

## The role of automaticity in determining the inclination to forgive close others

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### Abstract

Hitherto, the literature on forgiveness has almost exclusively focused on the role of deliberative processes (e.g., attribution processes) in determining forgiveness. However, in the present article, we argue that in the context of close relationships, the inclination to forgive can be relatively automatically evoked in response to an offense. Four studies provide evidence relevant to this general hypothesis. Studies 1 and 2 demonstrate that the subliminal presentation of close others (versus non-close others or a control word) induces a relatively strong inclination to forgive various offenses. Study 3 provides insight into the cognitive processes that underlie the closeness–forgiveness link, demonstrating that thinking of (a transgression of) a close other (compared to a non-close other) leads to enhanced accessibility of the construct of forgiveness. Finally, Study 4 demonstrates that forgiving responses toward a close offender are less dependent on cognitive resources than are forgiving responses toward a non-close offender, suggesting that, in close relationships, the inclination to forgive arises in a relatively effortless, habitual manner. Implications for theorizing on how people forgive are being discussed.

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Close relationships often yield positive social outcomes, such as companionship, security, and social support. When needs for close relationships are met, for instance through supportive friendships or an intimate relationship, people not only enjoy greater psychological well-being, but even greater physical well-being (House, Landis, & Umberson, 1988; Myers, 2000). However, maintaining interpersonal relationships can be a burdensome adventure. One reason for this is that people (intentionally or not) offend and harm each other, even – or perhaps especially – in close relationships. They may break promises, gossip behind each other's back, or say nasty things even directly in the face of each other – in short, behaviors we do not always appreciate. Because of the almost inevitable hurts and offenses that accompany interpersonal relationships, it is important for

humans to effectively deal with such events to maintain stable and healthy relationships (Fincham, 2000).

Recent literature has argued that *forgiveness* may be a key factor in dealing with these relationship threatening moments (e.g., Fincham, 2000; McCullough, Rachal, Sandage, Worthington, & Wade Brown, 1998). Whereas responding in an eye-for-an-eye fashion after an offensive behavior may result in negative reciprocity, in contrast, responding in a forgiving manner may prevent such downward spirals of negativity in the relationship (e.g., McCullough et al., 1998; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Consistent with this assumption, it has been shown that forgiveness is positively related to positive interactions between forgiver and offender after the offense occurred (e.g., Fincham, 2000; Karremans & Van Lange, 2004). In addition, forgiveness positively predicts the quality of marital relationships (Paleari, Regalia, & Fincham, 2005).

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Although numerous definitions of forgiveness have been provided in the literature, all these definitions seem to share one single core feature, namely that forgiveness can be defined in terms of a prosocial change toward the offender, despite his or her hurtful actions (McCullough et al., 1998). There is general consensus in the literature that forgiveness does not occur instantaneously, but is a process that evolves over time (e.g., McCullough, Fincham, & Tsang, 2003). Moreover, and importantly, forgiveness is not merely the dissipation of negative feelings and the re-occurrence of good-will over time, but is generally regarded as something that people intend to do. For example, according to Fincham, Paleari, and Regalia (2002), the process of forgiveness starts with the decision or the inclination to forgive the offender. When being inclined to forgive, a person decides that he or she wants to overcome negative feelings toward the offender, and wants to continue the relationship in a positive manner. Actual forgiveness occurs when these negative feelings are indeed dissipated (Fincham et al., 2002). Without a person's inclination to forgive, actual forgiveness (i.e., overcoming negative feelings and ill-will toward the offender) is unlikely to occur. Thus, to fully understand how people are able to forgive their offenders, it is important to scrutinize the process involved in the generation of a person's inclination to forgive an offender. As will be explained shortly, the purpose of the present research is to examine the role of automaticity in the process that leads to a person's inclination to forgive others, and we argue here that the amount of closeness to the offender plays a fundamental role in this process.<sup>1</sup>

### The role of deliberative processes in the inclination to forgive

Hitherto, the literature on forgiveness generally proposes that deliberative and effortful cognitive processes determine a person's decision to forgive an offender. Accordingly, research has also predominantly focused on the role of deliberative factors that may or may not determine forgiving responses. For example, Finkel, Rusbult, Kumashiro, and Hannon (2002) examined the link between relationship commitment and forgiveness, and found that this relationship is – although partially – mediated by cognitive interpretations of the offense. That is, in close relationships (compared to non-close relationships) participants discounted internal causes for the offense, and formed relatively more external explanations for the offense, which in turn positively influenced reported forgiveness. In a related vein, Fincham et al. (2002) showed that the relationship between marital satisfaction and for-

giveness is mediated by causal and responsibility attributions regarding the offense. Important to note, although the above mentioned studies provide valuable information about the variables mediating forgiveness in response to offenses, the research designs and measurement procedures commonly used in these studies (i.e., correlational data obtained by self-reports in a questionnaire setting) do not allow one to draw firm conclusions about the processes underlying these relations. For instance, when confronted by questionnaires probing the relevant constructs, people are fully aware of, and capable of retrieving the reasons why they would be inclined to forgive an offending partner. This reflective mode of responding necessarily leads to an emphasis on deliberative processes in determining a person's inclination to forgive.

Other evidence for the role of deliberative processes in forgiveness comes from a study by Yovetich and Rusbult (1994, Study 2). They reasoned that, if forgiving responses in interpersonal relations are indeed the result of deliberative processes, this should be a relatively time-consuming process. In other words, it takes some processing-time before one decides whether one should or should not forgive an offender. In line with this reasoning, it was demonstrated that reactions to offensive behavior of a relationship partner were more forgiving when participants were given plentiful time to react than when participants were given only limited response time. These findings and the findings discussed above suggest that the inclination to forgive is determined by deliberative processes that people may actively engage in after being hurt by someone, and that this process may thus be a relatively thoughtful and effortful process.

### The role of automaticity in the inclination to forgive

Although the above-mentioned studies provide just a few examples of research that has focused on the role of deliberative processes by which people become to respond in a forgiving manner, undeniably, the general tenet in the forgiveness literature is that responding in a prorelationship manner after one has been damaged by the partner's behavior is generally the result of a relatively deliberative and effortful process. But is this always the case? Is a person's inclination to forgive always, and only, the result of an effortful deliberative process? We believe the answer is no, and instead argue that the inclination to forgive may indeed arise rather automatically, without much effort and conscious thought. Importantly, we argue that the possible role of automatic processes in forgiveness is relationship-specific. That is, in the context of a close relationship (and less so in the context of a non-close relationship), it is likely that the inclination to forgive an offense behavior of the partner occurs automatically, in that such responses may not necessarily be the result of, for example, effortful cognitive interpretations of the offensive behavior. Although we do not wish to claim that deliberative processes do not play any role in determining a person's decision to forgive (we

<sup>1</sup> In the current article, we examine the role of automaticity in forgiveness as a function of varying levels of *closeness*. Closeness is a construct that relates to many other relationship variables such as commitment, relationship satisfaction, intimacy, trust, et cetera (Aron, Aron, & Smollan, 1992). We choose such a broad construct, since the present research is the first to examine the role of automaticity in the forgiveness process, and the first to examine whether this role is relationship specific. We will briefly come back to this issue in the General discussion.

will come back to this issue in the General discussion), central to our process-oriented approach is the idea that, in the context of a close relationship, the inclination to forgive can be evoked without much conscious thought and with relatively little effort.

This notion is in line with previous theorizing on the possible role of automatic processes in the context of close relationships (e.g., Holmes, 2002; Reis, Collins, & Berscheid, 2000). Interestingly, although principles in interdependence theory suggest that forgiveness is often the result of thoughtful, effortful processes, at the same time Kelley and Thibaut (1978) reasoned that such prorelationship responses may become routinized in close relationships (see also Rusbult & Van Lange, 1996). Also, and more generally, Reis et al. (2000) stressed the important role that automatic processes may play in close relationships (see also for instance Fincham, 2001). Yet, previous theorizing and research dealing with close relationships has mainly focused on deliberative processes – the forgiveness literature being no exception – while the role of automatic processes has only received relatively little empirical attention in this domain.

The important question of course is *why* the inclination to forgive would arise relatively automatically in close relationships. The answer to this question lies in the general idea that forgiveness may be included in the cognitive representation of the relationship with the close other. In the last decade, evidence has accrued showing that people establish cognitive representations of their relationships with others (i.e., *relational schemas*; Baldwin, 1992; Miller & Read, 1991), and importantly, such representations are derived from repeated similar interaction patterns with the other. Relationship representations are assumed to contain information about the self in relationship with the partner, information about the relationship partner, and information about interaction patterns with that partner (e.g., Baldwin, Carrell, & Lopez, 1990; Fitzsimons & Bargh, 2003; Shah, 2003). For instance, goals that an individual frequently pursues in the relationship with the close other are hypothesized to become directly associated with the mental representation of that relationship with the close other. Consequently, seeing, interacting with, or even just thinking about a close other automatically activates interpersonal goals. For instance, a study by Fitzsimons and Bargh (2003, Study 1) demonstrated that participants became more helpful toward a stranger when primed with close others compared to non-close others (e.g., a very good friend versus a colleague), suggesting that helping is directly associated with the relational representation of the close other. We argue here that, in a similar way, forgiveness becomes directly associated with the mental representation of the relationship with the close other.

