

Parental Divorce and Premarital Couple Communication

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Abstract

On the basis of a social learning analysis, it was hypothesized that a history of parental divorce would predispose partners to difficulties in managing conflict. Ninety-three engaged couples were videotaped while they discussed two areas of conflict. Each partner then completed a video-mediated recall procedure, an assessment of cognition during the interactions, which was then coded and analyzed. As predicted, couples in which the woman's parents had divorced showed more negative communication and cognitions during conflict discussions than did couples in which neither partner's parents had divorced. Contrary to predictions, couples in which the man's parents had divorced did not differ from couples in which neither partner's parents had divorced. The current research shows that, at least for women, a history of parental divorce is associated with more negative couple communication before marriage.

Many researchers and couple therapists hypothesize that family-of-origin experiences impact in a significant manner on adult couple relationships (Fraenkel, 1997; Widom, 1989). Testing this hypothesis is difficult. Prospective studies that assess family-of-origin experiences and follow offspring until they enter their own adult relationships are extremely expensive and often impractical to conduct. Retrospective reports by adults of their experiences in their family of origin are often viewed as unreliable and biased by current experiences (Brewin, Andrews, & Gotlib, 1993). For example, retrospective ratings of family-of-origin negativity have correlated with rated negativity in current adult relationships, but it was possible that the retrospective reports of family of origin were biased by current experiences of relationships (Levy, Wamboldt, & Fiese, 1997). However, the available evidence has shown that retrospective reports of specifically defined, high-impact events in the family of origin are reasonably accurate (Brewin et al., 1993). Parental divorce is one such event that is potentially of great significance to adult relationships.

The long-term impact of divorce is very important to understand. Divorce is common, and rates of divorce throughout the Western world have been increasing over the past 30 years. For example, more than 50% of new marriages in the United States and 43% of marriages in Australia end in divorce (Glick, 1989; McDonald, 1995; Norton & Moorman, 1987). The majority of individuals who divorce subsequently remarry, and in most Western countries, at least half of these remarriages also end in divorce (Glick, 1989; McDonald, 1995). This exposes a lot of adults and children to divorce. Between 40% and 50% of children born in the United States in the 1980s will experience parental divorce before they reach the age of 18 (Fine, Moreland, & Schwebel, 1983), and 35% of children will experience the divorce and remarriage of their custodial parent (Glick, 1989). In turn, second marriages have substantially higher rates of divorce than first marriages (Booth & Edwards, 1992; Martin & Bumpass, 1989), and consequently some children are exposed to repeated breakdowns in their parents' relationships.

Parental divorce is associated with greater marital problems in the offspring when they become adults. In the United States and Europe, there are substantially higher rates of divorce in adult offspring of divorce than for people with no family history of divorce (DeGraaf, 1991; Glenn & Kramer, 1987; Glenn & Shelton, 1983; Pope & Mueller, 1976). Parental divorce seems to have a particularly strong impact on women. Women experiencing parental divorce have a 60% higher divorce rate than women without such a history, whereas men with a history of parental divorce have a 35% higher divorce rate than men without such a history (Glenn & Shelton, 1983).

There is much speculation about the nature of the link between parental divorce and increased risk of divorce in adult offspring. Relative to children of parents who stay married, children of divorce have more negative expectations and attitudes about marriage (Gabardi & Rosen, 1991; Long, 1987), are more likely to believe that love relationships will not last (Southworth & Conrad, 1987), and are more pessimistic about marriage and relationships in general (Jennings, Salts, & Smith, 1991). Perhaps the adult offspring of divorced parents enter relationships with a more negative cognitive set about marriage, and this may make attention to relationship problems more likely. Alternatively, having experienced parental divorce may make the offspring more likely to contemplate divorce when there are relationship difficulties.

One potential mediator of the effects of divorce on an offspring's subsequent relationships, which to our knowledge has received little research attention, is communication. Deficits in observed and self-reported communication skills, particularly those related to management of conflict, are well-established correlates of relationship distress (Christensen & Shenk, 1991; Gottman, 1994; Halford, Hahlweg, & Dunne, 1990; Weiss & Heyman, 1997). More specifically, relative to nondistressed couples, maritally distressed couples showed higher rates of negative verbal and nonverbal behaviors, more coercive escalation, and greater withdrawal from problem-solving interactions with their partners (Weiss & Heyman, 1990, 1997). Furthermore, distressed couples reported more negative cognitions about their partner and their relationship during interactions than did nondistressed couples (Halford & Sanders, 1988; Noller, Beach, & Osgarby, 1997).

The observed behaviors and cognitions are more than just the effects of marital distress. Deficits in observed relationship communication skills (Gottman, 1994; Markman, 1991; Markman & Hahlweg, 1993) and self-reported communication patterns (Heavey, Layne, & Christensen, 1993; Heavey, Christensen, & Malamuth, 1995) both prospectively predicted subsequent deterioration in relationship satisfaction. Longitudinal research by Markman and his colleagues has linked premarital communication to subsequent marital distress and divorce (see Markman, 1981; Markman & Hahlweg, 1993). Specifically, husbands' interactional negativity, emotional invalidation, and younger age of marriage were the best discriminators of marital dissolution. Furthermore, negative communication patterns evident in first marriages tended to persist into second marriages (Prado & Markman, in press).

