

When Forgiving Enhances Psychological Well-Being: The Role of Interpersonal Commitment

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The present research addresses the question of when and why forgiving might enhance psychological well-being. The authors predict that forgiving is associated with enhanced well-being but that this association should be more pronounced in relationships of strong rather than weak commitment. This hypothesis received good support in Studies 1–3. Studies 2 and 3 addressed the issue of why forgiving might be associated with psychological well-being, revealing that this association was reduced after controlling for *psychological tension* (i.e., a psychological state of discomfort due to conflicting cognitions and feelings). Study 4 revealed that in the context of marital relationships, tendencies toward forgiving one's spouse exhibited a more pronounced association with psychological well-being than did tendencies to forgive others in general.

Interpersonal relationships often yield good outcomes, such as companionship, security, and social support. At the same time, relationships are sometimes challenged by serious conflicts, which may arise when one of both partners neglects the other's preferences or desires. Presumably, conflicts for which one blames the other are likely to be among the most intense forms of conflict (e.g., breaking promises, telling secrets to others). How do people deal with these conflicts or offenses? Do people tend to distance themselves from such others? Do they tend to forgive such others? More important, is forgiving associated with enhanced psychological well-being, and if so, does it make a difference whether one forgives a best friend or a casual acquaintance?

The extant literature has devoted considerable attention to interpersonal conflict as well as to the ways in which individuals may resolve conflicts (e.g., research on close relationships, coop-

eration and competition, conflict and negotiation). At the same time, the concept of forgiving has received little attention in this literature. This is surprising, especially because forgiving seems pertinent to understanding how individuals may effectively cope with interpersonal conflict. Indeed, some recent evidence suggests that forgiving may serve to repair a relationship (e.g., Fincham, 2000; McCullough, 2000; McCullough, Sandage, & Worthington, 1997; McCullough, Worthington, & Rachal, 1997). Moreover, as is discussed below, there is evidence that forgiving is associated with psychological well-being, suggesting that forgiving is a source of human strength by which individuals sustain or improve psychological well-being (Al-Mabuk, Enright, & Cardis, 1995; Coyle & Enright, 1997; Freedman & Enright, 1996; Hebl & Enright, 1993). According to Hope (1987), forgiving is central to psychological healing processes. But does forgiving always promote psychological well-being?

The major purpose of the present research is to illuminate understanding of when and why interpersonal forgiving is associated with psychological well-being. We propose that the degree to which forgiving is associated with psychological well-being should be conditioned by some key interdependence features that underlie the relationship between the person and the offender. Specifically, we suggest that the positive association between forgiving and psychological well-being is affected by *interpersonal commitment* (defined in terms of intent to persist, long-term orientation, and psychological attachment; Rusbult, 1983; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Using principles of interdependence theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996), we advance the central hypothesis that forgiving is associated with enhanced levels of psychological well-being when a person experiences strong commitment to the offender, whereas this association should be less pronounced or absent when a person experiences weak commitment to the offender. In addition, we

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suggest that the failure to forgive others to whom we experience strong commitment induces high levels of psychological tension, which in turn may be associated with reduced psychological well-being.

Is There an Association Between Forgiving and Psychological Well-Being?

This basic question has been addressed in recent work examining whether interventions for promoting forgiveness improve psychological well-being. An intervention program designed by Enright and The Human Development Study Group (1991) revealed positive results, indicating that the promotion of forgiveness enhances psychological well-being among individuals coping with a variety of serious offenses (e.g., incest, deprivation of love from parents; Al-Mabuk et al., 1995; Coyle & Enright, 1997; Freedman & Enright, 1996). Specifically, the program yielded that compared with the control group, individuals who participated in the program (i.e., the experimental group) exhibited reduced levels of anxiety, anger, and depression, as well as enhanced self-esteem.

Although these findings add credence to the claim that forgiving promotes psychological well-being, this claim needs to be considered in light of two features that characterize these lines of research. First, the overall sample (the experimental group and the control group) in these studies may be influenced by self-selection, because participants wanted to participate in an intervention and had experienced traumatic or otherwise intense forms of interpersonal offense (e.g., incest, deprivation of love from parents). This raises the question of whether forgiving is associated with psychological well-being among individuals with more mundane and less traumatic interpersonal experiences. Second, the vast majority of the studies on forgiving examined conflicts in close relationships, which generally are characterized by high levels of commitment, such as marriage, dating relationships, and family relationships. Indeed, the one study that did not only include spouses, dating partners, or relatives revealed no significant differences between the experimental group and control group (Hebl & Enright, 1993). This raises the question of whether forgiving is associated with enhanced psychological well-being for relationships that are less exclusive. Thus, the present research seeks to address these issues by examining offenses that appear to be somewhat less traumatic and that occur not only in the context of close relationships but also in relationships that are less exclusive than marriage, dating relationships, or family relationships.

An Interdependence Framework of Forgiving

In understanding forgiving it is important to ask two broad questions: (a) Which interpersonal experiences give rise to the dilemma of whether or not to forgive, and (b) what might be the relationship-relevant features that indicate whether forgiving is or is not beneficial? As noted earlier, the dilemma of forgiving seems rooted in a neglect of the other's preferences. According to interdependence theory (Kelley & Thibaut, 1978; for a review, see Rusbult & Van Lange, 1996), relationships may be challenged by correspondence of outcomes, that is, the degree to which preferences among individuals correspond versus conflict. When outcomes are correspondent, it is relatively easy to maintain a conflict-free relationship. However, when outcomes are less cor-

respondent, there is a basis for serious interpersonal conflict (Rusbult et al., 1991; Van Lange, Rusbult, et al., 1997). That is, when preferences do not correspond, insufficient appreciation of the partner's needs can easily result in conflict that frequently is accompanied by blaming the other. As a result, the person is likely to experience neglect, depreciation, and anger—emotional experiences that are inherently interpersonal and that tend to challenge the very relationship with the other.

In light of such experiences, it is to some degree understandable that people tend to react in a self-interested manner by acting retaliatory or by socially or psychologically distancing themselves from the other. However, according to interdependence theory (Kelley & Thibaut, 1978), people do not always act to pursue direct self-interest. Interdependence theory advances a distinction between the given situation and the effective situation, which may help in understanding why some individuals are willing to endure cost or exert effort to ensure the well-being of the relationship or the partner. The *given* situation represents the gut level self-centered preferences, whereas the *effective* situation represents broader concerns, such as the pursuit of long-term goals or the desire to promote both one's own and a partner's well-being. Movement away from given preferences is assumed to result from *transformation of motivation*, a process that leads individuals to devalue their immediate self-interest and act on the basis of broader considerations. The effective preferences that result from that process have been demonstrated to be more predictive of actual behavior than the given preferences, thus providing support for the transformation process (e.g., Dehue, McClintock, & Liebrand, 1993; Van Lange, Agnew, Harinck, & Steemers, 1997; for a review, see Rusbult & Van Lange, 1996). For example, tendencies toward accommodation (i.e., to respond constructively rather than destructively to a partner's potentially destructive behavior) are more likely when individuals are provided with plentiful (vs. limited) time to think about the antecedents and consequences of the conflict in light of broader implications for the self, the partner, or the relationship (Rusbult et al., 1991; Yovetich & Rusbult, 1994).

Like accommodation, forgiving can be conceptualized in terms of transformation of motivation in that it presumably entails broader considerations, such as the pursuit of relationship well-being or the desire to promote both one's own and a partner's well-being. Indeed, McCullough, Worthington, and Rachal (1997) used a definition of *forgiving* that parallels the concept of transformation of motivation. Specifically, they define *forgiving* as the set of motivational changes whereby one becomes (a) decreasingly motivated to retaliate against an offending relationship partner; (b) decreasingly motivated to maintain estrangement from the offender; and (c) increasingly motivated by conciliation and goodwill for the offender, despite the offender's hurtful actions (see also Fincham, 2000; McCullough, 2000). Thus, forgiving is assumed to result from a transformation process or from broader considerations such as concern with the well-being of the partner or relationship.

We now turn to the second question: What might be the relationship-relevant features that determine whether forgiving is or is not beneficial? Following interdependence theory, as well as extensions of this theory (i.e., the investment model of commitment processes; Rusbult, 1983; Rusbult et al., 1991), commitment is argued to be a major determinant of transformation of motiva-

tion. *Commitment* is defined as the intent to persist in a relationship, including long-term orientation to the involvement and feelings of psychological attachment to the partner (Agnew, Van Lange, Rusbult, & Langston, 1998; Rusbult, Martz, & Agnew, 1998). As demonstrated in several studies, commitment is predictive of various cognitions and behaviors, including not only accommodation but also willingness to sacrifice, unrealistically positive beliefs about the relationship, and a shift in thinking from "I, me, and mine" to "we, us, and ours" (e.g., Agnew et al., 1998; Rusbult, Van Lange, Wildschut, Yovetich, & Verette, 2000; Van Lange, Otten, De Bruin, & Joireman, 1997; Van Lange, Rusbult, et al., 1997; Wieselquist, Rusbult, Foster, & Agnew, 1999).

