

---

# Marital Quality, Forgiveness, Empathy, and Rumination: A Longitudinal Analysis

F. Giorgia Paleari

Camillo Regalia

Catholic University of Milan, Italy

Frank Fincham

Florida State University

---

*McCullough, Rachal, et al.'s (1998) social-psychological framework of forgiveness informed a longitudinal study that examined the extent to which marital forgiveness is determined by social-cognitive (the offended spouse's rumination and emotional empathy) and relationship variables (the quality of the relationship in which the offense took place). In the study, 119 husbands and 124 wives from long- and medium-term marriages in north Italy provided data at two time points separated by a 6-month interval. Structural equation models showed that rumination and empathy independently predicted concurrent marital forgiveness. Forgiveness in turn predicted concurrent marital quality. Finally, reciprocal directions of effect emerged between forgiveness and marital quality over time. These results are discussed in terms of their implications for promoting forgiveness, and future research directions are outlined.*

---

**Keywords:** *forgiveness; marital quality; longitudinal analysis; marriage*

## INTRODUCTION

Interpersonal forgiveness and its correlates have recently received considerable attention in social science research that has shown that forgiveness is related to personality, relational, and sociocognitive variables. People tend to be more forgiving to the extent that they are highly agreeable and lack neurotic and narcissistic tendencies (e.g., Ashton, Paunonen, Helmes, & Jackson, 1998; Berry, Worthington, Parrott, O'Connor, & Wade, 2001; Brown, 2003; Davidson, 1993; McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough & Hoyt, 2002); when the offense occurred within a close, committed, and satisfactory relationship (e.g., Finkel, Rusbult, Kumashiro, & Hannon, 2002; McCullough,

Rachal, et al., 1998); and when the victim empathizes with the offender (e.g., McCullough, Rachal, et al., 1998; McCullough, Worthington, & Rachal, 1997; Ohbuchi & Takada, 2001; Takaku, 2001), does not attribute responsibility and blame to him or her (e.g., Bradfield & Aquino, 1999; Fincham, 2000; Zeichmeister & Romero, 2002), and avoids ruminating about the offense (e.g., Berry et al., 2001; McCullough et al., 2001). Forgiveness is also facilitated by mitigating accounts and apologies by the transgressor (e.g., McCullough et al., 1997; McCullough, Rachal, et al., 1998; Ohbuchi & Takada, 2001; Weiner, Graham, Peter, & Zmuidinas, 1991). The occurrence of forgiveness helps to restore relational closeness and positive interactions following an interpersonal transgression (e.g., Fincham, 2000; McCullough, Rachal, et al., 1998). These data are consistent with clinical observation regarding the salutary effects of forgiveness (DiBlasio & Proctor, 1993). Couple therapists speculate that forgiveness helps to rebuild relationships by assisting the victim to let go of bitterness and anger and regain a realistic view of the partner (Gordon, Baucom, & Snyder, 2000).

## *Forgiveness in Marital Research*

Although studies of forgiveness have recently mushroomed (for a bibliography, see McCullough, Exline, & Baumeister, 1998), little is known about forgiveness in

---

**Authors' Note:** Correspondence concerning this article should be addressed to F. Giorgia Paleari, Department of Psychology, Catholic University of Milan, Largo Gemelli 1, 21023 Milano, Italy (e-mail: francesca.paleari@unicatt.it).

*PSPB*, Vol. 31 No. 3, March 2005 368-378

DOI: 10.1177/0146167204271597

© 2005 by the Society for Personality and Social Psychology, Inc.

families (but see Fenell, 1993; Gordon & Baucom, 2003; Paleari, Regalia, & Fincham, 2003). Some studies have examined forgiveness within romantic relationships (e.g., Boon & Sulsky, 1997) and in distressed relationships (e.g., Coyle & Enright, 1997; Dobash & Dobash, 1984; Mazor, Batiste-Harel, & Gampel, 1998), but few have investigated forgiveness and its correlates within married, community couples (see Fincham, 2000; Fincham & Beach, 2002; Fincham, Beach, & Davila, 2004; Fincham, Paleari, & Regalia, 2002; Gordon & Baucom, 2003; for a review, see Fincham, Hall, & Beach, in press). This is a serious lacuna in light of the fact that spouses themselves acknowledge that the capacity to seek and grant forgiveness is one of the most important factors contributing to marital longevity and satisfaction (Fenell, 1993).

In providing preliminary support for their three-stage model of forgiveness of partner infidelity, Gordon and Baucom (1998) showed that spouses who forgive an offending partner have the most adaptive marital functioning; the more spouses forgive, the more they make positive marital assumptions, feel equal balance of power in their marriages, and have close and well-adjusted marital relations in which they feel invested. Similarly, Fincham's studies (Fincham, 2000; Fincham & Beach, 2002; Fincham et al., 2002, 2004) suggest that forgiveness has a positive impact on marriage; forgiveness predicts less ineffective arguing in the relationship as well as less psychological aggression and more constructive communication. These studies also demonstrated that marital forgiveness is facilitated by sociocognitive and relational variables. Specifically, marital forgiveness was related directly to victim's emotional empathy and attributions and indirectly to the quality of the marriage; higher marital quality was predictive of more benign attributions that in turn facilitated forgiveness both directly and indirectly via affective reaction and emotional empathy.

In combination, the aforementioned results offer support for McCullough, Rachal, et al.'s (1998) framework of forgiveness. According to this framework, social-cognitive variables related to the way the victim thinks and feels about the offender and the offense (e.g., attributions, ruminative thoughts, empathic emotions) are the most proximal determinants of forgiving. Compared with social-cognitive variables, features of the transgression, such as the perceived severity of the offense and the extent to which the offender apologizes and seeks forgiveness for the offense, are viewed as less proximal determinants of forgiveness and thus shape forgiveness, at least indirectly, via social-cognitive variables. Even more distal than the social-cognitive and transgression-related determinants of forgiveness are qualities of the relationship in which the offense takes place, such as

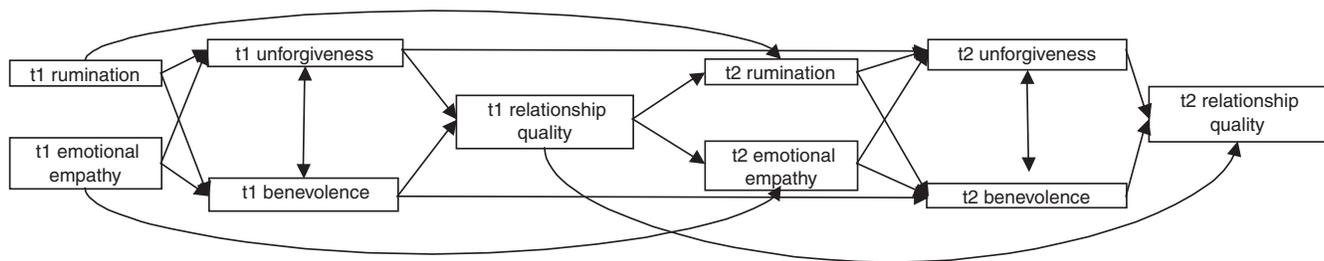
level of intimacy, closeness, satisfaction, and commitment. Consistent with the framework, the studies cited earlier show that relational variables are related to forgiveness indirectly through the sociocognitive variables and that forgiveness has positive relational consequences.

