Interpersonal Mediators in the Intergenerational Transmission of Marital Dysfunction

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Intergenerational transmission of marital functioning was examined in a sample of 60 newlywed couples by collecting (a) retrospective reports of conflict and divorce in spouses' families of origin, (b) data on demographic variables and interactional processes likely to increase risk for adverse marital outcomes, and (c) couples' actual 4-year marital outcomes. The association between wives' parental divorce and marital outcome was mediated by their verbal and physical aggression. The association between negativity in husbands' family of origin and marital outcome was mediated by dyadic expressions of negative affect. Demographic variables did not operate as mediators. Negative interpersonal processes appear to be a vehicle by which experiences in the family of origin are carried forward into the next generation of relationships.

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Two enduring questions in the psychological study of families concern the lasting effects of the familial environment on the social development of offspring, particularly as they form committed relationships and families of their own, and the factors that promote or hinder the development of successful marriages. Each question has generated a large amount of research (for reviews, see Amato, 2000, and Karney & Bradbury, 1995, respectively), yet relatively few studies examine the questions' overlap. This article presents findings from a study conducted to clarify links among experiences in the family of origin, how the young adult subsequently approaches and manages a developing marriage, and the success or failure of that marriage 4 years later.

Adverse experiences in the family of origin have been shown to have long-lasting consequences for the interpersonal functioning of adolescents and young adults. For example, parental divorce increases the likelihood that offspring will divorce (e.g., Amato, 1996) or experience distress in their own marriage (e.g., McLeod, 1991), and parents' marital quality is associated with their offspring's marital quality assessed more than a decade later (e.g., Feng, Giarusso, Bengston, & Frye, 1999). A host of factors have been proposed as mediators of intergenerational transmission effects (e.g., quality of parent–child relationships, the child's developing self-concept, psychological adjustment; see Amato, 2000), and one prominent view is that the family of origin serves as the primary setting in which children learn maladaptive interpersonal repertoires. By observing interactions between family members or by interacting directly with family members, the developing individual is thought to acquire emotional and behavioral propensities that generalize to relationships outside of the family (e.g., O'Leary, 1988). The strongest candidates in this set of variables are physical aggression and patterns of interaction marked by negative affect and ineffective problem solving. Both appear to have roots in the family of origin (e.g., Andrews, Foster, Capaldi, & Hops, 2000; Sanders, Halford, & Behrens, 1999), and both appear to increase risk for marital dysfunction (Fincham & Beach, 1999; Heyman, O'Leary, & Jouriles, 1995).

The most plausible competing explanation offered to date for intergenerational transmission effects is that experiences in the family of origin influence the goals, choices, and opportunities available to offspring. Consistent with this view are data showing that, compared with adults whose

parents were married continuously, adults whose parents divorced complete fewer years of education (e.g., Zill, Morrison, & Coiro, 1993), are more likely to cohabit (e.g., Bumpass, Martin, & Sweet, 1991), marry at a younger age (e.g., Keith & Finlay, 1988), and earn less money (e.g., McLeod, 1991). These same factors have been linked consistently with poorer marital outcomes (e.g., Bumpass et al., 1991), raising the possibility that sociodemographic sequelae—to a greater degree than aggression and poor communication—mediate intergenerational transmission effects.

Few studies in the intergenerational transmission literature have examined marital behavior and demographic risk simultaneously, and formal tests of mediation are rare. This is a critical oversight because direct tests of mediation are necessary to determine whether the hypothesized mediators actually account for intergenerational transmission effects or whether they are mere correlates of family-of-origin and marital variables. Moreover, distinguishing between interpersonal and sociodemographic mediators is important because each implicates a different strategy for preventing marital dysfunction. For example, if behavioral negativity is the primary mediator of family-of-origin effects, then interventions for adult children with adverse family backgrounds may be more promising to the extent that they focus on those behaviors. If, instead, such factors as age at marriage or premarital cohabitation primarily mediate the effects, then it would be more effective to focus resources on educating high-risk couples about these decisions.

A few recent studies have shed light on the possible mediating roles of interpersonal behavior and demographic risk. Amato (1996) examined the roles of demographic risk, attitudes toward divorce, and self-reports of marital behavior in the intergenerational transmission of divorce. The risk associated with parental divorce was eliminated after offspring reports of marital behavior and demographic risk were controlled, with maladaptive marital behavior accounting for the largest portion of this association. Subsequent analyses revealed that the mediational effect of behavior was especially pronounced in younger marriages. Feng et al. (1999) examined the intergenerational transmission of marital quality and divorce but limited their analyses to demographic mediators. The effect of wives' parental divorce on their own likelihood of divorce was mediated by their age at marriage, but other life course variables did not mediate this association. Husbands' marital quality covaried reliably with their fathers' marital quality measured 20 years earlier, but none of the demographic variables mediated this effect. Finally, Conger, Cui, Bryant, and Elder (2000) examined the effects of family interaction (when children were in the seventh grade) on romantic relationships 8 years later. The quality of offspring relationships was higher to the extent that the parents had been observed to be nurturing, involved, and supportive during the earlier family interactions. This association was mediated by the quality of the offspring's affective behaviors toward their partners. These studies suggest that the effects of parental divorce on offspring divorce are mediated by interpersonal

behavior in the offspring's marriage and, perhaps to a lesser degree, by demographic risk (Amato, 1996; Feng et al., 1999). Transmission of relationship quality, in contrast, appears to be mediated solely by interpersonal behavior (Conger et al., 2000).

