

## The Role of Attachment in the Post-Divorce Experience

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The loss of the spouse resulting from marital breakdown appears to be a central component of post-divorce distress. However, comparatively little empirical research has examined the nature of this broken bond or its impact on the divorced adult. This study tests the hypothesis that the continuing positive feelings for the ex-spouse following divorce are very salient for the individual and are related to increased distress. Sixty recently divorced women selected from court records were randomly assigned to one of three conditions in which they recalled the ex-spouse in a positive, loving interaction (PS); the ex-spouse in a conflictual interaction (C); or a friend in a positive, loving interaction (PF). A post-recall thought sampling procedure was employed to measure the frequency of thoughts about the ex-spouse. The subjects in the PS condition had significantly more post-recall thoughts of the ex-spouse and significantly more thoughts about coping than those in either the C or the PF conditions. The implications of these data for theories of post-divorce adaptation and adult attachment are discussed.

In "The Six Stations of Divorce," Bohannon (1970) identified six distinct categories of divorce related problems and stresses: economic, legal, community, emotional, co-parental, and psychic. Some researchers (e.g., Bohannon, 1970; Hetherington, Cox, & Cox, 1976; Weiss, 1975) have argued that the most stressful part of divorce is the loss of the marital relationship, combined with continued contact and involvement with the ex-spouse following the legal divorce. The separation from the spouse elicits a wide range of conflicting and confusing emotions in both spouses, including anger, contempt, regret, affection, and anxiety or panic (Weiss, 1976).

The emergence of these feelings and the impact they have on the divorcing adult has been attributed to the disruption of the strong emotional bond found in intimate relationships. Despite the many factors that led to dissolution of the marriage, many recently divorced people continue to experience a sense of being "drawn" to the ex-spouse and feel a profound sense of sadness and confusion at the loss of the relationship regardless of what existed objectively (Weiss, 1975). The ongoing positive feelings for the ex-spouse continue to be prominent and salient and appear indicative of the person's distress. Current understanding of these reactions has been derived from the work of Bowlby (1969, 1973a, 1973b, 1977), who describes the feelings and behaviors that emerge when people are separated from a figure with whom they have an attachment bond.

Weiss (1975) elaborated on Bowlby's work by describing the role of attachment in the development of adult love and the continuing positive feelings experienced by many divorced people. The manifestations of these positive feelings are similar to mourning reactions (Parkes, 1973) and include recurrent thoughts and images of the ex-spouse; attempts to contact or learn about him or her; feelings of emptiness, as if one were missing a part of oneself; loneliness and panic that occur suddenly when the ex-spouse is inaccessible; and expressed positive feelings toward the ex-spouse. Weiss (1975) argued that these responses could be understood as the "response to intolerable inaccessibility of the attachment figure" (p. 131) and labeled them "separation distress."

The ongoing positive feelings, often described as attachment or inferred by separation distress, have been shown to correlate with adjustment in some divorced people. Brown, Felton, Whiteman, and Manela (1980) studied separation distress by developing a measure of attachment with a population of subjects who were in the process of marital dissolution. The results suggested that attachment and adjustment are related but are independent concepts and that greater attachment contributes significantly to difficulties in adjustment. Kitson (1982) also reported on the development of an attachment scale by using items drawn from the work of Parkes (1972), with results similar to those of Brown et al. (1980).

Other research has failed to support the notion that continued positive feelings for the ex-spouse are significant for adjustment. In an interview study of divorced people, Spanier and Casto (1979) found no statistically significant relationship between overall adjustment and level of attachment by using four questions from an interview protocol, and they reported that the magnitude of attachment was less than in Weiss's (1975) study. In addition, Goetting (1980) argued that marital discord may be the salient feature in post-divorce adjustment, and Nelson (1981) reported data that higher frequency of contact and worse quality of contact with the ex-spouse is the best predictor of increased post-divorce distress.

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Thus, while there is some evidence that continuing positive feelings are an important aspect of the overall distress experienced following a divorce, this aspect has been inadequately examined. The goal of our study is to provide experimental evidence that a continuing image of the part of the spouse that was experienced as a loving, protective figure is salient and may be correlated with distress in divorced people.