Why do we think so? As noted, information about interaction patterns between partners (also referred to as *interpersonal scripts*; Baldwin, 1992) becomes cognitively represented to the extent that the interaction pattern is repeated. Clearly, repetitive interaction patterns are more

likely to occur in close relationships, because we simply interact more frequently with close others than with non-close others (e.g., Reis et al., 2000). Unfortunately, interpersonal interactions with close others are not always positive. Although various studies have found different frequencies of transgression in close relationships, whatever the exact count, the overall conclusion is that destructive behaviors are certainly not exceptional but occur quite frequently in close relationships (Brehm, Miller, Perlman, & Campbell, 2002). Moreover, as previous research has demonstrated, acting destructively in return to a partner's offensive act may cause escalation of conflict, leaving both partners with negative outcomes such as anger, frustration, guilt, and ultimately, an unsatisfying relationship (e.g., Baumeister, Stillwell, & Wotman, 1990; Rubin & Rubin, 1993). In contrast, responding to destructive or offensive behavior of the partner in a more forgiving manner may prevent such escalation, and leads to more positive feelings and emotions, and is positively related to relationship satisfaction (e.g., Rusbult et al., 1991). Also, recent research has demonstrated that forgiving is associated with increased psychological well-being in the context of close relationships, however, this association between forgiving and psychological well-being is not apparent in non-close relationships (Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003). Hence, especially in a close relationship, forgiving responses are likely to be associated with positive outcomes, while unforgiving responses are primarily associated with negative outcomes. Thus, through repeated practice and reinforcement (Aarts & Dijksterhuis, 2000), forgiveness becomes directly associated with the relationship representation of that close other, making it more likely that a person will be more inclined, in a *habitualized* manner, to forgive negative behavior of the close other.

Similar to other constructs that are mentally represented and that can be automatically activated by situational cues (e.g., Aarts & Dijksterhuis, 2003; Bargh, 1990), thinking of, seeing, or interacting with a close other (rather than a non-close other) can automatically activate forgiveness. However, although exposure to a close other may automatically activate the concept of forgiveness (because it is directly included in the relationship representation), of course it would need to be applicable to the current situation to be used (Bargh, Chen, & Burrows, 1996; Higgins, 1996). That is, the heightened accessibility of forgiveness will facilitate the person's inclination to forgive when being offended by the close other – making an extensive and effortful attribution process regarding the other person's negative behavior less needed.

### The present research

The above reasoning provides a framework for understanding the process underlying a person's inclination to forgive following an interpersonal offensive behavior of a partner. In sum, we argue that mental representations that people develop of their relationships with close others

include that one responds in a forgiving manner when offended by the close other. This representation of interpersonal knowledge causes the concept of forgiveness to be automatically activated by close others, and this heightened accessibility of forgiveness facilitates the inclination to forgive hurtful actions of the close other. Accordingly, the inclination to forgive a close other (compared to a non-close other) results from a less effortful process that requires relatively few cognitive resources.

We conducted four experiments that were designed to test these ideas. Specifically, we tested three basic hypotheses. First, if forgiveness is indeed part of the mental representation of the relationship with close others, then the mere thought of the close other should automatically increase people's inclination to forgive (*Hypothesis 1*). This first hypothesis was tested in Studies 1 and 2. In order to activate the relationship representation of close others, participants were subliminally primed with the name of a close other (versus the name of a non-close other or a control word; for a similar method, see Fitzsimons & Bargh, 2003; Shah, 2003), after which the inclination to forgive various offenses was measured.

Second, in Study 3, we tested whether the concept of forgiveness is indeed automatically activated by close others (or is at least stronger activated by a close other than by a non-close other; *Hypothesis 2*). Although theoretically forgiveness (because it is part of the relationship representation) should become activated upon exposure to a close other irrespective of whether the concept could be applied to the situation (i.e., irrespective of whether one is offended by the close other), we tested this hypothesis in a situation when people encounter negative behavior of a close other or a non-close other (we briefly return to this issue in the General discussion). Activation of the concept of forgiveness was measured by means of a word-stem completion task, after participants read a scenario in which a close other or a non-close other appeared.

Third, to test the hypothesis that the inclination to forgive close others (versus non-close others) requires relatively few cognitive resources (*Hypothesis 3*), in Study 4 we examined participants' responses to offensive behavior of a close other and a non-close other, either under high or low time pressure (i.e., respectively, few versus plenty cognitive resources). If the inclination to forgive close others indeed results from a relatively effortless process, inclinations to forgive should to a lesser extent be influenced by time pressure when the offender is a close other than when the offender is a non-close other. Put differently, even when cognitive resources are scarce, people should respond with relatively high inclinations to forgive a close other compared to a non-close other.

## Study 1

The goal of Study 1 was to examine whether forgiving responses are evoked when representations of the close other are activated outside of awareness. Such findings

would provide strong evidence for the proposed automatic closeness–forgiveness link, and would suggest that forgiveness is indeed mentally represented in the relationship representation of the close other (for similar reasoning, see Fitzsimons & Bargh, 2003). For this purpose, we employed a subliminal priming procedure to expose participants to the name of a close or non-close other. Subliminal priming was used as a way of activating the mental representation of the close or non-close other just before a response to an offense behavior is requested, while preventing conscious attention to the close or non-close other (for a recent review on the possibilities of subliminal priming procedures, see Dijksterhuis, Aarts, & Smith, 2005).

Participants were first asked to bring to mind a very close other and a non-close other. Later on in the experiment, participants indicated the extent to which they would be inclined to forgive a number of offensive behaviors, while being subliminally primed with either the name of the close other, the non-close other, or a control non-word. We expected that participants who were primed with the name of the close other would be inclined to forgive the offenses to a greater extent than participants who were primed with the non-close other or a control word.

## Method

### Participants and design

Sixty-seven undergraduate students (22 men, 45 women; no main effects, or interactions effects, of gender were found in any of the studies reported in this article) took part in the experiment and received 5 Euros in exchange for their participation. They were randomly assigned to one of the three priming conditions (close other, non-close other, control).

### Procedure

Upon arrival in the laboratory, participants were escorted to individual cubicles, where they completed the experiment on a computer. In the first part of the experiment, participants were asked to think of two persons they knew, one of whom they had a very close relationship with, and one of whom they did not have a close relationship with. They were asked to type in the name of these two persons.<sup>2</sup> Arguably, the name of the parent is not strongly associated with the representation of the parent if the parent is generally not addressed with his or her name, and the name of a parent is therefore less suitable for subliminal priming than how the parent is generally addressed by the participant (e.g., mum, daddy, etc.). Therefore, if one of the persons was one of the parents of the participant, it was

<sup>2</sup> We have not provided all 15 offensive behaviors in English translation, because translating all 15 offensive behaviors in such a way that connotations of the behaviors between English and Dutch corresponded correctly appeared to be very difficult. The important point is that based on pilot testing, we selected those behaviors that, at least in Dutch language, were considered to be moderately forgivable (see General discussion). However, the interested reader may contact the first author for more information about the stimulus set used.



instructed to type in how they generally addressed the parent. (Across all the four studies reported in this article, of the close others named, about 30% were romantic partners, 20% were parents, 15% were siblings, 30% were close friends, and about 5% were categorized as “other” [e.g., an aunt or uncle]. In the non-close other condition, across four studies, more than 75% were categorized as “other”, which often was a fellow student or an acquaintance. No reliable differences of our effects for different relationship types.)

For both the close and the non-close other, participants were asked how close they felt to the other. Closeness was measured with the Inclusion of Other in the Self (IOS) scale, developed by Aron et al. (1992). This measure consists of seven pair of overlapping circles, one circle representing the self and one circle representing the other. The pairs differ in degree of overlap, from two circles not touching to two circles that are almost completely overlapping. The participant is asked to indicate which pair of circles best describes the relationship with the other.

After participants completed a separate unrelated study that required approximately 30 min (both in Studies 1 and 2 this task consisted of a trait inference study, using a probe recognition task, in which all manipulations were within-participants, i.e., the present findings could not be influenced by between-participants conditions), they were told that the researchers were interested in how likely people, in general, thought they were to forgive various offensive behaviors. For 15 behaviors, participants were asked to indicate on a 7-point scale ranging from 1 = *certainly would not forgive* to 7 = *certainly would forgive* how likely they were to forgive each behavior. These 15 behaviors were taken from a pilot study, in which 20 participants were asked to indicate how likely they would forgive a total number of 31 offensive behaviors. As will be discussed in more detail in the General discussion, we reasoned that high versus low levels of closeness would automatically influence the inclination to forgive for offensive behaviors that are considered moderately forgivable. We therefore selected 15 behaviors that were rated as moderately forgivable (e.g., lying, cheating, deceiving, insulting; means ranging from 2.95 to 4.24 on a 7-point scale ranging from 1 = *certainly would not forgive* to 7 = *certainly would forgive*).<sup>2</sup> The 15 behaviors were, in random order, presented one by one on the center of the screen.

The manipulation consisted of primes that were subliminally presented before each behavior. For one group, each behavior was preceded by a prime of the name of the close other, for a second group the name of the non-close other preceded each behavior, and for a third group each behavior was preceded by a non-word letter string (psdfkj). The prime was presented for 23 ms, preceded by a fixation point (xxxxxxx) for 500 ms, and immediately followed by the same string of x's for 500 ms (for a detailed description of this method, see for instance Bargh & Chartrand, 2000). The behavior followed immediately, and participants were asked to indicate as quickly as possible the extent to which they would forgive the behavior by pushing one of the

numbers 1–7 on the keyboard (higher numbers indicating more forgiveness). After each response, the next trial followed after 2 s. The averaged responses on the 15 trials served as an indicator of level of forgiveness,  $\alpha = .76$ .

### Debriefing

After the session, participants were debriefed and checked for awareness of the primes. The debriefing indicated that all participants were unaware of the presentation of the prime words, and no participants realized the true nature of the study. Thus, if effects on the forgiveness responses occur they seem to operate outside of participants' conscious awareness (Bargh & Chartrand, 2000).