Although promising, emerging marital forgiveness research, like virtually all extant research on forgiveness (for an exception, see McCullough, Fincham, & Tsang, 2003), is limited by its reliance on cross-sectional data. Studies that assess forgiveness on more than one occasion are needed to examine the direction of effects between forgiveness and its correlates. As causes generally precede effects, introducing a temporal dimension into marital forgiveness research allows causal inferences among the variables to be made with greater confidence. In the absence of such research, it is difficult to draw conclusions about the possible direction of effects among the variables. As a result, there is widespread acknowledgement of the need for longitudinal research (e.g., Fincham & Beach, 2002; Fincham et al., 2002; Gordon & Baucom, 2003). The present study is therefore the first to provide data on whether the documented concurrent relationship between forgiveness and marital quality is found longitudinally and if so, to document the role that social-cognitive variables play in this relationship.

#### *Overview of the Present Study*

In the present study, we examined the concurrent and longitudinal relationships among relevant sociocognitive variables (emotional empathy and rumination), relational variables (marital quality), and forgiveness. Empathy is widely recognized as a major proximal determinant of forgiveness in general (McCullough et al., 1997; McCullough, Rachal, et al., 1998) and in marital relationships in particular (Fincham et al., 2002). Also, rumination has been found to have unique importance for predicting forgiving within close relationships (McCullough, Rachal, et al., 1998). Yet, no study has investigated rumination and forgiveness in marriage, and hence the present study is the first to document the role of rumination in marital forgiveness.

As for relationship factors, McCullough, Rachal, et al.'s (1998) framework posited that qualities of the interpersonal relationship in which the offense occurred affect forgiveness, and as previously noted, forgiveness in turn may have positive consequences on the relationship in which it occurs. To date however, no study has examined the potential reciprocal relationship between marital quality and forgiveness within marriage. Focusing on a college student sample, only McCullough, Rachal, et al. has analyzed forgiveness in relation both to preoffense and postoffense closeness. But as the authors



**Figure 1** Hypothesized model of concurrent and longitudinal relations among rumination, emotional empathy, unforgiveness, benevolence, and marital quality.

pointed out, the retrospective nature of the preoffense closeness data was a limitation of the study. The present study is therefore the first to assess marital quality both before and after the offense has occurred and thereby fill an important gap in the emerging literature on marital forgiveness.

Finally, the study additionally contributes to the emerging marital forgiveness literature in that it offers a more detailed analysis of forgiveness by conceptualizing this core construct as bidimensional, consisting of a positive and a negative dimension, and by testing the adequacy of this conceptualization. As Fincham et al. (2004) noted, prior research is limited by unidimensional conceptualizations of forgiveness; forgiveness is typically defined as overcoming negative impulses (anger, resentment, revenge, and avoidance tendencies) toward the offender. In considering only the reduction of negative motivations however, these conceptualizations disregard a core feature of the construct: the presence of a positive and benevolent attitude. Fundamental to forgiveness is “an attitude of real goodwill towards the offender as a person” (Holmgren, 1993, p. 342). Consequently, we assumed that at least two dimensions underlie forgiveness. The negative dimension is labeled *unforgiveness* and refers to interpersonal vengeance or avoidance; the positive dimension, labeled *benevolence*, refers to a positive attitude toward the offender that provides a foundation for maintaining or even enhancing the relationship. Initial empirical evidence shows that these two dimensions of forgiveness have different determinants, correlates, and consequences (Fincham & Beach, 2002; Fincham et al., 2004).

### Hypotheses

Consistent with McCullough, Rachal, et al.’s (1998) model and previous marital research, we hypothesized that the associations among the variables investigated (marital quality, rumination, emotional empathy, un-

forgiveness, and benevolence) could be conceptualized in the manner shown in Figure 1.

First, at the cross-sectional level we assumed that empathy and rumination directly affect benevolence and unforgiveness, which in turn have a direct impact on marital quality. According to McCullough, Rachal, et al.’s (1998) study, empathy and rumination are uncorrelated and have unique effects on forgiveness. A number of studies show that higher levels of empathy and time spent empathizing with the transgressor are related to interpersonal forgiveness (e.g., Fincham et al., 2002; Macaskill, Maltby, & Day, 2002; McCullough et al., 1997; Ohbuchi & Takada, 2001; Worthington et al., 2000). In a similar vein, several studies also found that in college students greater rumination about the offense is linked to vengefulness (McCullough et al., 2001) and unforgiveness, defined as the disposition to seek revenge and not to forgive interpersonal offenses over time and across situations (Berry et al., 2001). We therefore assumed that spouses experiencing emotional empathy toward the offending partner and who do not ruminate about the offense will be both more benevolent and less unforgiving. Based on prior marital research (Fincham, 2000; Fincham & Beach, 2002; Fincham et al., 2004; Gordon & Baucom, 2003), we also hypothesized that greater benevolence and lower unforgiveness will be related to higher marital quality.

Second, we hypothesized that Time 1 (T1) relational quality is not only predicted by T1 benevolence and unforgiveness but also predicts Time 2 (T2) rumination and empathy. In fact, there is some empirical evidence that partners involved in a close and satisfactory relationship are more likely to experience empathy toward the offending partner (Carstensen, Gottman, & Levenson, 1995; Levenson, Carstensen, & Gottman, 1994; McCullough, Rachal, et al., 1998). Moreover, empathy has been shown to mediate the link between

relationship quality and forgiveness (Fincham et al., 2002; McCullough, Rachal, et al., 1998). Based on these results, we assumed that maritally satisfied partners over time are more indulgent and less unforgiving, through the feelings of empathy that are enhanced by higher relationship quality. As far as rumination is concerned, the only available study (McCullough, Rachal, et al., 1998) shows that closeness between partners increases rumination, albeit weakly. Contrary to these findings, our assumption was that marital quality has a protective effect against rumination. That is, we supposed that the more spouses are satisfied with the marriage, the less they see the offensive event as a danger or a threat to the well-being of the relationship; consequently, they are less likely to ruminate about it. By assuming that T1 relational quality predicts T2 rumination and empathy, we were also able to show that the relationship between forgiveness dimensions and postoffense marital quality is not an artifact of preoffense marital quality. In effect, it may be that more forgiving spouses are more satisfied with their marriage simply because they were more satisfied previously, before the offending event took place. Besides, the assumption permits us to test the indirect longitudinal effect of T1 forgiving dimensions on T2 marital quality. Finally, we hypothesized that each variable considered is stable over time by introducing stability links between their measurement at T1 and at T2.