The salience of the positive feelings toward the ex-spouse may best be assessed by cognitive activity (Cohen, 1974). "Repetitive cognition" or preoccupation with the ex-spouse, is one of the major signs of distress described by Weiss (1975) and Parkes (1972). In studies of the stream of consciousness, exposure to stressful experiences produces thoughts specific to the stressor. This has been shown when the stimulus was a film (Horowitz, 1978; Horowitz & Wilner, 1976; Horowitz, Wilner, & Alvarez, 1979; Pope & Singer, 1978; Singer, 1978; Zachary, 1978) or a role-playing experience (Klos & Singer, 1981). Our research also found that the intensity of a person's preoccupation with an event or stimulus reflects the stressfulness of that stimulus. In addition, the frequency of repetitive thoughts are moderated by currently salient life concerns (Klinger, 1984; Singer & Kolligian, 1987) or by experiences (Klos & Singer, 1981; Lazarus, 1977).

Two methods of assessing ongoing cognition have been used. Several researchers (Klinger, 1984; Singer, 1978; Singer & Kolligian, 1987) have assessed stream of consciousness in daily life by using automatic beepers, retrospective accounts, and other field techniques. Other researchers have used films as affectively salient stimuli and have then sampled the person's thoughts. In a complex study, Klos and Singer (1981) had subjects role-play conflict situations with their parents and then collected the subjects' subsequent thoughts as a measure of salience. They found that the higher conflict role-playing elicited more thoughts about the parents, and a history of conflictual interactions with parents was positively correlated with number of thoughts.

Our study uses a similar procedure to evaluate the impact of specific types of images of the ex-spouse on a person's thinking. Recently divorced subjects are asked to recall either positive (PS) or conflictual (C) interactions with their ex-spouse or positive images of a friend (PF). The frequency of post-stimulus spouse-related thought is then assessed by a thought-sampling task. It is expected that the positive stimulus will elicit a greater frequency of spouse-related thought, which is indicative of the greater salience of this positive image. In addition, sadness and anger may be more prevalent following the positive memory.

Additional predictions can be made regarding the effect of the positive image of the ex-spouse. Several variables will have significant moderating effects on the frequency of thoughts in the positive-spouse condition; that is, in analyses with the experimental group and the moderator variable as independent factors, there will be significant group-by-moderator-interaction terms. Moderator variables include the degree to which the subject felt love and caring for the ex-spouse prior to the decision to separate, the degree a person exhibits behavioral indexes of separation distress, and the time from separation. Conversely, these thoughts of the ex-spouse should be unrelated to measures of trait dependency, interpersonal affiliation, or desire for di-

vorce, because these have been shown in other studies to be unrelated to separation distress (Brown et al., 1980; Kitson, 1982).

## Method

### *Subjects*

The subjects of our study were 60 women who met the following criteria for inclusion in the study: (1) are married for at least 2 years prior to contact, (2) have at least one minor child living in the home, (3) are between ages 22 and 55, and (4) separated for less than 36 months prior to contact.<sup>1</sup>

The subjects were obtained through the files of the New Haven Superior Court, which are a matter of public record. Subjects who met the criteria were selected from the files of all divorces occurring during the months of September, October, and December 1981 and the months of January, March, April, and June 1982. Forty-two percent of all divorces met the above criteria. All of the subjects listed with telephone directory information (50%) were contacted initially by letter describing the study and requesting their participation. This letter was followed by a phone call 1-3 weeks later, at which time the study was again explained and any questions were answered. Thirty-six percent of those contacted agreed to participate. Demographic data are presented in Table 1. There was no difference between participants and nonparticipants in length of marriage or number of children, and the sample is similar to samples in other studies (Berman & Turk, 1981; Hetherington et al., 1976; Spanier & Casto, 1979) in age, length of marriage, socioeconomic status, and number of children. Although the response rate is somewhat low, any bias would have selected for subjects with less distress, thereby reducing the likelihood of significant results.

### *Design*

The study was divided into two sections: interview and experimental. All 60 subjects were asked to complete a variety of questionnaires that assess a number of personality characteristics, coping styles, and mood states. In addition, each subject was interviewed for 1-2 hours by the principal investigator. These interviews explored both historical and current aspects of their marriages, family life, social activity, and current concerns and problems.