Markman (1991), Gottman (1994), and O'Leary (1988) all have suggested that acquisition of skills in intimate communication and, in particular, learning to regulate negative affect and manage conflict are fundamental developmental tasks required to sustain satisfying intimate adult relationships. O'Leary (1988) suggested that children learn much of their intimate communication skills in the family of origin, an assumption made by many developmental psychologists (see Furman & Flanagan, 1997). When parental divorce is associated with exposure of children to severe parental conflict (Grych & Fincham, 1990), parental divorce is likely to be correlated with repeated exposure of children to models of maladaptive conflict management behaviors. Furthermore, given that there is a substantial overlap between the communication behaviors parents show toward their partners and their children (Howes & Markman,

1989), children of divorce also are at risk for having more frequent coercive interactions with their parents than other children. In other words, the interactions children experience within families in which the parents divorce are likely to reflect negative communication and conflict management styles. If the children acquire these interaction habits, then this might put them at greater risk for relationship problems as adults.

If deficits in communication and conflict management are identifiable in people whose parents divorced, this has important implications for the prevention of subsequent relationship problems. Adaptive communication behaviors can be learned (Halford & Behrens, 1996; Markman & Hahlweg, 1993). If communication deficits are evident in those exposed to parental divorce, then relationship preparation programs might help to overcome these deficits.

In this study, we attempted to test the proposition that a family history of parental divorce would be associated with deficits in communication and conflict management skills. Recognizing that deficits in couple communication seemed to be most evident within a committed relationship rather than as a general deficit in interpersonal skills (Weiss & Heyman, 1997), we focused on couples in committed relationships. Specifically, we compared the interactions of engaged couples, reasoning that this should reflect the communication skills with which the individuals entered the relationship more strongly than assessing the same skills in long, established relationships following marriage. We wanted to directly observe communication but were also interested in the possibility that self-reported communication may differ between couples exposed or not exposed to parental divorce. If self-report could identify couples lacking in communication skills when entering relationships, potentially this could provide a cost-effective means of identifying couples at high risk of relationship problems.

As part of a broader program of research evaluating a premarital relationship enhancement program, we recruited a large number of couples who wished to complete a relationship enhancement program. Within this sample, we compared couples in which at least one partner had experienced parental divorce with couples with no history of parental divorce. Because the behavior of partners during couple interaction is interdependent, we assessed interaction by using partners as a within-subjects variable of the couple, as recommended by Kraemer and Jacklin (1979). We hypothesized that relative to couples with no exposure to parental divorce, couples with a history of parental divorce would show higher levels of self-reported and observed interactional negativity and higher rates of cognitive negativity during problem solving. Given the considerable data on gender differences in couple communication (Julien, Arellano, & Turgeon, 1997), and some evidence of gender differences in the effects of exposure to divorce and other negative family-of-origin experiences (Amato, 1996; Levy et al., 1997), we considered exposure to divorce separately for men and women.

Method

Participants

Participants in this study were 93 couples who were recruited through media outreach to participate in a controlled trial of a premarital relationship enhancement program (PREP; Markman, Stanley, & Blumberg, 1994). The outreach sought couples who were in a committed relationship, who intended to get married within 12 months, and who wished to attend the PREP program. The outreach included a focus on couples likely to be at risk for future marital distress, based on either partner having been married before or on being the child of separated parents. Couples were selected who met the following criteria: (a) The couple was not presently married, (b) the couple stated an intention to remain together, (c) neither partner was currently receiving psychological or psychiatric treatment, and (d) both partners had a score of at least 90

on the Dyadic Adjustment Scale (DAS; Spanier, 1976) and did not report significant relationship distress. The last criterion was intended to ensure that any observed communication problems were not the result of severe relationship distress but rather were the entry-level skills of the couple.

The demographic characteristics of the participants were as follows. The average time the couple reported being in a relationship together was 25 months. The average age of women was 28.5 years ($SD= 7.6$), and the average age of men was 31.8 years ($SD= 9.4$). Of our unmarried couples, 54% were currently living together and 24% had children living with them, either from the current or a prior relationship. These figures were consistent with recent Australian national data that showed many couples live together either before or instead of marriage (McDonald, 1995). Sixty-eight percent of couples had at least one partner with university-level education, showing that our sample was biased toward a more highly educated section of the community. The mean relationship satisfaction scores on the DAS (Spanier, 1976) were 119.6 for women ($SD= 11.9$) and 114.4 for men ($SD= 11.7$), placing the group in the satisfied range for relationship adjustment on this measure.

Given that parental divorce is associated with individuals being at higher risk for being divorced themselves, those in our sample who had experienced parental divorce might also be more likely to have been divorced themselves. The exposure to divorce in the current sample is summarized in Table 1. Thirty-six couples (38%) in the sample had at least one partner with a history of divorce in the family of origin. In most of these couples, it was only the male or female partner's parents who had divorced, but in 6 couples, both partners had parents who were divorced. In 40 couples (43% of the sample), at least one partner themselves had been divorced. In half of these couples, it was the men who had divorced previously. To test the possible confound of parental divorce with self-divorce, we conducted a 4×4 chi-square of Parental \times Self-Divorce Status for couples. This analysis showed no significant association between exposure to parental divorce and self-divorce.

Table 1
Exposure to Divorce in the Sample—Number of Couples in Which There Was a History of Parental or Personal Divorce

Parental divorce	Personal divorce				Total
	Neither	Male	Female	Both	
Neither partner	35	9	4	10	58
Male partner	8	3	0	2	13
Female partner	9	6	2	0	17
Both partners	2	2	0	2	6
Total	54	20	6	14	94

Exposure to Divorce in the Sample—Number of Couples in Which There Was a History of Parental or Personal Divorce

Measures

Self-report measures. A battery of self-report inventories was administered to each partner. This battery included measures of relationship satisfaction, patterns of couple's time use, relationship status, relationship aggression, communication patterns, and individual psychological functioning. Most of these measures were administered as part of our ongoing evaluation of the relationship preparation program. Because the focus of the current article is on an observational analysis of couples' interaction, only the relevant self-report measures are presented.

