e.g., increases in distressed mood) and behavioral (e.g., disagreements) changes (Almeida et al., 1999; Bolger, DeLongis, Kessler, & Wethington, 1989; Chung et al., 2009; Margolin et al., 1996). Similarly, one laboratory study found that negativity in a marital discussion predicted more parental negativity during a family conversation immediately afterward (Kitzmann, 2000). To date, there has been little evidence addressing spillover from the parent–child to the marital relationship. One daily diary study found spillover from parent–child interactions to next-day marital interactions among fathers but not mothers (Almeida et al., 1999), whereas another found no evidence of either marital or parent–child arguments spilling into arguments in the other family dyad the next day (Bolger, DeLongis, Kessler, & Wethington, 1989). In the present study we built on this daily diary literature by examining bidirectional spillover from the marital to the parent–child dyad and vice versa.

In this study we also took a somewhat novel approach to operationalizing within-family conflict spillover. Previous diary studies have typically examined the co-occurrence of conflictual encounters within two family dyads. For example, parents might indicate whether they experienced a disagreement or tension with a family member without specifying whose behavior may have been driving the conflict (e.g., Almeida et al., 1999; Bolger, DeLongis, Kessler, & Schilling, 1989). In the present study we focused on parent behavior, which is the common factor in marital and parent–child dyads and the most likely agent that carries tension from one relationship to the other. We define *spillover* as a process in which a conflictual encounter in one dyad generates a short-term increase in the parent's own "frictional" (irritable, intolerant, impatient, or insensitive) behavior in the other family dyad above his or her typical behavior.

For example, imagine a marital interaction in which both parents engage in frictional, conflictual behaviors (e.g., yelling and ignoring each other's needs). This *conflict event* represents both of their frictional behaviors. Regardless of whether or not both individuals contribute conflict-generating behavior during the event, the event itself is a possible predictor of spillover. On the same day as this marital dispute, imagine the mother and the child also have a conflictual encounter: The child avoids homework, and the mother responds with a sharp reprimand. If the mother's behavior with her child is more irritable than is typical for her, this is deemed an example of spillover. In summary, our analysis distinguished between conflict events (the predictor variable, which represents combinations of both dyad members' frictional behavior) and the parent's frictional behavior (the outcome of spillover, which is a subset of the behaviors that make up a conflict

event). We made this distinction in an attempt to focus specifically on spillover as manifested in the behavior of the parent, who is the common denominator in marital and parent–child dyads.

In addition to making the operationalization of spillover more specific and examining bidirectional effects between the marital and parent–child dyads, several other important targets for investigation remain. These include the mediating role of negative mood and the effects of parent emotion regulation skills and children's behavior problems on conflict spillover processes.

## The Role of Negative Mood in Spillover

One explanation for increases in frictional behavior following a conflict event is that a negative mood (e.g., irritability, frustration) generated by the initial stressful encounter changes the individual's response patterns in later social interactions (Bolger, DeLongis, Kessler, & Schilling, 1989; Story & Repetti, 2006). Distress and anger can reduce parents' sensitivity toward their children and tolerance of misbehavior, resulting in increased parental hostility (Erel & Burman, 1995; Krishnakumar & Buehler, 2000). Previous studies have defined spillover as changes in parents' mood or their behavior but have not examined the indirect effect of negative mood on the behavior changes associated with spillover. To illustrate this idea, we return to the mother whose child was avoiding homework: We would hypothesize that her increased likelihood of responding to the child's demand with more aggressive, frictional behavior than is typical for her is (a) because she had a difficult marital interaction (the direct spillover effect) and (b) because that marital interaction left her in a negative mood (e.g., feeling irritated or frustrated) that lingered through her later, unrelated interaction with her child (the indirect effect of negative mood on spillover).

The posited role of negative mood in driving behavioral spillover calls attention to a complexity that arises with the use of self-report data. Mood colors perceptions and memory of social interactions and stressful events; induced negative mood can affect participant self-report, such as by increasing the number of negative life events (e.g., conflict) and the availability of social support reported (L. H. Cohen, Towbes, & Flocco, 1988). Descriptions of social behavior provided by spouses and children can help evaluate the extent to which previous studies' reports of conflict spillover reflect observable behavioral changes, as opposed to attentional and cognitive reporting biases associated with negative affect. In this study, in addition to parent self-reports, we used spouses' reports of marital conflict events and frictional marital behavior and children's reports of parent–child conflict events and frictional parenting behavior to test the spillover model. Differentiating between the descriptions of conflict and frictional behavior provided by two members of a dyad, rather than combining self- and other reports into single scales, allowed us to distinguish observable changes in parent behavior from the parent's irritability or emotional distress that day.

## Parent Neuroticism

If, as suggested above, negative mood plays a role in determining whether conflict in one relationship shapes behavior in another relationship, then a parent's overall tendency to experience negative emotion may contribute to spillover. *Neuroticism* is a personality characteristic associated with higher average levels of negative affect, explained in part by more intense negative emotional responses to negative events (*reactivity*) and slower subsidence of negative emotional responses following the cessation of the stressful event (*recovery*; Costa & McCrae, 1980; Gross, Sutton, & Ketelaar, 1998; Ng & Diener, 2009). Although individual differences in emotion regulation skills are believed to affect overall rates of family conflict (Krishnakumar & Buehler, 2000; Margolin et al., 1996), no studies have examined the role of neuroticism in within-family conflict spillover, and even previous evidence for a possible moderating role of trait negative affectivity is limited. We hypothesized that parent neuroticism is associated with greater spillover between marital and parent–child tensions because higher tonic negative affectivity and poorer regulation of stress responses may increase the likelihood that a conflict event will trigger an emotional response and subsequent alterations in behavior.

## The Role of Child Behavior

Children's externalizing (e.g., impulsive, aggressive, and hyperactive) behavior is associated with more parental hostility, parent–child conflict, and marital conflict, at least in part

because child externalizing behavior increases parents' arguments about the child (Edwards, Barkley, Laneri, Fletcher, & Metevia, 2001; Jenkins et al., 2005; VanderValk et al., 2007). We hypothesized that parents' frictional behavior is more likely to increase following conflict events in the family when the child has a tendency to display externalizing behavior. There are several ways this might occur. Parent–child conflict events may be more provocative with a child whose behavior is more uncontrolled, resulting in a more substantial disruption to the parent's mood and interactions with his or her spouse. For example, teens with Attention-Deficit/Hyperactivity Disorder and their parents use more negative and fewer positive behaviors during conflict discussions than control families (Edwards et al., 2001). Parents of children who externalize may also have more limited patience or higher sensitivity to acting-out behavior. This proposed sensitivity might make parents' interactions with their children particularly vulnerable to disruption following a marital dispute.

