

# The Road to Forgiveness: A Meta-Analytic Synthesis of Its Situational and Dispositional Correlates

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Forgiveness has received widespread attention among psychologists from social, personality, clinical, developmental, and organizational perspectives alike. Despite great progress, the forgiveness literature has witnessed few attempts at empirical integration. Toward this end, we meta-analyze results from 175 studies and 26,006 participants to examine the correlates of interpersonal forgiveness (i.e., forgiveness of a single offender by a single victim). A tripartite forgiveness typology is proposed, encompassing victims' (a) cognitions, (b) affect, and (c) constraints following offense, with each consisting of situational and dispositional components. We tested hypotheses with respect to 22 distinct constructs, as correlates of forgiveness, that have been measured across different fields within psychology. We also evaluated key sample and study characteristics, including gender, age, time, and methodology as main effects and moderators. Results highlight the multifaceted nature of forgiveness. Variables with particularly notable effects include intent ( $\bar{r} = -.49$ ), state empathy ( $\bar{r} = .51$ ), apology ( $\bar{r} = .42$ ), and state anger ( $\bar{r} = -.41$ ). Consistent with previous theory, situational constructs are shown to account for greater variance in forgiveness than victim dispositions, although within-category differences are considerable. Sample and study characteristics yielded negligible effects on forgiveness, despite previous theorizing to the contrary: The effect of gender was nonsignificant ( $\bar{r} = .01$ ), and the effect of age was negligible ( $\bar{r} = .06$ ). Preliminary evidence suggests that methodology may exhibit some moderating effects. Scenario methodologies led to enhanced effects for cognitions; recall methodologies led to enhanced effects for affect.

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Forgiveness has existed since the dawn of humankind (Griswold, 2007a; McCullough, 2008). Accounts of forgiveness span millennia, from Homer's *Iliad* and Shakespeare's *Tempest* to the Qur'an, the Torah, and the Christian gospels (Griswold, 2007a; Owen, 1976; Rye et al., 2000). Aristotle discussed forgiveness in *Nicomachean Ethics* and other texts, as did Plato, Socrates, and Epicurus (Griswold, 2007a, 2007b). There are even indications of forgiveness among our evolu-

tionary ancestors (De Waal, 2000; De Waal & Pokorny, 2005; McCullough, 2008), suggesting a history of forgiveness that transcends not only cultures and time but species as well.

In the modern era, the impact of forgiveness is constant and pervasive. Countless books are dedicated to the topic, and in 2008 alone, the *New York Times* published over 750 articles discussing forgiveness and revenge (Source: LexisNexis). When offered, forgiveness can provide victims and offenders with many important benefits, including enhanced psychological well-being (Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003; Orcutt, 2006; Toussaint & Webb, 2005) and greater physiological health (Harris & Thoresen, 2005; Lawler et al., 2003; Witvliet, Ludwig, & Vander Laan, 2001). In South Africa, the Truth and Reconciliation Commission has helped victims find peace and forgiveness following apartheid (Tutu, 2000). In Australia, a "National Sorry Day" has been created to foster forgiveness among Australian Aborigines following British colonization (Heale, 2008). Forgiveness has been similarly linked to well-being among Americans following the attacks of September 11th, 2001 (Rhoades et al., 2007), Rwandans following the tragedies of Tutsi genocide (Staub, 2005; Staub, Pearlman, Gubin, & Hagengimana, 2005), and former child soldiers from Uganda and the Congo (Bayer, Klasen, & Adam, 2007).

Academic studies of forgiveness have come to transcend a broad swath of disciplines, particularly within the social sciences. Scholars of law study the implications of forgiveness for justice, guilt, retribution, and restoration (Bandes, 2000; Exline, Worthington,

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Hill, & McCullough, 2003; Gehm, 1992; Murphy & Hampton, 1998). Political scientists use forgiveness as a lens to examine protracted intergroup conflicts (e.g., Northern Ireland, the Middle East) and their resolution (Brooks, 1999; Cairns, Tam, Hewstone, & Niens, 2005; Gibson & Gouws, 1999). Anthropologists take interest in indigenous conceptualizations of forgiveness and associated rituals, such as the Hawaiian ritual of *Ho'oponopono* (Shook, 1986). Philosophers discuss the true meaning of forgiveness and its moral value (Govier, 2002; Griswold, 2007a; Murphy, 2003, 2005), whereas religious scholars focus on the central role of forgiveness in Islam, Christianity, Greek mythology, and countless other belief systems, both ancient and modern (Dorff, 1998; Griswold, 2007a; Rye et al., 2000).