Given that forgiving can be conceptualized as involving pro-relationship transformation, an important determinant of forgiving should be the level of relational commitment (for recent evidence, see Finkel, Rusbult, Hannon, Kumashiro, & Childs, 2002; McCullough, 2000; McCullough et al., 1998; McCullough, Pargament, & Thoresen, 2000). However, these findings do not imply that strong commitment will always lead to forgiving. In fact, sometimes it may be even harder to forgive another to whom we feel strong commitment than another to whom we feel weak commitment. For example, under some circumstances, a potentially destructive act, such as breaking a promise, might evoke less forgiving in highly committed relationships because it violates some key features and expectations that are more characteristic of highly committed relationships (e.g., trust and dependability). Indeed, it is possible that one remains quite committed to the relationship partner despite the fact that one has not yet forgiven the other. Alternatively, especially in relationships varying from best friends to casual acquaintances, individuals might consider distancing themselves (psychologically, socially, or both) from the other (e.g., Aron & Aron, 1997; Aron, Aron, Tudor, & Nelson, 1991; Drigotas & Rusbult, 1992; Van Lange & Visser, 1999). Thus, in the context of ongoing relationships, people may at any point in time find themselves confronted with one of four situations, which are a function of (a) absence versus presence of forgiving and (b) weak versus strong commitment (see Figure 1). From this perspective, the question becomes which situation forms the more serious threat to psychological well-being.

We propose that in comparison with the other three situations, the combination of no forgiving and strong commitment is likely to give rise to relatively strong levels of *psychological tension*, defined as a psychological state of discomfort due to conflicting cognitions and feelings.¹ Why is the absence of forgiving in combination with strong levels of commitment likely to create

psychological tension? We suggest that the absence of forgiving is inconsistent with each of the three components of commitment: intent to persist, long-term orientation, and psychological attachment.

First, the absence of forgiving is at odds with intent to persist in that lack of forgiving is associated with avoidance, distancing, and sometimes even motivation to retaliate (McCullough et al., 1998). Each of these features challenges the stability of the relationship and therefore is at odds with intent to persist. Hence, the absence of forgiving is likely to elicit psychological tension.

Second, the absence of forgiving is at odds with the goal of long-term orientation, because the future of the relationship becomes more uncertain. With increasing uncertainty, it is more difficult to invest in a relationship, to develop new joint activities, or to pursue other longer term goals. Moreover, the lack of forgiving should form a threat to a basic level of trust and dependability that tend to be givens in a relationship of strong commitment (Holmes & Rempel, 1989; Kelley, 1983; Wieselquist, Rusbult, Foster, & Agnew, 1999). Hence, an increasing uncertainty regarding the long-term implications of the relationship is likely to elicit psychological tension.

Third, the lack of forgiving is at odds with feelings of psychological attachment. The lack of forgiving is inconsistent with feeling connected and the need to belong as well as with attraction and idealized images of the partner that are associated with psychological attachment regarding a specific other (e.g., Agnew et al., 1998; Baumeister & Leary, 1995). Moreover, one might argue that to the degree that attachment represents a merging of self and the other (i.e., the other is part of the self; Aron & Aron, 1997; Aron et al., 1991), the lack of forgiving logically implies that one has not forgiven a part of the self. Also, given that motivations such as resentment tend to accompany the absence of forgiving (e.g., Davenport, 1991; Fitzgibbons, 1986; McCullough et al., 1998; McCullough, Worthington, & Rachal, 1997), it is clear that the lack of forgiving is at odds with psychological attachment. Thus, these conflicting cognitions and feelings should also elicit psychological tension.

Research Overview and Hypotheses

The preceding analysis provides a framework in which to understand (a) when forgiving is especially likely to be associated with enhanced psychological well-being (i.e., when commitment is strong) and (b) why the absence of forgiving might be associated with reduced psychological well-being (i.e., it creates psychological tension). On the basis of the interdependence framework

	Level of Commitment to Offender	
	Weak	Strong
Forgiving Present	Psychological Tension Weak	Psychological Tension Weak
Forgiving Absent	Psychological Tension Weak	Psychological Tension Strong

Figure 1. Level of psychological tension as a function of four possible situations created by weak versus strong levels of commitment and forgiving present versus forgiving absent.

¹ The construct of psychological tension is quite similar to well-known constructs of cognitive dissonance (Festinger, 1957) and imbalance (Heider, 1958). We preferred to use the concept of psychological tension because (a) it has often been used in the literatures of justice and helping (where it has also been defined in terms of states of discomfort or distress following a specific event or experience; Cialdini & Kenrick, 1976; for a discussion, see Batson, 1998); (b) cognitive dissonance and imbalance are obviously associated with cognitive consistency, whereas psychological tension has a somewhat stronger affective connotation; and (c) the use of the terms *cognitive dissonance* and *imbalance* may have unintentionally conveyed the impression that the present research was designed to directly test these theories.

outlined earlier, we advanced the following hypotheses. First, we predicted that the positive association between forgiving and psychological well-being would be more pronounced when commitment to the offender is strong rather than weak (i.e., *moderation-by-commitment* prediction; Hypothesis 1). (Of course, one could also anticipate a positive, simple association between forgiving and well-being, independent of an individual's level of commitment to the offender. We did not formally advance this hypothesis, because we anticipated that this simple association would be qualified by Hypothesis 1). Second, we predicted that the moderation of the link between forgiving and well-being by commitment is mediated by psychological tension (*mediation-by-tension* prediction; Hypothesis 2). We report four studies that examined the association between forgiving and well-being that provide preliminary evidence relevant to this framework and the hypotheses derived from it. Hypothesis 1 was tested in all studies, whereas Hypothesis 2 was tested in Studies 2 and 3.

In Study 1 we used a paradigm in which participants are instructed to bring to mind a serious conflict with another person (cf. McCullough et al., 1998; VanOyen Witvliet, Ludwig, & Vander Laan, 2001). The effects of forgiving were examined by asking half of the participants to think about an offense that they had forgiven the other and asking the other half to think about an offense that they had not forgiven the other. Commitment was assessed using Rusbult et al.'s (1998) instrument of commitment. In Study 2, commitment was manipulated by asking participants to imagine a conflict with a person to whom they felt weak versus strong commitment and to imagine they had forgiven versus not forgiven this person. Thus, this method seeks to activate feelings and cognitions that are directly related to forgiving (or not forgiving) in combination with strong versus weak commitment (for similar methodology, see Baldwin, 1995; Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996). In other words, we assumed that within this 2 (forgiving vs. absence of forgiving) \times 2 (commitment: strong vs. weak) framework, a participant's thinking about an interpersonal offense influences psychological tension, which, in turn, influences psychological well-being. In Study 3, to further examine the causal relationship between forgiving and well-being, we used a paradigm that allowed us to actively manipulate forgiving by means of an alleged "forgiveness-test," on which participants received (false) feedback whether they had forgiven or not forgiven the offender. To provide complementary evidence for Hypothesis 1, Study 4 examined whether the tendency to forgive one's spouse (i.e., a relationship characterized by strong levels of commitment) would be more strongly related to psychological well-being than the tendency to forgive others in general (i.e., including relationships ranging from weak to strong interdependence).²

Study 1

The major purpose of Study 1 was to provide initial tests of Hypotheses 1 and 2, using a paradigm in which participants were asked to bring to mind an offense by another person whom they have forgiven versus have not forgiven.

Method

Participants and design. Ninety students (30 men, 60 women; mean age 21 years) participated in the experiment. They received a 5-guilder

(approximately \$2.50 in U.S. currency) book token in exchange for their participation. Participants were randomly assigned to one of two conditions. In the forgiving condition, they were asked to bring to mind a conflict with another person whom they had forgiven; in the no-forgiving condition, they were asked to bring to mind a conflict with another person whom they had not forgiven. Level of commitment served as an independent variable; however, because participants assigned themselves to varying levels of commitment, Study 1 does not address issues of causality regarding this variable.

Procedure. Participants completed the questionnaires in individual cubicles to ensure anonymity and minimize distraction. Forgiving was manipulated by means of instructions, which read as follows (note that these and all subsequent instructions reproduced in this article were originally in Dutch; our translations into English, made for use in this article, appear throughout):

Every now and then, most or all people have had a conflict with somebody else. The conflict can be relatively mild (e.g., a conflict that you forget about easily), but the conflict can also be severe (i.e., a conflict that you are unlikely to forget). We ask you to think about a severe conflict that you had with someone [forgiving condition: "which you have forgiven the other"; no-forgiving condition: "which you have not forgiven the other"]. The other could be any person in your social environment (i.e., friend, acquaintance), but it should *not* be your intimate partner or a relative. Also, please keep in mind that it concerns a conflict for which the other is to blame.

After receiving these instructions, participants were asked to write a paragraph about the conflict with the other. The writing part served to induce participants to bring to mind the conflict itself as well as the other person who they believed had caused this conflict. Two features of these above instructions deserve brief comment.

First, unlike previous research (e.g., McCullough, Worthington, & Rachal, 1997), the instructions used the phrase "conflict for which the other is to blame." One important reason for using the word *conflict* instead of the word *offense* is that there is no equivalent of the word *offense* in the Dutch language (i.e., dictionary translations of *offense* tend to refer to violations of the law, either as a very strong [and often sexual] violation [*vergrijp*] or a more mild violation [*overtreding*]). A complementary reason is that offenses often occur in the context of conflicts or conflicting preferences (e.g., telling a secret about a friend might be somewhat tempting for the storyteller because of entertainment value but is of course very unpleasant to the friend in question); plus, when embedded in the context of conflict, we assumed that it should be relatively easy for participants to bring to mind an incident of unfair, hurtful, or otherwise "bad" behavior by another person in their social environment.