To describe the sample in terms of relationship functioning, we had participants complete the DAS (Spanier, 1976), which is a frequently used 32-item self-report inventory yielding a global marital satisfaction score (wording was modified for premarital assessment as described by Markman, 1981). Participants also completed a modified version of the Marital Status Inventory (MSI; Weiss & Cerreto, 1980). The MSI is a 14-item Gutmann rating scale assessing the steps taken toward divorce or separation (Weiss & Cerreto, 1980). In the modification, 4 items referring specifically to marital dissolution were eliminated and some items were reworded to make it appropriate for premarital assessment of dissolution potential. In addition, psychological maladjustment was assessed using the 28-item version of the General Health Questionnaire (GHQ; Goldberg & Hillier, 1979), which is a widely used measure for screening significant psychopathology in adults. We also assessed each partner's reported problems with alcohol consumption by using the 15-item Canterbury Alcoholism Screening Test (Elvy & Wells, 1984).

Self-reported communication behavior was assessed with the Communication Patterns Questionnaire (CPQ; Christensen & Shenk, 1991), a 23-item inventory in which each partner rates the extent to which they use each of a number of common patterns of couple communication in managing conflict, such as demand-withdraw and mutual avoidance (Christensen & Shenk, 1991). This scale has been used extensively in recent couples research and has established reliability and validity (Christensen, 1988; Christensen & Heavey, 1990).

Observational measures. Communication behavior and self-reported cognitions during couple interaction were assessed. On two separate occasions, couples discussed for 10 min a topic about which the couple disagreed: One topic was selected by the male partner, and one was selected by the female partner. We had couples discuss two topics because Christensen and Heavey (1990) found that partners engaged in or withdrew from interactions differentially according to whether the topic was one in which they were seeking change versus topics in which their partners were seeking change. The nominated order of male and female topics was counterbalanced for order effects. Problem-solving tasks have been very widely used in couples research to assess communication and conflict resolution (see Weiss & Heyman, 1990, 1997). The same task was used by us in earlier research and was shown to discriminate between maritally distressed and nondistressed couples (e.g., Halford et al., 1990; Halford & Sanders, 1988, 1990).

Immediately after each of the two problem-focused discussions, the video-mediated recall procedure developed by Halford and Sanders (1988) was used to assess couples' cognitions. Each discussion was replayed to the individual partner, who sat alone watching the tape. Participants were instructed to watch the tape and to imagine they were reexperiencing the interaction. The tape was paused every 30 s. Individuals then had 30 s in which to write down any thoughts experienced at that point in the interaction. The participants each had a thought-listing form, consisting of 30 boxes on a printed page, and they wrote one thought per box. The resultant reports of cognitions were classified by the subject of the thought (self-referent or partner-referent) and by the valence expressed (negative or neutral/positive), as described by Halford and Sanders (1988). Derived measures were the proportion of all reported cognitions that fell into the resultant four categories. Higher proportions of negative cognitions would be associated with marital distress and would predict ongoing negative communication (Fincham & Bradbury, 1990; Halford & Sanders, 1988, 1990).

Research assistants, who were unaware of the parental divorce status of the participants, coded thought-listing forms. All coders received approximately 20 hr of training in the coding system. Training consisted of memorizing code definitions, instruction and reviewing previously coded thought-listing forms, and extensive practice

coding with feedback. A random sample of one third of all thought-listing forms were coded by a second research assistant to check reliability. Overall interrater reliability was very high. Agreement levels for the individual codes were partner-referent positive $K = 0.86$, partner-referent negative $K = 0.80$, self-referent positive $K = 0.88$, and self-referent negative $K = 0.81$.

We coded the videotaped interactions for verbal and nonverbal communication behaviors using our adaptation of the Kategoriensystem für Partnerschaftliche Interaktion [Classification System for Partner Relationship Interaction] (KPI; Hahlweg & Conrad, 1983). The KPI classifies every verbal utterance into one of 11 mutually exclusive verbal content categories. In addition, each response is assigned an associated affect code of positive, neutral, or negative, based on nonverbal behavior. Coding with the KPI takes approximately 3 to 4 hr per 10 min interaction (Halford et al., 1990). In our adaptation, which we refer to as the Rapid-KPI, we coded each 30-s time interval for the occurrence of behavior that fit into one of the KPI's original 11 verbal content categories. We also coded the presence or absence of negative nonverbal behavior, again as originally defined in the KPI, during that same 30-s interval. We also included a code of withdrawal, which has been identified as an important characteristic of maritally distressed interaction since the development of the original KPI. Definitions of each behavioral code are presented in Table 2.

Table 2
Definitions of Behavioral Codes for the Rapid-KPI

Code	Definition
Verbal	
1. Self-disclosure	Direct expression of feelings, wishes, or needs
2. Positive solutions	Specific, constructive proposals or suggested compromise to resolve a problem
3. Acceptance	Demonstrations of acceptance of the other person by paraphrase, open-ended question, or positive feedback
4. Agreement	Agreement by direct agreement, assent, or acceptance of responsibility
5. Problem description	Neutral descriptions of problems or neutral questions seeking problem description
6. Meta communication	Clarification requests or comments about the manner in which the topic is being discussed
7. Listening	Code used for the listener when double coding of the speaker occurs to ensure an alternating sequence
8. Criticism	Expressions of dislike or disapproval or statements likely to demean the listener
9. Negative solution	Description of something the speaker wants the listener not to do in order to solve a problem
10. Justification	Excuses or denial of responsibility for one's behavior or a problem
11. Disagreement	Direct disagreement or "yes, but" type disagreements
Nonverbal	
Negative	Nonattending, negative facial expression or voice qualities
Other	
Withdraw	Not tracking, not responding, turning away, statement of not wanting to discuss

Note. From *Coding Manual for the KPI (Kategoriensystem für Partnerschaftliche Interaktion) [Classification System for Partner Relationship Interactions]*, by K. Hahlweg and M. Conrad, 1983, University of California, Los Angeles. Unpublished manuscript. Adapted with permission.