## The Current Study

In the current study we used diary data collected on 56 consecutive days from families with children between ages 8 and 13 to assess same-day spillover effects from conflict events with spouses and children to mothers' and fathers' frictional behavior with the other family member. In addition to daily self-reports of behavior and interactions with spouses and children, the spouse and the child serve as independent sources of information about daily discord in those relationships. The indirect effect of parents' daily negative mood on spillover was addressed by testing mood as a mediator of spillover. Last, we evaluated how individual differences in parent neuroticism and child externalizing symptoms may moderate parents' relative risk of experiencing daily within-family conflict spillover.

## Method

### *Participants*

Cohabiting parents with at least one child between ages 8 and 13 living in a large metropolitan area in the western United States were recruited from 2009 to 2012 through schools, community centers, medical clinics, and direct mailings to families with children in the target age range as identified by a marketing agency. At least one parent and one child in the target age range from each family were required for the family to participate, although both parents were encouraged to take part. All participants were screened for a range of mental and physical health problems to ensure that collection of biological samples not discussed here (e.g., salivary cortisol) would not be disrupted by medication or chronic health problems.

Although the study did not exclude homosexual cohabiting parents, only heterosexual parents participated. A total of 86 parents (47 mothers, $M$ age = 43.3, $SD$ = 6.3, and 39 fathers, $M$ age = 43.7, $SD$ = 8.1) and 47 "target" children (19 boys, 28 girls, $M$ age = 11.2, $SD$ = 1.5) completed daily diaries. These 86 parents included 38 couples in which both the husband and wife responded to study measures and eight families in which only the mother did so. In one additional family, the parents were divorced and had remarried, and so both reported independently on their interactions with the target child and their respective spouses but not on marital interactions with each other. Their spouses did not participate in the study. A subset of the analyses described in this article used family members' reports of conflict events and parents' frictional behavior; in these analyses, only data from the 38 cohabiting, participating couples were examined, for a sample of 76 parents. In analyses using only parents' self-report, the reports of the nine mothers and one father whose spouses did not participate in the study were added to this sample of 76, for a sample of 86 parents. Parents self-reported their own ethnicities as 45% non-Hispanic White, 22% Latino/Hispanic, 17.5% African American, 12.5% Asian, 1.5% Native American, and 1.5% "Other." Parents reported target children's ethnicities as 38% non-Hispanic White, 30% Latino/Hispanic, 15% African American, 8.5% Asian, and 8.5% "Other" (primarily of mixed ethnicity). The parents' median self-reported individual income fell within a $32,000–$82,000 bracket and ranged from below $8,725 to above $171,850.

### *Procedure*

During an initial visit to the family's home, trained research assistants discussed the study procedures and obtained informed consent. Following this visit, parents and children completed

a series of baseline questionnaires. About a week later, research assistants made a second visit to the family's home to train participating members on daily diary procedures. On the first Saturday following the training visit, participating parents and children began a period of 56 consecutive days of daily data collection. Daily diaries consisted of questions about participants' experiences and mood that day and were completed online each evening prior to bedtime. To complete the daily diaries, participants were given access to a personalized, password-protected web page on the study's online portal, which allowed private communication with study staff, links to that day's daily diary, and access to blocks of additional questionnaires. Though not required for study participation, all families had home Internet connections; however, each family was given 14 paper diaries as backups in case of technical difficulties, as well as a date–time stamp device to track compliance.

Online diary compliance was measured via automated time-stamping procedures included in the online survey program (https://www.surveymonkey.com). If a participant did not complete three consecutive days of daily diaries, laboratory staff members contacted the family to troubleshoot improving compliance. Parents earned up to $200 and children up to $100 for completion of the portions of the procedures discussed in this study, including a $5 gift card for each week of 100% diary compliance (given if each diary had been completed before 9:00 a.m. the following morning). Further details on other study procedures (e.g., laboratory activities and biological sample collection) were described by Robles, Reynolds, Repetti, and Chung (2013).

### *Measures*

*Daily diaries.* Each day, mothers and fathers rated their own, their spouses', and their children's behavior, and children rated their own and each of their parents' behavior. As described above, we distinguished between *conflict events*, which were measured using average responses to scale items that asked each reporter about both the focal parent's and his or her social partner's conflictual behavior, and *frictional behavior*, the subset of conflict event items that described the focal parent's behavior. In total, we used (a) parent self- and partner report of marital conflict events, and parent self- and child report of parent–child conflict events; (b) parent self- and partner report of the focal parent's frictional marital behavior and parent and child report of the focal parent's frictional parenting behavior; and (c) parent self-reports of negative mood.

Reliability for daily diary scales was estimated at both the between- and within-person level by applying a generalizability theory framework (Cranford et al., 2006). The between-person estimate ($R_{KF}$) indicates the degree of between-person reliability, or how well a scale differentiates between people, given the diary period ($K$ represents the number of days, 56; $F$ indicates that the number of days is fixed). The $R_{KF}$ estimates were consistently .99 or above, indicating that the diary scales measured relatively stable individual differences with excellent reliability given the 56-day diary period. The within-person ($R_C$) estimates ranged from .58 to .85, indicating that diary scales were able to reliably detect meaningful day-to-day change ($C$) within participants across 56 days. The $R_C$ values were generally higher for parent-report scales, which included more items than child-report scales.

Marital conflict events. This scale, which was adapted from the Adult Home Data Questionnaire (Timmons & Margolin, 2015), assessed a combination of 12 items. Seven items describe the parent's own conflictual behavior ("my behavior," $R_{KF} = .98$, $R_C = .66$ among wives and $R_{KF} = .98$, $R_C = .69$ among husbands). Five items describe the parents' observations of his or her spouse's conflictual behavior ("partner's behavior," $R_{KF} = .98$, $R_C = .72$ among husbands' reports of wives and $R_{KF} = .99$, $R_C = .68$ among wives' reports of husbands). Items such as "I expressed anger or irritation at my partner" ("my behavior") and "My partner took my feelings lightly" ("partner's behavior") were rated on a scale that ranged from 1 (*not at all*) to 3 (*a lot*). All 12 items are listed in Appendix A. Averaging across daily responses within participants, wives' daily rating of marital conflict (across all 12 items) was 1.11 ($SD = 0.12$), and husbands' was 1.08 ($SD = 0.08$), indicating that, on average, at least one of the 12 items was endorsed each day. We conducted one set of analyses using parents' self-reported marital conflict events, and, for the families in which both partners participated, we conducted a second set of analyses using partner-reported marital conflict events.