### Results and discussion

#### Manipulation check

Although all participants had brought to mind both a close other and a non-close other in the first part of the experiment, we compared level of closeness to the other only between participants that were primed with the close other and participants that were primed with the non-close other. As anticipated, level of closeness was higher in the close other condition ( $M = 5.87$ ,  $SD = 1.18$ ) than in the non-close other condition ( $M = 2.21$ ,  $SD = 1.02$ ),  $F(1, 46) = 129.83$ ,  $p < .001$ .

#### Inclination to forgive

To examine our prediction, an analysis of variance with the inclination to forgive as dependent variable and condition as independent variable was performed. This analysis revealed a significant effect of condition,  $F(2, 66) = 3.17$ ,  $p < .05$ . To more specifically examine our prediction, the inclination to forgive in the close other prime condition was contrasted with the non-close prime condition and the control condition. This analysis revealed that, in line with our prediction, participants in the close other condition ( $M = 3.38$ ,  $SD = 0.57$ ) exhibited greater inclinations to forgive than participants in the non-close other condition and participants in the control condition (respectively,  $M = 2.95$ ,  $SD = 0.86$  and  $M = 2.88$ ,  $SD = 0.74$ ),  $F(1, 66) = 6.35$ ,  $p < .05$ ,  $\eta^2 = .09$ . The non-close other and control condition did not differ significantly,  $F(1, 66) = 0.03$ ,  $ns$ ,  $\eta^2 = .01$ .

Thus, these findings demonstrate that, relatively to non-close others, non-consciously activated relationship representations of close others evoke relatively high inclinations to forgive. That is, participants who were primed with the name of a close other outside of awareness, exhibited a higher inclination to forgive various offensive behaviors, than participants who were primed with the name of a non-close other or a control non-word.

### Study 2

Study 2 served two main purposes. First, we tried to replicate the findings of Study 1 to test the robustness of the

automatic closeness–forgiveness link. Second, a central part of our process-oriented approach towards forgiveness is that the mere priming of the representation of a close other is capable of directly activating a forgiving response to offensive behavior. An important question emanating from Study 1, however, is whether participants' responses truly reflect the inclination to forgive, or whether it merely reflects a tendency to respond more positively in general after being primed with a close other. For instance, when asked to indicate how severe the behavior is, similar effects may be obtained, such that a close prime would lead to lower ratings of severity than a non-close prime. Such findings would suggest that the close versus non-close prime in Study 1 may have resulted in differential appraisals of severity of the behavior, that may in turn have influenced inclinations to forgive. Accordingly, Study 2 was designed to address this crucial issue. Specifically, we examined whether a close other prime would lead to both lower ratings of severity *and* higher ratings of forgiveness compared to a non-close other prime, or, according to the framework we propose, that a close other prime would *only* lead to higher ratings of forgiveness and not to lower ratings of severity.

## Method

### Participants and design

Seventy-eight undergraduate students (23 men, 55 women) took part in the experiment, and received 5 Euros in exchange for their participation. They were randomly assigned to one of the four conditions of the 2 (prime: close other versus non-close other)  $\times$  2 (response label: forgiveness versus severity) between-participants design.

### Procedure

Participants were welcomed in the lab and escorted to individual cubicles where they completed the experiment on a computer. In the same way as in Study 1, all participants first provided the names of a close other and a non-close other, and indicated how close they felt to the other on the IOS-scale. After they completed an unrelated study that required approximately 30 min, half of the participants received the same instructions as were used in Study 1. That is, they were told that we were interested in how likely people thought they would be inclined, in general, to forgive various offenses. For the same 15 behaviors as were used in Study 1, these participants indicated how likely they were to forgive each behavior (i.e., the forgiveness label-condition;  $\alpha = .81$ ). However, the other half of the participants received other instructions, in which it was stated that we were interested in how severe participants generally thought various offensive behaviors were (i.e., the severity label-condition). For the same 15 behaviors, participants in this condition were asked to indicate on a 7-point scale ranging from 1 = *very severe* to 7 = *not severe* how severe they thought each behavior was ( $\alpha = .86$ ). In sum, the stimuli, as well as how these were presented on the screen, were

identical to the stimuli that were presented in the forgiveness label-condition, with the only difference that participants in the forgiveness label-condition rated the forgiveness of the behaviors, and participants in the severity label-condition rated the severity of the behaviors.

As in Study 1, each behavior was preceded by a subliminal prime. Half of the participants were primed with the name of the close other, and the other half of the participants were primed with the name of the non-close other. The priming procedure was identical to the priming procedure employed in Study 1. However, unlike Study 1, we did not include a control condition. As in the previous study, debriefing showed that participants were unaware of the presentation of prime words, nor did they realize the true nature of the study.

## Results and discussion

### Manipulation check of closeness

Level of closeness to the primed close other ( $M = 5.75$ ,  $SD = 0.98$ ) was, as anticipated, greater than level of closeness to the primed non-close other ( $M = 2.11$ ,  $SD = 1.16$ ),  $F(1, 77) = 220.68$ ,  $p < .001$ . There was no effect of response label (forgiveness versus severity) condition, nor an interaction between prime and label-condition.

### Response scores forgiveness versus severity

To examine our central hypothesis, an analysis of variance was performed, with the averaged score of participants' responses for the 15 behaviors as dependent variable, and prime (close other versus non-close other) and response label (forgiveness versus severity) as independent variables. This analysis revealed an interaction effect between prime and response label,  $F(1, 77) = 8.78$ ,  $p < .005$  (see Fig. 1). Inspection of simple main effects revealed that, as expected and in line with the findings of Study 1, when participants rated the extent to which they would forgive the behaviors, there was a significant effect of the prime,  $F(1, 77) = 9.39$ ,  $p < .005$ ,  $\eta^2 = .11$ . Participants in the close other prime condition ( $M = 3.64$ ,  $SD = 0.96$ ) exhibited higher inclinations to forgive than did participants in the non-close other prime condition ( $M = 2.84$ ,  $SD = 0.56$ ). However, in the severity

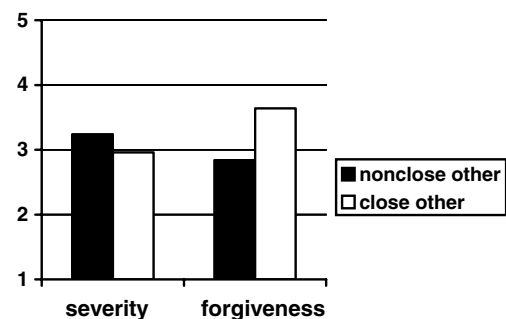


Fig. 1. Severity of the offense and the inclination to forgive as a function of close versus non-close other prime. Higher scores indicate lower levels of severity, and higher scores indicate higher inclinations to forgive.

label-condition, participants who were primed with the name of the close other ( $M = 2.96$ ,  $SD = 0.81$ ) did not rate the behaviors as significantly more, or less, severe than participants who were primed with the name of the non-close other ( $M = 3.24$ ,  $SD = 0.79$ ),  $F(1, 77) = 2.09$ ,  $p > .15$ ,  $\eta^2 = .02$ .

Thus, the forgiveness label-condition nicely replicated the findings of Study 1, indicating that relatively forgiving responses are evoked when close other representations are activated. Furthermore, Study 2 did not provide evidence for an effect on appraisals of severity as a consequence of a close versus non-close other prime. Thus, it seems that people do not automatically appraise offensive behaviors as less severe. Hence, this suggests that it is unlikely that the forgiving responses toward a close relationship partner are a consequence of differential appraisals of severity of the offense.

### Study 3

The findings of Study 1 and 2 strongly suggest that forgiveness is indeed associated with the mental representation of close others (and not of non-close others), as indicated by the finding that participants react with higher inclinations to forgive when subliminally primed with the name of the close other (cf. Fitzsimons & Bargh, 2003). Although encouraging, there is one important limitation of Studies 1 and 2. That is, in both studies we have provided participants with the label of forgiveness when responding to the offenses. Hence, we are not sure whether, as we propose, the concept of forgiveness is *spontaneously* activated when people think of close others. Study 3 importantly extends Studies 1 and 2 by testing the prediction that a close other indeed leads to enhanced accessibility of forgiveness, thereby seeking to gain more insight into the cognitive process underlying the closeness–forgiveness link. To test the prediction, we exposed participants to a transgression of a close or a non-close other, after which forgiveness accessibility was measured by means of a word-fragment completion task. Word-completion tasks have been shown to be very sensitive to the activation of constructs that recently have been encountered (Tulving & Schacter, 1990), and more importantly, that recently have been self-generated (Bassili & Smith, 1986). We tested whether participants in the word-completion task came up with the words “forgiveness” or “forgive” more often when they just read a scenario in which a close other appeared (compared to a scenario in which a non-close other appeared).

Importantly, an additional purpose of Study 3 was to explore whether the effect of closeness on forgiveness could be explained by characteristics of the relationship other than closeness per se. It is for instance possible that close others are simply better liked than non-close others, and that people may therefore automatically respond with higher inclinations to forgive in the context of close relationships. Moreover, and perhaps more importantly, people may have different attachment orientations toward close others than toward non-close others. For example, people may be more securely attached toward close others than

toward non-close others (e.g., Collins & Read, 1990), and recent research has demonstrated that secure attachment is positively related to forgiveness (Kachadourian, Fincham, & Davilia, 2004). In relationships of secure attachment (compared to insecure attachment), people feel more confident of themselves, and view the relationship partner as generally trustworthy, dependable and responsive (for an overview, see for instance Pietromonaco & Feldman Barrett, 2004). Since these qualities of secure attachment are supposed to be internalized – and thus not easily impaired, for instance by a transgression of the other person – it is plausible that a moderate transgression of a person to whom one is securely attached may lead to relatively automatic forms of forgiveness. In Study 3, we tested whether secure attachment toward an offender is positively related to activation of the concept of forgiveness.