Among psychologists, it is the question of *when* people forgive that has stood out above all others. Piaget's (1932/1965) *The Moral Judgment of the Child* has been cited as the earliest mark of forgiveness within psychology, although psychological approaches did not proliferate until much later, pioneered by such influential scholars as Robert Enright, Frank Fincham, Michael McCullough, and Everett Worthington. Through the work of these and other scientists, forgiveness research has come to transcend clinical, counseling, developmental, personality, social, and organizational disciplines alike. Clinical and counseling approaches have explored the implications of forgiveness for patient well-being (Enright, 2001; Enright & Fitzgibbons, 2000; Freedman, Enright, & Knutson, 2005; Wade, Worthington, & Meyer, 2005; Worthington et al., 2000). Developmental scholars have studied intrapersonal changes in the ability to forgive throughout the lifespan, from childhood and adolescence (Darby & Schlenker, 1982; Enright & the Human Development Study Group, 1994) through adulthood and old age (Allemand, 2008; Girard & Mullet, 1997; Hebl & Enright, 1993). Social psychologists have studied how attributions (Struthers, Eaton, Santelli, Uchiyama, & Shirvani, 2008), perspective taking (Takaku, 2001), justice (Karremans & Van Lange, 2005), harm severity (Fincham, Jackson, & Beach, 2005), and other aspects of the situation enhance forgiveness. Personality theorists have explored the roles of the Big Five (McCullough & Hoyt, 2002), trait anger (Berry, Worthington, Parrott, O'Connor, & Wade, 2001), narcissism (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), and other dispositions. Organizational scholars have examined how aspects of the organizational context, such as relative hierarchical status (Aquino, Tripp, & Bies, 2001) and justice climate (Aquino, Tripp, & Bies, 2006; Tripp & Bies, 2009), influence forgiveness; relationship experts have explored the dynamics of forgiveness within marriage (Fincham & Beach, 2002; Fincham, Paleari, & Regalia, 2002) and family contexts (Hoyt, Fincham, McCullough, Maio, & Davila, 2005).

The sum result is a truly impressive accumulation of scholarship and support from the broader academic community. Scherer, Cooke, and Worthington (2005) identified nearly 800 articles, books, chapters, and dissertations that focus on forgiveness through 2005, with many more continuing to be published each year (Burnette, 2010). The American Psychological Association (2006) recently published a summary of the topic for a nongovernment organizations conference at the United Nations. Numerous funding agencies have demonstrated strong support for forgiveness research as well, most notably through the John Templeton Foundation and its Campaign for Forgiveness Research

but also through major agencies, including the National Science Foundation and the National Institute for Mental Health.

Despite impressive progress, and perhaps not surprisingly given its interdisciplinary nature within psychology, forgiveness scholarship has suffered from a lack of empirical integration. With a few notable exceptions discussed below (Baskin & Enright, 2004; Lundahl, Taylor, Stevenson, & Roberts, 2008; Miller, Worthington, & McDaniel, 2008; Wade et al., 2005), there have been no attempts to systematically analyze the vast amount of empirical data that has accumulated on forgiveness. Theories suggest that forgiveness is correlated with such diverse constructs as apologies (Darby & Schlenker, 1982; Frantz & Bennigson, 2005), relationship commitment (Finkel, Rusbult, Kumashiro, & Hannon, 2002), and victim agreeableness (McCullough & Hoyt, 2002), among many other dispositional and situational constructs. Yet, the true strengths of these empirical associations—and their correspondent, integrated theoretical consequences—have yet to be pursued. Put differently, there is a paradox within the forgiveness literature. The very interdisciplinary nature of forgiveness research, which has pushed the literature in many important directions and has led to a deluge of empirical data, has at the same time hampered paradigmatic synthesis. The result is a literature characterized by assumptions and uncertainties regarding the correlates of forgiveness (e.g., the centrality of empathy to the forgiveness process; the relationship between gender and forgiveness) that remain untested at the population level.

The purpose of the current article is to address these issues via an empirical, meta-analytic synthesis of the forgiveness literature. Meta-analysis represents an important and useful tool for the empirical integration of an area of research. Whereas qualitative reviews are highly susceptible to author bias, meta-analysis reduces many of these biases and allows for a clear empirical comparison of multiple theories or approaches to a given topic (Hunter & Schmidt, 1990; Rosenthal & DiMatteo, 2001). Our goal in this article is to provide such a quantitative review and thus to synthesize data across social, developmental, clinical, and other subdisciplines and to compare divergent perspectives on forgiveness. At the level of individual constructs, this review should translate into a clear set of empirical findings on the strength of each hypothesized effect and its respective confidence interval. Across constructs, this effort should translate into an ability to explore the efficacy of various *categories* of constructs (cognitions, affect, and constraints; situations and dispositions) as well as main effects and moderators for key sample and study characteristics. Only through a systematic empirical examination of the forgiveness literature can we begin to document precisely where we have been, where we are, and where we should be going.

In our review of the forgiveness literature, we identified four published meta-analyses. Three focus on forgiveness interventions (Baskin & Enright, 2004; Lundahl et al., 2008; Wade et al., 2005), providing important insights into the efficacy of such interventions and moderators of their effectiveness, such as time spent in intervention (Wade et al., 2005). These analyses did not, however, focus on other dispositional and situational correlates of forgiveness. The fourth meta-analysis focused on the relationship between forgiveness and gender (Miller et al., 2008) but likewise did not focus on a broader array of constructs. No meta-analyses have yet assessed the broad range of dispositions and situations theorized to relate to forgiveness beyond these intervention and gender effects.