Frictional marital behavior. We used the subset of the marital conflict event items describing the

focal parent's behavior to test for differences in a parent's marital behavior on days when a parent–child conflict event had occurred. Responses to the seven-item "my behavior" segment of the marital conflict scale (described in the previous paragraph) were used as a measure of the parent's self-reported frictional behavior toward the spouse. Wives' average self-reported frictional marital behavior was 1.10 ($SD = 0.10$), and husbands' was 1.07 ($SD = 0.07$).

Among the families in which both husband and wife participated in the study, responses to the five-item "partner's behavior" segment of the marital conflict scale were used as a measure of frictional marital behavior as observed by the spouse. Wives' average ratings of their husbands' frictional marital behavior was 1.12 ($SD = 0.15$), and husbands' average ratings of their wives' behavior was 1.09 ($SD = 0.10$).

Parent–child conflict events. As with marital conflict events, reports of both the parent's and the child's conflictual behavior were averaged to indicate a conflict event.

- *Parent self-report:* The nine-item parent–child conflict scale (e.g., "I punished my child," rated on a scale that ranged from 1 [*not at all*] to 3 [*a lot*]; see Appendix B for a full reproduction of the scale) was adapted from the Adult Home Data Questionnaire (Timmons & Margolin, 2015). Parents responded to eight items regarding their own conflictual behavior with the target child and one item regarding their child's conflictual behavior. Among mothers, the scale's mean was 1.18 ($SD = 0.16$, $R_{KF} = .99$, $R_C = .83$), and among fathers it was 1.11 ($SD = 0.10$, $R_{KF} = .99$, $R_C = .79$).
- *Child report:* Children's reports of daily mother–child and father–child conflict offered an independent assessment of parent–child conflict events. Items were based on the Youth Everyday Social Interaction and Mood scales (Repetti, 1996) and the Child Home Data Questionnaire (Timmons & Margolin, 2015). Three items per parent (e.g., "My mom got mad at me today"; see Appendix B for a full reproduction of the scale), one of which referred to the child's behavior and two to the parent's behavior, were rated on a scale that ranged from 1 (*not at all*) to 3 (*a lot*). Averaging across families, mean child-reported mother–child conflict was 1.17 ($SD = 0.20$, $R_{KF} = .99$, $R_C = .75$), and father–child conflict was 1.13 ($SD = 0.16$, $R_{KF} = .99$, $R_C = .76$).

Frictional parenting behaviors. Focal parents' hostile, conflictual behaviors toward children were assessed by parent self-report and child-report.

- *Parent self-report:* A subset (eight) of the nine parent-reported parent–child conflict event items that referred to the parent's own behavior were averaged as a measure of frictional parenting behavior. Across families, mothers' frictional parenting behavior was rated 1.19 ($SD = 0.17$, $R_{KF} = .99$, $R_C = .82$) on average, and fathers' was 1.11 ($SD = 0.10$, $R_{KF} = .99$, $R_C = .77$).
- *Child report:* Two of the three items included in the child report of parent–child conflict were used to measure child-reported frictional parenting behaviors. Mothers' frictional parenting behavior as reported by children was rated 1.15 ($SD = 0.33$, $R_{KF} = .98$, $R_C = .58$) on average, and fathers' was 1.12 ($SD = 0.31$, $R_{KF} = .98$, $R_C = .60$).

Parent negative mood. The daily mood scale was adapted from S. Cohen, Doyle, Turner, Alper, and Skoner (2003). Parents rated their own positive and negative mood on a scale that ranged from 1 (*completely inaccurate*) to 4 (*completely accurate*) based on the prompt, "Please rate how accurately each of the following adjectives describe how you felt today." Eight negative mood items (e.g., "sad," "on edge," "angry") were averaged to create an overall negative mood score for the day. This mood scale has previously shown good internal reliability (Cronbach's $\alpha = .87$–$.93$ across anxious, depressed, and angry mood subscales; (S. Cohen et al., 2003). In the current study, the average mother's mean negative mood was 1.46 ($SD = 0.33$, $R_{KF} = 1.00$, $R_C = .82$), and father's was 1.34 ($SD = 0.34$, $R_{KF} = 1.00$, $R_C = .85$).

*Questionnaire measures.* Parents responded to a series of one-time questionnaires online prior to completing all 56 days of daily diaries.

Parent neuroticism. The Big Five Inventory (BFI; John & Srivastava, 1999), a self-report measure of the five-factor model of personality, includes eight items measuring neuroticism. Parents' responses on these eight items were averaged for the current study ($\alpha = .85$ in

this study and .87 in a previous study; John, Naumann, & Soto, 2008). Example items include "Worries a lot," and "Can be moody," rated on a scale that ranges from 1 (*disagree strongly)* to 5 (*agree strongly*). The BFI has been validated in diverse samples and is often used in research with adults in the general population. Mothers' average score was 21.50 ($SD = 6.35$, $n = 46$; one mother declined to complete a series of questionnaires that included the BFI), and fathers' was 16.67 ($SD = 5.67$, $N = 39$). Mothers scored significantly higher than fathers, $t(83) = -3.67$, $p < .001$.

Child externalizing behavior. The Child Behavior Checklist (CBCL; Achenbach, 1991), which was created for children ages 6–18, is a well-validated and frequently used parent-report measure of child internalizing and externalizing symptoms. It contains 113 items; 30 items measure externalizing problems ($\alpha = .93$ in the current study). These 30 items, such as "Disobedient at school" and "Lying or cheating," rated on a scale that ranges from 0 (*not true*) to 2 (*very true or often true*), were included in the current study. Mothers' average summary rating of their children's externalizing behavior was 4.60 ($SD = 5.15$, $n = 47$, ranging from 0 to 19), and fathers' was 4.33 ($SD = 4.29$, $n = 39$, ranging from 0 to 17). Boys' and girls' scores were not significantly different ($p > .05$).

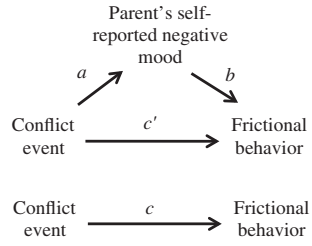
## Results

The 56 consecutive days of daily diary responses were nested within 47 mothers, 39 fathers, and 47 child respondents. As we specify in further detail below, multilevel modeling techniques were used to examine daily-level associations between marital and parent–child interactions. Within-subject variation is represented in Level 1 of the model, which contains daily diary responses by parents or children. Between-subject variation is represented at Level 2.