### Method

#### Participants and design

Participants were 10 men and 48 women (21 years on average), who received 1 Euro in exchange for participation. They were randomly assigned to either the close other or the non-close other condition.

#### Procedure

Upon arrival in the laboratory, participants were given a questionnaire that allegedly consisted of several brief studies. They completed the questionnaires in individual cubicles.

In the first part of the questionnaire, participants in the close other condition were asked to think of someone with whom they have a very close relationship, and feel currently strongly committed to. Participants in the non-close other condition were asked to think of someone with whom they did not have a close relationship, and felt currently not strongly committed to. Subsequently, participants completed measures of whom the other was, how long they have known the other, and gender of the other. As in Studies 1 and 2, participants rated the extent to which they felt close to the other using the IOS scale, which served as a manipulation check. Also, unlike Studies 1 and 2, participants indicated on two items level of liking for the other (“I think the other is a nice person”, “I think the other is a friendly person”,  $\alpha = .96$ ). In addition, to measure attachment style, participants completed the Relationship Questionnaire (RQ, Bartholomew & Horowitz, 1991). This questionnaire consists of four brief descriptions of a particular attachment pattern (secure, preoccupied, dismissing, and fearful; for a recent detailed description of these attachment styles, see for instance Pietromonaco & Feldman Barrett, 2000) as it applies to the other person. Participants are asked to rate the extent to which each description expresses how they feel in their relationship with the other person (1 = *not at all like me*, 7 = *very much like me*).

Next, participants were given the following brief scenario:

You have been looking for a job for some time already, and finally you read a job ad in the newspaper that you are very

enthusiastic about: it is the job you have always dreamed of. You write an application letter, but due to circumstances you are not able to post the letter yourself. Therefore, you ask the other person to post it for you. A week later, you receive a letter from the company, stating that your letter was received after the deadline, and will therefore not be taken into consideration. When you ask the other person for an explanation, the other responds: “Oh, I forgot to mention: on my way to the postbox I met an old friend and we went for a drink, and I forgot the letter. Later, I thought ‘Well, deadlines are usually not that strict,’ and I posted the letter the next day, or maybe 2 days later, I can’t really remember. These things happen, don’t they?”

Before they read the scenario, participants were instructed to consider “the other person” in the scenario to be the person that they just have been thinking of (i.e., the close other in the close other condition, and the non-close other in the non-close other condition). After they had read the scenario, it was instructed to complete the next task before there would be some questions about the scenario.

The next task consisted of the word fragment completion task. As noted, word-completion tasks are commonly used to measure construct accessibility unobtrusively (e.g., Chen, Lee-Chai, & Bargh, 2001; Gilbert & Hixon, 1991; Karremans & Van Lange, 2005). As a measure of activation of the concept of forgiveness, we simply examined accessibility of the words “forgiveness” or “forgive”. Recent research by Younger, Piferi, Jobe, and Lawler (2004) has shown that lay people’s concept of forgiveness to a large extent matches the definition of forgiveness as ‘a prosocial change toward the offender, despite his or her hurtful actions’ (McCullough, Pargament, & Thoresen, 2000). That is, people who are asked to describe what forgiveness means to them, essentially describe forgiveness in terms of a prosocial change toward the offender, including the dissipation of negative feelings and grudges toward the offender, and going back to continuing the relationship. Although there are some synonyms of forgiveness provided in dictionaries (e.g., pardon, clemency), we felt that none of these synonyms sufficiently captured the concept of forgiveness. Hence, we reasoned that the most proximate indicator of accessibility of the concept of forgiveness would be to simply examine activation of the words “forgive”, or “forgiveness”. Therefore, participants were asked to complete 10 times the unfinished word “verg” (i.e., VERG\_\_\_\_\_), which are the first four letters of the Dutch words for ‘forgive’ and ‘forgiveness’ (respectively, *vergeven* and *vergeving*). In Dutch language, “verg” is a common preposition – Dutch dictionaries provide about 85 words that begin with “verg” – and we therefore expected sufficient variation between participants as to whether they would come up with “forgiveness” or not. To create an index of forgiveness accessibility, participants’ score on this measure was 10 if they completed the first of the 10 fragments as one of the “forgiveness-words” (i.e., “forgiveness” or “forgive”), 9 if they completed the second fragment as either “forgiveness” or

“forgive”, and so on. If they did not complete a fragment as either “forgiveness” or “forgive”, their score was zero. Important to note, we reasoned that the first completion of a fragment as either “forgiveness” or “forgiving” reflects forgiveness accessibility. Therefore, participants received points only for the first fragment that was completed as either “forgiveness” or “forgiving”. Thus, for example, a person who completed the first fragment as “forgiveness” and the second fragment as “forgiving” received 10 points (rather than  $10 + 9 = 19$  points).

After the word completion task, to keep up with the cover story – there would be some questions about the scenario after the word completion task – participants answered some questions. Specifically, it was asked whether the participants had made an effort to imagine themselves in the situation ( $1 = \text{not at all}$ ,  $7 = \text{very much}$ ), and whether the participant had succeeded in imagining themselves in the situation ( $1 = \text{not at all}$ ,  $7 = \text{very much}$ ). Average ratings on these two items indicated that participants actually tried (almost equally in the close and non-close condition, respectively,  $M = 5.90$  and  $M = 5.82$ ,  $F(1, 57) = .09$ , *ns*), and actually were able (almost equally in the close and non-close condition,  $M = 5.23$  and  $M = 5.11$ ,  $F(1, 57) = .12$ , *ns*) to imagine themselves in the situation. Thus, importantly, all further reported findings could not be explained by the possibility that participants gave the transgression of a close other less, or more, thought than a transgression of a non-close other. Finally, one item assessed how severe participants thought the transgression was ( $1 = \text{not at all}$ ,  $7 = \text{very severe}$ ).

## Results

### Manipulation check

An analysis of variance revealed that, as anticipated, participants in the close other condition reported a greater level of closeness ( $M = 5.17$ ,  $SD = 1.46$ ) than participants in the non-close other condition ( $M = 2.46$ ,  $SD = 1.17$ ),  $F(1, 57) = 59.75$ ,  $p < .001$ .

### Forgiveness accessibility

According to our automatic closeness–forgiveness hypothesis, forgiveness should be more accessible after someone has been badly treated by a close other than by non-close other. To test this prediction, we performed an analysis of variance with forgiveness accessibility (i.e., the score on the word-fragment completion task) as dependent and condition (close versus non-close) as independent variable. Supporting our prediction, this analysis revealed that forgiveness was indeed more accessible in the close other condition ( $M = 4.37$ ,  $SD = 3.79$ ) than in the non-close other condition ( $M = 1.93$ ,  $SD = 3.29$ ),  $F(1, 57) = 6.80$ ,  $p < .02$ ,  $\eta^2 = .11$ .

### Liking

Participants in the close other condition indicated to like the other person better ( $M = 5.75$ ,  $SD = 0.98$ ) than did participants in the non-close other condition ( $M = 4.46$ ,  $SD = 0.95$ ),  $F(1, 57) = 25.37$ ,  $p < .001$ . Also, the better participants liked the



other, the more the concept of forgiveness tended to be accessible, although this correlation did not reach significance,  $r(58) = .13, p = .15$ . Most important, when liking was included in the analysis of variance, the effect of condition on forgiveness accessibility was still significant,  $F(1, 57) = 5.87, p < .02$ .

#### Attachment security

First, to examine whether participants felt more securely attached, less preoccupied, less dismissive, and less fearful attached toward the close other than toward the non-close other, analyses of variance with the score on each description of the different attachment styles as dependent variables and condition as independent variable were conducted. These analyses revealed that participants indicated that the secure attachment description better described the relationship with the close other ( $M = 5.17, SD = 1.60$ ) than the relationship with the non-close other ( $M = 3.32, SD = 1.56$ ),  $F(1, 57) = 19.69, p < .001$ , and reported a less fearful attachment style toward the close other ( $M = 2.77, SD = 1.38$ ) than toward the non-close other ( $M = 4.71, SD = 1.49$ ),  $F(1, 57) = 26.73, p < .001$ . There were no differences between close and non-close others regarding the preoccupied and dismissive attachment styles, both  $F$ 's  $< 2, ns$ .

A correlational analysis revealed that forgiveness accessibility was marginally positively correlated with secure attachment,  $r(58) = .18, p = .08$ , not correlated with preoccupied attachment,  $r(58) = -.15, ns$ , and fearful attachment,  $r(58) = -.08, ns$ , and significantly negatively correlated with dismissive attachment,  $r(58) = -.31, p < .01$ .