Definitions of Behavioral Codes for the Rapid-KPI

On the basis of recent research suggesting that behavioral codes can be usefully summarized into a small number of functional classes (Sayers, Baucom, Sher, Weiss, & Heyman, 1991), we collapsed KPI categories to create the following communication summary variables: (a) positive discussion (problem description, self-disclose, positive solution); (b) validation (acceptance, agreement); (c) invalidation (disagree, justify) and (d) conflict (disagreement, criticize, negative solution). The derived summary measures were the percentage of intervals in which any of the behaviors defined in the summary

code occurred. For example, positive discussion is the percentage of all intervals in which any of problem description, self-disclose, or positive solution occurred. In addition, we calculated two further measures: the percentage of intervals in which withdrawal or negative nonverbal behavior occurred. We have shown that these summary measures derived from the Rapid-KPI discriminate between distressed and nondistressed couples (Osgarby & Halford, 1998) and are sensitive to changes in communication occurring across the course of behavioral couples therapy (Behrens, Sanders, & Halford, 1990; Halford, Sanders, & Behrens, 1993; A. B. Kelly & Halford, 1995). The major advantage of the Rapid-KPI over the original KPI is economy. The KPI takes approximately 3 to 4 hr to code a 10-min interaction, whereas the Rapid-KPI takes about 30 min.

Research assistants, who were unaware of participants' parental divorce status, coded videotapes. Coders received approximately 50 hr of training on the Rapid-KPI. Training consisted of memorizing code definitions, instruction, watching videotapes that were precoded, and extensive practice coding with feedback. A random sample of one third of all tapes was coded independently by a second rater. Observed interrater agreement on behavioral coding was satisfactory on almost all codes, with $K = 0.65$ for positive discussion, 0.58 for validation, 0.69 for invalidation, 0.62 for conflict, and 0.59 for negative nonverbal behavior. The interrater agreement on the withdrawal code was significantly lower than for the other categories ($K = 0.33$). The base rate of occurrence of this code was low, and even though the observed agreement on this code was 0.94 , the Kappa was low because there was low agreement on when withdrawal occurred. Results on this code must be interpreted with caution because there was clearly significant measurement error in assessment of this variable.

On the basis of evidence that high physiological arousal during problem solving is correlated with, and predicts, relationship distress (Gottman, 1994), we originally intended to assess physiological arousal in this study. During problem-focused interactions, each partner was continuously assessed on two physiological indices: (a) heart rate, measured by the interbeat interval (IBI), and (b) galvanic skin response (GSR). An eight-channel physiograph (Cyborg/Autogenics Biolab; Autogenics Systems, Wood Dale, IL) linked to an IBM-compatible computer monitored the input from sensors and averaged the results every 10 s. Unfortunately, recurrent problems with the equipment hardware and software lead us to abandon this aspect of the study. We could not get reliable data on GSR measures at all, and the sample size of participants with reliable heart rate data was too small to give the design adequate power to test the experimental hypotheses regarding physiological arousal.

Results

Overview of Data Analysis

Table 3 is a presentation of the correlations between the key dependent variables in the study. As is evident from that table, there were a number of statistically significant correlations between the females' and males' behavior. In particular, there were strong correlations between the females' and males' negative behaviors of conflict, invalidation, and negative nonverbal behavior. These correlations were consistent with our expectation that each partner's interactional behavior would be dependant on his or her partner's behavior, so it made sense to look at the impact of exposure to divorce on the couple's interaction. To allow for this interdependence, each partner's behavior was treated as a repeated measure of the couple (Kraemer & Jacklin, 1979). The primary independent variable in the study was the parental divorce status of the male and female partners. As is evident in Table 1, there were few couples in which both partners' parents were divorced. Given our uncertainty about the nature of any cumulative effects, we opted to do the analysis by making as few assumptions as possible about the effects of male and female parental divorce. We assessed the effects of female parental divorce

status in all couples, ignoring male parental divorce status, and then assessed the effects of male parental divorce status, ignoring female parental divorce status.

Table 3
Correlations Between the Dependent Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. PD	<u>.52**</u>	.40**	-.43**	-.39**	-.45**	-.21	-.35*	.03	.00	.20
2. VAL	.44**	<u>.34*</u>	-.45**	-.44**	-.42**	-.08	-.37**	.07	.01	.22
3. CON	-.51**	-.36**	<u>.86**</u>	.93**	.65**	.33*	.47**	-.03	.16	-.32*
4. INVAL	-.47**	-.36**	.86**	<u>.75**</u>	.77**	.51**	.42**	-.04	.21	-.31*
5. NNV	-.49**	-.34*	.51**	.59**	<u>.67**</u>	.37**	.35*	-.09	.18	-.21
6. WD	-.18	-.14	.19	.57**	.39**	<u>.17</u>	.07	.09	-.01	-.09
7. PRNEG	-.26	-.48**	.18	.18	.22	.00	<u>.25</u>	-.10	.27*	-.17
8. PRPOS	.21	.06	-.29*	-.32*	-.31*	-.24	.06	<u>.09</u>	-.57**	-.52**
9. SRNEG	-.24	-.08	.37**	.37**	.35*	.28*	.05	-.51**	<u>.31*</u>	-.02
10. SRPOS	.05	.20	-.05	-.02	-.03	.05	-.55**	-.61**	-.20	<u>.25</u>

Note. Underlined coefficients are the correlations between the female and male scores on this variable. Coefficients above the diagonal are for women; coefficients below the diagonal are for men.

PD = positive discussion; VAL = validation; CON = conflict; INVAL = invalidation; NNV = negative nonverbals; WD = withdrawal; PRNEG = partner-referent negative cognition; PRPOS = partner-referent positive cognition; SRNEG = self-referent negative cognition; SRPOS = self-referent positive cognition.