We sought to extend this line of mediational research by recruiting a sample of newlywed spouses and collecting data on (a) the family environment in which they were raised, (b) demographic indices and interpersonal processes in their own marriage, and (c) the quality and stability of their own marriage 4 years later. We tested the following hypotheses. First, parental divorce and negativity in the family of origin were hypothesized to predict marital outcomes in the 4th year of marriage. Consistent with prior findings (e.g., Amato, 1996; Feng et al., 1999; Sanders et al., 1999), the effect of parental divorce was predicted to be stronger for wives than for husbands. The literature does not consistently support a similar prediction for negativity in the family of origin. Second, parental divorce was hypothesized to predict higher levels of maladaptive interpersonal behavior and greater demographic risk in the 1st year of marriage. Negativity in the family of origin was hypothesized to predict interpersonal behavior but not demographic risk (Feng et al., 1999). Interpersonal behavior and demographic risk were hypothesized to mediate the effect of parental divorce on marital outcome in Year 4, although comparatively weaker effects were hypothesized for demographic risk (Amato, 1996). As demographic risk was not expected to covary with family-of-origin negativity, only interpersonal behavior was hypothesized to mediate this path. In addition to testing these hypotheses, we examined marital satisfaction in the 1st year of marriage as a mediator of marital outcome. If family of origin predicted initial satisfaction, we planned to examine the other mediators in terms of their incremental effects beyond the variance accounted for by satisfaction.

Method

Participants

Newspaper advertisements were used to recruit newlywed couples. Couples expressing interest in the project were screened by telephone, and the first 60 to meet eligibility criteria were included in the study. Couples were eligible if they were in the first 6 months of their first marriage and were currently childless and living together. At the time of marriage, relationships averaged 33.1 months ($SD = 20.8$) in duration. All participants could read and speak English and had at least a 10th-grade level of education ($M = 15.6$ years of formal education, $SD = 1.4$). Approximately 19% of husbands and 21% of wives were part-time students, and 23% of husbands and 16% of wives were full-time students at the time of participation. Husbands and wives averaged 25.4 ($SD = 3.2$) and 24.0 ($SD = 2.7$) years of age, respectively. Gross annual income averaged $21,000–$30,000 for husbands and $11,000–$20,000 for wives. Participants were Caucasian (75%), Latino (10%), Asian (7%), and African American (5%).

Table 1
Correlations Among Putative Mediators for Wives and Husbands

| Variable | Wives | | | | | | | | |
	1	2	3	4	5	6	7	*M*	*SD*
Husbands									
1. CPQ–CC	**.65****	−.67***	−.58***	−.42***	.21	.04	−.04	9.2	10.1
2. CTS–Psych	−.36**	**.80****	.68***	.42***	−.27*	−.23	−.11	7.4	2.8
3. CTS–Phys	−.33*	.61***	**.73****	.37**	−.22	−.20	−.14	2.0	3.0
4. SPAFF–AC	−.45***	.28*	.22	**.76****	−.06	−.07	−.08	5.6	9.1
5. Age	.02	−.20	−.19	.02	**.65****	.49***	.30*	24.0	2.7
6. EDN	.12	.03	−.02	.06	.32*	**.18**	.03	15.5	1.6
7. Income	−.01	.12	.07	.34*	.20	.14	**.05**	1.9	0.8
M	10.1	5.5	1.2	4.6	25.4	15.6	2.3		
SD	9.0	2.8	2.1	6.8	3.1	2.0	1.2		

Note. Values shown in bold are intercorrelations between husbands' variables (below the diagonal) and wives' variables (above the diagonal). CPQ–CC = Communication Patterns Questionnaire—Constructive Communication subscale; CTS–Psych = Conflict Tactics Scale—Psychological Aggression subscale; CTS–Phys = Conflict Tactics Scale—Physical Aggression subscale; SPAFF–AC = Specific Affect Coding System, anger and contempt codes; EDN = years of education.
* $p < .05$.   ** $p < .01$.   *** $p < .001$, one-tailed.

Procedure

Couples participated in the study as part of a larger project on newlywed marriage,[1] beginning with a laboratory session held an average of 12 weeks after their wedding ($SD = 6.2$ weeks). During these 3-hr sessions, spouses completed a series of self-report measures and took part in individual interviews to assess their marital and personal histories, and couples participated in a 15-min problem-solving discussion regarding a mutually agreed upon topic. These discussions were audiotaped and later coded using the Specific Affect Coding System (SPAFF; see Gottman, 1994). At the end of the session, couples were debriefed and were paid $50. Spouses provided reports of marital satisfaction and marital status every 6 months for the next 4 years as a part of the larger project. Spouses were instructed to complete the measures separately and return the questionnaires in postage-paid envelopes included with the packets. Intact couples were paid $35, and separated or divorced partners were paid $20 for these assessments. The last wave of data, collected in Year 4, was used to determine marital outcome.

Measures

Marital satisfaction and marital outcomes. The widely used 15-item Marital Adjustment Test (MAT; Locke & Wallace, 1959), which yields scores ranging from 2 to 158, was administered to assess marital satisfaction. At Time 1, husbands averaged 120.0 ($SD = 17.1$) on the MAT, and wives averaged 119.7 ($SD = 17.6$). Because our sample was relatively small, and because this study was motivated in part by the need to identify factors that would enable the prevention of adverse marital outcomes generally, we did not distinguish between marital discord and marital dissolution in forming our dependent variable. Instead, we identified a group of couples with poor marital outcomes at the end of the study (which included the 19 couples who divorced within the study period and the 16 couples in which one partner scored below 100 on the MAT after 4 years, for a total of 35 couples) and a group of couples with good marital outcomes at the end of the study (which included the 22 couples in which both spouses scored above 100 on the MAT after 4 years). The divorce rate in this sample (19 of 57, or 33%) is somewhat higher than the estimate of 21% within 5 years of marriage reported in the National Survey of Families and Households (Bumpass et al., 1991), indicating that this sample

was relatively high in risk for marital disruption. Three couples (5%) were lost to attrition.[2]

Demographic variables. Spouses reported their age, years of education, and income on a questionnaire and reported on parental divorce before age 16 and on cohabitation with their spouse prior to marriage in individual interviews. Premarital cohabitation was reported by 40 couples (70.2%). Parental divorce before age 16 was reported by 15 husbands (26.3%) and 17 wives (29.8%). Table 1 shows descriptive data for the remaining demographic variables.