We then controlled for the different attachment styles by including these, each in turn, as a covariate in the analysis of variance with forgiveness accessibility as dependent variable and condition as independent variable. These analyses revealed that level of preoccupied, fearful, and dismissive attachment did not influence the effect of condition on forgiveness accessibility, all  $F$ 's  $> 6, p < .02$ . Including level of secure attachment in the analysis revealed a notable drop in the  $F$ -value,  $F(1, 56) = 4.58$  (without secure attachment  $F = 6.80$ ), however, the effect of condition was still significant,  $p < .04$  (a Sobel test revealed the reduction of the  $F$ -value was not significant). Thus, these analyses reveal that attachment style did not account for our findings.<sup>3</sup>

<sup>3</sup> It is important to note that we also took another approach to examine the effects of attachment style (both in Study 3 and Study 4). That is, sometimes two underlying dimensions of attachment, a model of the self and a model of the other, are computed based on the scores on the four attachment descriptions. A model of the self is computed by subtracting the sum of the fearful and preoccupied ratings from the sum of the secure and dismissing ratings. A model of other is computed by subtracting the sum of the fearful and dismissing ratings from the sum of the secure and preoccupied ratings (for detailed information regarding this procedure and the theoretical rationale, see Griffin & Bartholomew, 1994). Also when we controlled for these indices of attachment, the effect of condition on forgiveness accessibility was not significantly reduced. For the sake of simplicity, in the main body of the text we only reported the analyses in which we controlled for the continuous scores on each of the four attachment descriptions. This is also the case in Study 4, in which we found no differential effects of the continuous scores on the four descriptions, or the computed models of self and other.

#### Severity

Finally, we examined whether perceived severity of the transgression might explain the effects of condition of forgiveness accessibility. Participants in the close other condition ( $M = 5.43, SD = 1.25$ ) did not significantly rate the transgression as less, or more, severe than participants in the non-close other condition, ( $M = 5.75, SD = 1.00$ ),  $F(1, 57) = 1.12, ns$ . Correlational analysis revealed that severity tended to be negatively associated with forgiveness accessibility, although the correlation was not significant,  $r(58) = -.13, p = .14$ . When severity was entered as a covariate in the analysis of variance, the effect of condition on forgiveness accessibility remained significant,  $F(1, 57) = 6.11, p < .01$ . Thus, also perceived severity could not account for the results.

The findings of Study 3 provide evidence for an important assumption we made in the Introduction regarding the mechanism by which close other respond with higher levels of forgiveness toward close others than toward non-close others. That is, as we predicted, participants spontaneously activated "thoughts of forgiveness" when they encountered negative behavior of a close other – at least more so than when one was exposed to a transgression of a non-close other. This effect occurred even if we controlled for important characteristics of the relationship (i.e., liking and attachment), and for perceived severity of the offense.

#### Study 4

Studies 1 through 3 provide good evidence for the proposed automatic link between closeness and forgiveness. That is, subliminal priming of the close other evokes higher inclinations to forgive (Studies 1 and 2), and a close other automatically activates the concept of forgiveness (Study 3). Provided this automatic link between closeness and forgiveness, in our Introduction we reasoned that the inclination to forgive should therefore also result from a less effortful process in the context of close (compared to non-close) relationships. However, Studies 1 through 3 did not explicitly address this issue. Put differently, it is not clear whether forgiving responses are indeed the result of a more habitual, *efficient* process in close relationships than in non-close relationships.

Based on the assumption that conscious deliberation requires attentional resources (see for instance Bargh, 1999), Study 4 was designed to extend and complement the findings of Studies 1 through 3 by examining whether the inclination to forgive indeed arises from a more efficient, effortless process when the offender is a close other than when the offender is a non-close other. As discussed in the Introduction, Yovetich and Rusbult (1994) demonstrated that responses to destructive acts of a partner were less forgiving when given limited response time than when given plenty response time. However, we expect that this effect is moderated by level of closeness to the partner – an issue not directly addressed by Yovetich and Rusbult (1994). Whether people are given plenty or limited time to respond

to an offense, if the offender is a close other, people may also under limited response time (i.e., limited attentional resources) be inclined to forgive the other to a relatively high extent. However, if the offender is a non-close other, people need sufficient mental resources in order to respond in a forgiving manner. Hence, in line with the reasoning outlined in the Introduction, we predicted that inclinations to forgive would be influenced to a lesser extent by time pressure when the offender is a close other compared to when the other is a non-close other (see also Footnote 3).

## Method

### Participants and design

Participants were 87 female and 33 male students, who received 2 Euros in exchange for their participation. They were randomly assigned to one of the four conditions of the (time pressure: high versus low)  $\times$  (closeness: close versus non-close other) between-participants design.

### Procedure

Upon arrival in the laboratory of social psychology, participants were escorted to individual cubicles, where they completed the experiment on a computer.

In the first part of the experiment, participants in the close other condition were asked to think of someone with whom they have a very close relationship, and to type in the name of the other. Participants in the non-close other condition were asked to think of and type in the name of someone with whom they did not have a close relationship. As a manipulation check, closeness to the other person was measured with the IOS scale. Although we found no effects of liking or attachment style for activation of forgiveness in Study 3, we once again wanted to explore the influence of liking and attachment. Therefore, the same measures of liking and of attachment (i.e., the RQ) as used in Study 3 were administered.

In the second part of the experiment, it was stated that the researchers were interested in participants' reactions to offensive behavior of the other (actually, the name of the other that the participant had typed in was used in the instructions; recall that this name for half of the participants was the name of a close other, and for half of the participants the name of a non-close other). Specifically, it was asked to indicate to what extent the participant would be inclined to forgive certain offensive behaviors that the other might engage in. By means of the instructions, level of time pressure was manipulated:

You will read several situations, in which the other (actually, the name of the other was given here) offends you in some way. After each situation is shown for several seconds, you are asked to indicate to what extent you will forgive the other the offense. Please give your answer as quickly as possible, or at least within 4 s (in the time pressure condition)/please take your time before you give your answer (in the no time pressure condition).

After these instructions, in turn, five situations appeared on the screen. Each situation consisted of only one sentence (e.g., “Barbara reveals a secret of you”, “Barbara is not keeping a promise”, obviously, if the name of the other was Barbara). After each sentence was displayed for 2 s, beneath the sentence a bar appeared on the screen, on which participants could indicate their inclination to forgive by clicking with the mouse on a scale ranging from 1 to 7 (1 = *certainly would not forgive*, 7 = *certainly would forgive*). In the time pressure condition, to stress the time pressure, a small clock was displayed on the screen, counting down from 4 to 1, the time within which participants had to respond. In the no time pressure condition, no such clock was displayed. We averaged the scores on the five scenarios and used this as an indicator of level of forgiveness,  $\alpha = .82$ .

To check whether participants did not appraise the behaviors as less, or more, severe when exhibited by a close other or a non-close other, after they had completed this task, participants were told that the same five sentences would appear once more (again with the name of the close other or the non-close other as subject) and this time participants were asked to indicate how severe (1 = *not severe at all*, 7 = *very severe*) the behavior was. All participants, including participants who indicated inclinations to forgive under time pressure, were instructed to take their time before indicating how severe they thought each behavior was.

## Results

### Manipulation check

To examine whether the manipulation of closeness caused the intended effects, an analysis of variance was conducted with level of closeness as indicated on the IOS scale as dependent variable and other (close versus non-close other) and time pressure (yes versus no) as independent variables. As intended, participants in the close other condition reported a higher level of closeness ( $M = 5.63$ ,  $SD = 0.94$ ) than participants in the non-close condition ( $M = 2.23$ ,  $SD = 1.24$ ),  $F(1, 119) = 283.04$ ,  $p < .0001$ . There were no further effects.

To check whether participants in the time pressure condition indeed responded quicker than participants in the no time pressure condition, participants' response times were subjected to an ANOVA. The ANOVA revealed that participants in the time pressure condition exhibited shorter response times ( $M = 1.32$ ,  $SD = 0.52$ ) than participants in the no time pressure condition ( $M = 2.68$ ,  $SD = 1.54$ ),  $F(1, 119) = 41.58$ ,  $p < .001$ . There was no effect of other,  $F(1, 119) = 1.39$ , *ns*, nor was there an interaction effect,  $F(1, 119) = 1.33$ , *ns*. Thus, the findings indicate that the manipulation of time pressure was successful.

### Inclination to forgive

It was predicted that the inclination to forgive would be higher in the no time pressure condition than in the time pressure condition, but importantly, that this effect would be qualified by level of closeness to the offender, such that time pressure would have a larger effect in the non-close other

condition, than in the close other condition. To test this prediction, a 2 (time pressure: no versus yes)  $\times$  2 (other: close other versus non-close other) between-participants ANOVA was conducted, with the inclination to forgive as dependent variable. This analysis revealed a significant main effect of other,  $F(1, 119)=40.87, p<.001$ , and a marginal main effect of time pressure,  $F(1, 119)=3.47, p<.07$ . Participants in the close other condition ( $M=4.59, SD=0.82$ ) responded with higher inclinations to forgive than participants in the non-close other condition ( $M=3.42, SD=1.19$ ), replicating findings from earlier research (e.g., Finkel et al., 2002; McCullough et al., 1998; Karremans et al., 2003). Moreover, participants in the no time pressure condition ( $M=4.17, SD=1.16$ ) tended to be more inclined to forgive than participants in the time pressure condition ( $M=3.83, SD=1.17$ ), replicating earlier research findings by Yovetich and Rusbult (1994), as described in the Introduction.