In the experimental portion, each subject was randomly assigned to one of three conditions that differed as to the kind of memory the subject was asked to recall: a memory of the ex-spouse in a positive interac-

<sup>1</sup> The general purpose of the inclusion criteria was to select a sample with a broad range of reactions to the same event (divorce) while avoiding potentially confounding phenomena. Thus, women under 22 years of age and those married less than 2 years were eliminated to avoid subjects who never formed an attachment or who married for reasons other than love. Subjects above age 55 were excluded because there may be different motivations for divorce at that age and because the socioeconomic and social support stresses for an older woman may be significantly greater than they are for younger women. All subjects had to have experienced a legal divorce, because there may be differences attributable to the legal divorce *per se*. The requirement of a minor child was designed to increase the likelihood of selecting subjects who had formed a marital attachment and to provide a consistency of nonattachment factors affecting adjustment. The limit on length of separation was based on Hetherington's data (Hetherington, Cox, & Cox, 1976) that indicates 2 years as an average period of adjustment. Those who continue to experience separation distress beyond 3 years may be very different from those who resolve the loss of attachment shortly after separation.

Table 1  
*Sociodemographic Characteristics of Sample (N = 60)*

Variable	Range	M	SD
Age	26-53	36.1	6.43
Predivorce income	\$15,000-\$100,000	\$35,000	\$21,000
Total current income	\$4,800-\$43,000	\$18,000	\$7,200
Years married	6.8-28.2	14.2	5.7
Months separated	0.85-44.8	17.8	10.75
Days from decree	15-384	115.1	50.3
Number of children	1-5	2.3	1.09
Number of minors	1-5	1.8	0.85
Socioeconomic status		3.18	0.96

*Note.* **Socioeconomic status:** (I) 3%, (II) 27%, (III) 30%, (IV) 35%, (V) 5%; **Religion:** 57% Catholic, 33% Protestant, 8% Jewish, and 2% Other; **Filing status:** 69.5% plaintiff, 30.5% defendant; **Employment:** 63% full-time, 22% parttime, and 15% not employed; **Custody:** 78% with mother, 17% joint custody, living with mother, and 5% joint custody, living with both parents.

tion (PS), a memory of the ex-spouse in a conflictual interaction (C), and a memory of a close female or male friend in a positive interaction (PF). The PS condition is intended to elicit feelings of attachment, with the other two groups to be used as comparisons. Each subject was asked to recall and describe in detail a memory consistent with the experimental condition.

All subjects then participated in a thought sampling procedure, in which they were placed alone in a sparsely lit room and instructed to sit quietly and let their thoughts wander without intentional direction or focus. During the next 15-20 minutes, they were interrupted over an intercom 15 times at random 45-75 second intervals and were asked to describe their current thoughts and feelings in a sentence or two. The thoughts were recorded on tape and were transcribed and then scored by trained raters.

### Scoring

Five variables from the thought sampling were scored: (1) thoughts about the ex-spouse, (2) thoughts about their marriage and divorce, and the presence of (3) anger, (4) sadness, and (5) "coping," or optimistic efforts to adapt. Thoughts about the ex-spouse are defined as any reported thought that contains a specific overt reference to the ex-spouse. Thoughts of the marriage and divorce refers to any reference to the divorce or the marriage or stresses explicitly related to the divorce without mention of the ex-spouse. The "affect" categories include thoughts of any content that carry a specific affect-tone. Reliability estimates for these ratings were computed with the intraclass correlation coefficient (Winer, 1971) with 30 subjects and three raters, all of whom were blind to the experimental condition. All reliabilities ranged between .90 and .98. These five variables were then used as the dependent variables in all data analyses.

### Measures

*Ex-spouse preoccupation.* An interview-based measure of attachment, similar to those developed by Spanier and Casto (1979), Brown et al. (1980), and Kitson (1982), was constructed for this study and drew on items used in previous studies and used variables described by Weiss (1975) and Parkes (1972) as indicative of attachment behaviors. Seven items were used to assess these aspects of attachment.<sup>2</sup> To check the homogeneity of these items, they were submitted to a principal-compo-

nents factor analysis. As expected, they produced a single factor with  $\lambda > 1.00$  accounting for 55% of the variance with high factor loadings for each variable. An additive scale of the seven items was constructed that had high internal consistency ( $\alpha = .84$ ) and is called Ex-Spouse Preoccupation.