* $p < .05$. ** $p < .01$.

Correlations Between the Dependent Variables

Examination of Table 3 shows that for both women and men, a number of the measures of observed behavior derived from the Rapid-KPI were correlated significantly. Most significant correlations were of modest magnitude, but the correlations between negative behaviors were of large magnitude (e.g., conflict and invalidation were correlated at $r = .93$ for women and $r = .86$ for men). Furthermore, the behaviors of male and female partners were significantly correlated. These correlations were of small to moderate magnitude for positive behaviors but were of moderate to large magnitude for all negative behaviors except for withdrawal. The measures of reported cognitions showed some significant intercorrelations with each other, though all correlations were of small to moderate magnitude. There were some significant associations between cognitions and behavior, but again these were of small to moderate magnitude. Given the very different modes of assessment, behavior and cognition were conceptualized as independent systems of measurement, but measures within these classes could not be assumed to be independent. Consequently, couples were compared on behavior and cognition separately in 2 three-way multivariate analyses of variance (MANOVAs) of Parental Divorce Status (yes or no) \times Gender (male or female partner's behavior) \times Topic of Discussion (male or female nominated), with the latter two variables being within-subject variables. Subsequent three-way analyses of variance (ANOVAs) of Parental Divorce (yes or no) \times Gender (male or female partner) \times Topic (male or female nominated) were conducted on the individual measures, again with the latter two variables as repeated measure variables.

Parental Divorce and Couple Interactions

Parental divorce and self-reported communication. To assess if the self-reported communication differed between couples with and without a history of parental divorce, we conducted a two-way MANOVA of Woman's Parental Divorce Status \times Gender on the six subscale measures of the CPQ. We repeated the same MANOVA analysis design looking at men's parental divorce status. Neither analysis status showed significant main effects for either parental divorce status or gender, nor were the interaction terms significant. Thus, self-reported communication patterns did not differ significantly between those couples with and without a history of parental divorce.

Woman's parental divorce status and observed interaction. The three-way MANOVA of Female Parental Divorce Status \times Gender (the male's or female's behavior in the interaction) \times Topic (male or female nominated) on the behavioral measures of positive discussion, validation, conflict, invalidation, negative nonverbals and withdrawal showed a significant effect of the woman's parental divorce status, $F(6, 79) = 3.51, p < .01$. There also was a main effect of gender, $F(6, 79) = 8.27, p < .001$, but there was no main effect of topic. The two-way interaction between female parental divorce status and gender was significant, $F(6, 69) = 3.86, p < .01$, but none of the other two- or three-way interactions were significant.

Table 4 presents the means and standard deviations on the behavioral and cognitive measures for couples classified by the female and male partners' parental divorce status. There were significant main effects of female parental divorce status on all of the negative behavioral measures. Relative to other couples, couples in which the woman had experienced parental divorce had significantly higher rates of conflict, $F(1, 84) = 8.93, p < .01$, invalidation, $F(1, 84) = 9.51, p < .01$, negative nonverbal behavior, $F(1, 84) = 9.51, p < .05$, and withdrawal, $F(1, 84) = 6.69, p < .05$. Couples in which the woman's parents had divorced also showed significantly lower rates of positive discussion, $F(1, 84) = 4.36, p < .05$, but there was no significant main effect on the validation variable. Consistent with results on the MANOVA, several gender main effects and Female Parental Divorce Status \times Gender interactions were significant on the univariate ANOVAs. Relative to their male partners, women showed higher rates of conflict, $F(1, 84) = 15.20, p < .001$, invalidation, $F(1, 84) = 9.30, p < .01$, and negative nonverbals, $F(1, 84) = 25.17, p < .001$. The univariate main effects of gender were not significant for withdrawal, positive discussion, or validation. Because the MANOVA of Gender \times Exposure to Woman's Parental Divorce was significant, we conducted univariate ANOVAs on this interaction term. There was a significant interaction for negative nonverbals, $F(1, 84) = 5.46, p < .05$, with women's greater nonverbal negativity than that of men being of greater magnitude in the couples in which the woman's parents had been divorced. The interaction between exposure to divorce and gender also was significant for invalidation, $F(1, 84) = 9.35, p < .01$. Men and women in couples in which the woman's parents had divorced showed high and approximately equal rates of invalidation, whereas in the couples in which the woman's parents had not divorced, the women exhibited higher rates of invalidation than the men. Overall, it was evident that couples in which the woman's parents had divorced had significantly more negative behavior than the other couples, and the greater rates of negativity were evident in both partners, not just in the women exposed to parental divorce.

A three-way MANOVA of Female Parental Divorce Status \times Gender \times Topic was conducted on the cognitive variables of partner-referent positive and negative cognitions and on self-referent positive and negative cognitions. There were significant main effects of female parental divorce status, $F(4, 86) = 3.24, p < .05$, and gender, $F(4, 86) = 6.00, p < .001$, but no significant effect of topic. None of the two- or three-way interaction terms were significant. Univariate ANOVAs were conducted to assess the source of the significant MANOVA main effects of female parental divorce status and gender. Relative to other couples, couples in which the woman's parents had divorced had significantly higher rates of negative self-referent cognitions, $F(1, 89) = 11.77, p < .01$, and significantly lower rates of partner-referent positive cognitions, $F(1, 89) = 6.69, p < .05$. There were no significant differences between the groups on rates of partner-referent negative cognitions or self-referent positive cognitions. Relative to their male partners, women showed significantly higher rates of partner-referent negative cognitions, $F(1, 89) = 13.30, p < .001$, and significantly lower rates of self-referent positive cognitions, $F(1, 89) = 20.00, p < .001$. Men and women did not differ significantly on the rates of self-referent negative cognitions or partner-referent positive cognitions. In summary, couples in which the woman's parents had divorced were characterized by more negative self-referent cognitions and less positive partner-referent cognitions than were other couples.