Most importantly, there was a significant interaction effect between other and time pressure,  $F(1, 119)=4.04, p<.05$  (see Fig. 2). In line with our predictions, inspection of the simple main effects revealed that in the non-close other condition there was an effect of time pressure,  $F(1, 119)=5.59, p<.02, \eta^2=.05$ , such that participants in the no time pressure condition ( $M=3.77, SD=1.28$ ) responded more forgiving than participants in the time pressure condition ( $M=3.07, SD=0.99$ ), while there was no effect of time pressure in the close other condition ( $M=4.57, SD=0.88$  in the no time pressure condition,  $M=4.60, SD=0.77$  in the time pressure condition),  $F(1, 119)=.01, ns, \eta^2=.01$ . Thus, in line with our prediction, these findings suggest that higher inclinations to forgive are to a lesser extent dependent on deliberative processes when the offender is a close other than when the offender is a non-close other.<sup>4</sup>

<sup>4</sup> Why did we not, like Yovetich and Rusbult (1994, Study 2), find any effects of time pressure on the inclination to forgive in the close other condition? First, since somewhat different methods were used, it is difficult to make a direct comparison between their study and our study. For instance, in the Yovetich and Rusbult study, participants had to choose between different behavioral responses (a less forgiving option and a more forgiving option), while in our study participants simply indicated the extent to which they would be inclined to forgive the other. But most importantly, in our study, participants responded to a self-selected close other, while in the Yovetich and Rusbult study participants were asked to imagine scenario's in which a parent, a friend, or a romantic partner (participants who were not involved in a romantic relationship were asked to imagine that they were) displayed some kind of offensive behavior. Even though people are generally close to parents, friends, and romantic partners, there obviously is variation in level of closeness regarding these relationships. Arguably, in our studies, level of closeness toward the close other is considerably higher than level of closeness in the Yovetich and Rusbult study, because their study also includes participants who perhaps do not feel very close to their parents, friends, or even romantic partners. Based on our theorizing outlined in the Introduction, we would expect that if Yovetich and Rusbult had included conditions in which the others were non-close (or if they had obtained measures of closeness toward the parent, partner, or friend), they would have found more pronounced effects of time pressure on accommodation in the non-close conditions (or in conditions in which participants felt not very close toward the parent, partner, or friend). And perhaps, in line with our results, they would have found no effects of time pressure in the close other conditions.

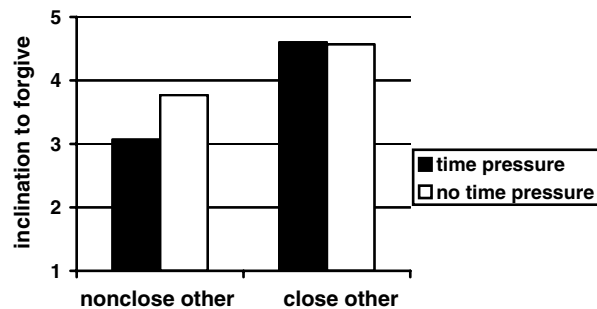


Fig. 2. Inclination to forgive as a function of closeness (close versus non close) and time pressure (time pressure versus no time pressure).

#### Liking of other

As noted, one may argue that the above effects may be explained by liking of the other, since close others are, presumably, more likeable than non-close others. First, we conducted an ANOVA with liking as dependent variable, and this analysis revealed that, as in Study 3, there was a significant effect of other on liking, in that participants in the close other condition ( $M=6.54, SD=0.61$ ) rated the other as more likeable than participants in the non-close other condition ( $M=4.50, SD=1.64$ ),  $F(1, 119)=72.80, p<.001$ . There was no effect of time pressure, nor an interaction effect of other and time pressure,  $F_s < 1$ . In addition, a correlational analysis revealed that liking was positively associated with the inclination to forgive,  $r(120)=.58, p<.001$ .

If our results were due to liking, the effect of time pressure condition on forgiveness should only occur for others that are less liked, and not for others that are liked much. To test this possibility, we regressed the inclination to forgive onto time pressure (no versus yes; dummy coded as 0 and 1), liking, and their interaction. Most important, this analysis did not reveal an interaction between time pressure and liking,  $\beta=.05, t(120)=.19, ns$ . Thus, these results indicate that liking could not account for the interaction effect between other and time pressure on forgiving responses.

#### Attachment style

As noted, the effects of closeness on automatic forgiveness may be due to secure attachment toward the close other. Analyses of variance with the score for the different attachment styles and other condition (close versus non-close) revealed that, as in Study 3, participants were more securely attached toward close others ( $M=5.70, SD=1.15$ ) than non-close others ( $M=2.30, SD=1.29$ ),  $F(1, 119)=230.92, p<.001$ , and less dismissively attached toward close others ( $M=2.70, SD=1.43$ ) than non-close others ( $M=4.65, SD=1.96$ ),  $F(1, 119)=38.88, p<.001$ . We found no differences for the preoccupied and fearful attachment styles, both a  $F_s < 1$ . Also, we computed simple correlations between the scores for the different attachment styles and level of forgiveness. Secure attachment positively correlated with forgiveness,  $r(120)=.50, p<.001$ , and a dismissive attachment style correlated negatively with forgive-

ness,  $r(120) = -.49$ ,  $p < .001$ . We found no significant correlation between fearful attachment and forgiveness,  $r(120) = -.02$ , *ns*, and preoccupied attachment and forgiveness,  $r(120) = .05$ , *ns*. If our results were due to differences in attachment style, the time pressure condition should interact with attachment. For instance, it is possible that time pressure does only influence level of forgiveness for people with relatively low levels of secure attachment, and does not influence level of forgiveness for people with high level of forgiveness. To explore such possible interactions between time pressure and attachment, for each attachment type (i.e., secure, fearful, preoccupied, and dismissive), we regressed level of forgiveness onto time pressure (no versus yes; dummy coded 0 versus 1), attachment score, and their interaction. However, these analyses did not reveal a significant interaction between any of the attachment styles (i.e., secure, fearful, preoccupied, and dismissive) and time pressure,  $\beta$ 's, respectively,  $-.21$ ,  $-.14$ ,  $.05$ , and  $.07$ , all  $p$ -levels  $> .19$ . Thus, also attachment style could not account for the findings.<sup>5</sup>

#### Appraisal of severity

Finally, we examined whether participants in the close other condition appraised the behavior as less severe than participants in the non-close other condition. The analysis of variance with severity as dependent variable, and other and time pressure as independent variables, revealed no significant effect of other ( $M = 4.40$ ,  $SD = 0.79$  in the close other condition;  $M = 4.66$ ,  $SD = 1.06$ , in the non-close other condition), nor an effect of time pressure, or their interaction, all  $F$ 's(1, 119)  $< 2.5$ , *ns*. Thus, it appeared that the offensive behavior is not simply differently appraised in terms of severity, either when it concerns a close or a non-close other.

#### Discussion

The findings of Study 4 provide evidence for our prediction that inclinations to forgive are to a lesser extent the result of deliberative, effortful processes when the offender is a close other rather than a non-close other. Even more than that, the findings indicated that there was no effect of time pressure on inclinations to forgive in the close other condition. These findings provide complementary evidence for the general prediction that forgiving responses may occur in a relatively automatic fashion when the offender is

a close relationship partner rather than a non-close relationship partner.

#### General discussion

The central purpose of the present research was to examine the role of automatic processes that may determine the inclination to forgive an offender. Based on previous theorizing on the possible role of automaticity in close relationships, it was predicted that inclinations to forgive arise relatively automatically in the context of a close relationship.

Results of four studies provided good evidence in line with our central prediction. Specifically, and in line with our reasoning that forgiveness is part of the mental representation of the relationship with close others, Studies 1 and 2 provided evidence that close others may evoke forgiving responses automatically: participants being subliminally primed with the name of a close other responded with higher inclinations to forgive various offenses than participants being primed with the name of a non-close other (or a control word in Study 1). Importantly, while close other activation led to higher inclinations to forgive, Study 2 demonstrated that a close versus non-close other prime did not cause differential appraisals regarding severity of the offense.

Study 3 importantly extended these findings, demonstrating that the concept of forgiveness is more strongly activated when participants were exposed to a (hypothetical) transgression by a close other than when they were exposed to a transgression committed by a non-close other. In line with our reasoning, these findings suggest that when people are confronted by negative behavior of a close other, forgiveness automatically pops up in mind, making it more likely that people will actually decide to forgive the other, or at least, making it more likely that people will consider forgiveness as a viable option in response to the transgression. However, as already argued in the introduction, because forgiveness is assumed to be part of the relationship representation of close others, theoretically an encounter with a close other (or any close other prime) should activate the concept of forgiveness irrespective of the situation at hand (i.e., irrespective of whether one is being offended or not). Thus, the findings of Study 3 do not imply that forgiveness is activated *only* when being offended by the close other. But importantly, the findings do show that – *at least* when being offended – forgiveness becomes more accessible when the offender is a close other (rather than a non-close other).

In addition, and in line with the reasoning that inclinations to forgive arise through a relatively efficient process in the context of a close relationship, Study 4 demonstrated that participants reported relatively high inclinations to forgive a close other both under high time pressure and without time pressure (i.e., high and low cognitive load), suggesting that the inclination to forgive is evoked without much effort when the offender is a close other. When the

<sup>5</sup> Although we found no significant interactions between attachment and time pressure, we examined whether the time pressure  $\times$  other interaction remained significant when controlling for the interaction of attachment  $\times$  time pressure. That is, in regression analyses (for all the four attachment types) we included time pressure, other condition, attachment, the three two-way interactions (time pressure  $\times$  other, time pressure  $\times$  attachment, other  $\times$  attachment), and the three way interaction (time pressure  $\times$  other  $\times$  attachment). These analyses revealed that when we controlled for the interaction of time pressure  $\times$  attachment (for all four types), the interaction between time pressure and other remained significant.



offender was a non-close other, however, responding in a forgiving manner appeared to be a more effortful process, as indicated by the fact that participants responded more forgiving when given plenty response time than when given limited response time. Taken together, the present set of studies provides strong support for the proposition that people are relatively automatically (i.e., efficiently) inclined to forgive people whom they feel close to.