The aforementioned hypothesized model was examined in relation to two alternative models: The first specified that unforgiveness and benevolence predicted rumination and empathy that in turn influenced marital quality, whereas the second specified that marital quality led to rumination and empathy that in turn predicted unforgiveness and benevolence. We predicted that the hypothesized model would be more consistent with the data than either of the alternative models.

## METHOD

### *Participants*

As a part of a larger longitudinal study, 198 married couples were recruited from north Italy. At the time of initial data collection, participants had been married an average of 18.8 years (range = 6 to 35) and had 2 children (range = 1 to 4). Husbands averaged 46.2 years of age ( $SD = 6.7$ ), generally had some high school education (47.9% of them qualified and 28.6% graduated), and reported an average net family income of 30,000 to 36,000 Euro. Wives averaged 43.8 years of age ( $SD = 6.2$ ), generally had some high school education too (47.2% of them qualified and 22.8% graduated), and reported an average net family income equal to that of husbands.

Couples participated in the study at two time points separated by a 6-month interval. Paired *t* tests indicated that spouses who provided data for both phases of the study (119 husbands and 124 wives) did not differ from those who provided data for the first phase only in terms of demographics or any of the variables investigated.

### *Procedure*

At both waves of the data collection, couples received two sets of materials together with separate return envelopes and a cover letter that instructed them what to do and thanked them for their participation. They were asked to complete the materials independently and to return them in separate envelopes before talking about the study.

### *Materials*

At each time point, each spouse completed an offense-related questionnaire and a marital quality questionnaire.

*Offense-related questionnaire.* This booklet instructed respondents to think of the most serious offense by their spouse during the last 6 months. They indicated the length of time since the offense, its seriousness, and how hurtful it was to them using a 7-point Likert scale (1 = *not serious at all*, 7 = *very serious*; 1 = *not hurtful at all*, 7 = *very hurtful*). Participants' offense-related rumination, emotional empathy, and forgiveness were also assessed.

*Rumination.* To measure rumination about intrusive thoughts, affects, and imagery related to the offense, spouses completed the seven-item subscale from the Impact of Event Scale (e.g., "I thought about it when I didn't mean to," "I had troubles falling asleep or staying asleep, because of pictures or thoughts about it came into my mind") (Horowitz, Wilner, & Alvarez, 1979). In the present study, the last item, "I had dreams about it," yielded a very strongly skewed distribution for both spouses and consequently was not considered. With this item omitted, coefficient alphas ranged from .86 to .87 in both husbands and wives.

*Emotional empathy.* Emotional empathy was measured using a three-item scale previously employed in the study of forgiveness in families (see Fincham et al., 2002; Paleari et al., 2003) in which participants rated on a 7-point scale the extent to which they felt each of three emotions (sympathetic, tolerant, indulgent) toward the offending spouse. Coefficient alphas were .87 (T1) and .75 (T2) for husbands and .80 (T1) and .84 (T2) for wives.

*Forgiveness.* The measure of forgiveness used was derived from an initial item pool of 27 statements designed to (a) reflect both positive and negative (revenge

and avoidance) dimensions of marital forgiveness (Fincham, 2000; McCullough, Pargament, & Thoresen, 2000); (b) capture the offended person's motivations (McCullough, Rachal, et al., 1998) as well as his or her thoughts, feelings, and behaviors (Enright, Freedman, & Rique, 1998); and (c) avoid overlap with related but distinct constructs (e.g., blame attributions, apology, empathy). Three pilot studies involving 764 married participants were used to progressively reduce and redefine the pool of items. In selecting items, we followed three statistical criteria suggested by Ercolani and Perugini (1996), namely, (a) each item mean must score between  $M_T$  plus or minus  $1.5 \times SD_T$  (where  $M_T$  and  $SD_T$  are theoretical item mean and theoretical item standard deviation, respectively); (b) each item standard deviation must score between 1 and 2; and (c) each item must score between 1 and -1. This yielded a final pool of 12 items.

Principal-component factor analyses with oblique rotation were conducted on husbands' and wives' first-wave data to reduce the items to a smaller set of underlying components. For both spouses, two factors with eigenvalues > 1 emerged that explained more than 54% of the total item variance. Examination of communalities led to the removal of one item from both subscales. We retained 4 positive items (reflecting a benevolence dimension) and 6 negative items (reflecting unforgiveness). Forgiveness was therefore assessed using 10 statements (e.g., "I make my spouse feel guilty for what happened"; "Because of what happened, I find it difficult to act warmly toward her/him"; "Since my spouse behaved that way, I have done my best to resume our relationship") rated on a 6-point Likert-type scale (1 = *strongly disagree*, 6 = *strongly agree*). The two subscales correlated moderately (husbands'  $r = -.37$ , wives'  $r = -.41$ ).

We examined the validity of this two-factor solution using husbands' and wives' responses from the second wave of data collection. First, we first cross-validated the two-factor model obtained from T1 data using EQS Version 5 (Bentler, 1995); the chi-square value was quite high (husbands:  $\chi^2[34] = 64.86$ ,  $p = .001$ ; wives:  $\chi^2[34] = 50.87$ ,  $p = .031$ ), but the Non-Normed Fit Index (NNFI) and Comparative Fit Index (CFI) were also quite high (husbands: NNFI = 0.933, CFI = 0.949; wives: NNFI = 0.972, CFI = 0.949), indicating that the two-factor model fit the data well. The two factors were correlated at  $r = -.54$  and  $-.68$  for husbands and wives, respectively. Second, we tested two alternative measurement models.

To examine whether a single latent variable model was more likely to account for the observed covariance among the 10 items, it was compared to the two-factor model using a model comparison procedure introduced by Bollen (1980). By comparing the hypothesized two-factor model to a model where the association between

the two dimensions of forgiveness is constrained to be one (thereby positing a single factor), two- and one-factor models can be compared by interpreting the change in chi-square (per change in  $df$ ) as a chi-square statistic. When the association between benevolence and unforgiveness dimensions was constrained to unity, there was a poor fit to the data (husbands:  $\chi^2[35] = 219.19$ ,  $p < .001$ ; NNFI = 0.609; CFI = 0.696; wives:  $\chi^2[35] = 229.82$ ,  $p < .001$ ; NNFI = 0.588; CFI = 0.680) and a significant change in chi-square for both husbands and wives (husbands:  $\Delta\chi^2[1] = 154.33$ ,  $p < .001$ ; wives:  $\Delta\chi^2[1] = 179.05$ ,  $p < .001$ ). Accordingly, the two-factor solution is to be preferred to a single-factor solution.