Thus, ours represents one of the first empirical reviews to look at the forgiveness literature broadly and comprehensively. In the next section, we introduce a tripartite forgiveness typology encompassing victims' *cognitions*, *affect*, and *constraints*. We begin with a review of the theoretical underpinnings of these three overarching factors, and we proceed with a delineation of 22 distinct correlates of forgiveness.

### **Cognitions, Affect, and Constraints: A Tripartite Forgiveness Typology**

The purpose of the current research is to explore the question of *when* people forgive. To address this question, we begin with McCullough, Pargament, and Thoresen's (2000) definition of forgiveness as a "prosocial change toward a perceived transgressor" (p. 9). Victims who forgive their offenders become motivated to act prosocially toward them by reconciling their differences, cooperating on interdependent tasks, and admonishing ill will. Victims who fail to forgive their offenders conversely become motivated to act antisocially by avoiding them or even taking revenge. It is presumed that unforgiveness precedes forgiveness—that offenses instill antisocial motivations within their victims, which are subsequently transformed, such that victims become increasingly motivated to act prosocially toward their offenders. For the current purposes, we focus strictly on *interpersonal* forgiveness—forgiveness of a single offender by a single victim—as the criterion of interest. Thus, the current research excludes forgiveness of or by groups (e.g., Gregoire, Tripp, & Legoux, 2009; McLernon, Cairnes, Hewstone, & Smith, 2004), third-party forgiveness (i.e., forgiveness of an offender by a third-party observer; Green, Burnette, & Davis, 2008), self-forgiveness (Hall & Fincham, 2005; Tangney, Boone, & Dearing, 2005), and trait forgiveness (Berry et al., 2001; Brown, 2003). However, whereas we do not examine trait forgiveness as a dependent variable, we do examine how trait forgiveness correlates with state forgiveness, as discussed below.

As a final definitional note, in this study we do not differentiate between measures of forgiveness (e.g., benevolence) and measures of unforgiveness (e.g., revenge), as the meta-analytic data available do not permit such fine distinctions (see Fincham, 2009, for an elaboration of the distinction between benevolent and unforgiving motivations).

Following from the above definition and its constituent delineations, we argue that victims' prosocial motivational transformations occur via (a) mitigating *cognitions* regarding transgressions and their perpetrators, (b) positive (rather than negative) *affect*, and (c) relational and socio-moral *constraints* on forgiveness. Taken together, these three processes entail a typology of when victims forgive their offenders, specified via a series of theoretical underpinnings delineated below.

The cognitive correlates of forgiveness focus on victims' attitudes and thoughts surrounding an offender and offense. Underlying these factors is a *sensemaking* process whereby victims consider such concepts as intent, responsibility, and severity and utilize these cues to interpret the nature of the offense and how their offenders should be viewed and treated (Weick, 1995). Through the sensemaking process, victims ask themselves the question, "What has happened here?" and via this question deter-

mine whether to forgive. Previous research has used a sensemaking perspective to explore a range of social phenomena, demonstrating that individuals continually use sensemaking to interpret ambiguous environments and to guide their behaviors (Grant, Dutton, & Rosso, 2009; Maitlis, 2005; Weick, 1995). They may seek to understand the level of an offender's responsibility for what happened (Aquino et al., 2006) and likewise seek to interpret an offender's intentions (Struthers et al., 2008). Apologies may mitigate victims' negative perceptions of their offenders (Fehr & Gelfand, in press), as should victims' understanding of their offenders' perspectives (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008) and perceptions of the severity of harm incurred (Fincham et al., 2005).

Affective correlates of forgiveness describe the many emotions and moods that victims experience in the wake of an offense (e.g., McCullough, Bono, & Root, 2007). Whereas the cognitive correlates of forgiveness imply a sensemaking process that is explicitly directed toward the offender and offense, the affective correlates of forgiveness relate more directly to victims' emotional experiences and moods. Affective theories of forgiveness presume that emotions are closely associated with victims' motivations to forgive. When victims experience negative offender-directed emotions, such as anger, a reduced motivation to forgive can be expected. Conversely, when victims experience positive offender-directed emotions, such as empathy, an enhanced motivation to forgive can be expected (Worthington, 2006). Moods in turn can be expected to influence forgiveness in accordance with mood-as-input theory, such that moods become attributed to salient external sources (Clare, Schwarz, & Conway, 1994; Martin, Ward, Achee, & Wyrer, 1993; Schwarz & Clore, 1988). Following an offense, victims can be expected to attribute negative mood states to their offenders and thus be demotivated to forgive. Positive moods conversely imply a less severe impact of the offense on the victim and thus a greater motivation to forgive.