### *Direct Spillover Effects and Indirect Effects of Negative Mood*

The tests of the direct spillover effect and the indirect effect of negative mood as a mediator of spillover were examined in two sets of multilevel mediation models: spillover (a) from marital conflict events to frictional parenting behavior and (b) from parent–child conflict events to frictional marital behavior. Both spillover models included negative mood as a mediator. Both of these models were estimated twice, using different respondents as sources of information: One pair of models used parent self-report to assess both the predictor and the outcome, and the second pair of models used "independent" reporter ratings (partner reports of marital conflict and marital behavior and child reports of parent–child conflict and parenting behavior). These four models are represented schematically in Figure 1. Last, although parent gender differences were not a focus of this study, tests of spillover among mothers and fathers are presented separately for a total of eight analyses examining direct and indirect effects.

Figure 1. Direct Spillover Effect and Indirect Effect of Negative Mood.




| | | |
|---|---|---|
| Model 1 | Self-report of marital conflict event | Self-report of frictional parental behavior |
| Model 2 | Partner report of marital conflict event | Child report of frictional parental behavior |
| Model 3 | Self-report of parent–child conflict event | Self-report of frictional marital behavior |
| Model 4 | Child report of parent–child conflict event | Partner report of frictional marital behavior |

Mediation is traditionally tested in three separate steps: The first model tests the association between the independent and dependent variables (the "*c*" pathway in Figure 1). The second model tests the association between the independent variable and the mediator (the "a" pathway). The third model simultaneously tests the association between the mediator and dependent variable (the "*b*" pathway) and the direct effect of the initial predictor on the outcome ($c'$), so that the unique effect of each can be estimated controlling for the other. Applied to the current data, the multilevel equations for these three steps can be written as follows:

Step 1 ($c$): Frictional Behavior$_{ij} = \gamma_{00} + \gamma_{10}(\text{Conflict}_{ij}) + u_{0j} + u_{1j}(\text{Conflict}_{ij}) + e_{ij}$

Step 2 ($a$): Negative Mood$_{ij} = \gamma_{00} + \gamma_{10}(\text{Conflict}_{ij}) + u_{0j} + u_{1j}(\text{Conflict}_{ij}) + e_{ij}$

Step 3 ($b$ & $c'$): Frictional Behavior$_{ij} = \gamma_{00} + \gamma_{10}(\text{Conflict}_{ij}) + \gamma_{20}(\text{Negative Mood}_{ij}) + u_{0j} + u_{1j}(\text{Conflict}_{ij}) + u_{2j}(\text{Negative Mood}_{ij}) + e_{ij}$

In the Step 3 equation, frictional behavior for parent $j$ on day $i$ is a function of the daily effect of the conflict event ($\gamma_{10}$) and negative mood ($\gamma_{20}$), random effects of conflict ($u_{1j}$) and negative mood ($u_{2j}$), and error at Level 1 ($e_{ij}$).

The approach we used in this study combines Steps 2 and 3 into a single mixed model that allows for covariance of random effects if the pathways from the predictor to the mediator variable and from the mediator to the outcome variable are random (for a detailed description of this method, see Bauer, Preacher, & Gil, 2006). Using Stata 12 software (StataCorp, 2011; UCLA Statistical Consulting Group, 2011), these mixed models resulted in estimations of total, direct, and indirect mediation effects in five of the eight analyses.

In two analyses (fathers' marital conflict events predicting father–child conflict, both self-report [labeled *Model 1* in Figure 1] and independent report [Model 2] models), initial separate estimations of the $a$ pathway and the $b$ and $c'$ pathways revealed that the latter model could not converge with random effects of the negative mood mediator (only with random effects of the initial predictor). In one additional analysis (independent reports of father–child conflict events predicting frictional marital behavior, Model 4 in Figure 1), all random effects were estimable when the two steps were conducted separately, but the single mixed model failed to converge. As a consequence, these three analyses were not conducted using single mixed models; instead, effects were estimated separately in the three steps described above. This strategy assumes zero covariance between the random effects of Pathways $a$ and $b$. To obtain standard errors and confidence intervals, the results were bootstrapped with 1,000 replications. As with the effects reported in the five analyses for which the mixed mediation model successfully converged, these three-stepped analyses resulted in estimations of total, direct, and indirect mediation effects.

Results from the four self-report and independent-report models in which marital conflict predicted frictional parental behavior

Table 1. *Tests of Direct Effects of Marital Conflict Events and Indirect Effects of Negative Mood on Frictional Parenting Behavior*

A. Self-report of marital conflict predicting self-report of frictional parental behavior

| | Mothers | | | | | Fathers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model 1[a] | B | *SE* | *z* | *p* | 95% CI | B | *SE* | *z* | *p* | 95% CI |
| Indirect effect of negative mood | 0.08 | 0.03 | 2.70 | .007 | [0.02, 0.14] | 0.02 | 0.01 | 1.92 | .055 | [−0.00, 0.03] |
| Direct effect of marital conflict | 0.19 | 0.05 | 3.77 | <.001 | [0.09, 0.29] | 0.21 | 0.04 | 4.72 | <.001 | [0.12, 0.29] |
| Total effect | 0.27 | 0.06 | 4.74 | <.001 | [0.16, 0.38] | 0.22 | 0.04 | 5.22 | <.001 | [0.14, 0.30] |

B. Partner report of marital conflict predicting child report of frictional parental behavior

| | Mothers | | | | | Fathers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model 2[b] | B | *SE* | *z* | *p* | 95% CI | B | *SE* | *z* | *p* | 95% CI |
| Indirect effect of negative mood | 0.07 | 0.03 | 2.06 | .039 | [0.00, 0.14] | 0.01 | 0.01 | 1.01 | .311 | [−0.01, 0.02] |
| Direct effect of marital conflict | 0.25 | 0.08 | 3.03 | .002 | [0.09, 0.42] | 0.11 | 0.06 | 1.98 | .048 | [0.00, 0.23] |
| Total effect | 0.33 | 0.09 | 3.50 | <.001 | [0.14, 0.51] | 0.12 | 0.06 | 2.13 | .033 | [0.01, 0.23] |

*Note*. CI = confidence interval.

[a]Fathers' Model 1 failed to converge with random effect of mediator, so pathways were examined using the three-stepped approach, omitting $u_{2j}$(Negative Mood) from the Step 3 equation; effects reported are bootstrapped with 1,000 replications. [b]Fathers' Model 2 failed to converge with random effect of mediator, so pathways were examined using the three-stepped approach, omitting $u_{2j}$(Negative Mood) from the Step 3 equation; effects reported are bootstrapped with 998 of 1,000 attempted replications.