Second we examined whether two independent latent variables produced the covariance among the 10 items, but it also provided a poor fit (husbands:  $\chi^2[35] = 96.04$ ,  $p < .001$ ; NNFI = 0.870; CFI = 0.899; wives:  $\chi^2[35] = 104.23$ ,  $p < .001$ ; NNFI = 0.854; CFI = 0.886) and compared to our original correlated two-factor model, resulted in a significant change in chi-square for both husbands and wives (husbands:  $\Delta\chi^2[1] = 32.18$ ,  $p < .001$ ; wives:  $\Delta\chi^2[1] = 53.46$ ,  $p < .001$ ). Thus, a model comprising two correlated latent variables of benevolence and unforgiveness appeared most appropriate. Coefficient alphas, estimated separately for each subscale, were adequate; Benevolence dimension: .76 (T1) and .77 (T2) for the husbands and .73 (T1) and .85 (T2) for the wives; Unforgiveness dimension: .82 (T1) and .89 (T2) for the husbands and .81 (T1) and .85 (T2) for the wives.

*Marital quality questionnaire.* Marital quality was measured using the Quality of Marriage Index (QMI; Norton, 1983). This six-item inventory assesses marital quality using broadly worded, global items (e.g., "We have a good marriage"): The respondents show the degree of agreement with each of five items on a 7-point Likert-type scale (1 = *very strong disagreement*, 7 = *very strong agreement*) and with one item on a 10-point Likert-type scale (1 = *very strong disagreement*, 10 = *very strong agreement*). Because the data were positively skewed, the following transformation recommended by Norton (1983) was used:  $QMI^* = .001(\sum z_i + v)^3$  where  $QMI^*$  = transformed QMI,  $z_i$  = standardized score, and  $v$  = variance across intervals obtained by stratifying the distribution of the QMI into 5% intervals. In the present study, the QMI had high internal consistency (alpha coefficients: .95 for the husbands and .96 for the wives both in T1 and T2).

## RESULTS

### *Descriptive Statistics and Correlations*

The offenses had occurred an average of 2.64 ( $SD = 1.67$ ) and 2.39 ( $SD = 1.76$ ) months prior to the first data collection and an average of 1.97 ( $SD = 1.35$ ) and 1.79

TABLE 1: Means, Standard Deviations, and Correlations for All the Variables Included in the Model

	1	2	3	4	5	6	7	8	9	10	M	SD
1. Rumination T1	—	-.07	.50***	-.36***	-.31***	.50***	-.12	.29**	-.30**	-.25**	1.72	0.67
2. Empathy T1	-.17	—	-.30**	.35***	.16	-.10	.36***	-.20*	.29**	.18*	3.61	1.50
3. Unforgiveness T1	.50***	-.31**	—	-.46***	-.46***	.25**	-.24**	.43***	-.43***	-.38***	2.27	1.06
4. Benevolence T1	-.33***	.46***	-.46***	—	.57***	-.32***	.24**	-.38***	.52***	.51***	4.20	1.09
5. Marital quality T1	-.15	.22*	-.25**	.31**	—	-.32***	.18*	-.45***	.45***	.78***	41.47	17.24
6. Rumination T2	.51***	-.11	.37***	-.19*	-.24**	—	-.17	.57***	-.39***	-.49***	1.77	0.67
7. Empathy T2	-.07	.36***	-.18*	.24**	.15	-.22*	—	-.34***	.37***	.23**	3.58	1.49
8. Unforgiveness T2	.26**	-.19	.41***	-.18*	-.12	.45***	-.42***	—	-.63***	-.61***	2.39	1.09
9. Benevolence T2	-.14	.22*	-.38***	.39***	.29***	-.40***	.43***	-.49***	—	.49***	4.10	1.17
10. Marital quality T2	-.20*	.23*	-.24**	.34***	.61***	-.42***	.36***	-.42***	.52***	—	41.04	16.55
M	1.55	4.10	1.97	4.57	40.61	1.68	4.13	2.17	4.29	40.33		
SD	0.60	1.51	0.99	1.04	15.51	0.65	1.33	1.14	1.05	16.58		

NOTE: Data for husbands ( $n = 119$ ) appear below the diagonal; data for wives ( $n = 124$ ) appear above the diagonal. T1 = Time 1; T2 = Time 2. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

( $SD = 1.45$ ) months prior to the second data collection, for husbands and wives, respectively. For husbands, the mean degree of hurt caused by the offense was 4.00 ( $SD = 1.55$ ) at T1 and 3.85 ( $SD = 1.35$ ) at T2; for wives, it was 4.32 ( $SD = 1.69$ ) at T1 and 4.16 ( $SD = 1.51$ ) at T2. The mean offense seriousness was 3.35 ( $SD = 1.65$ ) at T1 and 3.49 ( $SD = 1.41$ ) at T2 for husbands and 3.77 ( $SD = 1.64$ ) at T1 and 3.66 ( $SD = 1.60$ ) at T2 for wives. These scores suggest that both husbands and wives remembered substantial and painful offenses in the two phases.

Concurrent and longitudinal correlations among the variables appear in Table 1 with their means and standard deviations. Replicating past research, most of the variables investigated correlated with each other in the expected manner. However, two inconsistencies emerged: For husbands, rumination and marital quality were moderately correlated at T2 ( $r = -.42$ ) but not at T1; for wives, emotional empathy and marital quality were weakly associated at T2 ( $r = .23$ ) but not at T1. Contrary to predictions, marital quality was longitudinally correlated to rumination (husbands'  $r = -.24$ ; wives'  $r = -.32$ ) but not to emotional empathy (husbands'  $r = .15$ ; wives'  $r = .18$ ). Stability estimates ranged from  $r = .36/.36$  for empathy to  $r = .61/.78$  for marital quality with forgiveness estimates falling between these two extremes ( $r$ s range =  $.39$  to  $.52$ ). The remaining longitudinal associations appeared to be generally stronger for wives ( $r$ s range =  $/.18/$  to  $/.51/$ ) than for husbands ( $r$ s range =  $/.12/$  to  $/.38/$ ).