Family-of-origin negativity. Family-of-origin negativity was measured using the Family Environment Scale (FES; Moos, 1974), the Semantic Differential (Huston, & Vangelisti, 1991), and the Marital Satisfaction Inventory (Snyder, 1979). The FES consists of 90 true–false items designed to capture the social environment in families; the 10-item factor analytically derived Conflict subscale derived from this measure by Waldron, Sabatelli, and Anderson (1990) was used (e.g., "Family members sometimes hit one another," "Family members often criticized one another"; $\alpha = .79$ for husbands and .80 for wives). On the Semantic Differential, participants rated on 7-point scales the quality of their parents' marriage while they were growing up. The four items yielding the highest interitem reliability were used in subsequent analyses (Happy/Sad, Pleasant/Unpleasant, Strong/Weak, Rewarding/Disappointing; $\alpha = .96$ for husbands and .97 for wives). The 15-item true–false Family of Origin subscale from the Marital Satisfaction Inventory (Snyder, 1979) was administered to assess global family functioning (e.g., "I had a very happy home life," "The members of my family were always very close to one another"; $\alpha = .83$ for

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[1] Other articles based on this dataset have examined predictors of marital outcomes over 4 years (Karney & Bradbury, 1997, 2000; Lawrence & Bradbury, 2001; Pasch & Bradbury, 1998; Rogge & Bradbury, 1999). However, this is the first article to include family-of-origin variables. A summary of these findings appears in Story, Rothman, and Bradbury (2002).

[2] Previous articles on this sample included only 56 couples in their analyses because 4 couples originally dropped out of the study. In 1999, 3 of those couples were relocated to determine whether they had divorced during the original study period; 1 couple had done so. As the other two marriages had remained intact but had not provided marital satisfaction in Year 4, they were not included in further analyses.

husbands and .85 for wives). As scores on these three scales covaried among husbands and among wives ($rs = .45–.83$, $p <$ .01, one-tailed), they were normalized and summed to create an aggregate measure of family-of-origin negativity.[3]

Self-reports of marital interaction. The 35-item Communication Patterns Questionnaire (CPQ; Christensen & Shenk, 1991) assesses couples' problem-solving strategies on 9-point scales ranging from 1 (*very unlikely*) to 9 (*very likely*). Heavey, Larson, Zumtobel, and Christensen (1996) constructed a 7-item subscale, CPQ–CC (Constructive Communication), consisting of three constructive items (mutual discussion, mutual expression, and mutual negotiation) and four reverse-scored destructive items (mutual blame, mutual threat, husband verbal aggression, and wife verbal aggression); in this sample, Cronbach's alpha was .74 for husbands and .77 for wives for this subscale.

Aggression. The Conflict Tactics Scale (CTS; Straus, 1979) is an 18-item measure that assesses, over the past year, behaviors occurring during relationship disputes. The first three items assess neutral behaviors, Items 4–9 assess psychological aggression (i.e., insulting, sulking, threatening), and Items 10–18 assess physical aggression (i.e., pushing, slapping, hitting with object). Following the technique of Malone, Tyree, and O'Leary (1989), each item was rated on a 3-point scale (0 = *never,* 1 = *once,* 2 = *twice or more*), and each partner completed the CTS for him- or herself and for his or her partner. Psychological aggression and physical aggression composites were created for each partner by averaging his or her reports of his or her own behavior with his or her partner's reports of his or her behavior for Items 4–9 and 10–18 (see Murphy & O'Leary, 1989). Cronbach's alpha for the psychological composite was .65 and .49 for husbands and wives, respectively; alpha for the physical composite was .87 and .92 for husbands and wives, respectively. Fifty-one percent of husbands and 53% of wives engaged in at least one act of physical aggression; both partners engaged in physical aggression in 39% of the couples.

Observation of marital interaction. The problem-solving discussions were coded by trained graduate students using the SPAFF (see Gottman, 1994). The coders classified each 5-s interval according to whether it contained anger, contempt, whining, sadness, anxiety, humor, affection, interest, or neutral affect. When coding for each emotion, the coders were instructed to consider voice tone, volume, and verbal content. Each specific instance of affect was coded once within each 5-s interval, regardless of whether it continued into the subsequent 5-s interval. Each tape was coded independently by two coders. The data from one coder were randomly selected for analysis, as codings were considered to be interchangeable. Interrater correlations for husbands and wives, respectively, indicated that six of the eight emotions were coded reliably, including humor ($rs = .83$ and .92), affection ($rs = .55$ and .56), anger ($rs = .72$ and .88), contempt ($rs = .81$ and .99), whining ($rs = .69$ and .81), and sadness ($rs = .95$ and .61). Anger, contempt, and humor had the highest interrater reliabilities. As the other codes were less frequent, they yielded skewed distributions and lower interrater reliabilities. For these reasons, and to limit the number of variables analyzed, anger and contempt codes were summed to create an observed negativity composite score. The square root of this aggregate was taken to adjust for the skewed distribution of the data.