*Dysphoric mood.* The Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971) and the Taylor Manifest Anxiety Scale (MAS) were used to assess different affect states. To reduce the number of variables, the six POMS scales and the MAS were submitted to a principal components factor analysis, which yielded a single factor accounting for 64% of the total variance. All seven variables loaded on the factor at  $\geq \pm .66$ . As a result, a single Dysphoric Mood scale was constructed, taking the sum of the seven scales (with the Vigor scale reversed).

*Depression at most difficult time.* Each subject was asked to identify the most emotionally difficult time in the divorce process (prior to separation, at separation, or at divorce) and to rate the presence or absence of the eight major DSM-III signs of depression (American Psychiatric Association, 1980). The total number of positive symptoms (0-8) was used as a measure of depression severity.

*Personality Research Form (PRF; Jackson, 1967).* Four subscales of the PRF were used to assess the extent to which subjects were predisposed to certain specific personality characteristics: affiliation or preference for social interaction; succorance, or dependency; aggression; and cognitive structure, or obsessiveness.

*Liking and Loving Scale (Rubin, 1970).* This is a questionnaire measure with two subscales developed to assess the constructs of *romantic love* and *interpersonal liking*. The Loving Scale measures affiliative need, predisposition to help, and absorption. The Affection (Liking) Scale measures admiration, respect, and affection. For this study, the scales were modified to request ratings of feelings for the ex-spouse in the year prior to separation, and simple sums of the individual items were used. These measures were used to assess the feelings of love and affection toward the ex-spouse that existed prior to separation.

*Current relationship with the ex-spouse.* Three variables taken from the interview were used to assess the subject's current relationship with his or her spouse: frequency of contact over the past 2 weeks; type of contact, ranging from pleasant to openly conflictual; and frequency of conflict over the past 2 months. Reliabilities for the three scales, based on two raters and 20 subjects, were  $\alpha = .85, .47, \text{ and } .89$ , respectively.

*Repressive style.* Weinberger, Schwartz, and Davidson (1979) delineated three characteristic coping styles that people use in a consistent fashion: *low anxious, high anxious, and repressive*. These three coping styles were identified by the use of two questionnaire measures: the Marlowe-Crown Scale and the Taylor Manifest Anxiety Scale. High-anxious subjects score high on the anxiety scale but low on the Marlowe-Crown. Repressive subjects score high on the anxiety scale and high on the Marlowe-Crown. Low-anxious subjects score low on both scales. Weinberger et al. (1979) found that these groups exhibit similar patterns of response with physiological measures of anxiety when compared with their self-report of anxiety. This categorization was used as a validity check to rule out repression as a confounding variable.

*Memory evaluation scales.* Four self-report scales were used to evaluate the extent to which the subjects felt the memory task was a salient

<sup>2</sup> The items are (a) In the past two weeks, how often have you thought about your ex-husband?; (b) In the past 2 weeks, how often do thoughts about him just pop into your head?; (c) How often in the past couple of weeks have things reminded you of him, triggered thoughts about him?; (d) How much do you miss him, on a 1-5 scale?; (e) Do you wonder how he is doing? How much do you try to find out what he's up to?; (f) Many people describe feeling empty, like a part of them is missing. How true is that for you?; (g) How much have you thought about what happened in your marriage in the past few weeks?

experience. These questions evaluated the following characteristics of the memory: the perceived reality of the memory, the visualizability of the recalled scene, and the accuracy of the description relative to the internal memory. Subjects were asked to rate each item on a 1–5 scale.

*Affect scales.* Ratings of intensity of affect immediately following the memory task were made on 10 items: anger, sadness, joy, confusion, relief, contempt, anxiety, loneliness, calm, and guilt. Subjects were asked to rate each item as to how they felt during the memory task. The items were factor analyzed by using a principal components analysis with varimax rotation. Three factors emerged with  $\lambda \geq 1.00$  that accounted for 68% of the total variance. Factor 1, *evoked anger*, reflected feelings of anger and anxiety versus joy ( $\alpha = .814$ ). Factor 2, *evoked loss*, reflected feelings of loneliness and confusion ( $\alpha = .752$ ). Factor 3, *evoked happiness*, reflected positive feelings of joy and calm versus sadness ( $\alpha = .703$ ).