Table 2. *Tests of Direct Effects of Parent–Child Conflict Events and Indirect Effects of Negative Mood on Frictional Marital Behavior*

A. Self-report of parent–child conflict predicting self-report of frictional marital behavior

| | Mothers | | | | | Fathers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model 3 | B | *SE* | *z* | *p* | 95% CI | B | *SE* | *z* | *p* | 95% CI |
| Indirect effect of negative mood | 0.03 | 0.01 | 2.17 | .030 | [0.00, 0.05] | 0.01 | 0.01 | 0.83 | .406 | [−0.01, 0.03] |
| Direct effect of parent–child conflict | 0.12 | 0.03 | 4.27 | <.001 | [0.07, 0.18] | 0.15 | 0.05 | 3.24 | .001 | [0.06, 0.25] |
| Total effect | 0.15 | 0.03 | 4.94 | <.001 | [0.09, 0.21] | 0.16 | 0.05 | 3.32 | .001 | [0.07, 0.26] |

B. Child report of parent–child conflict predicting partner report of frictional marital behavior

| | Mothers | | | | | Fathers | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Model 4[a] | B | *SE* | *z* | *p* | 95% CI | B | *SE* | *z* | *p* | 95% CI |
| Indirect effect of negative mood | 0.01 | 0.01 | 1.37 | .171 | [−0.01, 0.03] | 0.01 | 0.004 | 2.28 | .023 | [0.00, 0.02] |
| Direct effect of parent–child conflict | 0.08 | 0.03 | 2.65 | .008 | [0.02, 0.14] | 0.08 | 0.04 | 2.37 | .018 | [0.01, 0.15] |
| Total effect | 0.09 | 0.03 | 2.81 | .005 | [0.03, 0.16] | 0.09 | 0.04 | 2.58 | .010 | [0.02, 0.16] |

*Note*. CI = confidence interval.

[a]The fathers' Model 4 single mixed model failed to converge, so mediation pathways were examined using the three-stepped approach as described in the RESULTS section; effects are bootstrapped with 966 of 1,000 attempted replications.

are presented in Table 1, and results from the four models in which parent–child conflict predicted frictional marital behavior are presented in Table 2. As shown in the bottom line of each panel in Table 1, the total effect (Pathway *c*) of marital conflict events on frictional parental behavior—not controlling for negative mood—was positive and significant for both mothers and fathers and when examining both self- and independent reports. Significant direct effects (Pathway *c′*) in each panel of Table 1 indicate that marital conflict continued to predict frictional parental behavior even when controlling for negative mood. Similar results were obtained when we examined the total and direct effects of parent–child conflict on frictional marital behavior (see Table 2). Thus, same-day associations of conflict events with frictional parent behaviors were robust: Spillover effects were observed in both directions, for both mothers and fathers, both in self-report models and in independent-reporter models—even when negative mood was controlled. In other words, the intensity of focal parent negative mood was not the sole explanation for within-family conflict spillover.

We next addressed the role of negative mood as a mediator of the association between conflict and parents' frictional behavior. As evidenced by the significant indirect effects shown in Tables 1 and 2, negative mood partially mediated spillover in four of eight models and did so marginally in one additional model ($p = .055$). As can be seen in the left-hand panels of both tables, three of the mothers' spillover models contained significant indirect effects of negative mood, including one model in which husbands and children reported on mothers' conflict events and behavior. Negative mood also significantly partially mediated the spillover of conflict in one of four tests of fathers' frictional behavior (independent reports of the effect of father–child conflict events on fathers' marital behavior; see Table 2) and marginally partially mediated the spillover of fathers' self-reported marital conflict to frictional paternal behavior (see Table 1).

### *Moderation of Spillover*

*Parent neuroticism.* Parent neuroticism was hypothesized to increase the likelihood of conflict spillover. Multilevel models were estimated using Stata 12 software. As with the negative mood mediation analyses described above, eight spillover models were estimated removing negative mood as a mediator and adding parent neuroticism as a moderator. A first-order autoregressive variance–covariance matrix was applied to all eight models to allow Level 1 residuals to covary across days.

To illustrate, in the following multilevel equation, parent neuroticism moderates spillover from a conflict event to frictional parental behavior:

$$\text{Frictional Behavior}_{ij} = \gamma_{00} + \gamma_{10}(\text{Conflict}_{ij}) + \gamma_{01}(\text{Neuroticism}_j) + \gamma_{11}(\text{Conflict}_{ij} \times \text{Neuroticism}_j) + u_{0j} + u_{1j}(\text{Conflict}_{ij}) + e_{ij},$$

where frictional parental behavior for parent $j$ on day $i$ is a function of the daily effect of the conflict event ($\gamma_{10}$), the effect of the parent's neuroticism score ($\gamma_{01}$), the interaction between the neuroticism score and the conflict event rating ($\gamma_{11}$), and error at Level 1 and Level 2.

Only one of the eight tests found a significant interaction with parent neuroticism. Fathers' neuroticism moderated fathers' self-reported spillover from marital conflict to parenting behavior such that higher paternal neuroticism scores were associated with a higher likelihood of spillover. This moderation effect, labeled *Neuroticism × marital conflict* in the top panel of Table 3, was not observed among mothers. Parental neuroticism did not significantly moderate spillover from parent–child conflict to marital behavior in either mothers or fathers ($p = .87$ and .90, respectively) or any spillover effects when based on the daily reports of independent raters ($p = .19$ for both mothers' and fathers' marital conflict predicting parenting behavior, and $p = .73$ and .90 for mothers' and fathers' parent–child conflict predicting marital behavior, respectively).

*Child externalizing behavior.* Child externalizing behavior was also hypothesized to exacerbate spillover between marital and parent–child interactions. Models analogous to those described above were estimated with child externalizing scores tested as a moderator. Significant interactions were found in three of the eight models. The results are shown in the lower two panels of Table 3. Child externalizing behavior moderated both mothers' and fathers' self-reported spillover from marital conflict to parenting behavior such that parents of children high in externalizing behavior were significantly more likely to experience spillover from marital conflict to frictional parenting behavior. Independent reporters corroborated mothers' self-report such that father report of marital conflict interacted with child externalizing to predict child report of same-day frictional maternal behavior; the same was not true of independent reports of fathers' spillover from marital conflict to paternal behavior ($p = .88$). As with parent neuroticism, child externalizing scores did not significantly moderate spillover from parent–child conflict to frictional marital behavior in either mothers' or fathers' self-reports ($p = .63$ and .41, respectively) or