Second, the instructions emphasized that participants should not bring to mind conflicts with intimate partners (the Dutch instructions used the term *vaste partner*, which includes dating relationships, cohabiting partnerships, and marriage) or relatives. One important reason was that we wanted to

² The present research does not address the causal links or feedback loops among forgiveness, psychological well-being, and commitment. Similar to the hypothesized links among commitment, trust, and pro-relationship behavior (Wieselquist et al., 1999), we assumed that the causal link between forgiveness and commitment, in particular, is likely to be largely bidirectional. (Of lesser relevance, there is also reason to believe that the link between forgiveness and well-being, if present, is bidirectional.) Although it is important to assess feedback loops among forgiveness, well-being, and commitment (and perhaps additional constructs, such as trust or avoidance), we leave such intricate issues up to future research—after some evidence in support of the moderating role of commitment has been obtained. We return to this issue in greater detail in the General Discussion.

examine relationships that are somewhat less exclusive than marriage, dating relationships, or relationships with relatives. Indeed, such less exclusive relationships, varying from strangers to acquaintances to best friends, have received relatively little attention, even though conflicts occur fairly frequently in such relationships, and individuals find it relatively easy to bring to mind conflicts with fellow students, colleagues, or others with whom they interact in their leisure time (see Van Lange, 1991).

Finally, we should note that the written descriptions of conflicts reflected a wide variety of interpersonal offenses. Some examples are:

My friend and I planned to go on holiday together. A few weeks before we were supposed to go, she canceled the vacation; later on, I heard she went on vacation with someone else.

In the most important match of the year, my coach didn't let me play.

When I was abroad for a few months, a friend of mine promised to write, but I did not receive any letters from him.

The assessment of features of conflict, commitment, and psychological well-being. After participants completed writing about the conflict, they were asked to complete several measures, all using 7-point scales (1 = *completely disagree*, 7 = *completely agree*). First, for methodological reasons, we wanted to explore whether features relevant to the conflict itself and past circumstances differed among the four conditions. Hence, we assessed (a) the perceived severity of conflict (three items, e.g., "The conflict was very intense"; $\alpha = .84$), (b) a single-item measure of time of conflict ("How long ago did the conflict take place?").

Second, we assessed level of commitment to the offender, which was measured with three items that focused on feelings of psychological attachment (e.g., "I feel emotionally attached to the other"; $\alpha = .96$; in Studies 2 and 3, discussed below, we assessed all three components of commitment, including not only psychological attachment but also intent to persist, long-term orientation, and attachment). Psychological well-being was assessed with measures of life satisfaction, positive affect, negative affect, and state self-esteem in an effort to capture different aspects of this multifaceted construct (Diener, Suh, Lucas, & Smith, 1999; for evidence regarding the discriminant validity of these aspects of well-being, see, e.g., Lucas, Diener, & Suh, 1996; Watson & Clark, 1991). Life satisfaction was assessed with the Satisfaction With Life Scale (Diener, 1994; Diener, Emmons, Larsen, & Griffin, 1985), a five-item self-report instrument that, as in many previous studies, exhibited good internal consistency ($\alpha = .78$). Positive affect and negative affect were assessed with the Positive Affect and Negative Affect Scale (Watson, Clark, & Tellegen, 1988). This instrument involves rating of 10 positive feelings ($\alpha = .84$) and 10 negative feelings ($\alpha = .91$). For each item, participants were asked to report the degree to which the item described how they were feeling at that moment. Finally, self-esteem was assessed with the State Self-Esteem Scale (Heatherton & Polivy, 1991); this instrument also exhibited high internal consistency ($\alpha = .92$).

Results and Discussion

Possible correlates of forgiving. Given that participants were asked to bring to mind an offense by another person whom they either had forgiven or had not forgiven, it is conceivable that forgiving is correlated with conflict severity (i.e., forgiven conflicts might be less severe) and time of conflict (e.g., forgiven conflicts might have taken place longer ago). However, one-way analyses of variance (ANOVAs) revealed no significant differences between the forgiving condition and the no-forgiving condition for (a) conflict severity ($M = 4.59$, $SD = 1.68$, and $M = 4.77$, $SD = 1.32$), $F(1, 88) = .33$, *ns*, (b) time of conflict ($M = 22.5$ months ago, $SD = 26.93$, and $M = 26.6$ months ago,

$SD = 22.17$), $F(1, 81) = .89$, *ns*.³ Thus, the manipulation of forgiving did not appear to cause significant effects on variables relevant to the conflict itself (severity, time).

Moderation by commitment: Hypothesis 1. We predicted that the positive association between forgiving and psychological well-being would be more pronounced when commitment to the offender is strong rather than weak (i.e., moderation-by-commitment; Hypothesis 1). To test this hypothesis, we conducted an ANOVA, dichotomizing commitment in terms of weak commitment (below-median means) and strong commitment (above-median means; $Mdn = 2.83$). Thus, the four measures of psychological well-being were analyzed by a 2 (forgiving vs. no-forgiving) \times 2 (commitment: weak vs. strong) ANOVA.

The four ANOVAs revealed some evidence for a main effect of forgiving. Participants in the forgiving condition ($M = 5.00$, $SD = 0.88$), exhibited greater life satisfaction than did participants in the no-forgiving condition ($M = 4.57$, $SD = 1.25$), $F(1, 86) = 4.19$, $p < .05$. There were no significant main effects for the other measures of well-being, $F(1, 86) = 3.38, 0.11, 1.78$, all $ps > .05$, for positive affect, negative affect, and state self-esteem, respectively. There was no main effect of commitment.

More important, and relevant to Hypothesis 1, the ANOVAs revealed the predicted interaction of forgiving and commitment for life satisfaction, positive affect, and state self-esteem, $F(1, 86) = 4.79, 13.84, \text{ and } 4.11$, respectively, all $ps < .05$ (see Table 1).^{4, 5} This interaction was marginal for negative affect, $F(1, 86) = 3.25$, $p < .10$. Tests of simple main effects revealed that when commitment was strong, participants in the forgiving condition (vs. those in no-forgiving condition) exhibited greater levels of life satisfaction, $F(1, 86) = 8.46$, $p < .005$; positive affect, $F(1, 86) = 15.63$, $p < .001$; and state self-esteem, $F(1, 86) = 5.80$, $p < .05$. However, when commitment to the other was weak, there were no significant differences between the forgiving and no-forgiving conditions on any of the measures of psychological well-being: life satisfaction, $F(1, 86) = .01$, *ns*; positive affect, $F(1, 86) = 1.14$, *ns*; and state self-esteem, $F(1, 86) = .08$, *ns*. (For negative affect, both simple main effects were not significant.)

³ Because of missing values, there was a drop in degrees of freedom (from $df = 1, 88$ to $df = 1, 81$). Some participants misunderstood the question and reported the range of time the conflict took place.

⁴ We also adopted a regression approach, whereby the measures of psychological well-being were regressed onto forgiving versus no-forgiving (dummy coded), level of commitment, and their interaction. These analyses revealed virtually identical results as the ANOVAs. However, we preferred to report the ANOVAs here because the data of Study 2 were analyzed with ANOVAs (i.e., this study examined experimental manipulations of commitment: weak vs. strong commitment), hence promoting consistency of analyses across the studies.

⁵ To explore whether the features of the conflict might account for the results, we conducted analyses in which severity of conflict and time of conflict were included (separately and simultaneously) as covariates in ANOVAs or as predictor variables in hierarchical regression analyses. These analyses revealed that the interactions of forgiving and commitment remained significant for life satisfaction and state self-esteem and remained marginally significant for positive affect and negative affect, indicating that severity of conflict and time of conflict did not account for the effects relevant to the present hypotheses.

Table 1
Means of Different Indicators of Psychological Well-Being as a Function of Forgiving and Level of Commitment (Study 1)

Psychological well-being	Level of Commitment			
	Weak		Strong	
	Forgiving	No forgiving	Forgiving	No forgiving
Satisfaction with life				
<i>M</i>	4.77	4.81	5.11	4.11
<i>SD</i>	0.83	1.15	0.90	1.36
Positive affect				
<i>M</i>	4.09	4.47	4.82	3.70
<i>SD</i>	1.04	1.00	0.71	0.90
Negative affect				
<i>M</i>	2.43	1.96	2.04	2.37
<i>SD</i>	1.18	1.02	0.89	0.90
State self-esteem				
<i>M</i>	4.99	5.15	5.42	4.66
<i>SD</i>	1.11	1.07	0.96	0.93

Thus, Hypothesis 1 received good support for three of the four measures of psychological well-being.

Study 2

Study 1 provided good support for Hypothesis 1. Consistent with Hypothesis 1, we obtained moderation by commitment, revealing that forgiving is positively associated with psychological well-being but that this association is more pronounced when relational commitment is strong rather than weak—in fact, there is no association between forgiving and psychological well-being when commitment is weak.

Study 2 extended Study 1 in at least two respects. First, because Study 1 did not experimentally manipulate level of commitment, we did not empirically address the issue of causality. In Study 2, we used a substantially different method that is not sensitive to self-selection processes. In this paradigm, participants were first asked to bring to mind another person to whom they felt either weak or strong commitment. Next, they were asked to imagine that they have had a serious conflict with the other person and that they have forgiven (vs. have not forgiven) the other person. Second, unlike Study 1, Study 2 included a measure of psychological tension to provide an initial test of Hypothesis 2, the prediction that the positive association between forgiving and psychological well-being when commitment is strong is mediated by psychological tension.