Results

Preliminary Analyses

Descriptive statistics and the correlations among the putative mediators are presented in Table 1. Correlations among the interpersonal variables were significant, and correlations among the demographic variables were significant; however, few correlations across the two domains were reliable, and these were inconsistent across spouses. The within-domain correlations suggest that the variables assessed share common variance but are nonetheless separable in some cases (e.g., among the interpersonal variables, using absolute values, the median correlation is .34 for husbands and .50 for wives), and the between-domain correlations suggest that the interpersonal and demographic mediators can be viewed as largely distinct. Table 1 shows that reliable correlations were obtained between husbands' and wives' scores on all of the interpersonal mediators and on age. As in prior studies (e.g., O'Leary, Barling, Arias, & Rosenbaum, 1989), wives reported higher levels of psychological and physical aggression than did husbands, $t(56) = -8.2$, $p < .01$, and $t(56) = -2.9$, $p < .01$, respectively. Wives were also younger than husbands were, $t(56) = 4.4$, $p < .01$, and they reported lower income, $t(56) = 2.1$, $p < .04$.

Intergenerational links in relationship functioning— between parental divorce and the composite index of family negativity, and 4-year marital outcomes—were examined next. The association between parental divorce and couple outcome was reliable for wives, $\chi^2(1, N = 57) = 4.49$, $p < .03$, but not for husbands, $\chi^2(1, N = 57) = 0.02$, *ns.* Among wives from intact homes, 53% (21 of 40) reported poor marital outcomes (i.e., marital dissatisfaction, separation or divorce by the 4th year of marriage), whereas 82% (14 of 17) of the wives with a history of parental divorce did so. Parallel figures for husbands were 62% (26 of 42) and 60% (9 of 15). Phi statistics demonstrated that the association observed for wives ($\phi = .28$) was significantly stronger than that observed for husbands ($\phi = -.02$), $t(54) = -1.7$, $p < .05$, one-tailed.

The association between negativity in the family of origin and marital outcomes was examined by comparing family-of-origin negativity scores for couples with good and poor marital outcomes after 4 years. For husbands, this difference was significant, $t(55) = -2.1$, $p < .02$, one-tailed, with husbands achieving good marital outcomes reporting lower family negativity ($-.97$) than those achieving poor marital outcomes (.50). This difference was nonsignificant for wives with good and poor marital outcomes, $t(55) = -0.4$; their means were -0.1 and 0.1, respectively. To determine whether the effects for husbands and wives differed, effect size correlations were computed for each t value and were compared. The effect size correlation for husbands ($r = .27$) was not significantly different than the effect size correlation for wives ($r = .05$), $t(54) = 0.7$, *ns.* Finally, spouses from divorced families had higher family negativity scores than did those from intact families (respective means for

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[3] As a check on the retrospective nature of these reports, a pilot study was conducted on a separate sample of newlywed couples, with spouses ($n = 21$ husbands, $n = 35$ wives) and their siblings ($n = 56$) reporting independently on negativity in the family of origin. Spouse and sibling reports correlated reliably for husbands ($r = .57$, $p < .01$) and for wives ($r = .66$, $p < .01$).

Table 2
Comparisons of Wives From Divorced and Intact Families on Putative Mediators

| | Wives | | | | | Husbands | | | | |
| | Divorced | | Intact | | | Divorced | | Intact | | |
Variable	M	SD	M	SD	t	M	SD	M	SD	t
Interpersonal										
Wives' CPQ–CC	7.1	8.2	10.0	10.8	−1.0	12.3	7.6	8.0	10.7	1.4
Husbands' CPQ–CC	8.0	10.1	11.0	8.4	−1.2	10.0	8.3	10.1	9.3	−0.6
Wives' CTS–Psych	9.1	2.1	6.7	2.7	3.3*	6.9	2.8	7.6	2.8	−0.8
Husbands' CTS–Psych	6.8	2.4	5.0	2.8	2.3*	5.4	3.0	5.6	2.7	−0.3
Wives' CTS–Phys	3.3	3.8	1.4	2.4	1.8*	1.4	2.3	2.2	3.2	−0.9
Husbands' CTS–Phys	1.9	2.8	0.9	1.7	1.5	1.4	1.6	1.1	2.3	0.5
Wives' SPAFF–AC	1.4	1.4	1.8	1.7	−1.0	0.9	1.1	2.0	1.7	−2.8**
Husbands' SPAFF–AC	1.3	1.5	1.6	1.6	−0.8	0.8	1.0	1.7	1.6	−2.3**
Demographic										
Age	23.9	2.4	25.0	2.7	−1.6	5.4	2.1	24.4	2.8	1.2
Education	7.7	1.1	7.1	1.4	−1.6	7.4	.62	7.6	1.6	−0.4
Income	2.2	.83	2.1	.71	0.0	1.9	.57	2.2	.78	−1.2

Note. CPQ–CC = Communication Patterns Questionnaire—Constructive Communication subscale; CTS–Psych = Conflict Tactics Scale—Psychological Aggression subscale; CTS–Phys = Conflict Tactics Scale—Physical Aggression subscale; SPAFF–AC = Specific Affect Coding System, anger and contempt codes.
* $p < .05$. ** $p < .01$, one-tailed.

husbands were 1.2 and −0.5, $t[55] = 2.3$, $p < .03$; respective means for wives were 2.3 and −0.9, $t[55] = 5.3$, $p < .01$), lending validity to the family negativity index. These findings indicate that the effect of family of origin on marital outcome is statistically reliable for wives in the case of parental divorce and for husbands in the case of family negativity.

Divorce in Wives' Family of Origin and 4-Year Marital Outcomes: Mediational Analyses

A formal test of mediation requires three steps (Baron & Kenny, 1986): Family of origin must predict marital outcome; family of origin must predict the mediating variable in question; and when family of origin and the mediating variable are simultaneously entered into a regression equation predicting marital outcome, family of origin must no longer predict marital outcome, whereas the mediating variable must significantly predict outcome.