Table 3. *Moderators of Spillover From Marital Conflict Events to Frictional Parenting Behavior*

| | Mothers | | | | Fathers | | | |
|---|---|---|---|---|---|---|---|---|
| Predictors of frictional parenting behavior | B | *SE* | *z* | *p* | B | *SE* | *z* | *p* |
| Parent neuroticism: Parent self-report | | | | | | | | |
| Intercept | 0.72 | 0.21 | 3.50 | <.001 | 1.14 | 0.16 | 7.20 | <.001 |
| Marital conflict | 0.32 | 0.21 | 1.52 | .13 | −0.09 | 0.16 | −0.55 | .59 |
| Neuroticism | 0.01 | 0.01 | 0.86 | .39 | −0.02 | 0.01 | −1.81 | .07 |
| Neuroticism × marital conflict | −0.00 | 0.01 | −0.24 | .81 | 0.02 | 0.01 | 2.08 | .04 |
| Child externalizing: Parent self-report | | | | | | | | |
| Intercept | 0.92 | 0.06 | 14.38 | <.001 | 0.98 | 0.07 | 13.89 | <.001 |
| Marital conflict | 0.17 | 0.06 | 2.70 | .01 | 0.08 | 0.07 | 1.07 | .28 |
| Externalizing | −0.01 | 0.01 | −0.60 | .55 | −0.03 | 0.01 | −2.27 | .02 |
| Externalizing × marital conflict | 0.02 | 0.01 | 2.13 | .03 | 0.04 | 0.01 | 3.06 | .002 |
| Child externalizing: Independent reporters | | | | | | | | |
| Intercept | 0.99 | 0.13 | 7.44 | <.001 | 0.94 | 0.08 | 12.40 | <.001 |
| Marital conflict | 0.13 | 0.11 | 1.15 | .25 | 0.16 | 0.07 | 2.37 | .02 |
| Externalizing | −0.03 | 0.02 | −1.66 | .10 | 0.01 | 0.01 | 0.62 | .54 |
| Externalizing × marital conflict | 0.04 | 0.02 | 2.46 | .01 | −0.00 | 0.01 | −0.15 | .88 |

according to independent reports of mother and father behavior ($p = .55$ and .66, respectively).

## Discussion

Across 56 days of reporting, mothers and fathers of 8- to 13-year-olds were reliably more likely to express irritation, punish, nag, or yell at their children and nag, disagree with, ignore, or disregard the needs of their spouses on days when they experienced conflict events with the other family member. There was evidence of conflict spillover not only in parents' self-reports but also when behavior and interactions were described by spouses and children. The corroboration of other family members' perceptions indicates that the spillover effect reflects observable changes in behavior and not merely the parent's attentional bias due to negative mood. This is a particularly important finding given that conflict events and mood were all reported at the same time at the end of the day. The robustness of these spillover findings is especially striking in the context of the relatively low levels of conflict reported.

### *Mediating Effect of Negative Mood on Spillover*

Negative mood intensity partially mediated spillover from conflict events to parents' frictional behavior with their family members in a number of cases: mothers' self-reported spillover from conflict events with husbands or children to their behavior with the other family member and independent reports of mothers' spillover from the marital to the parent–child dyad and fathers' spillover in the reverse direction. The negative mood mediation findings in the context of a daily within-subject design suggest that spillover is often promoted by short-term fluctuations in emotions. Despite the role that negative affect plays in spillover, a significant direct association between conflict events in one dyad and behavior in the other dyad remained in all models even after controlling for negative mood. In other words, spillover also appears to occur even in the absence of conscious negative mood. Alternative processes that may contribute to spillover include parents' attributions and tolerance for unwanted behavior, which are not necessarily contingent on experiencing intense negative mood. For example, parents may experience friction if one believes the other failed to support a decision made during a difficult parent–child interaction. In addition, *ego depletion*, defined as a deficit in self-regulatory strength, diminishes performance on self-control tasks (Hagger, Wood, Stiff, & Chatzisarantis, 2010): Spillover may be occurring in the context of parents' momentarily reduced self-regulatory capacity, with or without the contribution of negative mood. Fatigue and individuals' perceptions of the difficulty of the self-regulatory task are both significant contributors to ego depletion (Hagger et al., 2010).

An additional contributor to spillover as it is tested in this study could be timing: Marital and parent–child conflict may sometimes co-occur rather than occurring in sequence. For example, a single episode of a child's misbehavior may generate tense negotiations between parents about an appropriate response as well as reprimands of the child; one laboratory study found that problems in coparenting mediated an association between marital conflict and parenting practices (Margolin, Gordis, & John, 2001). Alternatively, triangulation of the child into a marital conflict may also increase the likelihood of conflict between the child and his or her parents. In support of this theory, evidence from one longitudinal study suggests that triangulation is associated with damage to parent–adolescent relationships over time (Fosco & Grych, 2010). Last, even very low levels of negative mood may be sufficient to increase the likelihood of conflictual behavior (feelings of mild irritation, as opposed to full-blown anger). In other words, there may be a threshold effect whereby subtle or fleeting changes in mood affect a parent's attributions and ability to tolerate interpersonal problems that arise. Those brief flares of negative mood may not be reflected in this study's end-of-day ratings, which are more likely to represent the parent's average or typical mood that day. For both of these reasons, this study's daily protocol was not ideally suited to testing the meditational model's presumed sequence of events (i.e., a conflict, followed by a change in mood, followed by a change in behavior).

### *Moderators of Spillover: Parent Neuroticism and Child Externalizing*

Given the strong association between negative mood and within-family conflict spillover, we had hypothesized that the spillover pattern

would be exacerbated for parents who have chronic difficulties with reactivity to and recovery from stressful events. The only evidence consistent with that prediction was higher rates of spillover from marital conflict to parenting behavior among fathers who reported higher levels of neuroticism. There is precedent for the differential effect of neuroticism on spillover in mothers and fathers; one naturalistic observational study similarly found that fathers' (but not mothers') neuroticism increased spillover from work stress to negative social behavior with their families (Wang, Repetti, & Campos, 2011). The limited evidence of a moderating role of neuroticism, though, generally seems to indicate that within-family conflict spillover is a robust phenomenon throughout this sample of parents. Specifically, the data indicate that spillover is driven more by parents' day-to-day fluctuations in mood than their tonic levels of negative affect. Simply put, parents are more likely to experience spillover on days when they experience a heightened negative mood (*state* negative affect), regardless of whether or not they generally experience high *trait* negative affect.