Method

Participants and design. One hundred twenty students (34 men, 86 women, average age 21 years) participated in Study 2 in exchange for a book token of 5 Dutch guilders (\$2.50 in U.S. currency). The study used a 2 (forgiving vs. no-forgiving) \times 2 (commitment: weak vs. strong) factorial design.

Procedure. After participants were welcomed in the psychology laboratory, they were escorted to one of the 15 individual cubicles where they completed the experiment. The experiment consisted of two phases. In the first phase, commitment was manipulated by asking participants to think about a person to whom they felt either strong commitment (in the strong

commitment condition) or to whom they felt only weak commitment (in the weak commitment condition). In both conditions, the instructions stated that they should not think of their intimate partner or a relative. They were asked to write down that person's initials, after which we assessed the level of commitment they experienced with that person, using the eight-item measure developed by Rusbult et al. (1991, 1998; for the present purposes, this measure served as a manipulation check of commitment).

In the second phase, the presence or absence of forgiving was manipulated by means of a scenario. Participants read the following scenario:

Imagine that you have had a serious conflict with the other, of whom you just wrote down the initials. You think the other is to blame for this conflict. Also, imagine that you have [in the forgiving condition: "forgiven"; in the no-forgiving condition: "not forgiven"] the other.

The scenario was global and brief. We did not want to include further information regarding the specific type of conflict or the reasons underlying forgiving versus no-forgiving in order to avoid specific connotations or framings of the scenario (e.g., different types of conflicts have different meaning to different people). After reading these instructions, participants completed the remaining part of the questionnaire, which assessed (a) psychological tension and (b) the four measures of psychological well-being (i.e., life satisfaction, positive affect, negative affect, and state self-esteem). Before participants completed each of these measures of psychological well-being, our written instructions asked them to place themselves in the situation described in the scenario (i.e., "When answering the following questions, imagine yourself in the described situation"). Because forgiving was manipulated in the scenario itself (rather than that participants were to bring to mind an incident of actual forgiving), we did not include a measure of forgiving to check the effectiveness of the manipulation.

The assessment of commitment, tension, and psychological well-being. The instrument for measuring commitment was adapted from previous research on commitment that has been conducted in the United States and the Netherlands (e.g., Rusbult et al., 1991; Van Lange, Agnew, et al., 1997; Van Lange, Otten, et al., 1997; for details, see Rusbult et al., 1998). However, in previous research on commitment, the wording of several items was closely related to dating relationships or marital relationships (e.g., "I would really feel upset if our relationship were to end in the near future"). We adjusted such wording in order to assess commitment in the context of less exclusive relationships (e.g., "I would really feel upset if I won't have any contact with the other in the future"). As in previous

research (see Rusbult et al., 1998), this instrument of commitment includes items measuring intent to persist, long-term orientation, and psychological attachment (eight items, $\alpha = .97$).

For the measurement of psychological tension, we developed a scale consisting of nine items that tapped the conflicting feelings and cognitions resulting from thinking about the specific situation of having forgiven versus having not forgiven a person to whom one felt weak versus strong commitment. The introductory line, "When I think about the extent to which I've forgiven the other, to whom I am weakly [vs. "strongly"] committed . . ." was followed by nine statements (e.g., ". . . I experience conflicting feelings," ". . . this evokes tension," and ". . . this is bothering me"; $\alpha = .88$).

Psychological well-being was assessed with measures of satisfaction with life ($\alpha = .85$), positive affect ($\alpha = .78$), negative affect ($\alpha = .90$), and state self-esteem ($\alpha = .91$). The measurement of these constructs was identical to the measurements used in Studies 1 and 2.

Results and Discussion

Manipulation check. To check whether the manipulation of commitment was successful, we conducted an ANOVA with forgiving (forgiving vs. no-forgiving) and commitment (strong vs. weak) as independent variables, using the reported level of commitment as dependent variable. This analysis revealed a strong main effect of commitment, $F(1, 116) = 560.96, p < .001$, indicating greater mean levels of commitment in the strong commitment condition ($M = 5.80, SD = 0.71$) than in the weak commitment condition ($M = 2.34, SD = 0.87$). The main effect of forgiving, $F(1, 116) = .157, ns$, and the interaction effect of commitment and forgiving, $F(1, 116) = .02, ns$, were not significant. Thus, the manipulation caused the intended effects on commitment.

Moderation by commitment: Hypothesis 1. To test Hypothesis 1, we performed a 2 (forgiving instructions: forgiving vs. no-forgiving) \times 2 (commitment: weak vs. strong) ANOVA for each measure of psychological well-being. No main effects for forgiving or commitment were significant for each of the measures

of well-being. However, these analyses revealed the predicted interaction between forgiving instructions and commitment for life satisfaction, positive affect, negative affect, and state self-esteem (for means, see Table 2; for F values, see Table 3). According to Hypothesis 1, the interaction should be largely due to significant simple main effects within the strong commitment condition rather than within the weak commitment condition.

Tests for simple main effects revealed that within the strong commitment condition, participants in the forgiving condition compared with the no-forgiving condition exhibited greater levels of life satisfaction, $F(1, 116) = 8.12, p < .005$; positive affect, $F(1, 116) = 7.97, p < .01$; and state self-esteem, $F(1, 116) = 4.25, p < .05$; and lower levels of negative affect, $F(1, 116) = 8.12, p < .005$. In contrast, within the weak commitment condition, there were no significant differences between the forgiving and no-forgiving conditions for life satisfaction, positive affect, and negative affect (for F values, see Table 3). These obtained patterns again provide evidence for Hypothesis 1.

There was one unexpected finding of the forgiving instructions. As can be seen in Table 2, participants exhibited higher levels of state self-esteem when they imagined that they had not forgiven rather than had forgiven the other to whom they were weakly committed, $F(1, 116) = 5.52, p < .05$. This indicates that forgiving might even be related to lower levels of self-esteem rather than higher self-esteem when commitment to the other is weak.

Mediation by psychological tension: Hypothesis 2. According to Baron and Kenny (1986), when the interactive effect of two initial variables (i.e., forgiving and commitment) on an outcome variable (i.e., psychological tension) is mediated by the effect of a process variable (i.e., psychological tension), this is referred to as *mediated moderation*. To examine whether psychological tension mediated the interaction effect of forgiving and commitment, four steps should be followed. First, it should be demonstrated that there is an interaction effect of forgiving and commitment on psychological well-being. The preceding analyses reveal that this

Table 2
Means of Different Indicators of Psychological Well-Being and Psychological Tension as a Function of Forgiving and Level of Commitment (Study 2)

	Level of commitment			
	Weak		Strong	
Psychological well-being	Forgiving	No forgiving	Forgiving	No forgiving
Satisfaction with life				
<i>M</i>	4.55	4.97	4.74	3.87
<i>SD</i>	1.28	1.02	1.12	1.29
Positive affect				
<i>M</i>	3.78	4.12	4.08	3.49
<i>SD</i>	0.71	0.91	0.92	0.74
Negative affect				
<i>M</i>	3.37	2.81	3.37	4.22
<i>SD</i>	1.18	0.96	1.38	1.02
State self-esteem				
<i>M</i>	4.75	5.32	4.91	4.43
<i>SD</i>	1.04	0.80	0.83	0.96
Psychological tension				
<i>M</i>	4.41	4.15	4.56	5.61
<i>SD</i>	1.05	1.14	1.13	0.80

Table 3
F Values of the Interactions Between Forgiving and Commitment Without and With Psychological Tension Included as Covariate, and F Values of Simple Main Effects Within Weak and Strong Commitment Without and With Psychological Tension Included as Covariate (Study 2)

Psychological well-being	Forgiving × Commitment interaction	Simple main effects	
		Within weak commitment	Within strong commitment
Satisfaction with life			
Without tension	8.86***	1.87	8.12***
With tension	4.75*	1.35	3.26
Positive affect			
Without tension	9.72***	2.61	7.97**
With tension	6.82**	2.23	4.75*
Negative affect			
Without tension	11.21***	3.24	8.12***
With tension	2.63	2.44	0.23
State self-esteem			
Without tension	9.69***	5.52*	4.25*
With tension	3.67	4.63*	0.33

Note. For Without tension values, $dfs = 1, 117$; for With tension values, $dfs = 1, 116$.
 * $p < .05$. ** $p < .01$. *** $p < .005$.

interaction effect was significant for life satisfaction and state self-esteem and marginal for negative affect and positive affect. Second, the interaction effect of forgiving and commitment on psychological tension should be significant. We conducted a 2 (forgiving vs. no forgiving) × 2 (commitment: weak vs. strong) ANOVA for psychological tension. This analysis revealed a main effect of commitment, $F(1, 116) = 19.05, p < .001$; a main effect of forgiving, $F(1, 116) = 3.95, p < .05$; and the predicted interaction of commitment and forgiving, $F(1, 116) = 11.27, p < .001$ (for means, see Table 2). Tests of simple main effects revealed a pattern identical to those observed for the measures of psychological well-being. That is, within the strong commitment condition, psychological tension was higher in the no-forgiving condition than in the forgiving condition, $F(1, 116) = 13.06, p < .001$, whereas there was no significant difference within the weak commitment condition, $F(1, 116) = .81, ns$.