Identifying mediators. Table 2 presents comparisons of wives from divorced and intact family backgrounds across the interpersonal and demographic mediators of interest. These analyses show that wives from divorced family backgrounds report more psychological aggression and more physical aggression on the CTS and have husbands who report more psychological aggression compared with wives from intact family backgrounds. It is important to emphasize that the wives' scores on the two CTS subscales correlate at .68 and that husbands' and wives' scores on psychological aggression correlate at .80; thus, these variables cannot be viewed as independent. No differences were observed on the self-report measure of constructive communication or on observed expressions of anger and contempt. With regard to demographic variables, Table 2 shows that wives from divorced and intact family backgrounds did not differ in age at marriage, education, or income. These groups did differ, however, in their rates of cohabitation;

88% of the wives (15 of 17) from a divorced family background reported cohabiting with their spouse prior to marriage, whereas 38% of the wives (15 of 40) from an intact family background did so. This is a statistically reliable difference, Cramer's V ($p < .05$).

In sum, wives from divorced family backgrounds are more likely than are wives from intact family backgrounds to engage in aggressive behaviors early in marriage and to cohabit with their spouses prior to marriage. The next question is whether these variables mediate the association between divorce in wives' family of origin and adverse outcomes in their own marriages 4 years later.

Tests of mediation. Following Baron and Kenny's (1986) recommendation, we determined that wives' parental divorce predicted higher levels of wives' psychological aggression ($\beta = .40$, $p < .02$) and, using the Wald criterion in logistic regression to account for the categorical nature of our dependent variable, we found that wives' parental divorce also predicted greater likelihood of poor marital outcomes ($z = 4.1$, $p < .04$). When marital outcome was regressed simultaneously on wives' psychological aggression and parental divorce, psychological aggression remained significant ($z = 7.0$, $p < .01$), whereas parental divorce fell to nonsignificance ($z = 0.9$, $p < .35$). Figure 1 shows this pattern of findings, which supports the conclusion that wives' psychological aggression meets criteria as a mediator of the path between wives' parental divorce and marital outcome.[4] Figure 1 also shows the parallel set of analyses for wives' physical aggression, which demonstrates that this variable also mediates this association.

Although divorce in the wives' family of origin predicted

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[4] When the regression analyses for each of the tests of mediation were re-estimated, controlling for couples' relationship length, the pattern of results remained the same for husbands and wives.
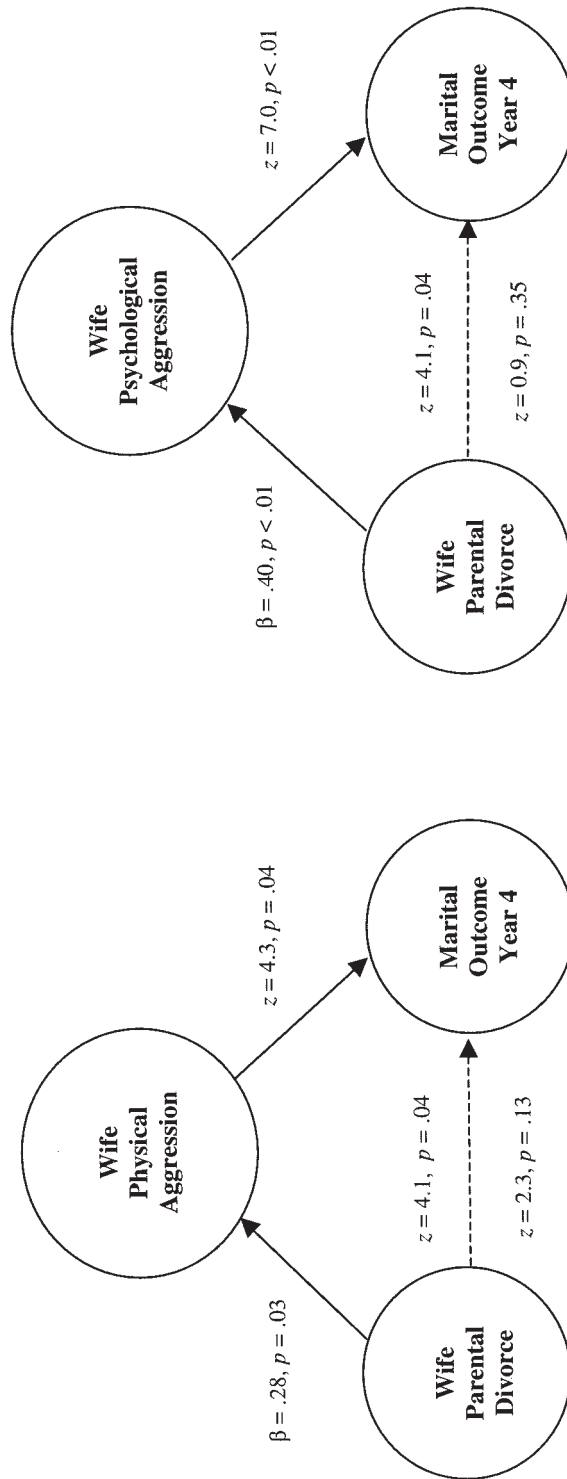
Figure 1. Testing wives' physical and psychological aggression as mediators of the association between divorce in their families of origin and their own 4-year marital outcomes. Linear and logistic regression coefficients are reported for continuous and dichotomous dependent variables, respectively. The significance levels shown above the dotted paths reflect the unmediated associations between wives' parental divorce and marital outcomes; the significance levels shown below the dotted paths reflect the mediated versions of this association.