Constraints describe correlates of forgiveness that extend beyond the offense at hand. First, victim forgiveness can be expected to correlate with a victim's embeddedness in the dyad. Broadly speaking, an individual can be described as embedded in a victim-offender dyad when he or she holds strong ties to the other person and when removal from the dyad would entail significant sacrifice (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001). When victims hold close, committed, or satisfying relationships with their offenders, they can be described as embedded within the dyad. Victims may also forgive in deference to internalized socio-moral standards. First, they may forgive to adhere to the tenets of a religious system. Second, they may also be motivated to forgive to maintain a socially desirable image—for instance, to appear moral in the eyes of their parents, siblings, and friends (Crowne & Marlowe, 1964).

Through their constituent constructs, each of these three factors has received attention across the discipline of psychology. In relationship research, the situational constraints of closeness and satisfaction are emphasized, along with related constructs that focus on the dyad (Fincham, 2000). In counseling and clinical research, key affective variables, such as depression, are frequently examined (Orcutt, 2006), along with cognitive perceptions, such as responsibility (Struthers, Dupuis, & Eaton, 2005). In social psychology, empathy is often examined as a key affective construct (McCullough, Worthington, & Rachal, 1997), as are cognitive

constructs, such as apology (Ohbuchi, Kameda, & Agarie, 1989). Thus, the tripartite typology unifies multiple perspectives both across and within psychological subdisciplines, proposing a parsimonious framework through which individual constructs can be conceptualized and assessed.

Within the cognitions/affect/constraints typology, a corollary contribution of the current research is to further differentiate the correlates of forgiveness as dispositional versus situational. Dispositional correlates of forgiveness are stable individual differences. At the cognitive level, these dispositions are measured by such constructs as agreeableness and trait perspective taking. At the affective level, these dispositions are measured by such constructs as neuroticism and trait anger. At the level of constraint, these dispositions are measured by religiosity and social desirability. Conversely, situational factors assess aspects of the offense context itself. At the cognitive level, these factors are measured by such constructs as intent and harm severity. At the affective level, these factors are measured by such constructs as negative mood and state anger. At the level of constraint, these factors are measured by such constructs as relationship closeness and relationship commitment. Through meta-analysis, we are able to directly assess the relative efficacy of dispositions versus situations across each factor of the tripartite typology. An overview of the proposed typology and its constituent constructs is presented in Table 1.

In the next section, we examine specific hypotheses regarding the correlates of forgiveness. Each hypothesis presents a distinct correlate of forgiveness, selected through a comprehensive review of the literature. Three key caveats should be noted at the outset. First, the list of constructs presented in Table 1 is not comprehensive. Many other constructs (e.g., attachment; Finkel, Burnette, & Scissors, 2007) are likely to exhibit important associations with forgiveness. However, meta-analysis is limited by the availability of source data from which population estimates must be derived (Hunter & Schmidt, 1990). Table 1 is therefore a reflection of key variables that have received particularly consistent attention in the literature—at a minimum, at least three effects (i.e.,  $k = 3$ ) were required for the analysis of constructs of interest (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Dalton, Certo, & Rongpitya, 2003). The table excludes additional constructs that may merit theoretical attention but lack sufficient data for meta-analytic population estimations. As a second caveat, we note that the meta-analytic data presented herein can yield only main effects within the tripartite typology. They do not allow for the examination of interaction effects, even though such interactions are highly likely to exist. In the Discussion section, we return to this point and its importance for future research.

As a final caveat, we note that cognitions, affect, and constraints do not represent mutually exclusive categories of constructs. Consistent with the typological approach to theory building (Doty & Glick, 1994), these three factors are instead best conceptualized as ideal types that “provide an abstract model, so that deviation from the extreme or ideal type can be noted and explained” (Blalock, 1969, p. 32). Thus, we recognize and directly suggest that although each of the 22 modeled constructs are predominantly linked to one factor within the proposed typology, such categorizations are idealized. Most constructs are likely to be multi-factorial in both their conceptualizations and the processes through which they link to forgiveness. For instance, whereas harm severity is conceptualized