In the third step, it should be shown that psychological tension has a significant effect on the measures of psychological well-being while controlling for the interaction of forgiving and commitment. Therefore, state self-esteem, life satisfaction, negative affect, and positive affect were each, in turn, regressed simultaneously onto forgiving, commitment, their interaction, and psychological tension. These analyses revealed that psychological tension was significantly associated with state self-esteem ($\beta = -.39$), $t(117) = -4.12, p < .001$; life satisfaction ($\beta = -.22$), $t(117) = -2.20, p < .05$; and negative affect ($\beta = .59$), $t(117) = 7.25, p < .001$. Psychological tension was not significantly associated with positive affect ($\beta = -.12$), $t(117) = -1.18, ns$. As a final and fourth step, to examine whether the interaction effect of forgiving and commitment on the measures of psychological well-being was mediated by psychological tension, we performed separate 2 (forgiving vs. no forgiving) × 2 (commitment: weak vs. strong) analyses of covariance (ANCOVAs) for life satisfaction, state self-esteem, and negative affect, adding psychological tension as a covariate. As can be seen in Table 3, the interaction effect of forgiving and commitment was no longer

significant for life satisfaction ($Z = -1.90, p = .05$), state self-esteem ($Z = -2.65, p < .01$), and negative affect ($Z = 3.07, p < .01$), and these reductions were significant. These findings provide good support for Hypothesis 2, predicting mediation by psychological tension.

It is important to note that these analyses revealed that the F values of the simple main effects within strong commitment strongly declined for these three measures of psychological well-being (see also Table 3). The F values of the simple main effects within the weak commitment condition were not affected by psychological tension.

Study 3

Study 2 revealed good evidence in support of Hypotheses 1 and 2. In support of the moderation-by-commitment prediction (Hypothesis 1) and consistent with the results of Study 1, forgiving was associated with well-being but only when commitment to the offender was strong. Moreover, Study 2 extended Study 1 by providing an initial test concerning the causal direction of the association between forgiving and psychological well-being. As predicted, imagining that one has not forgiven a person to whom one experiences strong commitment was associated with higher levels of psychological tension, which mediated the interaction of forgiving and commitment on psychological well-being (Hypothesis 2).

Although results of Studies 1 and 2 supported the hypotheses, we should note some limitations that are inherent to the scenario-based methodology that we used in Study 2. That is, participants were asked to place themselves in hypothetical situations in which they were asked to imagine that they had versus had not forgiven another person. It is possible that such scenarios give rise to demand characteristics or complementary self-report tendencies, even if the scenario-based design is a between-participants design. There also may be a substantial difference between effects caused by imagined level of forgiveness versus actually experienced level

of forgiveness. Hence, it is not clear whether reports of tension and psychological well-being would be similarly affected if forgiveness were manipulated in a more realistic, or active, manner—that is, when participants believe that they have actually largely forgiven (or not) the other.

Study 3 complements Studies 1 and 2 by using a paradigm that allowed us to actively manipulate forgiveness. Participants were, as in Study 1, asked to bring to mind an incident in which they were offended. Next, participants completed an alleged forgiveness-test, using a version of the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). After completing the IAT, participants received information regarding the rationale of the IAT (including the “implicitness” of this test) as well as false feedback regarding the degree to which they had forgiven the offender. We assumed that participants would be somewhat uncertain about their level of forgiveness, especially the implicit aspects of forgiveness.

Method

Participants and design. The participants were 136 (45 men, 91 women, average age 21 years) undergraduate students from the Free University, Amsterdam. They participated in exchange for 5 Dutch guilders (\$2.50 in U.S. currency) and were randomly assigned to one of the two experimental (forgiving vs. no forgiving) conditions.

Procedure. After they were welcomed in the psychology laboratory, participants were escorted to individual cubicles, where they received instructions by means of a computer. Participants were asked to bring to mind a severe conflict they had had with someone for which they felt the other was to blame. Unlike Studies 1 and 2, the instructions did not state that they should not think of conflicts with relatives or dating partners, allowing participants to bring to mind a relatively more extended range of relationships. After they had written a brief paragraph about the conflict, they were asked to type in the first name of the offender (as will be explained shortly, the first name of the offender was used later in the experiment for the manipulation of forgiveness). As in Studies 1 and 2, we measured conflict severity (three items; $\alpha = .90$) and time of conflict (with a single-item scale assessing how long ago the conflict took place).

Next, using the same eight items as in Study 2, we assessed commitment ($\alpha = .96$). We assessed rather than experimentally manipulated level of commitment for several reasons. First, by manipulating commitment, one might enhance the salience of aspects of commitment (intent to persist, long-term orientation, and attachment), thereby possibly giving rise to demand characteristics or related self-report tendencies. Second, we had already conducted two studies in which we examined the effects of manipulated commitment (i.e., Study 2 and the study described in Footnote 7). And finally, the extension of Study 3 over Studies 1 and 2 derives from the active manipulation of forgiveness, and hence we did not want to add another explicit manipulation or instruction to the fairly extended manipulation of forgiveness, as we discuss below.

Manipulation of forgiveness. After participants had completed these measures, instructions stated the following:

In recent years, researchers in the field of psychology have become more and more interested in the topic of forgiveness. Because it appears that people have difficulty indicating the extent to which they have forgiven an offender, prominent researchers have developed a reliable and validated test, which allows researchers to assess the degree to which a person has forgiven an offender.

As noted earlier, the forgiveness-test was a version of the IAT, which is designed to assess differential associations between two target concepts (e.g., black and white) and an attribute (e.g., pleasant vs. unpleasant

objects) through tasks in which reaction times are assessed and compared (for a detailed description, see Greenwald et al., 1998). In Study 3, the IAT was not used to assess reaction times but as a diagnostic device for assessing level of forgiveness—that is, after a careful explanation of the IAT, we provided participants with false feedback concerning their level of forgiveness.

Instructions stated that the forgiveness-test consisted of different sub-tasks in which participants were to identify as quickly as possible a particular word that would appear on their computer screen. In the first task, it was explained that seven different names would appear in random order on the computer screen, one of which was the first name of the offender (which the participant had typed in earlier in this experiment). Participants were instructed to respond as quickly as possible by pushing a specified left-hand key (i.e., the “A”) when the name of the offender appeared on the screen (which happened six times) and to respond as quickly as possible by pushing a specified right-hand key (i.e., the “6”) when a name other than the name of the offender appeared (each of the six other names appeared once). In the second task, 12 words appeared on the screen, 6 of which were words with positive valence (e.g., love, paradise) and 6 of which were words with negative valence (e.g., unjust, lying). Instructions stated that the left-hand key should be pushed as quickly as possible when a positive word appeared on the screen, and the right-hand key should be pushed as quickly as possible when a negative word appeared on the screen. The third task instructed participants to respond as quickly as possible by pushing the left-hand key when either a positive word or the name of the offender appeared on the screen and by pushing the right-hand key when either a negative word or a name of a person other than the offender appeared on the screen. Finally, the fourth task instructed participants to respond as quickly as possible by pushing the left-hand key when either a negative word or the name of the offender appeared on the screen and by pushing the right-hand key when either a positive word or a name of a person other than the offender appeared on the screen.

After participants completed this task, the rationale for the forgiveness-test was explained. It was stated that prior research had revealed that, when a person largely has forgiven an offender, associations between positive words and the name of the offender are relatively stronger than associations between negative words and the name of the offender. Conversely, when a person largely has not forgiven the offender, associations between negative words and the name of the offender are relatively stronger. Participants were also informed about the fact that these associations can be measured through reaction times. The “implicitness” of the IAT was underlined by noting that the test examines “automatic associations” and exhibits correlations with several physiological measures, such as blood pressure, heart rate, and galvanic skin response, which also tend to be correlated with forgiveness.

As alluded to earlier, the reaction times were not actually measured, but participants received false feedback concerning their reaction times. In the forgiving condition, participants were led to believe that the result of the test revealed that they had responded faster (567 ms on average) in the third task, in which they were asked to respond with the same key to positive words and the name of the offender, than in the fourth task, in which they were asked to respond with the same key to negative words and the name of the offender (734 ms on average). The instructions read: “As your reaction times reveal, the associations between the other person and positive words are relatively stronger. On the basis of these results, it seems that you have forgiven the offender.”

In the no-forgiving condition, participants were led to believe that the results revealed that they had responded faster in the name of the offender/negative words task (i.e., 567 ms on average) than in the name of the offender/positive words task (i.e., 734 ms on average). The instructions read: “As your reaction times reveal, the associations between the other person and negative words are relatively stronger. On

Table 4
Means of Different Indicators of Psychological Well-Being and Psychological Tension as a Function of Forgiving and Level of Commitment (Study 3)

Psychological well-being	Level of commitment			
	Weak		Strong	
	Forgiving	No forgiving	Forgiving	No forgiving
Satisfaction with life				
<i>M</i>	4.93	4.71	4.84	4.76
<i>SD</i>	0.98	1.17	1.20	1.08
Positive affect				
<i>M</i>	4.83	4.55	4.68	4.14
<i>SD</i>	0.73	0.91	0.80	0.75
Negative affect				
<i>M</i>	2.41	2.08	2.38	3.08
<i>SD</i>	0.99	1.02	0.92	0.91
State self-esteem				
<i>M</i>	5.11	5.20	5.10	4.59
<i>SD</i>	0.72	0.83	0.93	0.79
Psychological tension				
<i>M</i>	3.20	2.77	2.92	4.08
<i>SD</i>	1.25	1.18	1.28	1.17

the basis of these results, it seems that you have not entirely forgiven the offender.”