*Modeling Strategy*

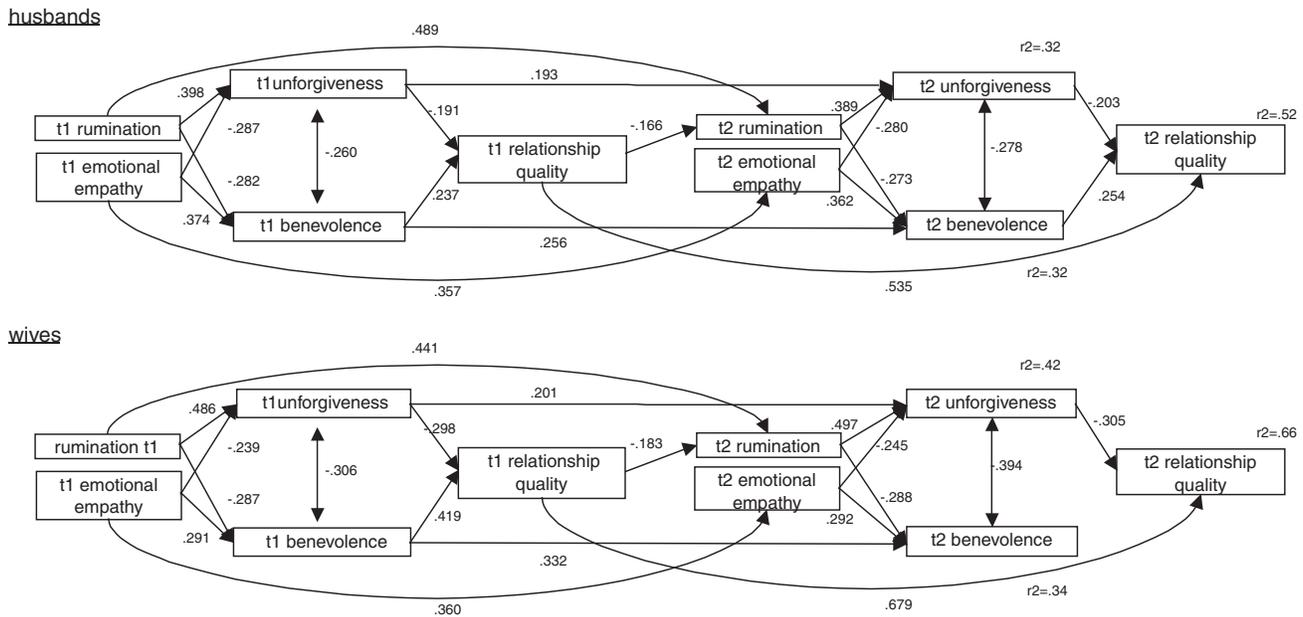
To test whether the relations among rumination, empathy, unforgiveness, benevolence, and marital quality were consistent with the model described in Figure 1, we examined a series of structural equation models using EQS version 5 (Bentler, 1995).

We first estimated the hypothesized model and progressively improved it by examining Wald and Lagrange

statistics. The Wald test assesses whether sets of parameters specified as free in the model could in fact be simultaneously set to zero without significant loss in model fit. Conversely, the Lagrange Multiplier test assesses whether the addition of certain paths or parameters not present in the model would result in a significant increase in model fit (Bentler, 1986).

We also tested two competing models in which the causal paths among concurrent measures of variables were reversed. Specifically, the first alternative model specified that unforgiveness and benevolence predicted rumination and empathy, which in turn influenced marital quality (T1 unforgiveness and T1 benevolence  $\rightarrow$  T1 rumination and T1 empathy  $\rightarrow$  T1 marital quality  $\rightarrow$  T2 unforgiveness and T2 benevolence  $\rightarrow \dots$ ). The second alternative model specified that marital quality led to rumination and empathy, which in turn predicted unforgiveness and benevolence (T1 marital quality  $\rightarrow$  T1 rumination and T1 empathy  $\rightarrow$  T1 unforgiveness and T1 benevolence  $\rightarrow$  T2 marital quality  $\dots$ ). The appropriateness of the alternative models was compared with that of the hypothesized one by evaluating the Akaike Information Criteria (AIC; Akaike, 1973) for the various solutions: The model with the lowest AIC is preferable.

All models were estimated separately for husbands and wives because the low ratio of parameters estimated to participants did not permit computation of a single model with causal paths linking husbands' and wives' variables. Also, dependency between husband and wife data did not allow the use of a multiple groups approach to statistically test for differences between husbands' and wives' models. To obtain paths comparable across the two time points, the regression coefficients from the predictor variables to the outcome variable were constrained to be time-invariant (Bijleveld & van der Kamp, 1998). The plausibility of these equality constraints was examined by the Lagrange Multiplier test.



**Figure 2** Path analyses of obtained relations among rumination, emotional empathy, unforgiveness, benevolence, and marital quality. NOTE: All coefficients are significant beyond the  $p < .05$  level.

*Structural Relations*

The hypothesized model provided a good fit to the husbands' data,  $\chi^2(31) = 41.145, p = .105$ ; NNFI = 0.959; CFI = 0.972; root mean square error of approximation (RMSEA) = 0.053 (0.000, 0.092); AIC = -20.86; and a nearly acceptable fit to the wives' ones,  $\chi^2(31) = 59.501, p = .001$ ; NNFI = 0.917; CFI = 0.943; RMSEA = 0.157 (0.052, 0.119); AIC = -2.50. No more paths should be added and no equality constraints should be released according to Lagrange Multiplier test. Yet the Wald test suggested removal of the path from T1 marital quality to T2 emotional empathy in both husbands and wives and the path from T2 benevolence to T2 marital quality in wives only. When these paths were removed, the model fit was equally good for husbands,  $\chi^2(32) = 41.928, p = .112$ ; NNFI = 0.961; CFI = 0.972; RMSEA = 0.052 (0.000, 0.090); AIC = -22.07; and increased significantly for wives,  $\chi^2(32) = 41.588, p = .119$ ; NNFI = 0.973; CFI = 0.981; RMSEA = 0.050 (0.000, 0.080); AIC = -22.41. The final models, in which the paths were removed, accounted for a good amount of variance in unforgiveness, benevolence, and marital quality at T2, although it was somewhat higher for wives ( $R^2 = .42, .34, .66$ , respectively) than for husbands ( $R^2 = .32, .32, .52$ ). Parameter estimates for the final models are presented in Figure 2.