Male parental divorce status and observed interaction

The three-way MANOVA of Male Parental Divorce Status \times Gender (male's or female's behavior in the interaction) \times Topic (male or female nominated) on the behavioral measures of positive discussion, validation, conflict, invalidation, negative nonverbals, and withdrawal showed no significant main effects for the men's parental divorce status or topic, but there was a main effect of gender, $F(6, 79) = 5.75, p < .001$. None of the two- or three-way interaction terms were significant. Because the gender effect was a main effect and was already described above, we did not analyze these data further.

A three-way MANOVA of Male Parental Divorce Status \times Gender \times Topic was conducted on the cognitive variables of partner-referent positive and negative cognitions and on self-referent positive and negative cognitions. There were no significant main effects of male parental divorce status or topic, but there was a significant main effect of gender, $F(4, 86) = 5.41, p < .01$. None of the two- or three-way interaction terms were significant. Because the gender effect was a main effect and was already described above, we did not analyze this data further.

From Table 4, it is possible to compare the behaviors and cognitions of couples in which the male was or was not exposed to parental divorce in the family of origin. In contrast to the findings on women's parental divorce status, there were no significant differences between the couples dichotomized by men's parental divorce status. Thus, the results supported the hypothesis about the effects of parental divorce status, but only for the women's parents.

Table 4
Means and Standard Deviations (in Parentheses) of Behavior and Cognition During Couple Interactions by Partner's Parental Divorce Status

Measure	Woman's parents						Man's parents									
	Not divorced			Divorced			Not divorced			Divorced						
	Male topic		Female topic	Male topic		Female topic	Male topic		Female topic	Male topic		Female topic				
	M	F	M	F	M	F	M	F	M	F	M	F				
Positive discussion	89.0 (15.4)	85.4 (16.6)	89.0 (12.6)	87.4 (13.0)	80.0 (18.6)	87.4 (13.0)	74.5 (24.7)	84.3 (19.1)	88.0 (14.2)	85.9 (17.0)	86.7 (14.9)	86.7 (14.9)	82.2 (24.3)	86.7 (14.9)	80.6 (20.20)	86.6 (13.9)
Validation	43.5 (20.1)	43.7 (21.5)	41.7 (21.6)	41.7 (19.8)	42.5 (17.6)	46.2 (22.4)	38.0 (22.8)	44.5 (29.0)	44.4 (19.5)	43.8 (22.0)	40.5 (21.4)	43.9 (22.2)	38.4 (19.2)	46.3 (20.0)	42.5 (24.1)	35.3 (20.9)
Conflict	24.7 (21.7)	30.5 (23.5)	27.4 (23.0)	32.7 (22.7)	38.5 (30.9)	46.5 (33.7)	44.2 (26.2)	50.3 (33.2)	26.0 (24.3)	30.7 (24.8)	30.3 (25.6)	34.8 (26.3)	36.3 (25.3)	49.7 (30.7)	35.9 (20.0)	45.3 (29.9)
Invalidation	29.5 (23.3)	37.2 (27.2)	29.8 (23.2)	38.5 (26.2)	48.0 (33.1)	57.3 (33.6)	53.0 (32.0)	57.3 (34.7)	31.7 (25.7)	39.1 (29.1)	33.2 (27.0)	41.0 (29.8)	43.1 (30.7)	54.1 (31.3)	44.1 (27.0)	50.9 (26.5)
Negative nonverbals	4.2 (15.1)	10.3 (21.5)	3.9 (10.2)	9.5 (19.5)	12.0 (25.4)	27.3 (33.9)	13.8 (29.1)	30.8 (34.7)	5.4 (16.9)	14.2 (26.1)	5.2 (13.5)	13.5 (23.9)	9.1 (23.2)	14.7 (25.1)	10.3 (27.6)	18.8 (31.1)
Withdraw	4.4 (10.8)	7.2 (13.5)	4.8 (10.3)	6.1 (11.7)	14.8 (24.8)	12.3 (17.4)	15.3 (20.2)	6.0 (13.1)	6.1 (13.9)	8.5 (14.6)	6.1 (12.4)	6.7 (12.6)	10.0 (22.2)	7.8 (14.8)	11.9 (18.6)	3.1 (8.1)
Partner negative	8.6 (9.8)	13.2 (12.0)	9.4 (10.5)	16.3 (14.7)	11.6 (9.8)	15.3 (12.0)	11.2 (11.1)	18.4 (15.5)	9.3 (9.9)	13.5 (13.9)	9.4 (10.2)	15.1 (14.4)	9.7 (9.7)	14.6 (13.8)	11.6 (12.4)	23.6 (15.2)
Partner positive	37.9 (19.4)	42.4 (16.5)	35.3 (17.7)	38.1 (19.3)	24.1 (13.1)	35.4 (20.8)	33.2 (19.1)	33.1 (19.4)	34.0 (18.7)	40.3 (18.2)	35.7 (17.2)	37.8 (19.0)	35.9 (20.3)	41.8 (15.8)	31.3 (21.0)	32.8 (20.7)
Self-negative	9.0 (11.5)	7.7 (10.2)	7.8 (10.8)	7.5 (8.5)	14.3 (12.1)	11.7 (13.5)	13.5 (17.6)	15.8 (14.1)	9.8 (12.0)	8.6 (11.8)	7.1 (8.7)	9.3 (11.1)	12.5 (11.2)	9.3 (8.6)	18.2 (21.7)	10.6 (9.3)
Self-positive	42.2 (20.4)	33.4 (16.9)	46.1 (17.5)	35.3 (20.4)	47.6 (19.1)	32.5 (20.6)	40.4 (21.7)	31.0 (13.8)	44.4 (20.5)	34.0 (18.7)	46.4 (18.5)	35.4 (20.6)	40.0 (18.2)	29.7 (13.0)	37.4 (18.2)	29.5 (20.6)

Note. Scores for behavior refer to the percentage of intervals in which the specified behavior occurred; scores for cognition refer to the percentage of all reported cognitions that were classified into the particular category. M = male; F = female.