Assessment of psychological tension and psychological well-being. After the participant received information about his or her forgiveness, several measures were administered. First, participants completed a similar scale as used in Study 2 to assess psychological tension. However, unlike Study 2, we did not include the introductory line, which explicitly asked participants how they currently felt when thinking about their level of commitment with the offender and the extent to which they had forgiven the offender. Instead, participants were simply asked to indicate the extent to which they currently experienced certain feelings (nine items: e.g., tension, conflicting feelings, restlessness; $\alpha = .92$).

Second, as in Studies 1 and 2, we examined psychological well-being by assessing life satisfaction ($\alpha = .82$), positive affect ($\alpha = .83$), negative affect ($\alpha = .91$), and state self-esteem ($\alpha = .89$). For all measures, 7-point scales were used (1 = *completely disagree*, 7 = *completely agree*).

As a manipulation check, participants were asked whether, according to the test, they had forgiven or not forgiven the offender. In addition, participants were asked to indicate the extent to which they felt they had forgiven the other (1 = *completely not forgiven*, 7 = *completely forgiven*), thereby trying not to take into consideration the result of the forgiveness-test (i.e., level of forgiveness). Finally, a two-item scale measured the degree to which participants agreed with the result of the forgiveness-test (“I agree with the result of the forgiveness-test”; “I think the result of the forgiveness-test was right”; $\alpha = .92$).

Results and Discussion

Descriptive analyses. Participants reported offenses committed by a wide range of others, including dating partners (15.4%), friends (19.1%), relatives (24.2%), and others categorized as “other” (41.2%). On average, participants brought to mind relatively serious offenses ($M = 4.78$, $SD = 1.54$), and the offense took place on average 9 weeks ago ($M = 9.02$, $SD = 27.83$).

Manipulation check. All participants answered correctly the question about whether they had, according to the test result, forgiven or not entirely forgiven the offender. In addition, we conducted an ANOVA with level of experienced forgiveness as

dependent variable, and forgiveness condition (forgiving vs. no-forgiving feedback) and commitment (weak vs. strong) as independent variables. The latter variable was dichotomized in terms of weak commitment (below-median means) and strong commitment (above-median means; $Mdn = 4.44$). This analysis revealed a main effect of forgiving, $F(1, 135) = 7.32$, $p < .01$, indicating greater level of forgiveness in the forgiveness condition ($M = 4.76$, $SD = 2.04$) than in the no-forgiveness condition ($M = 3.85$, $SD = 2.17$). This provides good support for the intended effects caused by the experimental manipulation of forgiveness. The analysis also revealed a main effect of commitment, $F(1, 135) = 14.03$, $p < .001$, indicating a greater level of forgiveness when participants experienced strong commitment ($M = 4.97$, $SD = 2.06$) rather than weak commitment ($M = 3.68$, $SD = 2.04$) to the offender. This finding is consistent with the findings of Study 1 and with earlier research (e.g., Finkel et al., 2002; McCullough, Worthington, & Rachal, 1997). Finally, there was no significant interaction between forgiveness condition and commitment, $F(1, 135) = 0.40$, *ns*, indicating that the two independent variables exert only additive effects on level of experienced forgiveness.

Moderation by commitment: Hypothesis 1. To test Hypothesis 1, we conducted a 2 (forgiveness condition: forgiving vs. no-forgiving) \times 2 (commitment: weak vs. strong) ANOVA for each measure of psychological well-being. These analyses revealed the predicted significant interactions of forgiving and commitment for state self-esteem and negative affect (for means, see Table 4; for F values, see Table 5). Only when commitment to the offender was strong was the simple main effect of forgiving condition significant. Relative to participants in the no-forgiveness condition, participants in the forgiveness condition reported greater levels of state self-esteem and lower levels of negative affect. No such significant effects were obtained when commitment was weak.

Table 5
F Values of the Interactions Between Forgiving and Commitment Without and With Psychological Tension Included as Covariate, and F Values of Simple Main Effects Within Weak and Strong Commitment Without and With Psychological Tension Included as Covariate (Study 3)

Psychological well-being	Forgiving × Commitment interaction	Simple main effects	
		Within weak commitment	Within strong commitment
Satisfaction with life			
Without tension	0.13	0.64	0.08
With tension	0.66	0.95	0.04
Positive affect			
Without tension	0.90	2.20	7.21**
With tension	0.02	3.41	3.05
Negative affect			
Without tension	9.69**	1.51	8.28**
With tension	0.61	0.22	0.16
State self-esteem			
Without tension	4.42*	0.11	6.07*
With tension	0.89	0.01	1.52

Note. For Without tension values, $dfs = 1, 135$; for With tension values, $dfs = 1, 134$.

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

Although the interaction of forgiving and commitment for positive affect did not reach significance (and thus no significant moderation by commitment), further inspection of simple main effects revealed a pattern that is congruent with the expectations (for means, see Table 4; for F values, see Table 5). Specifically, when commitment was strong, level of positive affect was significantly higher in the forgiving condition than in the no-forgiving condition, whereas no such significant effects were observed when commitment to the offender was weak. For life satisfaction, neither the interaction effect of forgiving and commitment nor the simple main effects were significant.

Mediation by psychological tension: Hypothesis 2. The same four steps as in Study 2 were performed to establish mediated moderation. First, the preceding analyses revealed that the interaction effect of forgiving and commitment was obtained for the measures of state self-esteem and negative affect. Second, a 2 (forgiving vs. no forgiving) × 2 (commitment: weak vs. strong) ANOVA for psychological tension revealed a significant main effect of commitment, $F(1, 135) = 5.40, p < .05$. However, this effect was qualified by the predicted interaction effect of forgiving and commitment, $F(1, 135) = 12.72, p < .001$ (for means, see Table 4). Tests of simple main effects revealed that when commitment was weak, there was no significant effect of forgiving condition on psychological tension, $F(1, 135) = 0.77, ns$. When commitment to the offender was strong, participants in the no-forgiving condition reported higher levels of psychological tension than did participants in the forgiving condition, $F(1, 135) = 16.56, p < .001$.

Third, negative affect and state self-esteem were each, in turn, regressed simultaneously onto forgiving, commitment, their interaction, and psychological tension. These analyses revealed that psychological tension was indeed correlated with state self-esteem ($\beta = -.34, t(136) = 3.95, p < .001$, and correlated with negative affect ($\beta = .71, t(136) = 11.55, p < .001$). As a final and fourth step, to test the hypothesis that the interaction of forgiving and commitment on well-being is mediated by psychological tension,

we performed 2 (forgiving vs. no-forgiving) × 2 (commitment: weak vs. strong) ANOVAs for state self-esteem and negative affect separately, including psychological tension as a covariate. The interaction of forgiving and commitment for state self-esteem dropped to nonsignificance, $F(1, 134) = 0.89, ns$, and this reduction was significant ($Z = -2.60, p < .01$). Similarly, for negative affect, the interaction of forgiving and commitment dropped to nonsignificance, $F(1, 134) = 0.61, ns$, and this reduction was significant ($Z = 3.40, p < .01$). It is important to note that as can be seen in Table 5, the F values of the simple main effects strongly declined when commitment to the offender was strong and were not affected by psychological tension when commitment to the offender was weak.

Because the interaction of forgiving and commitment was not significant for positive affect, this interaction could thus not be mediated by psychological tension. However, in a more exploratory vein, we examined whether the significant simple main effect of forgiveness condition within strong commitment was mediated by psychological tension. When controlling for forgiving, commitment, and their interaction, a regression analysis revealed that psychological tension was significantly correlated with positive affect ($\beta = -.23, t(136) = -2.67, p < .01$). When psychological tension was included as a covariate in the 2 (forgiving vs. no forgiving) × 2 (commitment: weak vs. strong) ANCOVA for positive affect, when commitment to the offender was strong, the simple main effect of forgiving condition was no longer significant, $F(1, 134) = 3.05, p = .08$, yielding a significant reduction ($Z = -2.13, p < .05$).

Tension through disagreement as an alternative explanation. Is it possible that psychological tension is caused to some extent by disagreeing with the test results (e.g., when one thinks that he or she has forgiven the offender whereas the test results suggest otherwise, especially when commitment is strong)? And might tension rooted in disagreement with the test results account for the present findings? We conducted a 2 (forgiving vs. no-forgiving) × 2 (commitment: weak vs. strong) ANOVA for level of

agreement with the test results. This analysis revealed a main effect of forgiveness condition, $F(1, 135) = 9.13, p < .005$, as well as an interaction between forgiveness condition and commitment, $F(1, 135) = 10.23, p < .005$. Test of simple main effects revealed that when commitment was strong, level of agreement was indeed lower in the no-forgiving condition ($M = 3.50, SD = 1.90$) than in the forgiving condition ($M = 5.46, SD = 1.74$), $F(1, 135) = 19.12, p < .001$. When commitment was weak, there was no significant effect of level of agreement between the forgiving ($M = 4.82, SD = 1.43$) and the no-forgiving ($M = 4.88, SD = 2.23$) condition, $F(1, 135) = .01, ns$. Thus, level of agreement was indeed relatively low in the no-forgiving condition when commitment was strong.