higher levels of psychological aggression by husbands (β = .30, p = .02), neither husbands' psychological aggression (z = 2.7, p = .10) nor wives' parental divorce (z = 2.5, p = .11) contributed significantly to the regression equation when marital outcome was regressed simultaneously on these two predictors. Therefore, husbands' psychological aggression did not meet criteria as a mediator in this association. Finally, we turn to cohabitation, which was the sole demographic variable associated with wives' parental divorce. Wives' parental divorce marginally predicted a greater likelihood of cohabitation (z = 3.4, p = .07), and when parental divorce and cohabitation were entered simultaneously in the prediction of marital outcome, cohabitation was not significant (z = 0.9, p = .35), and parental divorce was marginally significant (z = 3.2, p = .07). Therefore, premarital cohabitation did not mediate the relationship between parental divorce and outcome.

Implications of husbands' parental divorce. Table 2 also presents comparisons of husbands from divorced and intact family backgrounds. These variables could not be used in tests of mediation because there was no link from husbands' parental divorce to marital outcome. We found little evidence of differences between husbands from divorced and intact family backgrounds, with one surprising exception: Marital interactions involving husbands from intact family backgrounds were marked by higher levels of observed anger and contempt. Whether this represents a spurious finding, or reluctance on the part of men from divorced family backgrounds to engage in emotionally laden problem-solving discussions, awaits further study.

Negativity in Husbands' Family of Origin and 4-Year Marital Outcomes: Mediational Analyses

Identifying mediators. Table 3 presents correlations between negativity in husbands' family of origin and the

Table 3
Correlations Between Family Negativity and Putative Mediators

Mediator	Family negativity	
	r for husbands	*r* for wives
Interpersonal		
Wives' CPQ–CC	.08	−.22*
Husbands' CPQ–CC	−.01	−.08
Wives' CTS–Psych	.02	.37**
Husbands' CTS–Psych	.04	.24*
Wives' CTS–Phys	.15	.22*
Husbands' CTS–Phys	.06	.19
Wives' SPAFF–AC	.21	−.05
Husbands' SPAFF–AC	.30**	.003
Demographic		
Age	.18	−.23*
Education	.08	−.20
Income	−.04	−.04

Note. CPQ–CC = Communication Patterns Questionnaire—Constructive Communication subscale; CTS–Psych = Conflict Tactics Scale—Psychological Aggression subscale; CTS–Phys = Conflict Tactics Scale—Physical Aggression subscale; SPAFF–AC = Specific Affect Coding System, anger and contempt codes.
* $p < .05$.   ** $p < .01$, one-tailed.

interpersonal and demographic mediators of interest. (Cohabitation with the partner prior to marriage, not shown in Table 3, was also examined as a demographic mediator. The mean family negativity score was −0.1 [SD = 2.8] for the 40 husbands who cohabited and −0.1 [SD = 2.4] for the 17 husbands who did not cohabit, t < 1.) These analyses show that family negativity correlates reliably with only one of the variables: observed anger and contempt during problem solving. Together with the nonsignificant effects of husbands' parental divorce and the weak pattern of associations between their parental divorce and the putative mediators, this suggests relatively little carryover from the family of origin to their own marriage. Nevertheless, husbands' family-of-origin negativity was associated with their own 4-year marital outcomes, and it is plausible that observed anger and contempt would mediate this association; the formal test of this hypothesis is presented next.

Tests of mediation. Husbands' family-of-origin negativity predicted husbands' observed negativity in marital problem-solving discussions (β = .30, p = .03) as well as poor marital outcome (z = 4.0, p = .05). When these variables were entered simultaneously in the prediction of marital outcome, the Wald statistic for family negativity was no longer significant (z = 2.4, p = .12); however, behavioral negativity was only marginally significant (z = 2.7, p = .10). This pattern of results, shown in Figure 2, indicates that there is a trend for husbands' anger and contempt to mediate the association between family-of-origin negativity and marital outcomes.

Because of the interdependent and reciprocal nature of spouses' behaviors in dyadic interaction tasks, it has been argued that it is inappropriate to examine husband and wife behaviors separately. For example, Duncan, Kanki, Mokros, and Fiske (1984) noted, "A given variable may be deeply influenced by the actions of both participants. Consequently it becomes extremely difficult to claim that a variable is the property of either participant, even though it is defined in terms of the actions of only one participant" (p. 1337). For this reason, we examined couple negativity as a mediator, after summing husband and wife scores on anger and contempt (husband family negativity was marginally associated with wives' observed behavioral negativity, r = .21, p = .06, one-tailed; see Table 3). Negativity in husbands' family of origin predicted higher levels of observed couple negativity (β = .26, p = .05) and poor marital outcomes (z = 4.0, p = .05). Further, when these two variables were entered simultaneously into the regression equation predicting marital outcomes, behavioral negativity remained significant (z = 5.1, p = .02), whereas the contribution of family negativity fell to nonsignificance (z = 2.1, p = .15). These results are shown on the right side of Figure 2.