Testing Some Alternative Mediators of the Association

The parental divorce status was confounded with personal divorce in a manner that might make the gender difference in the effects of parental divorce unreliable. Examination of Table 1 shows that 34 of the men and 20 of the women in our sample of 94 couples had themselves been divorced. Furthermore, in 10 of the 23 couples in which the female's parents had been divorced, the male partner had been divorced himself, and in 24 of the 71 couples in which the woman's parents had not been divorced, the man himself had been divorced. Although our initial analyses showed no significant association between parental and personal divorce status, the number of couples in some cells was small, and that gave the analysis low power. The behavior of the divorced men interacting with women whose parents divorced might be the source of the couple's negative communication.

To remove the possible impact of the male partners' personal divorce on interaction, we could have excluded all couples in which either partner had themselves been divorced, but then there were insufficient numbers in some cells to give adequate statistical power to test for the effects of parental divorce. Instead, we conducted 2 three-way MANOVAs of Male Divorce Status (yes or no) \times Gender \times Topic, with repeated measures on the last two variables on the behavioral and then the cognitive measures. There was no significant main effect of male divorce in either of these analyses.

A series of additional supplementary regression analyses were conducted to test possible mediators of the association of female parental divorce and communication negativity. Space restrictions prohibit detailed reporting of all these analyses, but a detailed description is available from Matthew R. Sanders on request. In summary, we found that women's parental divorce status predicted negativity of couple behavior and cognitions independent of the male partner's parental or personal divorce status, the mental health of the partners as assessed by the GHQ, partner's alcohol abuse as assessed by the CAST, reported relationship satisfaction on the DAS, and consideration of relationship separation on the MSI.

Discussion

The current study was an attempt to extend knowledge about the impact of exposure to parental divorce on subsequent relationships of adult offspring. More specifically, we hypothesized that the communication of couples before marriage would vary as a function of the divorce status of the partners' parents. As predicted, significantly higher rates of negative verbal and nonverbal communication behaviors were observed in couples in which the woman's parents had divorced than in other couples. Couples in which the woman's parents had divorced also evidenced significantly lower rates of positive problem-focused behavior and reported higher rates of negative self-referent and lower rates of positive partner-referent, cognitive self-statements. However, contrary to predictions, the male partners' parental divorce status was not associated with the observed communication behavior of couples or with the reported cognitions of couples during problem-solving interactions. Furthermore, contrary to predictions, self-rated communication patterns did not correlate with either the male or female partner's parental divorce status.

Our study is only the second of which we are aware that assessed couple communication behavior as a function of divorce in the family of origin. In contrast to the current findings, the other study found no behavioral correlates of parental divorce (Van Widenfelt, 1996; Van Widenfelt, Hosman, Schaap, & van der Staak, 1996). The current investigation differs from Van Widenfelt (1996) in several important respects: The current study (a) contained a significantly larger sample of couples with greater

power to detect differences, (b) focused only on premarried couples, and (c) assessed the potential impact of exposure to parental divorce at a gender-specific level. Given that we only observed an effect of female partners' parental divorce status, the combining of male and female exposure to parental divorce in Van Widenfelt's study may have obscured the effects of female exposure to divorce.

There was an apparent discrepancy in findings in that female parental divorce was related to negative observed communication but was not associated with self-reported communication on the CPQ. Given that CPQ self-reports of communication and observed couple communication usually are related (Christensen & Heavey, 1990), this discrepancy may seem surprising. However, prior research on the CPQ has been with couples married for a mean of more than 10 years and often involved couples with significant relationship distress (Christensen, 1988; Christensen & Heavey, 1990). In the current study, the participants were engaged couples rather than long-term married couples. Second, another selection criterion for participants was that each partner had a DAS score of at least 90. Couples early in committed relationships with high satisfaction tend to have an unrealistically positive view of their relationship (Fowers, Lyons, & Montel, 1996), which may lead the couples not to notice or report on communication difficulties. Furthermore, observed rates of interactional negativity in the current sample were lower than those observed in distressed couples by researchers using the same coding system (Osgarby & Halford, 1998). In comparison to the overt anger evident in some distressed couples, typical negativity in the present sample consisted of low-level irritable affect and moderately elevated rates of invalidation and criticism. The lack of association between parental divorce and self-reported communication on the CPQ may be attributable to some combination of the effects of positive relationship illusions and the somewhat subtle elevations of negativity in the engaged couples.

One important finding was that both partners in couples in which the woman's parents had divorced showed greater negativity. The causal connections that underlie the observed correlation between women's parental divorce and both partners' observed negative communication cannot be established from the current correlational study. The Rapid-KPI only allows assessment of base rates of communication. Sequential analysis, as we have undertaken with the full KPI, would allow establishment of whether male behavior is more contingent on female communication or vice versa. Sequential dependencies do not prove causality but can rule out certain causal associations, and analysis of sequential patterns associated with parental divorce would be useful in future research.

Our supplementary analyses showed that the association between the women's parental divorce and negative couples communication was not a function of individual psychopathology or current relationship satisfaction, at least as these constructs were measured in the current study. Almost all couples entering committed relationships report high initial relationship satisfaction (Markman & Hahlweg, 1993), and deficits in communication predict deterioration of that satisfaction (Kearney & Bradbury, 1995). We deliberately selected couples who were high on relationship satisfaction and established that the woman's parental divorce covaried with deficits in communication early in the relationship before any major relationship dissatisfaction had developed.