Consistent with our hypotheses, rumination and empathy independently predicted concurrent unforgive-

ness and benevolence; unforgiveness and benevolence in turn concurrently affected marital quality. Both at T1 and T2, the rumination → unforgiveness → marital quality path appeared to be stronger for wives than for husbands, whereas the empathy → benevolence sequence seemed to be stronger for husbands than for wives. Contrary to our predictions, marital quality was only weakly related to later rumination and was unrelated to later empathy. As assumed however, a reciprocal, indirect relation was obtained between forgiveness and marital quality. Marital quality at T1 was related to T2 unforgiveness and benevolence indirectly via T2 rumination (significant indirect effects:  $\beta = -.06, .04$  and  $-.09, .05$  for husbands and wives, respectively); conversely, unforgiveness and benevolence at T1 was related to T2 marital quality indirectly through the mediation of T1 marital quality, T2 unforgiveness, benevolence, and rumination (significant indirect effects:  $\beta = -.15, .20$  and  $-.27, .30$  for husbands and wives, respectively). The longitudinal path from unforgiveness and benevolence to marital quality appeared stronger than the reverse, probably because marital quality and to a lesser degree unforgiveness and benevolence were somewhat time invariant. Actually, each of the investigated variables was somewhat stable over time. Even though rumination, empathy, unforgiveness, and benevolence had been assessed in relation to different offenses, moderate to high stability estimates were found for rumination, empathy, and marital

quality ( $\beta$  range = .36 to .68). In contrast, unforgiveness and benevolence had quite low stability estimates ( $\beta$  range = .19 to .33).

Finally, compared to the alternative models previously described, in which the causal paths among the concurrent variables were reversed, both the hypothesized and final model provided a better fitting description of the structural relations among the variables investigated; first alternative model:  $\chi^2(31) = 51.043$ ,  $p = .013$ ; NNFI = 0.873; CFI = 0.944; RMSEA = 0.075 (0.034, 0.109); AIC = -10.96 for husbands; for wives the model did not converge; second alternative model:  $\chi^2(31) = 85.497$ ,  $p < .001$ ; NNFI = 0.788; CFI = 0.848; RMSEA = 0.122 (0.091, 0.152); AIC = 23.50 for husbands and  $\chi^2(31) = 124.622$ ,  $p < .001$ ; NNFI = 0.770; CFI = 0.812; RMSEA = 0.157 (0.128, 0.185); AIC = 62.62 for wives.

## DISCUSSION

Drawing on McCullough, Rachal, et al.'s (1998) social-psychological framework of forgiveness, the present study investigated the concurrent and longitudinal links among emotional empathy, rumination, relationship quality, and forgiveness within long- and medium-term marriages.

Consistent with prior studies (e.g., Fincham et al., 2002; Gordon & Baucom, 2003; McCullough et al., 1997, 2001), our findings indicate that rumination and emotional empathy are uniquely related to concurrent forgiveness, which in turn appears to affect concurrent marital quality. Spouses who experience high degrees of emotional empathy toward the offending partner and low degrees of rumination regarding the offense are significantly more benevolent and less unforgiving toward the partner. They are also more satisfied with their marital relationship, possibly because of the effects from benevolent and unforgiving motivations to marital quality. Although differences between husbands' and wives' models were not tested for statistical significance, the magnitude of the paths linking social-cognitive variables to concurrent forgiveness and marital quality suggests that at this level, some gender differences may exist. Specifically, ruminative thoughts and feelings seem to foster unforgiveness more strongly among wives than among husbands; conversely, the path relating emphatic feelings to concurrent benevolence appeared stronger for husbands than wives. These findings are consistent with previous results showing that emotional empathy is a better predictor of forgiveness in husbands than in wives, whereas cognitive factors, such as attributions for the marital offense, are more predictive of forgiveness in wives than in husbands (Fincham et al., 2002). The greater apparent importance of wives' attributions for marital forgiveness may also account for the analogous

role that ruminative thoughts and feelings play in unforgiveness. In fact, some evidence exists to show that victims making unfavorable attributions toward the offender are more likely to ruminate on the offense and via rumination, to long for revenge (Atlas & Peterson, 1990; Collins & Clark, 1989).

To augment cross-sectional and experimental findings in the field, forgiveness researchers have repeatedly called for longitudinal research (e.g. Gordon & Baucom, 2003; McCullough, Rachal, et al., 1998), and hence the present study fills an important gap in the literature. However, as McCullough et al. (2003) pointed out, the temporal dimension of forgiveness has been largely neglected. By assessing offense-related forgiveness, rumination, emotional empathy, and marital quality at two points separated by 6 months, the present study begins to provide relevant information for examining possible bidirectional effects between forgiveness and marital quality. Our results are consistent with the idea in the literature concerning the positive influence of forgiveness on marital quality (Fincham & Beach, 2002; Fincham et al., 2004; Gordon & Baucom, 2003). However, our data showed that the relationship was indirect. Spouses who are more benevolent and less unforgiving toward the partner are significantly more satisfied with the marital relationship 6 months later, above and beyond their earlier marital satisfaction, because of the relationship between forgiveness measures over time and the concurrent relationship between forgiveness and marital quality. Forgiveness also had quite large indirect effects on marital quality over time because of its influence on concurrent marital quality, which in turn was related to later forgiveness via rumination. These findings are consistent with our prediction that marital quality is related to subsequent rumination: Spouses in initially satisfied marriages later manifest fewer ruminative thoughts and feelings about the offense.

Conversely, marital quality did not show a significant direct relationship with subsequent emotional empathy. The failure to find such a relationship for emotional empathy does not appear to replicate prior findings (Carstensen et al., 1995; Levenson et al., 1994; McCullough, Rachal, et al., 1998) that indicate a positive marital experience may foster an emotional identification with the offending partner. However, prior research did not investigate the marital quality-empathy link over time. Thus, empathic reactions to an offense might be elicited by distal variables (i.e., marital quality) concurrently, but more proximal determinants (i.e., the degree of apology by the offender, the severity or hurtfulness of the offense) might prevail over time. In considering the role of marital quality in forgiveness over time, the data are consistent with a significant but weak effect through rumination: Independently of their earlier level of for-

giveness, it appears that spouses who are more satisfied with their marriage are more benevolent and less unforgiving toward the partner 6 months later because they ruminate less about the offense. This finding confirms longitudinally the results of cross-sectional studies (Fincham et al., 2002; McCullough, Rachal, et al., 1998) that demonstrated an indirect path from marital quality to forgiveness via sociocognitive variables.

It is interesting to note however that the indirect path from earlier forgiveness to later satisfaction appears to be stronger than the reverse longitudinal path. Together with the results discussed earlier, this finding supports indirectly the attention recently given to sociocognitive strategies as a mechanism to promote forgiveness in marital therapy interventions (e.g., Al-Mabuk, Dedrick, & Vanderah, 1998; Gordon et al., 2000; Worthington, 1998). In fact, our data show that the quality of marriage is quite sensitive to marital forgiveness, which in turn had stronger links to concurrent sociocognitive processes (emotional empathy and rumination) than marital quality prior to the offense.