## Results

### Validity Checks

Immediately following the experimental manipulation, each subject was given the Memory Evaluation scales. These data indicate that the recalled memories were very vivid and were reported in ways that subjects believed accurately reflected the memory. There was no significant difference in the vividness and accuracy of the memories across the three experimental groups.

To check for random assignment of subject to experimental condition,  $1 \times 3$  ANOVAs of demographic data (age, years married, length of separation, and SES) and interview measures of attachment (intrusive thoughts and ex-spouse preoccupation) and  $1 \times 3$  MANOVAs of all questionnaire scales were conducted. None of these analyses reached significance, confirming the random assignment of subjects to experimental conditions.

It has been argued (R. S. Weiss, personal communication, 1981) that a tendency to use repression as a defense may interfere with the assessment of attachment from both experimental and interview methods and bias the results of the study. To rule this competing hypothesis out, the content variables from the thought sampling and the interview measures of attachment were analyzed for differences among the high-anxious, low-anxious, and repressive styles (Weinberger et al., 1979). None of these analyses was significant, indicating that the dependent measures are unrelated to the tendency to use repression in response to anxiety.

### Impact of Attachment Imagery on Intrusive Thoughts

Means and standard deviations for the dependent variables are presented in Table 2. The ex-spouse thoughts ranged from zero to six thoughts per thought-sampling session. These thoughts varied widely in content and affect-tone, from affectless thoughts such as "my husband" or "Wonder what my ex-husband would have said to these questions?" to more emotional statements such as "How much I cared about [my ex-husband] and how much he really meant to me," or "He is a real S.O.B."

Owing to the presence of a single outlier, the dependent measures were winsorized (Winer, 1971) in each experimental group, substituting the second highest value in place of the high-

Table 2  
*Descriptive Statistics and One-way ANOVAs for Thought Sampling*

Dependent variable	Experimental condition			<i>F</i> (2, 57)
	PS	C	PF	
Ex-spouse preoccupation				
<i>M</i>	.827 <sup>a</sup>	.622 <sup>b</sup>	.608 <sup>b</sup>	4.05*
<i>SD</i>	.342	.181	.268	
Thoughts of marriage and divorce				
<i>M</i>	.605	.498	.432	3.11
<i>SD</i>	.282	.217	.140	
Angry thoughts				
<i>M</i>	.598	.565	.535	0.35
<i>SD</i>	.218	.265	.226	
Sad thoughts				
<i>M</i>	.630	.54	.54	0.69
<i>SD</i>	.279	.284	.248	
Coping thoughts				
<i>M</i>	.730 <sup>a</sup>	.534 <sup>b</sup>	.437 <sup>b</sup>	4.78**
<i>SD</i>	.436	.237	.180	

<sup>a,b</sup> Means with different superscript letters are significantly different by the Duncan test. All means are arcsin transformations of percentages of total number of thoughts.

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

est value and the second lowest value in place of the lowest value. Arcsin transformations were used to stabilize the variance of the dependent variables, which are expressed as proportions of the total sample of thoughts (Winer, 1971).

The primary hypothesis of our study was that an image of the ex-spouse as a positive, loving, caring figure (i.e., an attachment figure) would elicit a higher frequency of thoughts about the ex-spouse in the thought-sampling task than would either images of the ex-spouse as a hostile or critical figure or positive non-spouse images. This hypothesis was confirmed, with the mean frequency of ex-spouse thoughts significantly higher in the PS condition than in either the C or the PF conditions.  $F(2, 57) = 4.05$ ,  $p < .05$ . When thoughts about the divorce and marriage were used as the dependent measure, which does not include overt references to the ex-spouse, the results did not reach significance, as expected,  $F(2, 57) = 3.11$ ,  $p < .10$ . In summary, the PS condition, which was hypothesized to elicit feelings of residual attachment to the ex-spouse, produced significantly more intrusive thoughts about the ex-spouse during the post-memory thought sampling than did either the C or the PF conditions. This effect was not found when a nonspecific measure of intrusive thoughts was used as the dependent measure (thoughts of the marriage and divorce).