Table 1  
Key Hypotheses and Description of the Forgiveness Process

Factor	Overarching question	Psychological mechanisms	Illustrative inputs	Situational correlates	Dispositional correlates
Cognitions	What happened?	Sensemaking about offender and offense	<ul style="list-style-type: none"> <li>● My offender intentionally harmed me.</li> <li>● My offender hurt me severely.</li> <li>● I cannot understand my offender's point of view.</li> </ul>	<p>Hypothesis 1a. Intent (–)</p> <p>Hypothesis 1b. Responsibility (–)</p> <p>Hypothesis 1c. Apology (+)</p> <p>Hypothesis 1d. Harm severity (–)</p> <p>Hypothesis 1e. Rumination (–)</p>	<p>Hypothesis 2a. Agreeableness (+)</p> <p>Hypothesis 2b. Perspective taking (+)</p> <p>Hypothesis 2c. Trait forgiveness (+)</p>
Affect	How do I feel?	Emotions and mood-as-input	<ul style="list-style-type: none"> <li>● I am upset.</li> <li>● I am relaxed.</li> <li>● I feel empathy toward my offender.</li> </ul>	<p>Hypothesis 3a. Positive mood (+)</p> <p>Hypothesis 3b. Negative mood (–)</p> <p>Hypothesis 3c. State empathy (+)</p> <p>Hypothesis 3d. State anger (–)</p>	<p>Hypothesis 4a. Neuroticism (–)</p> <p>Hypothesis 4b. Trait anger (–)</p> <p>Hypothesis 4c. Empathic concern (+)</p> <p>Hypothesis 4d. Self-esteem (+)</p> <p>Hypothesis 4e. Depression (–)</p>
Constraints	What if I do not forgive?	Embeddedness/internalized socio-moral expectations	<ul style="list-style-type: none"> <li>● If I do not forgive, we cannot continue our relationship.</li> <li>● If I do not forgive, I will fail to live up to social and moral standards.</li> </ul>	<p>Hypothesis 5a. Relationship closeness (+)</p> <p>Hypothesis 5b. Relationship commitment (+)</p> <p>Hypothesis 5c. Relationship satisfaction (+)</p>	<p>Hypothesis 6a. Religiosity (+)</p> <p>Hypothesis 6b. Social desirability (+)</p>

as a perceptual, cognitive process, it is likewise true that these perceptions may directly link to victims' affective experiences. Similarly, although state empathy is conceptualized as primarily affective, cognitive processes are likely to play a secondary role (McCullough et al., 1997). We return to this issue in the Discussion section.

### Cognitions: Making Sense of the Offense

The cognitive perspective advances several key hypotheses on the correlates of forgiveness that imply a sensemaking process. At the situational level, these hypotheses explore victims' perceptions of their offenders' intent to harm and responsibility for the offense, the severity of harm incurred, victims' ruminations over the offense, and the question of whether an apology was offered. In short, the situational correlates of forgiveness provide direct answers to the question of "what happened." At the dispositional level, hypotheses explore victims' trait agreeableness, perspective taking, and trait forgiveness. The dispositional correlates of forgiveness predispose victims toward particular interpretations of conflict events in general. In the sections below, we review these constructs, beginning with the situation and following with an analysis of victim dispositions.

#### Situational Correlates

**Responsibility and intent.** One key theoretical lens through which to examine victim forgiveness is attribution theory (Weiner, 1995) and the theory of correspondent inference (Jones & Davis, 1965). According to this perspective, forgiveness emanates from a victim's perception that offender and offense are decoupled—that the offense was not an act of volition but rather the product of circumstance. Unforgiveness conversely emanates from a perceived correspondence between the negative action and the offender's dispositional self—for example, that the offender hurt the victim because he/she is a bad person or dislikes the victim.

The attributional perspective on forgiveness is most commonly represented through the constructs of responsibility and intent. Responsibility (also referred to as blame; Aquino et al., 2001; Bradfield & Aquino, 1999) assesses the degree to which an offense was caused by the supposed offender and is closely related to Weiner's (1995) typology of locus, stability, and controllability (Fincham, 2000; Heider, 1958; Weiner, 1995). Intent focuses more specifically on the offender's *goals* and thus implies a process through which victims consider offenders' opinions of them (Heider, 1958; Malle & Knobe, 1997; Struthers et al., 2008; Weiner, 1995). Whereas intentional actions imply malice or indifference toward the victim's well-being, unintentional actions lack goal-directed purpose (Jones & Davis, 1965; Reeder, Vonk, Ronk, Ham, & Lawrence, 2004; Skowronski & Carlston, 1989). Intention defines how individuals perceive a variety of events (Malle, Knobe, & Nelson, 2007), including interpersonal conflict (Struthers et al., 2008; Kim, Ferrin, Cooper, & Dirks, 2004). Both responsibility and intent have been hypothesized to damage victims' perceptions of their offenders and thus negatively relate to forgiveness.

**Apology.** Closely tied to the attributional perspective on forgiveness is the concept of apology. Yet, whereas responsibility and intent directly assess victims' perceptual processes, apologies are

offender-initiated repair tactics aimed at shifting these perceptions. They can thus be classified as impression management strategies and are situated within a broader taxonomy of social accounts, including excuses, justifications, and denials (Ohbuchi et al., 1989; Schlenker & Darby, 1981; Schmitt, Gollwitzer, Forster, & Montada, 2004). As reviewed by Goffman (1967), apologies serve to dissociate the offender from the action committed. In conveying remorse and concern for victims' suffering, apologies induce victims to perceive their offenders as people deserving of forgiveness rather than malicious evil-doers deserving of vengeance. Because apologies are generally perceived as the most efficacious account strategy in affecting victims' perceptions of their offenders, they have received the majority of attention among forgiveness scholars (Darby & Schlenker, 1982; Eaton & Struthers, 2006; Fehr & Gelfand, in press; Ohbuchi et al., 1989). Taken together, the literature thus implies a direct and positive association between apologies and forgiveness. Nevertheless, there has been no meta-analysis of the role of apologies in forgiveness.