Consistent with the second moderation hypothesis, fathers' and mothers' self-reports and independent reports of mothers' behavior suggested higher rates of spillover from marital conflict to parenting behavior if the focal parent had described the target child as generally exhibiting more externalizing behavior. Children who display more uncontrolled behavior may be more likely to respond to marital discord with misbehavior, which then may instigate reprimands or punishment from parents. Recovery from a tense interaction with a spouse may be particularly challenging when attempting to cope with problematic child behaviors. In addition, longitudinal research has found evidence that the association between marital conflict and youth externalizing behavior is mediated by parent–youth conflict (Gerard, Krishnakumar, & Buehler, 2006). It may be that the daily findings in this study reflect long-standing family conflict spillover patterns that, over time, have contributed to the development of child externalizing behavior. Alternatively, triangulation of children into marital conflicts has also been shown to contribute to the development of adolescent externalizing behavior (Etkin, Koss, Cummings, & Davies, 2014). It may be that externalizing behavior occurs at a higher rate in high-spillover families because marital and parent–child conflict have co-occurred on a regular basis. There was no evidence that child externalizing moderated spillover from parent–child conflict to frictional marital behavior.

### *Limitations and Future Directions*

As mentioned above, the simultaneous measurement of negative mood, conflict events, and behavior once each day was a constraint for the mediation analyses. For example, negative mood may have preceded (or coincided with) both conflict events rather than being instigated in one dyadic interaction and transmitted to a subsequent interaction with another family member. Assessment of family conflict and mood at several time points throughout the day would better address the hypothesized sequential nature of spillover. Other notable limitations of this study concern the sample: First, the sample of families is relatively small, which limited statistical power to test important between-subjects hypotheses such as the effects of parent neuroticism, child externalizing behavior, and parent gender on spillover. Second, families in which multiple members have the time and energy to complete daily surveys and attend in-home and laboratory sessions may not be representative of the larger population of two-parent families with children. These sample constraints limit the generalizability of our findings and constrained our power to detect between-person effects.

The low levels of family conflict that were typically reported by the participants in this study are not inherently dangerous; indeed, children may learn how to cope with disagreements through observing and practicing conflict resolution strategies at home. Spillover may be the rule rather than the exception, which indicates that some "leakage" of irritability and conflict from dyad to dyad is a normal part of daily family life. Longitudinal studies that incorporate intensive repeated-measures methodologies, such as ecological momentary assessment, would be well equipped to ascertain the point at which within-family conflict spillover begins to signal a possible threat to the well-being of families and their individual members. Interventions for families at high risk for marital and parent–child conflict would benefit from continued targeted research on the behavioral mechanisms by which spillover occurs.

## Note

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## References

Achenbach, T. M. (1991). *Manual for the CBCL/4-18 and 1991 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.

Almeida, D. M., Wethington, E., & Chandler, A. L. (1999). Daily transmission of tensions between marital dyads and parent–child dyads. *Journal of Marriage and the Family, 61,* 49–61. doi:10.2307/353882

Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods, 11,* 142–163. doi:10.1037/1082-989X.11.2.142

Benson, M. J., Buehler, C., & Gerard, J. M. (2008). Interparental hostility and early adolescent problem behavior: Spillover via maternal acceptance, harshness, inconsistency, and intrusiveness. *The Journal of Early Adolescence, 28,* 428–454. doi:10.1177/0272431608316602

Bolger, N., DeLongis, A., Kessler, R. C., & Schilling, E. A. (1989). Effects of daily stress on negative mood. *Journal of Personality and Social Psychology, 57,* 808–818. doi:10.1037/0022-3514.57.5.808

Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The contagion of stress across multiple roles. *Journal of Marriage and the Family, 51,* 175–183. doi:10.2307/352378

Buehler, C., Benson, M. J., & Gerard, J. M. (2006). Interparental hostility and early adolescent problem behavior: The mediating role of specific aspects of parenting. *Journal of Research on Adolescence, 16,* 265–292. doi:10.1111/j.1532-7795.2006.00132.x

Chung, G. H., Flook, L., & Fuligni, A. J. (2009). Daily family conflict and emotional distress among adolescents from Latin American, Asian, and European backgrounds. *Developmental Psychology, 45,* 1406–1415. doi:10.1037/a0014163

Cohen, L. H., Towbes, L. C., & Flocco, R. (1988). Effects of induced mood on self-reported life events and perceived and received social support. *Journal of Personality and Social Psychology, 55,* 669–674. doi:10.1037/0022-3514.55.4.669

Cohen, S., Doyle, W. J., Turner, R. B., Alper, C. M., & Skoner, D. P. (2003). Emotional style and susceptibility to the common cold. *Psychosomatic Medicine, 65,* 652–657. doi:10.1097/01.PSY.0000077508.57784.DA

Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology, 38,* 668–678. doi:10.1037/0022-3514.38.4.668

Cranford, J. A., Shrout, P. E., Iida, M., Rafaeli, E., Yip, T., & Bolger, N. (2006). A procedure for evaluating sensitivity to within-person change: Can mood measures in diary studies detect change reliably? *Personality and Social Psychology Bulletin, 32,* 917–929. doi:10.1177/0146167206287721

Cummings, E. M., & Davies, P. T. (2002). Effects of marital conflict on children: Recent advances and emerging themes in process-oriented research. *Journal of Child Psychology and Psychiatry, 43,* 31–63. doi:10.1111/1469-7610.00003

Edwards, G., Barkley, R. A., Laneri, M., Fletcher, K., & Metevia, L. (2001). Parent–adolescent conflict in teenagers with ADHD and ODD. *Journal of Abnormal Child Psychology, 29,* 557–572. doi:10.1023/A:1012285326937

Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent–child relations: A meta-analytic review. *Psychological Bulletin, 118,* 108–132. doi:10.1037/0033-2909.118.1.108

Etkin, R. G., Koss, K. J., Cummings, E. M., & Davies, P. T. (2014). The differential impact of parental warmth on externalizing problems among triangulated adolescents. *The Journal of Genetic Psychology, 175,* 118–133. doi:10.1080/00221325.2013.813437

Fosco, G. M., & Grych, J. H. (2010). Adolescent triangulation into parental conflicts: Longitudinal implications for appraisals and adolescent–parent relations. *Journal of Marriage and Family, 72,* 254–266. doi:10.1111/j.1741-3737.2010.00697.x

Gerard, J. M., Krishnakumar, A., & Buehler, C. (2006). Marital conflict, parent–child relations, and youth maladjustment: A longitudinal investigation of spillover effects. *Journal of Family Issues, 27,* 951–975. doi:10.1177/0192513X05286020.