The quality of affects elicited by the memories was affected by the experimental condition. The ANOVAs for the *evoked anger*, *evoked loss*, and *evoked happiness* were highly significant across the three experimental groups (see Table 3). Anger was highest for the C condition and was next highest in the PS condition. In contrast, loss was highest in the PS condition but was significantly higher only than the PF condition. Happiness was significantly higher in the PF condition than in either of the other two conditions.

Table 3  
Means and ANOVAs for Affects Stimulated by Memory Task

Dependent variable	Experimental condition			<i>F</i> (2, 57)
	PS	C	PF	
Evoked anger	12.0 <sup>b</sup>	15.7 <sup>a</sup>	7.85 <sup>c</sup>	21.21**
Evoked loss	10.05 <sup>a</sup>	9.15 <sup>a,b</sup>	7.00 <sup>b</sup>	3.64*
Evoked happiness	13.25 <sup>b</sup>	13.10 <sup>b</sup>	19.75 <sup>a</sup>	22.6**

<sup>a,b,c</sup> Means with different superscript letters are significantly different by Duncan test.

\*  $p < .05$ . \*\*  $p < .001$ .

### Moderators of Attachment

It was predicted that several exogenous variables would be related to the ex-spouse thoughts only following the PS condition. To test these predictions, hierarchical multiple regression was used (GLM procedure; SAS Institute, 1979). This technique computes the regression of the ex-spouse thoughts on the moderating variable within each experimental condition and then tests for significant differences among the slopes. Results are reported in the form of two-way analyses of variance, in which the interaction term was the test of interest.

As was expected, there were several significant experimental condition by moderator variable interactions (see Table 4). Pre-separation affection, current dysphoric mood, and severity of depression at worst time all had significant interaction terms, with the greatest slope in the PS condition. The length of time married was negatively related to the number of thoughts of the ex-spouse only in the PS condition. In addition, there was a trend for pre-separation romantic love to be correlated with ex-spouse thoughts only in the positive condition.

Women who report feeling a high degree of affection and respect for their ex-husbands prior to their separation are likely to experience a higher frequency of intrusive thoughts of the ex-spouse following a positive image. Similarly, the severity of their depression at the most depressing time and the degree to which they currently experience dysphoric moods is significantly related to the frequency of intrusive thoughts of their ex-spouse following a positive memory of him. This result is not obtained following either a conflictual memory or a positive memory of a friend.

The interview-based measure of attachment (ex-spouse preoccupation) yielded slightly different results. Ex-spouse preoccupation is significantly related to ex-spouse thoughts across experimental groups,  $F(2, 54) = 4.23, p < .05$ . Examination of the within-group regression slopes indicates that the slopes for the PS and PF conditions are significantly greater than zero, while the slope for the C condition is not; owing to large variances, the slopes as a group are not significantly different from each other.

The variables measuring personality characteristics were notable in that both affiliation and succorance (dependency) showed neither significant main effects nor interactions, as was expected. However, aggression yielded a significant experimental group by aggression interaction,  $F(2, 54) = 4.76, p < .05$ .

Trait aggression is positively related to the frequency of ex-spouse thoughts in the PS condition and is unrelated to ex-spouse thought in both C and PF memory conditions.

As was predicted, neither measures of social support (frequency of contact with friends and family, and number of friends), of the desire for divorce, nor any measures of the current relationship with the ex-spouse was statistically related to experimentally stimulated ex-spouse thoughts. This suggests that this experimental measure of attachment is not correlated with other components of the post-divorce experience but rather taps an independent aspect of the divorce process.

### Affective Indexes of Attachment

A secondary hypothesis was that the PS condition would elicit sad, lonely, or depressed thoughts more frequently than the other two conditions, while the C condition would elicit more angry or hostile thoughts than the other two. Neither angry thoughts,  $F(2, 57) = .35$ , nor sad thoughts,  $F(2, 57) = .69$ , differed significantly across the three groups. Only one affect variable, labeled "coping," showed significant differences among the three groups,  $F(2, 57) = 4.78, p < .02$ . Coping thoughts reflected active attempts to facilitate one's psychological state, either through positive appraisal of the experience ("I'm doing OK, I've come out of this ordeal whole and intact") or through behavioral strategies to improve one's emotional state ("I'm going to have some tea to relax when I get home") or future prospects ("I wonder how many courses I'll take at school this summer"). In this situation, the PS group had a significantly higher frequency of coping thoughts than either the C or the PF groups, which were equivalent to each other.