**Harm severity.** The negative link between harm severity and forgiveness is conceptually intuitive (Boon & Sulsky, 1997; Darby & Schlenker, 1982). Perhaps ironically for these reasons, Fincham et al. (2005) rightly observed that "there has been little analysis of this association" (p. 861). From a cognitive perspective, perceptions of severity can be theorized to influence forgiveness by facilitating negative impressions of an offender, who becomes associated with the negative event and is thus viewed as undeserving of forgiveness. Furthermore, victims may avoid or take revenge against the perpetrators of severe offenses to avoid similar harm in the future (McCullough, Fincham, & Tsang, 2003). In sum, the role of severity in the forgiveness process implies a clear negative effect, such that severe harm demotivates forgiveness.

**Rumination.** Skinner, Edge, Altman, and Sherwood (2003) have defined rumination as a coping strategy whereby victims engage in "passive and repetitive focus on the negative and damaging features of a stressful transaction" (p. 242). A significant body of research has demonstrated that rumination is harmful to the ruminator (Wade, Vogel, Liao, & Goldman, 2008; Worthington & Wade, 1999). Recent longitudinal research suggests that rumination inhibits forgiveness by triggering the types of negative thoughts and feelings associated with the original event (McCullough et al., 2007). Thus, rumination causes victims to "re-live" transgressions as they occurred and in turn suffer from the negative psychological consequences originally suffered at the heels of the conflict episode. Reviewing each of the situational, cognitive correlates of forgiveness, the following hypotheses are advanced:

*Hypothesis 1a:* Intent is negatively related to forgiveness.

*Hypothesis 1b:* Responsibility is negatively related to forgiveness.

*Hypothesis 1c:* Apology is positively related to forgiveness.

*Hypothesis 1d:* Harm severity is negatively related to forgiveness.

*Hypothesis 1e:* Rumination is negatively related to forgiveness.

## Dispositional Correlates

Although victims' state cognitions are theoretically proximal to forgiveness, it can also be supposed that certain dispositions will either enhance or inhibit victims' tendencies to engage in cognitions that facilitate forgiveness. As precursors to attributional and related cognitive processes, these dispositions are focused on how victims are generally inclined to perceive the offenses they experience and the offenders who commit them.

**Agreeableness.** Among the Big Five personality factors, agreeableness is most frequently linked to forgiveness. It is defined as the tendency to get along well with others. When faced with a conflict event, agreeable people perceive cooperative and integrative techniques as most appropriate; less agreeable people conversely often favor power assertions or disengagement (Graziano, Jensen-Campbell, & Hair, 1996). Linked to these perceptions of cooperation and integration as natural reactions to conflict is a tendency for agreeable people to perceive, understand, and empathize with others' situations (Ashton, Paunonen, Helmes, & Jackson, 1998). More than their peers, agreeable people tend to be trusting, cooperative, and altruistic (e.g., McCrae & Costa, 1987). They are inclined to get along with others (Hogan & Shelton, 1998) and behave in a cooperative fashion (Asendorpf & Wilpers, 1998; Graziano et al., 1996; McCullough & Hoyt, 2002). Thus, agreeableness among victims should positively relate to forgiveness.

**Perspective taking.** Perspective taking represents a cognitive capacity to consider the point of view of another person (Davis, 1983). As a cognitive ability, perspective taking suggests a trait ability to infer the intentions and goals of the other. Previous research has linked the capacity for perspective taking to an array of interpersonal phenomena, such as negotiation (Galinsky, Maddux, Gilin, & White, 2008) and marital adjustment (Long & Andrews, 1990), broadly demonstrating that an ability to spontaneously adopt a partner's perspective enhances the quality of such interactions. Within the context of forgiveness, perspective taking can be expected to enhance victims' understanding of why their offenders might have offended them, thus mitigating the types of downward comparisons that can facilitate negative offender perceptions (Exline et al., 2008).

**Trait forgiveness.** Trait forgiveness (also referred to as forgiveness) can be conceptualized as the tendency for an individual to forgive across situations and time (Berry et al., 2001; Brown, 2003). Like other personality traits, trait forgiveness is a stable individual difference (Brown, 2003). Individuals high on trait forgiveness tend to interpret offenses as worthy of forgiveness, whereas individuals low on trait forgiveness tend to interpret offenses as unworthy of forgiveness. More than their peers, they perceive resolution as the most useful strategy. The delineation of forgiveness into state and trait components is consistent with a range of psychological variables, including anger (Forgays, Forgays, & Spielberger, 1997; Spielberger, 1988), trust (Colquitt, Scott, & LePine, 2007), and anxiety (Gaudry, Vagg, & Spielberger, 1975), to name a few. As with each of these constructs, forgiveness as a disposition can be expected to correlate with forgiveness as a behavioral manifestation of that disposition (Mischel & Shoda, 1995). On the basis of this collective discussion, we advance the following hypotheses:

*Hypothesis 2a:* Agreeableness is positively related to forgiveness.