Another important finding emerging from our longitudinal analysis concerns the relatively weak stability effects we obtained for forgiveness dimensions in both husbands and wives. Although the conclusions based on a two-wave longitudinal design must be viewed cautiously, it can be argued that a general tendency or disposition to forgive the relationship partner across different events in time may not be as likely as is sometimes thought. Rather than being moved by a general forgiving propensity that transcends the specific offense suffered, married couples seem to take the specificity of an offense into account before displaying a forgiving or unforgiving response to it. A variety of measures assessing a general disposition to forgive (usually hypothetical or generalized) others have been developed and used in recent years (e.g., Berry et al., 2001; Brown, 2003; Hargrave & Sells, 1997). Our results suggest that conceptualizing forgiveness as a stable trait that does not vary across multiple offenses might not adequately reflect the way forgiveness actually unfolds in specific domains, such as marriage. Our findings are consistent with those of McCullough and Hoyt (2002), who showed that person variance in single-incident estimates of forgiveness was low, a consideration that may account for our relatively low stability coefficients. In any event, future research is needed to determine the extent to which dispositional measures of forgiveness are correlated with transgression-related ones to help disentangle the effects on forgiving processes attributable to a trait-like disposition from those determined by specific features of the offense.

The apparent specificity of our assessment of forgiveness also most likely constrains its relationship with marital satisfaction. The history of research on attitude-behavior relationships alerts us to the need to ensure that constructs are assessed at the same level of specificity when examining the association between them (Eagly & Chaiken, 1998). The present study may underestimate the relationship between forgiveness and marital satisfaction because there is a mismatch in the level of specificity with which each is assessed. The cross-situationally consistent and temporally stable marital satisfaction assessed in this study would most likely relate more strongly to a cross-situationally consistent and temporally stable assessment of forgiveness. Conversely, a situationally specific marital satisfaction might do a better job of relating to the situationally specific forgiveness that appears to have been assessed in this study.

Caution is also necessary when interpreting these results for at least two other reasons. First, the model tested considers only emotional empathy and rumination as sociocognitive determinants of forgiveness despite the existence of other variables that are likely to influence it. For example, responsibility attributions have been found to be crucial in predicting marital forgiveness in cross-sectional research (Fincham, 2000; Fincham et al., 2002), and the longitudinal influence of attributions on the development of the marriage is widely recognized (Fincham, Harold, & Gano-Phillips, 2000; Karney & Bradbury, 2000). Thus, it might be interesting to verify whether the lasting effect of responsibility attributions on the marriage could be extended to the forgiving process as well.

Second and perhaps most important, our data share a shortcoming of much of the forgiveness literature in that it is based on the self-report of a single person. Accordingly, it is possible that some relationships observed are due to shared-method variance. Future research might make use of partner (transgressor) reports of the spouse's forgiveness as well as third parties' reports or behavioral measures. Research on forgiving also needs to examine whether marital forgiveness impacts subsequent interactions. One of the challenges for future research on marital forgiving then will be to explore the links between self-report assessments of marital functioning, forgiving, and observable behaviors.

Notwithstanding these concerns, our study helps advance understanding of marital forgiveness and its correlates in several ways. Besides confirming previous cross-sectional results, linking marital forgiveness to relational and sociocognitive variables, it is among the first to consider the stability of forgiveness across different events within marriage and the potential reciprocal causal

influence between forgiveness and marital quality over time. However, the data should be viewed with caution in the absence of a multiwave longitudinal study that replicates these findings and provides more conclusive evidence regarding the mutual relations between the variables investigated.