### Discussion

Psychotherapists involved in the treatment of divorced people have frequently argued that the relationship with the ex-spouse is one of the most salient features affecting post-divorce adjustment (Thweat, 1980; Wallerstein & Kelly, 1980). Many researchers have also argued that the quality of the ex-spouse

Table 4  
Analysis of Frequency of Intrusive Thoughts: Within-Group Standardized Regression Coefficients

Mediator variable	Experimental condition			<i>F</i> <sub>AB</sub> (2, 54)
	PS	C	PF	
Pre-separation affection	.596***	-.176	.516*	3.97*
Current dysphoric mood	.720**	-.433	.338	5.68**
Severity of depression	.627**	-.151	.249	3.14*
Length of marriage	-.579**	.116	.151	3.34*
Romantic love	.625**	-.036	.263	2.18
Ex-spouse preoccupation	.440*	-.026	.492*	1.51
Trait aggression	.632**	-.281	-.194	4.76*

<sup>a</sup> Probability that  $b = 0$  by *t*-test.

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

relationship influences other aspects of adjustment. However, documentation of this belief has been limited to a few survey studies or to the impressions of clinicians.

The results of this research demonstrate that positive mental images of the spouse elicit increased thoughts of the ex-spouse relative to other characterizations of the ex-spouse. In other words, for recently divorced women, an image of the spouse that has a positive affective loading elicits more intrusive thoughts and thus is the stimulus that is most salient for the individual. These data are consistent with the research of Brown et al. (1980), Kitson (1982), and Weiss (1976), which has found repetitive thoughts to be clinical manifestations of distress.

Prior research in the fields of imagery and stressful life events has found that the frequency of thoughts of an event is positively correlated with the stressfulness of that event (Horowitz et al., 1979; Lazarus, 1977). In this study, the increased feelings of loss following the PS memory and the significant correlation of ex-spouse thoughts with current dysphoria and worst depression in the PS condition indicate that thoughts following a positive image are related to distress and suggest that the salience of the positive image is correlated with distress for the divorced person. Moreover, the presence of higher levels of "coping" thoughts in the PS condition may indicate that the positive image requires more active efforts to adapt than the other images, owing to its more stressful nature. Positive affect about any person may elicit some degree of distress. The intermediate slopes in the PF condition, which were not significantly different from the PS or C conditions, suggest that positive affect is necessary but not sufficient in determining the salience of the stimulus. However, only the combination of positive affect and the image of the spouse produces a significant degree of salience in the stimulus.

The relationship between ex-spouse thoughts in the experimental conditions and interview self-report was not as predicted. Rather, the interview measure used in prior studies was correlated with thoughts of the ex-spouse in both the PS and the PF conditions. This may have occurred because the interview measure is influenced by general distress or by response biases, thereby inflating the relationship in the neutral condition, whereas the experimental measure is not. Alternatively, it is possible that the conflict condition may suppress ex-spouse thoughts, which emerge in the other two conditions. A suppression effect would also be consistent with the negative correlation between current dysphoria and ex-spouse thoughts in the negative condition. Future study will need to examine the role of angry feelings and conflictual images in relation to divorce; certainly, many clinicians have noted that anger appears as a means of coping with post-divorce distress (Hetherington et al., 1976; Kressel & Deutsch, 1977).

Length of marriage was negatively correlated with ex-spouse thoughts in the PS condition when a positive relationship has been reported in other studies (e.g., Weiss, 1976). It is possible that marriages that end after many years may have chronic strains, such as chronic abuse or alcoholism, or may have resolved chronic conflict by disengagement, which results in emotional detachment before the physical separation. Berscheid (1983) has noted that there is little relationship between the apparent emotionality in a marriage and the degree of attach-

ment; quiescent marriages exist for several reasons. In this predominantly Catholic sample, the longer marriages may have endured despite a lack of interconnections, resulting in little attachment distress at separation.