Implications of negativity in wives' family of origin. Table 3 presents correlations between negativity in wives' family of origin and the main study variables. These variables could not be used in tests of mediation because negativity in wives' family of origin did not predict marital outcome. Nevertheless, these correlations show that wives who reported more negativity in the family of origin also reported less constructive marital communication, more psychological aggression, and more physical aggression.
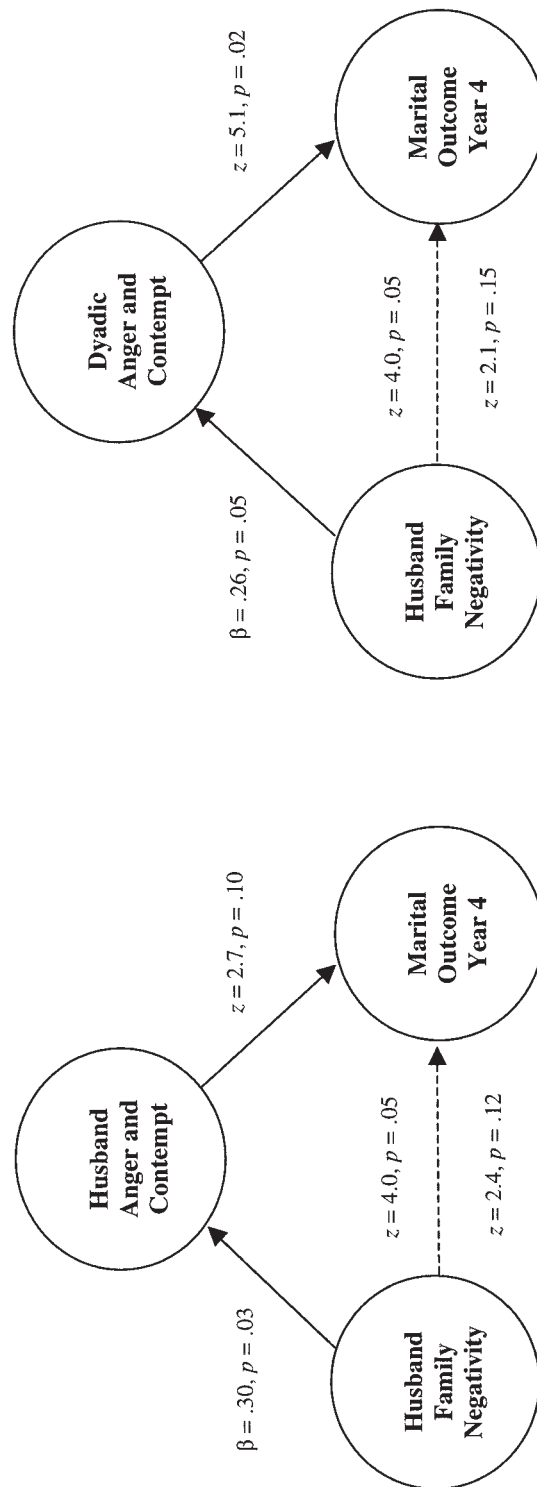
Figure 2. Testing observed expressions of anger and contempt, displayed by husbands and by husbands and wives combined, as mediators of the association between negativity in husbands' family of origin and their own 4-year marital outcomes. Linear and logistic regression coefficients are reported for continuous and dichotomous dependent variables, respectively. The significance levels shown above the dotted paths reflect the unmediated association between negativity in the husbands' families and marital outcomes; the significance levels shown below the dotted paths reflect the mediated version of this association.

They are also married to husbands who tended to report higher levels of psychological aggression. On demographic variables, wives reporting more negativity in the family of origin tended to marry at a younger age and to complete fewer years of education. Cohabitation with the partner prior to marriage, not shown in Table 3, was also examined as a demographic mediator. The mean family negativity score was 0.4 ($SD = 2.6$) for the 40 wives who cohabited and -0.8 ($SD = 2.4$) for the 17 wives who did not cohabit, $t(55) = -1.7, p < .05$, indicating that wives' family negativity covaried with a greater likelihood of premarital cohabitation with the partner.

Time 1 Satisfaction as a Mediator

An important rival interpretation for the findings presented thus far is that divorce and negativity in the family of origin results in newlywed marriages that are less satisfying initially, and this lowered satisfaction contributes to poorer interpersonal functioning within the marriage and to poorer marital outcomes. No support was obtained for this position in that wives from intact and divorced family backgrounds did not differ in Time 1 MAT scores (respective means were 121.2 and 119.3; $t = 0.4$, ns), and Time 1 MAT scores did not correlate reliably with husbands' reports of negativity in the family of origin ($r = -.16$, ns).

Discussion

The present findings indicate that wives from divorced family backgrounds reported elevated levels of psychological and physical aggression as newlyweds, which in turn increased the likelihood of dissatisfaction and dissolution in their own marriages 4 years later. Among husbands, retrospective reports on negativity in their families of origin covaried with higher levels of observed dyadic anger and contempt in newlywed marital interaction, and this increased the likelihood they would experience adverse marital outcomes over 4 years. This latter mediational effect became marginally significant when only husbands' anger and contempt were considered; the stronger results obtained with a dyadic measure of interaction behavior suggest that husbands who recollected negativity in their families selected riskier mates or otherwise recruited them into interactions marked by reciprocation of strong negative emotions. Taken together these results highlight the importance of negative interpersonal processes as mediators in the intergenerational transmission of relationship functioning. Demographic factors, in contrast, appear less compelling than do the interpersonal variables in explaining intergenerational transmission effects, in this study and elsewhere (e.g., Amato 1996).

Perhaps the most important theoretical implication of these findings is that they strengthen claims that experiences in the family of origin are consequential for later marital well-being because of the interpersonal repertoires they shape in the offspring. The present findings lend specificity to these claims by drawing attention to psychological and physical aggression (for wives) and to observed anger and contempt (for husbands) as possible mediators in this inter-

generational process. These are relatively strong displays of negative affect, particularly when they occur in the early months of marriage, and their mediational roles raise important questions about the broader mechanisms they represent. Leading candidates are likely to include mate selection and attitudes about the acceptability of aggression with an intimate partner, capacities for affective regulation in frustrating situations, and deficits in empathic responding when conflicting agendas arise; each awaits further study.