The negativity of communication in couples in which the woman's parents divorced may not be a result of the woman's negative communication but rather of other factors such as partner selection effects. For example, women with a history of parental divorce may select men who are more negative in their communication style. Perhaps women exposed to negative communication by their parents would perceive negative couple communication as usual or acceptable. In this way, women whose parents divorced might be more likely to be in committed relationships with men who communicate negatively, and the men's negativity may drive the negative relationship communication.

The failure to find an effect of male parental divorce may be because of the sample of participants we studied. We assessed the interaction of engaged couples in an attempt to assess entry skills to a committed relationship. However, the mean age of our participants was approximately 30 years, the mean duration of their current relationships was more than 2 years, in more than 40% of the couples at least one partner had been married before, and more than half of the couples were cohabiting. Experiences in the current and past relationships may have modified the partners' communication skills and obscured the impact of male partners' parental divorce, though there is some evidence that men and women with communication deficits show these deficits across relationships (Prado & Markman, in press). It probably is not possible to assess the effects of parental divorce and to eliminate the effects of adult relationships because almost everyone entering a committed relationship is likely to have had other relationships. Replication of the current work with a younger sample of couples who have never been married or have never cohabited with a partner might reveal previously undetected effects of the male parental divorce.

The greater observed effects of women's than men's parental divorce might be a function of the assessments conducted. Women are more likely than men to initiate discussion about conflictual topics in a relationship (Heavey et al., 1993, 1995) and are more likely to express concerns in ways coded as negative than are males (Halford et al., 1990; Julien et al., 1997; Markman et al., 1994). In contrast, men are more likely to avoid or withdraw from conflict (Heavey et al., 1993, 1995). Given that women's communication is more overtly expressive of negativity, the effects of parental divorce on women may be more obvious during a problem-based discussion than the effects of parental divorce on men. Any impact of exposure to parental divorce on male avoidance of problem issues may not be evident within the current assessment paradigm.

Variations in the pre- and postdivorce family environments of children might explain differential effects of parental divorce. Many divorces are associated with severe conflict between parents both before and after separation (Amato, 1996), and the impact of such conflict on children's adjustment is known to vary according to the age of the child; to the frequency, intensity, and degree of child involvement in the conflict; and to the child's cognitions about the conflict (Grych & Fincham, 1990). Similar variables may mediate the long-term effects of parental divorce on adult adjustment. In the current study, we assessed only the presence or absence of parental divorce. Although the reliability and validity of retrospective reports of more fine-grained details about parental divorce may be open to question, there is a general finding that women's reported negative family-of-origin experiences predict adult relationship outcomes more strongly than do men's family-of-origin experiences (E. L. Kelly & Conley, 1987; Levy et al., 1997; Wamboldt & Reiss, 1989).

There are some important established gender differences in postdivorce environments of children that may explain the differential effects of women's and men's parental divorce. In Australia, more than 90% of single-parent families are headed by women (Australian Bureau of Statistics, 1994), children's contact with their fathers after divorce often is limited, and, consequently, girls and boys have quite different exposure to same-gender modeling and role identification after divorce. Most girls experience firsthand any adverse consequences of their mothers' divorces because of the mothers' primary caregiver and custodial roles. In contrast, relatively few boys experience on a day-to-day basis the adverse effects of their fathers' divorces and hence have more limited opportunities in a postdivorce environment to identify with their father as a relationship role model. This differential exposure to same-gender parents after divorce may explain, at least in part, the previously demonstrated correlation between parental divorce and women's ratings of low relationship commitment and negative expectations about relationships and marriage (Gabardi & Rosen, 1991; Southworth & Conrad, 1987).

In the present study, the higher ratings of steps taken toward dissolution by women but not by men exposed to parental divorce supports this notion.

The present findings support the possibility of communication processes as possible mediators between family-of-origin divorce and subsequent relationship distress. The behavioral correlates of parental divorce identified in the current study are the same as those that predict divorce and marital distress (Markman & Hahlweg, 1993). Given that participants' current relationship satisfaction did not differ between groups on the basis of parental divorce status, the communication behaviors correlated with women's parental divorce did not prevent the development of initially satisfying relationships. However, communication problems may put couples at risk for relationship problems over time. A number of authors previously have suggested that communication deficits impact on relationships at times of stress (Halford, Markman, & Kelly, 1997; Kearney & Bradbury, 1995).

The present study points to several directions for future research. Given the discrepancies between the current study and that of Van Widenfelt (1996), replication of the current work is highly desirable. If the interactional correlates of parental divorce prove replicable, then it will be important to attempt to clarify if these communication behaviors have a causal impact on relationship functioning. In ongoing work, we are evaluating the impact of a premarital relationship preparation program, which focuses on conflict management and communication skills training, on the relationships of adult offspring of divorce. Although it is well established that most couples can learn the behavioral skills of conflict management (Markman & Hahlweg, 1993), it has not been established if a high-risk group, such as the adult offspring of divorce, can acquire and maintain the use of such skills. It also remains to be established if the behavioral and cognitive variables correlated with parental divorce are better predictors of subsequent relationship breakdown than exposure to divorce per se. If the behavioral and cognitive variables mediate relationship problem risk, then parental divorce should not predict outcome beyond the variance accounted for by these interactional variables.

Relationship problems in couples are particularly common in the adult offspring of divorce. To prevent or treat these problems, a better understanding is needed of the processes by which parental divorce might impact on an offspring's relationships. This study is a beginning in explaining the possibility that deficits in cognitive and behavioral skills in managing conflict may be a mediator of the long-term impact of parental divorce.

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