*Hypothesis 2b:* Perspective taking is positively related to forgiveness.

*Hypothesis 2c:* Trait forgiveness is positively related to forgiveness.

Taken together, the eight constructs presented within Hypotheses 1–2 convey a broad array of cognitive correlates of forgiveness. These constructs all involve a sensemaking process, wherein victims seek to interpret and subsequently act upon the offenses they experience. When offenses are perceived as intentional and severe, and when they are the subject of rumination, victims are unmotivated to forgive; when offenses are viewed as mild and when offenders' perspectives are understood, victims are motivated to forgive.

## Affect: Emotions and Mood as Input

In the previous section, the cognitive correlates of forgiveness were emphasized. Yet, it is also true that forgiveness is not an entirely "cold" consequence of explicit cognitive processes. Rather, forgiveness should stem from the moods and emotions that victims experience in the wake of offense. In addition to asking "What happened?" victims are also guided by their emotions and by the question, "How do I feel?" (see Table 1). Other-oriented emotions, including state empathy and state anger, are experienced in explicit reference to a target, such as an offender. According to the mood-as-input model, moods can likewise be attributed to offenders. The *immediacy principle* further clarifies that such a transference of moods can occur whether or not the target was actually the root cause (Clare et al., 2001). With respect to forgiveness, negative moods can thus be expected to motivate unforgiveness regardless of their source; positive moods should conversely motivate forgiveness. In this section, positive mood, negative mood, state empathy, and state anger are discussed as key situational constructs. Individual differences in affective experience discussed at the dispositional level include the constructs of neuroticism, empathic concern, depression, self-esteem, and trait anger.

## Situational Correlates

**Positive and negative mood.** Watson, Clark, and Tellegen (1988) have differentiated mood states into two factors: positive and negative. Positive mood is a measure of enthusiasm and alertness. Individuals who experience positive mood feel active and excited, whereas individuals who lack positive mood feel lethargic. Negative mood, in contrast, is a measure of displeasure. Individuals who experience negative mood feel fearful, nervous, and distressed; individuals who lack negative mood feel calm and tranquil. Consistent with the mood-as-input model (Martin et al., 1993), positive moods can be expected to inform victims that the experienced offense is not a threat or problem, and thus forgivable. Negative moods can conversely be expected to signal a threat to which victims may respond by not forgiving their offenders or by even enacting revenge. Numerous scholars have found support for these notions. For instance, Skarlicki, Folger, and Tesluk (1999) found that negative mood predicts victims' retaliatory behaviors

following otherwise identical offenses. Aquino et al. (2006) similarly demonstrated an association between negative mood states and victims' forgiving motivations.

**State empathy.** According to seminal research by McCullough and colleagues (McCullough et al., 1998, 1997), empathic emotions are central to the process of forgiveness. As an other-oriented emotion, empathy is characterized by feelings of warmth and compassion toward another person (Batson, 1990, 1991). In a series of studies spanning many years and research teams, empathy has been shown to facilitate a wide range of prosocial phenomena, including altruism and cooperation, via an enhanced concern for others (e.g., Batson, 1990, 1991; Eisenberg & Miller, 1987) and a feeling of oneness between the self and other (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997). McCullough and colleagues in turn expanded this theorizing by incorporating forgiveness as an additional prosocial phenomenon presumed to be affected by empathy. Although empathy is often theorized to entail both affective and cognitive components (Davis, 1983), operationalizations of empathy within the forgiveness literature overwhelmingly use measures of emotional experiences (e.g., adjective checklists; Coke, Batson, & McDavis, 1978; McCullough et al., 1998), with recent studies assessing perspective taking as a unique situational predictor of forgiveness that is operationally distinct from state empathy (Exline et al., 2008).

**State anger.** Like empathy, state anger represents an other-oriented emotional experience. As a distinct emotional state, anger is characterized by negative valence and a high level of activation (Barrett & Russell, 1998). Above other emotional experiences, its effects are likely to be particularly potent inasmuch as anger is closely aligned with conflict-promoting interpersonal behaviors, including retaliation and aggression (Allred, 1999). Indeed, as with empathy, research has consistently demonstrated a negative association between anger and forgiveness (e.g., McCullough et al., 2003). Nevertheless, there has yet to be a systematic meta-analytic assessment of either of these effects, highlighting the need for a quantitative synthesis. In all, victims' moods and emotions—both other-oriented and generalized—can be expected to account for significant variance in forgiveness:

*Hypothesis 3a:* Positive mood is positively related to forgiveness.

*Hypothesis 3b:* Negative mood is negatively related to forgiveness.