Importantly, results of Studies 2–4 strongly suggest that offenses are not simply appraised as being less severe in the context of close relationships compared to non-close relationships. This finding is important, because it suggests that it is not the case that participants simply felt less offended by the offense when it was encountered in the context of a close other (versus a non-close other). Yet, despite feeling offended to an equal extent, close others evoke higher inclinations to forgive than non-close others. Moreover, Studies 3 and 4 demonstrated that the automatic-forgiveness link could not be attributed to variations in liking produced by thinking of a close versus non-close other. Finally, although we regarded attachment as a possible moderator of our findings, the findings could not be explained by attachment security. Although close others (compared to non-close others) were indeed more strongly associated with secure attachment, and secure attachment appeared to influence inclinations to forgive, still we found unique effects of our instructions to think of a close versus non-close other on activation of forgiveness (Study 3) and the inclination to forgive (Study 4). Unfortunately, we did not measure attachment in Studies 1 and 2. Admittedly, this leaves open the possibility that the close other primes may have served as *secure base* primes (cf., Mikulincer & Shaver, 2001). That is, the close other prime may have evoked a sense of security, which in turn may have lead to higher inclinations to forgive. Although the results of Studies 3 and 4 make this option less plausible, we suggest that this possibility is further investigated in future research. However, whether or not attachment (or perhaps even other relationships features associated with closeness such as trust or commitment) plays a role in the automaticity and efficiency of the forgiveness process (we certainly do not want to exclude this possibility based on the present null findings regarding attachment), the most important point of the present findings is that at least in some relationships inclinations to forgive can arise in a much less deliberative and effortful fashion than forgiveness researchers so far have suggested. However, we should acknowledge that examining which specific aspect of closeness drives the effect remains an issue for future research.

### *Theoretical implications*

The present research has important implications for the issue of *how* people forgive. As noted in the introduction, it is generally agreed upon that the process of forgiveness (i.e., reduction of negative affect and restoration of goodwill toward the offender) starts with a person's inclination to

forgive (Fincham et al., 2002). Hence, to fully understand the role of forgiveness in relationship functioning, it is not only important to investigate changes in level of forgiveness over time (e.g., McCullough et al., 2003), but it seems equally important to examine a person's inclination to forgive in the relative immediacy of an offense. It is easy to imagine how an immediate unforgiving response to a partner's offensive behavior may lead to intensification and escalation of a conflict (e.g., Gottman & Krokoff, 1989), whereas a relatively strong inclination to forgive may reduce the odds of such escalation to maintain harmony in the relationship.

Our findings suggest that in close relationships relatively high inclinations to forgive are not necessarily – at least not entirely – the result of deliberative processes, but instead may rest on habitual and well-established patterns of interaction between the partners (Kelley & Thibaut, 1978). However, it is of course important to recognize that previous research has found that deliberative processes are closely associated with forgiveness, suggesting for instance that attributions of blame (e.g., Bradfield & Aquino, 1999), responsibility attributions (e.g., Fincham, 2000), or perceived intentionality of the offense (e.g., Boon & Sulsky, 1997) determine inclinations to forgive, and forgiveness over time (McCullough et al., 2003). How, then, can the present findings be understood in light of previous research findings that have provided evidence for the role of deliberative processes in determining forgiveness? When do automatic processes, and when do deliberative and effortful processes operate in the forgiveness process?

We suggest that attribution processes determine forgiveness primarily when people actively reflect on the offense. In previous studies, typically, participants are explicitly reminded of the reasons for the other person's offensive behavior, after which inclinations to forgive are measured (e.g., Fincham, 2000; Finkel et al., 2002; McCullough et al., 1998). Such explicit reasoning about the partner's behavior may temporarily change level of forgiveness (cf. Wilson & Schooler, 1991, who demonstrated that forcing people to introspect to find reasons for their attitudes can change those attitudes temporarily). Surely, it is possible that in real life, in the aftermath of an offense, people will sometimes (but surely not always; see Haidt, 2001) spontaneously contemplate the reasons for a partner's behavior, which then may influence their inclination to forgive. However, it is unlikely that a person's forgiving response to a partner's offensive behavior only occurs after the person has carefully considered the partner's intentions, blame, or responsibility for the offense. As the present findings demonstrate, even without these deliberative considerations about the offense and the offender, people tend to respond with relatively higher inclinations to forgive a close other as compared to a non-close other, suggesting that high levels of closeness are indeed automatically linked to relatively higher inclinations to forgive. Thus, especially in the immediacy of the offense, we suggest, automatic processes influence the inclination to forgive, while deliberative processes

are perhaps more likely to influence forgiveness in the aftermath of the offense when people explicitly consider the reasons for the other person's behavior.

Although forgiveness may be influenced by attribution processes when people actively reflect on the offense (and the role of the offender), alternatively, one may speculate that an attribution process may often serve as a post hoc explanation for an automatic forgiving response rather than as a starting point for forgiveness (cf. Haidt, 2001). That is, a person may rationalize, or “justify”, his or her own inclination to forgive. That is, the inclination to forgive may arise automatically, a person may “feel” that he or she should forgive an offender, and may *therefore* attribute the behavior of the partner externally (e.g., “He really was not responsible for the offensive act”). Such a forgiveness-attribution sequence is congruent with the general notion proposed in the literature that reasoning processes often are guided by intuitive, automatic affective responses, rather than vice versa (e.g., Damasio, 1994; Wilson, 2002). Provided the largely correlational nature of research that has examined the link between attributions and forgiveness so far, in future work it is important to distinguish between the two possible causal paths between (automatic) level of forgiveness and deliberative attribution processes.

Although we have argued and demonstrated that forgiving responses may occur fairly automatically in close relationships, it is important to note that there may be important boundaries to automatic forgiving responses in close relationships. Certainly, it is unlikely that the inclination to forgive *always* arises in an automatic way after an offense of a close partner. For instance, when basic relationship norms are challenged by the partner, perhaps norms that partners implicitly or explicitly have agreed upon (e.g., not having an extramarital sexual relationship) an automatic forgiving response is less likely to occur, which also seems of little functional value for maintaining a healthy relationship (see for instance Arriaga, 2002). The present research was concerned with offenses that were moderately severe (and moderately forgivable, as pilot testing demonstrated; see Study 1). Since such offenses are probably the most common type of destructive behavior that occurs in interpersonal relationships, responses to these moderately severe offenses are also most likely to become habitualized, and therefore relatively automatic. However, forgiveness regarding very severe offenses (e.g., partner betrayal, physical violence) – if complete forgiveness regarding such offenses occurs at all (Flanigan, 1998) – is perhaps to a much larger extent based on deliberative attribution processes.

Before closing, it is important to consider some limitations of the present research. For instance, it is not clear what the implications of the present findings are for actual responses toward an offender in real life. First, in our studies the close other was only psychologically present, which raises the question of whether relatively high levels of forgiveness are also automatically evoked in a real face-to-face situation in which the close other acts offensively. We

believe however, in line with the reasoning posited by Fitzsimons and Bargh (2003), that the actual presence of the close other arguably leads to even stronger automatic effects on a person's inclination to forgive, given that the actual physical presence may be an even stronger prime than just the psychological presence of the close other. Second, we did not examine real behavioral responses toward the offender. Although this is an important issue, recall that the goal of the present research was to provide a more general understanding of the *process through which* people are inclined to forgive an offender, and to illuminate the role of automaticity in this process. Also, in theory, it is possible that a person behaves in a seemingly forgiving manner, without being – *intrapersonally* – inclined to actually forgive the offender. Behaving in a forgiving manner may for instance occur for strategic reasons, which is sometimes referred to as *hollow* forgiveness (e.g., Baumeister, Exline, & Sommer, 1998). Arguably, a person's reported inclination to forgive may sometimes reveal more about the forgiveness process than a person's observed prosocial behavior toward an offender.

A second potential limitation concerns the somewhat weak (i.e., below the scale midpoint) reported inclinations to forgive in Studies 1 and 2, even after a close other prime. However, recall that participants were not aware of the close other prime, and their reported inclinations to forgive the various transgressions were surely based on many other – conscious or unconscious – influencing factors than the prime. For example, participants may have experienced similar transgressions recently, or more importantly, participants may for a large part have been guided by a default self-interest motive to respond in an eye-for-an-eye fashion. Apparently, despite the close other prime, together such factors lead participants to report still relatively weak inclinations to forgive. However, the most important point is that a close other prime resulted in significantly higher inclinations to forgive than a non-close or neutral prime. As noted in the previous paragraph, the actual presence of a close other is very likely to be a stronger prime than a subliminal prime, which may result in stronger inclinations to forgive. Indeed, in Study 4, in which participants were fully aware of who the transgressor was (i.e., a close other or a non-close other), the close other conditions resulted in inclinations to forgive that were above the midpoint of the scale.

A final limitation that should be addressed is the possibility that the close other primes in the first two experiments may have served as positive mood primes. Even though the close other primes did not influence ratings of severity in a positive way (Study 2), which arguably makes this interpretation less likely, we recognize that we cannot exclude the possibility that positive affect caused by the close other prime may have positively influenced participants' ratings of forgiveness. However, given that the results of Studies 3 and 4 were not influenced by liking (which obviously is associated with positive affect), we believe that mood effects are not a compelling interpretation of the findings.