Gross, J. J., Sutton, S. K., & Ketelaar, T. (1998). Relations between affect and personality: Support for the affect-level and affective reactivity views. *Personality and Social Psychology Bulletin, 24,* 279–288. doi:10.1177/0146167298243005

Hagger, M. S., Wood, C., Stiff, C., & Chatzisarantis, N. L. D. (2010). Ego depletion and the strength model of self-control: A meta-analysis. *Psychological Bulletin, 136,* 495–525. doi:10.1037/a0019486

Jenkins, J., Simpson, A., Dunn, J., Rasbash, J., & O'Connor, T. G. (2005). Mutual influence of marital conflict and children's behavior problems: Shared and nonshared family risks. *Child Development, 76,* 24–39. doi:10.1111/j.1467-8624.2005.00827.x

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 114–158). New York: Guilford Press.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford Press.

Kitzmann, K. M. (2000). Effects of marital conflict on subsequent triadic family interactions and parenting. *Developmental Psychology, 36,* 3–13. doi:10.1037/0012-1649.36.1.3.

Klausli, J. F., & Owen, M. T. (2011). Exploring actor and partner effects in associations between marriage and parenting for mothers and fathers. *Parenting: Science and Practice, 11,* 264–279. doi:10.1080/15295192.2011.613723

Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations, 49,* 25–44. doi:10.1111/j.1741-3729.2000.00025.x.

Margolin, G., Christensen, A., & John, R. S. (1996). The continuance and spillover of everyday tensions in distressed and nondistressed families. *Journal of Family Psychology, 10,* 304–321. doi:10.1037/0893-3200.10.3.304.

Margolin, G., Gordis, E. B., & John, R. S. (2001). Coparenting: A link between marital conflict and parenting in two-parent families. *Journal of Family Psychology, 15,* 3–21. doi:10.1037/0893-3200.15.1.3.

Ng, W., & Diener, E. (2009). Personality differences in emotions: Does emotion regulation play a role? *Journal of Individual Differences, 30,* 100–106. doi:10.1027/1614-0001.30.2.100

Repetti, R. L. (1987). Linkages between work and family roles. In S. Oskamp (Ed.), *Applied social psychology annual* (Vol. 7, pp. 98–127). Beverly Hills, CA: Sage.

Repetti, R. L. (1994). Short-term and long-term processes linking job stressors to father–child interaction. *Social Development, 3,* 1–15. doi:10.1111/j.1467-9507.1994.tb00020.x

Repetti, R. L. (1996). The effects of perceived daily social and academic failure experiences on school-age children's subsequent interactions with parents. *Child Development, 67,* 1467–1482. doi:10.2307/1131712.

Robles, T. F., Reynolds, B. M., Repetti, R. L., & Chung, P. J. (2013). Using daily diaries to study family settings, emotions, and health in everyday life. *Journal of Social and Personal Relationships, 30,* 179–188. doi:10.1177/0265407512457102

Schulz, M. S., Waldinger, R. J., Hauser, S. T., & Allen, J. P. (2005). Adolescents' behavior in the presence of interparental hostility: Developmental and emotion regulatory influences. *Development and Psychopathology, 17,* 489–507. doi:10.1017/S0954579405050236

Story, L. B., & Repetti, R. L. (2006). Daily occupational stressors and marital behavior. *Journal of Family Psychology*, *20*, 690–700. doi:10.1037/0893-3200.20.4.690.

Timmons, A. C., & Margolin, G. (2015). Family conflict, mood, and adolescents' daily school problems: Moderating roles of internalizing and externalizing symptoms. *Child Development, 86,* 241–258. doi:10.1111/cdev.12300

UCLA Statistical Consulting Group. (2011). *Stata FAQ: How can I perform mediation with multilevel data? (Method 2)*. Retrieved from http://www.ats.ucla.edu/stat/stata/faq/ml_mediation2.htm

VanderValk, I. E., Spruijt, A. P., de Goede, M. P. M., & Meeus, W. H. J. (2007). A longitudinal study on transactional relations between parental marital distress and adolescent emotional adjustment. *Adolescence, 42,* 115–136.

Wang, S., Repetti, R. L., & Campos, B. (2011). Job stress and family social behavior: The moderating role of neuroticism. *Journal of Occupational Health Psychology, 16,* 441–456. doi:10.1037/a0025100

Appendix A. *Daily Diary Marital Conflict Items*

| My behavior<br>Please rate each of the following statements about your interaction with your partner today: | Not at all | Some | A lot |
|---|---|---|---|
| 1. I expressed anger or irritation at my partner | 1 | 2 | 3 |
| 2. I hit, pushed or shoved my partner | 1 | 2 | 3 |
| 3. I nagged my partner | 1 | 2 | 3 |
| 4. I ignored my partner's wishes or needs | 1 | 2 | 3 |
| 5. I took my partner's feelings lightly | 1 | 2 | 3 |
| 6. My partner and I disagreed about a child-related issue | 1 | 2 | 3 |
| 7. My partner and I disagreed about an issue unrelated to children | 1 | 2 | 3 |
| **Partner's behavior**<br>Please rate the degree to which your partner did the following today: | Not at all | Some | A lot |
| 1. Expressed anger or irritation at me | 1 | 2 | 3 |
| 2. Hit, pushed or shoved me | 1 | 2 | 3 |
| 3. Nagged me | 1 | 2 | 3 |
| 4. Ignored my wishes or needs | 1 | 2 | 3 |
| 5. Took my feelings lightly | 1 | 2 | 3 |

*Note*. One item from each scale ("my behavior" and "partner's behavior") was removed from the original 14-item marital conflict scale because of content that better mapped onto a social withdrawal construct than on a conflict construct ("I felt distant or withdrawn from my partner" and "My partner seemed distant and withdrawn from me").

Appendix B. *Daily Diary Parent–Child Conflict Items*

| Parent report<br>Please complete the following sentences: Today, I… | Not at all | Some | A lot |
|---|---|---|---|
| 1. punished my child | 1 | 2 | 3 |
| 2. nagged my child | 1 | 2 | 3 |
| 3. yelled at my child | 1 | 2 | 3 |
| 4. was irritated with my child | 1 | 2 | 3 |
| 5. was angry with my child | 1 | 2 | 3 |
| 6. had to warn my child s/he might be punished | 1 | 2 | 3 |
| 7. had to tell my child to stop doing something | 1 | 2 | 3 |
| 8. had to ask my child to do something (chore) more than once | 1 | 2 | 3 |
| 9. How angry was your child at you today?[a] | 1 | 2 | 3 |
| **Child report**<br>Please tell us about your day with your MOM/DAD[b]: | Not at all | Some | A lot |
| 1. My mom/dad got mad at me today | 1 | 2 | 3 |
| 2. I was angry at my mom/dad today[a] | 1 | 2 | 3 |
| 3. My mom/dad punished me today | 1 | 2 | 3 |

[a]These items were included in the parent–child conflict event score but not in the parent's frictional parenting behavior score. [b]Children rated interactions with their mothers and fathers separately.