However, ANOVAs in which level of agreement was included as a covariate revealed no evidence in support of a significant reduction in the variance accounted for by the interaction between forgiveness condition and commitment, for negative affect, $F(1, 134) = 9.90, p < .01$; without level of agreement, $F(1, 135) = 9.69, p < .01$; state self-esteem, $F(1, 134) = 4.22, p < .05$; without level of agreement, $F(1, 135) = 4.42, p < .05$; as well as the presumed mediator itself, psychological tension, $F(1, 134) = 10.66, p < .001$; without level of agreement, $F(1, 135) = 12.72, p < .001$. Thus, the interaction effect between forgiveness condition and commitment was not accounted for by level of agreement with the test results.

To summarize, in support of Hypothesis 1 predicting moderation by commitment, the present findings yielded a significant interaction effect between the forgiveness condition and commitment for negative affect and state self-esteem. Moreover, this interaction was also significant for psychological tension. Moreover, in support of Hypothesis 2 predicting mediation by psychological tension, the significant interactions dropped to nonsignificance for negative affect and state self-esteem when psychological tension was included as a covariate, supporting complete mediation rather than partial mediation by psychological tension. Although we did not obtain a significant interaction of commitment and forgiveness for positive affect, simple main effects analyses revealed patterns that were at least in the predicted direction. Life satisfaction was the only variable that failed to support Hypotheses 1 and 2; perhaps this variable is more stable over time and across situations than state self-esteem, negative affect, or positive affect. Finally, the evidence in support of Hypotheses 1 and 2 could not be accounted for by level of agreement with the test results.⁶

Study 4

Consistent with our framework, Studies 1–3 provide good evidence in support of the claim that the benefits of forgiving are partner specific: Forgiving is associated with psychological well-being, but only when the partner (i.e., offender) is someone to whom the person is strongly committed (i.e., Hypothesis 1). The findings of Studies 1–3 are based on methods in which participants were asked to bring to mind (or, in Study 2, to imagine) a specific conflict (cf. McCullough et al., 1998; VanOyen Witvliet et al., 2001). In Study 4, we sought to provide complementary evidence for Hypothesis 1 by examining the link between tendencies to forgive (rather than forgiving of a specific offense) and psychological well-being. Moreover, Study 4 complements the findings of Studies 1–3, which were based on students who had brought to

mind conflicts with dating partners, friends, and fellow students, by examining the association between forgiving and psychological well-being in the context of marital relationships.

Study 4 examined the effects of the distinction between (a) the tendency to forgive others across multiple interaction partners (i.e., *general forgiveness*), and (b) the tendency to forgive one's spouse (i.e., *partner-specific forgiveness*; see Fincham, 2000; for a similar distinction, see McCullough, Hoyt, & Rachal, 2000). General forgiveness refers to the tendency to forgive others, irrespective of whether these others are partners to whom one experiences weak or strong levels of commitment—indeed, it generalizes across levels of commitment (cf. McCullough, Hoyt, & Rachal, 2000). In contrast, relative to other specific partners, a spouse is obviously a partner to whom one is generally strongly committed in terms of intent to persist, long-term orientation, and psychological attachment (cf. Agnew et al., 1998). Thus, in line with our reasoning that the beneficial effects of forgiving are partner specific (i.e., forgiving is beneficial when commitment to the partner is strong), we predicted that the tendency to forgive one's spouse would exhibit stronger associations with psychological well-being than the tendency to forgive others in general, irrespective of level of commitment to the other.

Method

Participants and procedure. The initial sample consisted of 166 heterosexual couples who participated in a large research program on the division of labor. Spouses received identical questionnaires at home in separate envelopes. They were instructed not to discuss the questionnaire with the spouse until each had completed it and returned it in separate envelopes. One hundred nineteen couples returned the questionnaires and received a research report in return for their participation. These couples had been involved in their relationship for 10 years and 3 months on average. The mean ages of men and women were 36.38 years ($SD = 4.23$) and 33.69 years ($SD = 3.25$), respectively.

Measurements. Using a five-item modified version of the commitment scale as used in the previous studies, commitment to the relationship partner was assessed. Internal consistency was acceptable ($\alpha = .72$). Participants responded on 9-point scales. As presumed, levels of commitment were strong ($M = 7.76, SD = 1.04$). More than 98% scored above the midpoint of scale.

Partner-specific forgiveness and general forgiveness were assessed with a single-item scale (respectively, "To what extent are you, in general, forgiving toward your partner?" and "To what extent are you, in general, forgiving toward others [other than your partner]?"). Participants indicated on 9-point scales tendencies to forgive.

⁶ We also conducted another study that deserves brief discussion. Using a method that is similar to Study 1, we examined four conditions by instructing participants to bring to mind a conflict that they had either forgiven or not forgiven with another person to whom they experienced either weak or strong commitment (see Figure 1). Also, as in Studies 2 and 3, we assessed psychological tension. Consistent with Hypothesis 1, as well as with the findings of Studies 1–3, this study revealed significant interactions of forgiving and commitment for life satisfaction and state self-esteem and marginal interaction effects for negative affect and positive affect. Moreover, consistent with Hypothesis 2, the interactions for state self-esteem, life satisfaction, and negative affect were mediated by psychological tension. Thus, the findings of this study also provided good support for our hypotheses. The interested reader could contact Johan C. Karremans for more detailed information regarding this study.

The Satisfaction With Life Scale was used as an indicator of psychological well-being ($\alpha = .88$).

Results

The data obtained in this study are not statistically independent. To address the problem of nonindependence, we analyzed the data at the individual level separately for men and women.

Partner-specific forgiveness was significantly positively correlated with life satisfaction (for men, $r = .41, p < .01$; for women, $r = .31, p < .01$). General forgiveness and life satisfaction were not significantly correlated (for men, $r = .16, p < .10$; for women, $r = .15, p < .12$). We tested our hypothesis with a test given by Steiger (1980). This analysis revealed that the correlation between partner-specific forgiveness and life satisfaction was indeed stronger than the correlation between general forgiveness and life satisfaction, both for men, $t(112) = 2.25, p < .05$, and for women, $t(112) = 2.28, p < .05$.

Of lesser relevance, correlational analysis revealed that partner-specific forgiveness and general forgiveness were modestly correlated for both men ($r = .19, p < .05$) and women ($r = .25, p < .01$). Moreover, exploratory analyses revealed that partner-specific forgiveness was correlated between men and women ($r = .23, p < .05$). Also, life satisfaction was correlated between men and women ($r = .39, p < .01$).

Thus, these findings confirm our hypothesis that a tendency to forgive one's spouse (i.e., someone to whom one experiences strong levels of commitment) is more strongly related to psychological well-being than a tendency to forgive others in general. Again, these findings suggest that the beneficial effects of forgiveness are relationship-specific.⁷

General Discussion

The major purpose of the present research was to illuminate our understanding of when and why forgiving might be associated with enhanced psychological well-being. Using principles of interdependence theory and previous research on commitment in relationships, we suggested that the presumed link between forgiving and psychological well-being could be understood in terms of interdependence features underlying the relationship between the person and the offender. As such, the present research sought to extend the young literature on forgiving, which has devoted relatively little attention to the relationship-specific variables that might contribute to understanding of whether forgiving is positively associated with psychological well-being. In the following paragraphs, we discuss the major findings of the present research and outline several implications of this research.

We advanced the prediction that this association would be more pronounced when commitment is strong than when commitment is weak (Hypothesis 1). Consistent with Hypothesis 1, Studies 1–3 revealed significant interactions of forgiving and commitment on psychological well-being (across the three studies, 10 of the 12 interactions of forgiving and commitment were marginal or significant). Complementary analyses revealed that forgiving was only associated with psychological well-being when commitment was strong (11 of 12 simple main effects within strong commitment were marginal or significant) but not when commitment was weak (none of the 12 simple main effects within weak commit-

ment were marginal or significant). This pattern was observed across conceptually and empirically distinct measures of psychological well-being: life satisfaction (Studies 1 and 2), positive affect (Studies 1 and 3), negative affect (Studies 2 and 3), and state self-esteem (Studies 1–3).

These findings are consistent with the notion, derived from interdependence theory, that interpersonal variables are essential to the understanding of whether or not forgiving promotes psychological well-being. Forgiving does not occur in an interpersonal vacuum. Indeed, as the present findings indicate, the psychological consequences of forgiving need to be considered in light of one's commitment, which is rooted in a history of social interaction and which guides processes, behavior, and interactions that are relevant to the future of the relationship (Rusbult & Van Lange, 1996). Interdependence frameworks have often been used to understand behavior and interactions such as cooperation, sacrifice, and accommodation (Kelley, 1997; Kelley & Thibaut, 1978; Rusbult et al., 1991; Van Lange, Otten, et al., 1997). As such, the present research complements previous research by indicating that concepts focusing on circumstances of interdependence and history of interactions are essential to the understanding of not only behavior and interactions but also intrapersonal outcomes, that is, psychological well-being.