## Conclusions

As already briefly stated in the introduction, the ability to forgive close partners in an automatic manner presumably serves an important social function. Close interpersonal bonds with others satisfy many basic social needs for people, such as needs for affiliation and security, and people pervasively strive to maintain close bonds with others (Baumeister & Leary, 1995). Given that destructive or offensive behaviors seem not only inevitable, but also tend to occur quite frequently within close relationships with others, it seems rather dysfunctional – both for relationship functioning as well as individual functioning – if people always would have to spend valuable cognitive resources in deciding whether or not to forgive their close partners. This is especially true given the fact that in real life people often do not have the opportunity (because of cognitive busyness; they simply have many other things on their minds) to go through extensive attribution processes in response to an offense. Thus, in light of the frequency of destructive behavior in close relationships, and given the often occurring natural conditions of cognitive busyness, we believe that relationship success may for an important part depend on the automaticity of relatively forgiving responses.

## References

- Aarts, H., & Dijksterhuis, A. (2000). Habits as knowledge structures: automaticity in goal-directed behavior. *Journal of Personality and Social Psychology, 78*, 53–63.
- Aarts, H., & Dijksterhuis, A. (2003). The silence of the library: environment, situational norm, and social behavior. *Journal of Personality and Social Psychology, 84*, 18–28.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of the Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63*, 596–612.
- Arriaga, X. B. (2002). Joking violence among highly committed individuals. *Journal of Interpersonal Violence, 17*, 591–610.
- Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112*, 461–484.
- Baldwin, M. W., Carrell, S. E., & Lopez, D. F. (1990). Priming relationship schemas: my advisor and the Pope are watching me from the back of my mind. *Journal of Experimental Social Psychology, 26*, 435–454.
- Bargh, J. A. (1990). Auto-motives: preconscious determinants of social interaction. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: foundations of social behavior* (Vol. 2, pp. 93–130). New York, NY, US: Guilford Press.
- Bargh, J. A. (1999). The cognitive monster: the case against the controllability of automatic stereotypic effects. In Y. Trope & S. Chaiken (Eds.), *Dual process theories in social psychology* (pp. 361–382). New York: Guilford Press.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: a practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). New York: Cambridge University Press.
- Bargh, J. A., Chen, M., & Burrows, L. (1996). Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action. *Journal of Personality and Social Psychology, 71*, 230–244.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: a test of a four-category model. *Journal of Personality and Social Psychology, 61*, 226–244.
- Bassili, J. N., & Smith, M. S. (1986). On the spontaneity of trait attribution: converging evidence for the role of cognitive strategy. *Journal of Personality and Social Psychology, 50*, 239–245.
- Baumeister, R. F., Exline, J. J., & Sommer, K. L. (1998). The victim role, grudge theory, and two dimensions of forgiveness. In E. L. Worthington Jr. (Ed.), *Dimensions of forgiveness: Psychological research & theological forgiveness* (pp. 79–104). Philadelphia: Templeton Foundation Press.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.
- Baumeister, R. F., Stillwell, A., & Wotman, S. R. (1990). Victim and perpetrator accounts of interpersonal conflict: autobiographical narratives about anger. *Journal of Personality and Social Psychology, 59*, 994–1005.
- Boon, S. D., & Sulsky, L. M. (1997). Attributions of blame and forgiveness in romantic relationship. *Journal of Social Behavior and Personality, 12*, 19–44.
- Bradfield, M., & Aquino, K. (1999). The effects of blame attributions and offender likebleness on forgiveness and revenge in the workplace. *Journal of Management, 25*, 607–631.
- Brehm, S. S., Miller, R. S., Perlman, D., & Campbell, S. M. (2002). *Intimate relationships* (3rd ed.). New York: McGraw-Hill.
- Chen, S., Lee-Chai, A. Y., & Bargh, J. A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology, 80*, 173–187.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58*, 644–663.
- Damasio, A. (1994). *Descartes's error: emotion, reason, and the human brain*. New York: Grosset/Putman.
- Dijksterhuis, A., Aarts, H., & Smith, P. K. (2005). The power of the subliminal: Subliminal perception and possible applications. In R. R. Hassin, J. S. Uleman, & J. A. Bargh (Eds.), *The new unconscious* (pp. 77–106). New York: Oxford University Press.
- Fincham, F. D. (2000). The kiss of the porcupines: from attributing responsibility to forgiving. *Personal Relationships, 7*, 1–23.
- Fincham, F. D. (2001). Attributions in close relationships: from balkanization to integration. In G. J. O. Fletcher & M. S. Clark (Eds.), *Blackwell handbook of social psychology: interpersonal processes* (pp. 3–31). Oxford: Blackwell.
- Fincham, F. D., Paleari, G., & Regalia, C. (2002). Forgiveness in marriage: the role of relationship quality, attributions, and empathy. *Personal Relationships, 9*, 27–37.
- Finkel, E. J., Rusbult, C. E., Kumashiro, M., & Hannon, P. A. (2002). Dealing with betrayal in close relationships: does commitment promote forgiveness? *Journal of Personality and Social Psychology, 82*, 956–974.
- Fitzsimons, G. M., & Bargh, J. A. (2003). Thinking of you: nonconscious pursuit of interpersonal goals associated with relationship partners. *Journal of Personality and Social Psychology, 84*, 148–164.
- Flanigan, B. (1998). Forgivers and the unforgivable. In R. D. Enright & J. North (Eds.), *Exploring forgiveness* (pp. 95–105). Madison: The University of Wisconsin Press.
- Gilbert, D. T., & Hixon, J. G. (1991). The trouble of thinking: activation and application of stereotypic beliefs. *Journal of Personality and Social Psychology, 60*, 509–517.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: a longitudinal view. *Journal of Consulting and Clinical Psychology, 57*, 47–52.
- Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*, 430–445.
- Haidt, J. (2001). The emotional dog and its rational tail: a social intuitionist approach to moral judgment. *Psychological Review, 108*, 814–834.
- Holmes, J. G. (2002). Interpersonal expectations as the building blocks of social cognition: an interdependency perspective. *Personal Relationships, 9*, 1–26.

- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, *241*, 540–545.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability, and salience. In A. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles*. (pp. 133–168). New York: Guilford Press.
- Kachadourian, L. K., Fincham, F., & Davilia, J. (2004). The tendency to forgive in dating and married couples: The role of attachment and relationship satisfaction. *Personal Relationships*, *11*, 373–393.
- Karremans, J. C., & Van Lange, P. A. M. (2004). Back to caring after being hurt: the role of forgiveness. *European Journal of Social Psychology*, *34*, 207–227.
- Karremans, J. C., & Van Lange, P. A. M. (2005). Does activating justice help or hurt in promoting forgiveness? *Journal of Experimental Social Psychology*, *41*, 290–297.
- Karremans, J. C., Van Lange, P. A. M., Ouwkerk, J. W., & Kluwer, E. S. (2003). When forgiveness enhances psychological well-being: the influence of interpersonal commitment. *Journal of Personality and Social Psychology*, *84*, 1011–1026.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: a theory of interdependence*. New York: Wiley.
- McCullough, M. E., Fincham, F. D., & Tsang, J. A. (2003). Forgiveness, forbearance, and time: the temporal unfolding of transgression-related interpersonal motivations. *Journal of Personality and Social Psychology*, *84*, 540–555.
- McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (2000). The psychology of forgiveness: history, conceptual issues, and overview. In M. McCullough, K. Pargament, & C. Thoresen (Eds.), *Forgiveness: Theory, research and practice* (pp. 1–14). New York: Guilford.
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Jr., Wade Brown, S., et al. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology*, *75*, 1586–1603.
- Mikulincer, M., & Shaver, P. R. (2001). Attachment Theory and Inter-group Bias: Evidence That Priming the Secure Base Schema Attenuates Negative Reactions to Out-Groups. *Journal of Personality and Social Psychology*, *81*, 98–115.
- Miller, L. C., & Read, S. J. (1991). On the coherence of mental models of persons and relationships: a knowledge structure approach. In G. J. O. Fletcher & F. D. Fincham (Eds.), *Cognition in close relationships* (pp. 69–100). Hillsdale, NJ: Erlbaum.
- Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist*, *55*, 56–67.
- Paleari, F. G., Regalia, C., & Fincham, F. D. (2005). Marital quality, forgiveness, empathy, and rumination: a longitudinal analysis. *Personality and Social Psychology Bulletin*, *31*, 368–378.
- Pietromonaco, P. R., & Feldman Barrett, L. (2000). The internal working models concept: what do we really know about the self in relationship to others? *Review of General Psychology*, *4*, 155–175.
- Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin*, *126*, 844–872.
- Rubin, C. M., & Rubin, J. Z. (1993). Dynamics of conflict resolution in families: the role of threat, promises, guilt induction and passive manipulation. In D. Perlman & W. H. Jones (Eds.), *Advances in personal relationships* (Vol. 4, pp. 165–191). London: Jessica Kingsley.
- Rusbult, C. E., & Van Lange, P. A. M. (1996). Interdependence processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 564–596). New York: Guilford Press.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, *60*, 53–78.
- Shah, J. (2003). Automatic for the people: how representations of significant others implicitly affect goal pursuit. *Journal of Personality and Social Psychology*, *84*, 661–681.
- Tulving, E., & Schacter, D. L. (1990). Priming and human memory systems. *Science*, *247*, 301–306.
- Wilson, T. D. (2002). *Strangers to ourselves: discovering the adaptive unconscious*. Harvard University Press.
- Wilson, T. D., & Schooler, J. W. (1991). Thinking too much: introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, *60*, 181–192.
- Younger, J. W., Piferi, R. L., Jobe, R. L., & Lawler, K. A. (2004). Dimensions of forgiveness: the views of laypersons. *Journal of Social and Personal Relationships*, *21*, 837–855.
- Yovetich, N. A., & Rusbult, C. E. (1994). Accommodative behavior in close relationships: exploring transformation of motivation. *Journal of Experimental Social Psychology*, *30*, 138–164.