#### REFERENCES

- Akaike, H. (1973). Information theory as an extension of the maximum likelihood principle. In B. N. Petrov & F. Csaki (Eds.), *Second international symposium on information theory* (pp. 267-281). Budapest, Hungary: Akademiai Kiado.
- Al-Mabuk, R. H., Dedrick, C. V. L., & Vanderah, K. M. (1998). Attribution retraining in forgiveness therapy. *Journal of Family Psychotherapy, 9*, 11-30.
- Ashton, M. C., Paunonen, S. V., Helmes, E., & Jackson, D. N. (1998). Kin altruism, reciprocal altruism, and the Big Five personality factors. *Evolution and Human Behavior, 19*, 243-255.
- Atlas, G., & Peterson, C. (1990). Explanatory style and gambling: How pessimists respond to losing wagers. *Behaviour Research and Therapy, 28*, 523-529.
- Bentler, P. M. (1986). *Lagrange Multiplier and Wald tests for EQS and EQS/PC*. Los Angeles: BMDP Statistical Software.
- Bentler, P. M. (1995). *EQS structural equations program manual, multivariate software*. Encino, CA: Multivariate Software.
- Berry, J. W., Worthington, E. L., Parrott, L., O'Connor, L. E., & Wade, N. G. (2001). Dispositional forgivingness: Development and construct validity of the Transgression Narrative Test of Forgivingness (TNTF). *Personality and Social Psychology Bulletin, 27*, 1277-1290.
- Bijleveld, C. C., & van der Kamp, L. J. T. (1998). *Longitudinal data analysis. Designs, models, and methods*. Thousand Oaks, CA: Sage.
- Bollen, K. A. (1980). Issues in the comparative measurement of political democracy. *American Sociological Review, 45*, 370-390.
- Boon, S. D., & Sulsky, L. M. (1997). Attributions of blame and forgiveness in romantic relationships: A policy-capturing study. *Journal of Social Behavior and Personality, 12*, 19-44.
- Bradfield, M., & Aquino, K. (1999). The effects of blame and offender liability on forgiveness and revenge in the workplace. *Journal of Management, 25*, 607-631.
- Brown, R. P. (2003). Measuring individual differences in the tendency to forgive: Construct validity and links with depression. *Personality and Social Psychology Bulletin, 29*, 759-771.
- Carstensen, L. L., Gottman, J. M., & Levenson, R. M. (1995). Emotional behavior in long-term marriage. *Psychology and Aging, 10*, 140-149.
- Collins, J., & Clark, L. (1989). Responsibility and rumination: The trouble with understanding the dissolution of a relationship. *Social Cognition, 7*, 152-173.
- Coyle, C. T., & Enright, R. D. (1997). Forgiveness intervention with post abortion men. *Journal of Consulting and Clinical Psychology, 65*, 1042-1046.
- Davidson, D. L. (1993). Forgiveness and narcissism: Consistency in experience across real and hypothetical hurt situations. *Dissertation Abstract International, 54*, 27-46.
- DiBlasio, F. A., & Proctor, J. H. (1993). Therapists and the clinical use of forgiveness. *American Journal of Family Therapy, 21*, 175-184.
- Dobash, R. E., & Dobash, R. P. (1984). The nature and antecedents of violent events. *British Journal of Criminology, 24*, 269-288.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol. 1, pp. 269-322). New York: McGraw-Hill.
- Enright, R. D., Freedman, S. R., & Rique, J. (1998). The psychology of interpersonal forgiveness. In R. D. Enright & J. North (Eds.), *Exploring forgiveness* (pp. 46-62). Madison: University of Wisconsin Press.
- Ercolani, A. P., & Perugini, M. (1996). *La misura in psicologia* (Measurement in psychology). Milan, Italy: LED.
- Fenell, D. (1993). Characteristics of long-term first marriages. *Journal of Mental Health Counseling, 15*, 450-460.
- Fincham, F. D. (2000). The kiss of porcupines: From attributing responsibility to forgiving. *Personal Relationships, 7*, 1-23.
- Fincham, F. D., & Beach, S. R. (2002). Forgiveness in marriage: Implications for psychological aggression and constructive communication. *Personal Relationships, 9*, 239-251.
- Fincham, F. D., Beach, S. R., & Davila, J. (2004). Forgiveness and conflict resolution in marriage. *Journal of Family Psychology, 18*, 72-81.
- Fincham, F. D., Hall, J. H., & Beach, S. R. H. (in press). 'Til lack of forgiveness doth us part: Forgiveness in marriage. In E. L. Worthington (Ed.), *Handbook of forgiveness*. New York: John Wiley.
- Fincham, F. D., Harold, G. T., & Gano-Phillips, S. (2000). The longitudinal association between attributions and marital satisfaction: Direction of effects and role of efficacy expectations. *Journal of Family Psychology, 14*, 267-285.
- Fincham, F. D., Paleari, F. G., & Regalia, C. (2002). Forgiveness in marriage: The roles of relationship quality, attributions and emotions. *Personal Relationships, 9*, 27-37.
- Finkel, E. J., Rusbult, C. E., Kumashiro, M., & Hannon, P. A. (2002). Dealing with betrayal in close relationships: Does commitment promote forgiveness? *Journal of Personality and Social Psychology, 82*, 956-974.
- Gordon, K. C., & Baucom, D. H. (1998). Understanding betrayals in marriage: A synthesized model of forgiveness. *Family Process, 37*, 425-449.
- Gordon, K. C., & Baucom, D. H. (2003). Forgiveness and marriage: Preliminary support for a measured based on a model of recovery from a marital betrayal. *American Journal of Family Therapy, 31*, 179-199.
- Gordon, K. C., Baucom, D. H., & Snyder, D. K. (2000). The use of forgiveness in marital therapy. In M. E. McCullough, K. I. Pargament, & C. E. Thoresen (Eds.), *Forgiveness: Theory, research, and practice* (pp. 203-227). New York: Guilford.
- Hargrave, T. D., & Sells, J. N. (1997). The development of a forgiveness scale. *Journal of Marital and Family Therapy, 23*, 41-63.
- Holmgren, M. R. (1993). Forgiveness and the intrinsic value of persons. *American Philosophical Quarterly, 30*, 342-352.
- Horowitz, M. J., Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. *Psychosomatic Medicine, 41*, 209-218.
- Karney, B. R., & Bradbury, T. N. (2000). Attributions in marriage: State or trait? A growth curve analysis. *Journal of Personality and Social Psychology, 78*, 295-309.
- Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1994). Influence of age and gender on affect, physiology, and their interrelations: A study of long-term marriages. *Journal of Personality and Social Psychology, 67*, 56-68.
- Macaskill, A., Maltby, J., & Day, L. (2002). Forgiveness of self and others and emotional empathy. *Journal of Social Psychology, 142*, 663-665.
- Mazor, A., Batiste-Harel, P., & Gampel, Y. (1998). Divorcing spouses' coping patterns, attachment bonding and forgiveness processes in the post-divorce experience. *Journal of Divorce and Remarriage, 29*, 65-81.
- McCullough, M. E., Bellah, C. G., Kilpatrick, S. D., & Johnson, J. L. (2001). Vengefulness: Relationships with forgiveness, rumination, well-being, and the Big Five. *Personality and Social Psychology Bulletin, 27*, 601-610.
- McCullough, M. E., Exline, J. J., & Baumeister, R. F. (1998). An annotated bibliography of research and related concepts. In E. L. Worthington (Ed.), *Dimensions of forgiveness: Psychological research and theological perspectives* (pp. 197-217). Philadelphia: Templeton Foundation Press.
- McCullough, M. E., Fincham, F. D., & Tsang, J. (2003). Forgiveness, forbearance, and time: The temporal unfolding of transgression-

- related interpersonal motivation. *Journal of Personality and Social Psychology*, 84, 540-557.
- McCullough, M. E., & Hoyt, W. T. (2002). Transgression-related motivational dispositions: Personality substrates of forgiveness and their links with the Big Five. *Personality and Social Psychology Bulletin*, 28, 1556-1573.
- McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (2000). The psychology of forgiveness: History, conceptual issues, and overview. In M. E. McCullough, K. I. Pargament, & C. E. Thoresen (Eds.), *Forgiveness: Theory, research, and practice* (pp. 299-319). New York: Guilford.
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology*, 75, 1586-1603.
- McCullough, M. E., Worthington, E. L., & Rachal, K. C. (1997). Interpersonal forgiving in close relationships. *Journal of Personality and Social Psychology*, 73, 321-336.
- Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family*, 45, 141-151.
- Ohbuchi, K., & Takada, N. (2001). Escalation of conflict and forgiveness: A social psychological model of forgiveness. *Tohoku Psychologica Folia*, 60, 61-71.
- Paleari, F. G., Regalia, C., & Fincham, F. D. (2003). Adolescents' willingness to forgive their parents: An empirical model. *Parenting: Science and Practice*, 3, 155-174.
- Takaku, S. (2001). The effects of apology and perspective taking on interpersonal forgiveness: A dissonance-attribution model of interpersonal forgiveness. *Journal of Social Psychology*, 14, 494-508.
- Weiner, B., Graham, S., Peter, O., & Zmuidinas, M. (1991). Public confession and forgiveness. *Journal of Personality*, 59, 281-312.
- Worthington, E. L. (1998). An empathy-humility-commitment model of forgiveness applied within family dyads. *Journal of Family Therapy*, 20, 59-76.
- Worthington, E. L., Kurusu, T. A., Collins, W., Berry, J. W., Ripley, J. S., & Baier, S. N. (2000). Forgiveness usually takes time: A lesson learned by studying interventions to promote forgiveness. *Journal of Psychology and Theology*, 28, 3-20.
- Zeichmeister, J. S., & Romero, C. (2002). Victim and offender accounts of interpersonal conflict: Autobiographical narratives of forgiveness and unforgiveness. *Journal of Personality and Social Psychology*, 82, 675-686.

Received January 28, 2004

Revision accepted June 5, 2004.