The present research also sought to extend previous research on forgiving by examining why forgiving might be associated with psychological well-being. We suggested that the combination of strong commitment and absence of forgiving contributes to psychological tension, which might explain reduced levels of psychological well-being. Consistent with Hypothesis 2, Studies 2 and 3 revealed that psychological tension (i.e., a psychological state of discomfort due to conflicting cognitions and feelings) mediated the interactive impact of both commitment and forgiving on the measures of psychological well-being. Specifically, failure to forgive others to whom we feel strong commitment elicited reduced levels of life satisfaction and state self-esteem as well as higher levels of negative affect; these effects disappeared when psychological tension was included as a covariate (see Tables 3 and 5; the evidence was weaker or absent for positive affect in both studies and absent for life satisfaction in Study 3). We suggested that failure to forgive is at conflict with each of three basic components of

⁷ In a different study, using a similar methodology, we asked 91 participants to indicate on six-item scales (a) their tendency to forgive their most significant other (i.e., someone to whom one experiences strong levels of commitment) in their lives ($\alpha = .71$) and (b) their tendency to forgive others in general (not including the most significant other; $\alpha = .78$). Of the significant others named, 32% were intimate partners, 26% close friends, 28% parents, 10% siblings, and 4% were unclassified. Satisfaction with life served as an indicator of psychological well-being. In line with the results of Study 4, the tendency to forgive one's most significant other was significantly correlated with life satisfaction ($r = .23, p < .05$), whereas the tendency to forgive others in general was not significantly correlated with life satisfaction ($r = .09, ns$). The correlation between the tendency to forgive one's most significant other was marginally stronger than the correlation between the tendency to forgive others in general, $t(91) = 1.41, p < .10$. Thus, as in Study 4, this study indicated that the tendency to forgive someone to whom one is strongly committed is more strongly related to psychological well-being than the tendency to forgive others in general.

commitment: intent to persist, long-term orientation, and psychological attachment. Psychological tension may be due to the fact that failure to forgive forms a serious threat to (a) the stability and vitality of the relationship (i.e., which is at odds with intent to persist), (b) a basic level of trust and positive reciprocity (i.e., two basic ingredients of long-term orientation), and (c) feelings of psychological attachment (cf. Agnew et al., 1998; Aron & Aron, 1997; Van Lange, Rusbult, et al., 1997; Wieselquist et al., 1999).

Although the present findings provide evidence in support of the mediating role of psychological tension, this evidence is preliminary for at least two reasons. First, although we provide a logic for explaining why failure to forgive is at odds with each component of commitment, the present work was not designed to examine empirically whether each of these three lines of reasoning is valid or not. Second, the measure of psychological tension shares some method variance with the frequently used measures of psychological well-being, at least with the measure of negative affect. In this respect, it was encouraging that the present work obtained evidence in support of mediation not only for negative affect but also for life satisfaction and state self-esteem (i.e., constructs that are positive, unlike psychological tension). Accordingly, it is plausible that psychological tension, created by thinking about the lack of forgiveness for another to whom we feel strong commitment, influences the more general experience of well-being.

Study 4 provided complementary evidence in support of the general claim that the benefits of forgiveness are partner specific. Indeed, Study 4 revealed a significantly more pronounced association between the tendency to forgive one's spouse and satisfaction with life than between the tendency to forgive others in general and satisfaction with life. This finding, observed for both men and women who are involved in marital relationships, indicates that one needs to take into account the interdependence features underlying the relationship between the individual and the target of forgiving (cf. Reis, Collins, & Berscheid, 2000). That is, forgiving may only be associated with psychological well-being for partners to whom one experiences strong levels of commitment (i.e., long-term orientation, intent to persist, and psychological attachment). Moreover, the findings of Study 4 may help understanding of why prior research often failed to reveal significantly positive correlations between general dispositions to forgive and psychological well-being (e.g., Tangney, Fee, Reinsmith, Boone, & Lee, 1999). Indeed, the present findings suggest that the distinction between general forgiveness and partner-specific forgiveness is important to understanding the possible benefits of forgiveness (for similar theorizing, see Fincham, 2000; McCullough, Pargament, & Thoresen, 2000).

Strengths, Limitations, and Implications

To our knowledge, the present research is the first study that has addressed the role of relationship-specific features in understanding the association between forgiving and psychological well-being. Four independent studies (and two studies that are reported in Footnotes 7 and 8), which used substantially different methods and samples, provide converging evidence for the general hypothesis, predicting a more pronounced, positive association between forgiveness and psychological well-being when commitment is strong rather than weak. As noted earlier, these findings make an important contribution to the rapidly growing literature of forgive-

ness, which has addressed the psychological benefits of forgiveness but has not yet provided a satisfactory answer. Indeed, the most important contribution of the present research derives from the fact that consideration of commitment—a relationship-specific variable—is essential to understanding whether and when forgiveness may serve psychological well-being.

At the same time, we acknowledge several limitations of the present research. To begin with, the present research did not systematically examine the temporal sequence of the principal variables under study. In fact, all four experiments tended to use methods whereby commitment is set, or fixed at the level of assessment, which may render some alternative explanations plausible. For example, one may argue that if the level of commitment were not set, individuals might respond by reducing commitment, thereby reducing psychological tension—indeed, the lack of forgiveness does tend to reduce commitment (Finkel et al., 2002; McCullough et al., 1998). It is also possible, even plausible, that the lack of forgiveness influences third variables that are essential to understanding later commitment. For example, when unable to forgive, individuals may not only psychologically but also socially distance themselves from what were good friends, so that the lack of any interaction reduces level of commitment. Thus, we acknowledge various lines of reasoning that suggest that a lack of forgiveness may cause reduced levels of commitment.

We must admit that we are in fact quite optimistic about moderation of the association between forgiveness and psychological well-being by commitment, even when commitment was assessed some time before the offense occurred. One reason is that commitment tends to exhibit strong levels of consistency over time, providing support for its conceptualization as a relatively stable relationship feature or macromotive rooted in a history of many interaction experiences (Holmes & Rempel, 1989; Rusbult, 1983; Rusbult & Van Lange, 1996; cf. Wieselquist et al., 1999). Also, such optimism is based on the fact that in the present research most participants were able to generate an instance of an offense that they had not forgiven another person to whom they were strongly committed. In other words, there appear to be “friends for life,” despite some inevitable hurt and lack of forgiveness (cf. Fincham, 2000; Finkel et al., 2002).⁸ Of course, the ultimate test of such reasoning is to be found in longitudinal or prospective research, examining whether earlier commitment assessed prior to the offense moderates the association between later forgiveness and later psychological well-being. Such research may also illuminate the intricate feedback loops between commitment, forgiveness, and psychological well-being, as well as the various third variables that may help explain intrapersonal and interpersonal processes that are

⁸ A case in point can be derived from our earlier research described in Footnote 6. This research revealed that nearly 3 out of 4 participants (73%) were able to generate an instance of a conflict that they had not forgiven another person to whom they were strongly committed—and they generally did so without a lot of thinking time. Thus, although not all people may be faced with an unforgiving conflict with a strong commitment other, most people do seem to experience such tension-arousing situations. Such evidence, although somewhat indirect, is consistent with assumptions stressing the idea that eventually transgressions, misbehavior, and violations of norms do take place in strongly committed relationships and that such offenses give rise to the challenge of forgiving (e.g., Fincham, 2000; Finkel et al., 2002).

relevant to the stability and change in commitment, forgiveness, and psychological well-being.

Second, apart from the temporal sequence and feedback loops among the variables, the present research does not speak directly to the possible long-term consequences of forgiving (or long-term consequences of failure to forgive). In particular, Studies 1–3 do not address long-term effects but instead focus on temporal fluctuations in well-being, resulting from bringing to mind a conflict that is either forgiven or not forgiven. Study 4 may be of some relevance to long-term consequences, in that tendencies toward forgiving one's spouse were positively associated with satisfaction with life for men and women involved in ongoing relationships. As noted earlier, longitudinal and prospective designs could be used to explore the temporally extended benefits of forgiveness (or costs of failure to forgive), at least in the context of committed relationships.

Third and finally, one limitation may be gleaned from the fact that, as in much previous work, in Study 1 participants were instructed to bring to mind an incident of an interpersonal offense and whether they had or had not forgiven the offender. We do not know whether—and if so, how frequently—people themselves bring to mind incidents of interpersonal offense that they have versus have not forgiven another person (cf. McCullough et al., 1998). In a related manner, the present research focuses on intrapsychic forgiving (i.e., the psychological and emotional changes within a person) but does not directly address interpersonal forgiving, the behavioral actions toward the offender (Exline & Baumeister, 2000). Indeed, associations of psychological well-being with self-activated thinking about interpersonal offenses (e.g., rumination; McCullough et al., 1998) and interpersonal aspects of forgiveness represent important topics for future research.

We close by outlining two broad implications of the present research, a theoretical and a practical implication. First, prior theory and research have indicated that well-being is associated with several intrapersonal variables, such as coping, emotion regulation, cognitive dampening, and appraisal (for reviews, see Salovey, Rothman, & Rodin, 1998; Stroebe & Stroebe, 1996). Such knowledge has contributed to understanding of the effective—and not so effective—ways in which different people approach, regulate, and process positive and negative events. However, the extant literature of psychological well-being has devoted relatively less attention, at least explicit attention, to whether or how truly interpersonal variables (such as relational commitment) may help understanding of the bases for psychological well-being (for similar reasoning, see Baumeister & Leary, 1995; Diener, 2000; Myers, 2000). We suggest that specific interpersonal experiences and the ways in which people deal with such experiences, intrapersonally and interpersonally, may well further contribute to understanding of the roots and fruits of happiness.

Second, the present findings may also have implications for counseling and therapy. Although the present research is not concerned with traumatic experiences, it becomes somewhat questionable whether it is sensible to recommend interpersonal forgiving without taking into consideration the nature of the relationship between the person and the offender. Indeed, for several offenses, it may well be that forgiving does not contribute to psychological well-being when the relationship with the offender is one of low commitment. Under these circumstances it may also be useful to consider alternatives for forgiving, such as seeking to distance

oneself from the other. In other words, forgiving need not always be the best response to unresolved interpersonal conflicts.

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