These findings corroborate prior studies showing that parental divorce experienced by women appears to be more consequential than does parental divorce experienced by men (e.g., Amato, 1996; Feng et al., 1999; Sanders et al., 1999). One possible explanation for these effects is that children are more likely to live with their mother following divorce, and daughters may be more affected by their mothers' postdivorce struggles because of their same-gender role identification (Sanders et al., 1999). Others have suggested that this difference is due to a reduced likelihood of marriage among sons, but not among daughters, who have experienced parental divorce (Keith & Finlay, 1988), so that the sons of divorce who do select themselves into marriage are less affected by the divorce itself. The stronger results for family negativity among husbands are also consistent with previous research (Feng et al., 1999), and they underscore the value of considering qualitative aspects of family functioning when considering intergenerational transmission effects among males. Marital conflict has been consistently associated with greater behavioral problems among sons than among daughters (Reid & Crisafulli, 1990), perhaps because of the greater hostility expressed during coparenting among maritally distressed parents of sons (McHale, 1995). It has also been suggested that parental distress may lead to more difficulties with affect regulation among sons because they are socialized to inhibit their emotional responses to parental conflict (Katz & Gottman, 1995). Future research on the distinct effects of family negativity and parental divorce for husbands and wives would benefit from an examination of the interplay between family conflict and parental divorce in predicting offspring functioning.

Interpretation of the present findings must be tempered by several considerations. First, though studied over an important 4-year transition with little attrition, the present sample is relatively small. Studies such as ours that use observational methods routinely sacrifice power for specificity; hence, it is important to recognize that the present sample may not permit accurate analysis of variables that produce relatively small effects in this population. Second, although marital distress and dissolution are distinct outcomes, they were studied only in the aggregate in this study. Third, we studied only a subset of possible mediators. Other interactional variables, other demographic indicators (e.g., religiosity), and other classes of variables (e.g., personality, genetic factors, psychopathology) could produce different results. Fourth, the retrospective reporting of negativity in the family of origin raises concern that the reports may have been distorted by memory biases, mood, or current relationship functioning. Results summarized in footnote 3 alleviate this concern, but future studies are needed that trace specific

features of conflict and negativity in the family forward to interpersonal repertoires and the development of young adult relationships. Similarly, although we have little reason to doubt reports of parental divorce, it must be recognized that divorce is not a single event but a complex series of events that may begin early in a marriage. This heterogeneity in the experiences surrounding a parental divorce may have contributed to our lack of findings on this variable for men; future studies would benefit from more refined analyses of how the full experience of divorce and its aftermath may modify risk in offspring marriage. Fifth, generalizability of these findings may be limited by the fact that participants were recruited by newspaper advertisements and that couples were excluded from participation if they had been married previously or if they already had children.

Notwithstanding these limitations, the present findings have implications for interventions with developing marriages. In contrast to demographic risk factors, which would be relatively difficult to prevent, risk factors marked by interpersonal negativity can be directly targeted in prevention programs with newlywed couples. Existing interventions promoting effective conflict resolution and managing negative affect have proven promising (e.g., Hahlweg, Markman, Thurmaier, Engl, & Eckert, 1998; Halford, Sanders, & Behrens, 2001), but the present findings draw attention to the importance of an increased focus on physical aggression in future prevention efforts. These findings also point to the possibility that negativity displayed by partners from families marked by divorce or high conflict may differ qualitatively from otherwise similar behaviors displayed by partners from intact or low-conflict backgrounds. That is, the meaning of conflict may well differ as a function of one's family background (e.g., some might view conflict as familiar, as threatening, as healthy, or as an opportunity for growth), and exploring partners' construals of their own histories and experiences with conflict may enhance their response to intervention.

Recognizing gradations in risk among couples is especially important because high- and low-risk couples do appear to respond differently to skills training programs; over a 4-year period, couples from riskier family backgrounds appear to benefit more from skills training than they do from a minimal intervention control condition, whereas low-risk couples show the opposite pattern (Halford et al., 2001). By demonstrating that potent interactional characteristics of young couples can be traced back to experiences in their families of origin, the present findings provide relatively strong justification for shifting from primary prevention models (in which all couples are treated more or less equally) to secondary prevention models (in which couples receive different interventions based on their degree of risk for adverse relationship outcomes). To make such a shift possible, longitudinal studies are needed that facilitate development of low-cost procedures for accurately identifying individuals with backgrounds that put them at risk for adverse relationship outcomes and for identifying the dyadic processes that can moderate this risk.

Given their heavy focus on marital processes, the present findings have more implications for intervention than they do for social policy. Nevertheless, the mediational results obtained for negativity in husbands' families and the strong correlational pattern involving negativity in wives' families (see Table 3) combine to suggest that social policies designed to reduce intergenerational transmission effects should go beyond efforts to curb divorce rates and should include provisions for changing conditions that contribute to chronic negative exchanges in intact families. Preventing divorce provides little assurance that the remaining marriages will afford children with nurturing environments. We can project on the basis of present findings that even the children of the intact couples in this sample will themselves grow up to confront distressing relationships to the extent that their families of origin are hostile, confusing, and unsupportive.

In sum, large-scale survey studies document the powerful effects of the family of origin on the quality and course of offspring marriages. Interpersonal mechanisms for this effect have been implicated in these studies, but their advantages in terms of statistical power are typically offset by the use of offspring samples that are heterogeneous with respect to marital duration and by the use of global self-report measures of marital interaction. By contrast, detailed observational studies of marital interaction have long emphasized its importance for marital well-being, with little accompanying speculation regarding possible sources of interactional deficits. The present study indicates that these two literatures can be profitably merged and that doing so can isolate mediators that may be amenable to preventive intervention.

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