The presence of uncontrolled intrusions of thoughts about the lost spouse following a guided memory task in which the spouse is recalled in a positive, loving, protective interaction was used as an operationalization of the attachment bond. However, the experimental manipulation elicits a positive image and subsequent thought, while research has used naturally occurring thoughts as indicative of attachment. The elicitation of the image and subsequent thought could inherently alter the person's thought processes, limiting the generalizability of the data. The risk of this is decreased by the correlation between the experimental thoughts and the interview report of intrusive thoughts. In addition, the interviewer was not blind to the experimental condition, which could have introduced an unconscious bias. However, the interviewer was not in the room during the thought sampling procedure, and the raters were blind to the experimental condition, reducing the risk of bias. Nevertheless, further research and replication is needed to demonstrate validity of the relationship between the laboratory behavior and real-world experiences of divorced women.

Indications of continuing positive feelings for the ex-spouse that contribute to distress after a divorce has frequently been viewed in light of attachment theory (Bowlby, 1969, 1973a, 1977). Attachment theory is described as "a way of conceptualizing the propensity of human beings to make strong affectional bonds to particular others and of explaining the many forms of emotional distress and personality disturbance . . . to which unwilling separation and loss give rise" (Bowlby, 1977, p. 201–203). The divorced adult's tendency to think about his or her ex-spouse, specifically following a positive memory, can easily be understood in this context. In addition, the experimental condition by moderator interactions would have been predicted by Bowlby's understanding. As Weiss (1976) stated, "this persisting bond to the spouse resembles the *attachment bond* of children to parents described by Bowlby. Indeed it seems reasonable to surmise that the bond we observe to persist in unhappy marriages is an adult development of childhood attachment" (p. 138).

However, attachment theory is not the only way to explain the results obtained in this study. Berscheid (1983) argues that in close relationships there are a large number of chains of events for each person that are both temporally and causally interconnected. The presence and number of these chains defines the degree of closeness. When one of these interaction patterns is interrupted, it results in an autonomic nervous system response that is interpreted as emotion when the appropriate appraisal process occurs. In the case of marital separation, the loss of the marital partner results in the disruption of innumerable interaction sequences. These disruptions result in the expression of intense emotions including anger, depression, and longing.

These data could reflect the incongruous nature of having positive images and thoughts about the rejected or rejecting spouse rather than attachment. In other words, the repeated thoughts may reflect an effort to integrate the positive feelings

with the absence of the object of those feelings. However, one would expect a negative correlation between ex-spouse thoughts and desire for divorce given this interpretation, but it was not found. In addition, incongruity would not be expected to elicit more coping thoughts. It is also possible that the positive images are less common and, hence, more novel and interesting, eliciting more thoughts. However, this explanation would not predict the significance for coping thoughts nor the condition by moderator interactions.

In summary, these data provide substantial support for the belief that the marital partner as a positive attachment figure is a salient part of divorce and may exacerbate subjective distress. The conclusion is consistent with research that found attachment to be a significant aspect of the divorce process (Brown et al., 1980; Kitson, 1982) and extends these findings by ruling out potentially confounding variables such as SES, age, and general distress. In addition, these data clarify the significance of the attachment bond separate from the current relationship with the ex-spouse (Nelson, 1981) or the amount of prior conflict (Goetting, 1980). In other words, it is not simply the hate and anger that develops at the ending of a marriage but the love that persists that is salient for the divorced adult.

The development of intimate bonds in general is a normative experience. Most people experience a few significant attachments throughout their lives and feel intense distress when those attachments are lost. The sample was chosen as a nonclinical, heterogeneous population from whom conclusions could be drawn regarding the general population. Thus, attachment as experienced by these women must be assumed to be a normal part of the divorce experience, and these results should not be interpreted as reflecting any psychopathology in the subjects.

The conclusions of our study are possibly limited to the population studied: women who are predominantly employed and white with children who have been divorced less than 3 years. Further research is needed with other populations, different time periods, and other life crises. The role of attachment for men is equally important and needs to be examined in detail, because the process may be quite different or may be handled in different ways (Hetherington et al., 1976; Hill, Rubin, & Peplau, 1976). Similarly, the significance of attachment in marriages without children is of great importance. Finally, the results of this study may have significant implications for other loss experiences, including bereavement and other forced separations.

In summary, this study is only a first step in the study of attachment in adult life. Further research is needed to clarify the scope of attachment, its applicability across different populations at different periods in the life cycle, and the theoretical underpinnings that support it.

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