*Hypothesis 3c:* Empathy is positively related to forgiveness.

*Hypothesis 3d:* State anger is negatively related to forgiveness.

## Dispositional Correlates

Transient moods and emotional states are proximal correlates of forgiveness, yet it is also important to model how victims' dispositional tendencies to experience certain moods and emotions relate to forgiveness. As a general principle, variables that entail a tendency to experience anxiety, stress, anger, and negative mood states—which may be attributed to an offender when aggravated by an offense or simply present during an offense episode (Schwarz & Clore, 1988)—will be negatively related to forgive-

ness. Traits that entail a tendency to experience empathy or positive mood states will be positively related to forgiveness.

**Neuroticism.** Neuroticism is defined as the tendency to react stressfully to life events (McCrae & Costa, 1987). When faced with negative environmental stimuli, neurotic individuals experience higher levels of negative affect than their less neurotic peers (Larsen & Ketelaar, 1991). Extended to the conflict context, neurotic victims can be expected to experience greater negative affect after an offense than their peers, leading to less forgiveness (McCullough & Hoyt, 2002). Beyond transient levels of negative affect, neurotic individuals have also been shown to ruminate over negative life events, implying the persistence of negative affective states and unforgiveness of offenses over time (Muris, Roelofs, Rassin, Franken, & Mayer, 2005). For both of these reasons, neuroticism can therefore be expected to negatively relate to forgiveness.

**Trait anger.** Whereas neuroticism predisposes individuals toward a broad set of negative affectivities, trait anger more narrowly predisposes individuals toward anger. Trait anger is associated with a range of negative outcomes, including aggression and stress. It is particularly relevant to the forgiveness context, as it facilitates angry responses to conflict. Individuals low on trait anger would be expected to demonstrate a greater control over their anger (Wilkowski & Robinson, 2007). Given the previously reviewed negative association between state anger and forgiveness, trait anger should thus influence forgiveness by predisposing victims toward anger as an emotional response to conflict.

**Empathic concern.** Empathic concern is a stable other-oriented emotional trait: a general ability to connect emotionally with other people (Davis, 1983). Central to the experience of empathic concern is an emotional reaction to others' suffering (Batson, Fultz, & Schoenrade, 1987). Thus, empathic concern is associated with such prosocial behaviors as cooperation (Batson & Moran, 1999) and altruism (Batson, 1991). As with the previous discussion of state empathy, empathic concern can be expected to influence forgiveness as an extension of its established effects on parallel prosocial processes (McCullough et al., 1997).

**Self-esteem and depression.** As with neuroticism and trait anger, self-esteem is theorized to influence forgiveness via the affective states that victims experience when offended. Whereas individuals with high self-esteem are confident in their own worth (Baumeister, Tice, & Hutton, 1989) and experience relatively minor shifts in mood and self-concept when faced with an offense, victims with low self-esteem experience more extreme shifts (Campbell, Chew, & Scratchley, 1991). The theoretical underpinnings of the link between depression and forgiveness are similar (Orth, Robins, & Roberts, 2008). As with self-esteem, depression can be expected to influence forgiveness by negatively skewing affective reactions to conflict events. Taken together, the arguments presented above lead to five hypotheses:

*Hypothesis 4a:* Neuroticism is negatively related to forgiveness.

*Hypothesis 4b:* Trait anger is negatively related to forgiveness.

*Hypothesis 4c:* Empathic concern is positively related to forgiveness.

*Hypothesis 4d:* Self-esteem is positively related to forgiveness.

*Hypothesis 4e:* Depression is negatively related to forgiveness.

At both the situational and dispositional levels, the nine constructs presented in Hypotheses 3–4 demonstrate that forgiveness is not only a cognitive process but an affective one as well. Affective states direct victim behaviors, motivating unforgiveness in the wake of negative affective experiences and forgiveness in the wake of positive affective experiences. Thus, victims' affective states play a key role in determining when victims forgive their offenders. In the next section, we consider a final set of factors related to forgiveness: constraint.

### **Constraints: Embeddedness and Internalized Socio-Moral Expectations**

Beyond the cognitions and emotions that victims experience in the wake of an offense, victims may also be constrained by the question, "What happens if I don't forgive?" At the situational level, victims must consider the implications of not forgiving for the victim–offender relationship. As previous research has demonstrated, forgiveness is closely associated with the likelihood of relationship restoration (e.g., Aquino et al., 2001, 2006). The importance of relationship restoration to the victim is best depicted via the concept of embeddedness, which Mitchell et al. (2001) likened to "a net or a web in which an individual can become stuck" (p. 1104). A victim is embedded or "stuck" in the victim–offender relationship to the degree that a dissolution of the relationship would entail significant personal sacrifice. A spouse, for example, might suffer financial loss or a reduced sense of belonging by dissolving the spousal relationship. As the level of sacrifice implied by unforgiveness increases, victims should become increasingly motivated to forgive. Embeddedness is operationalized via measures of relationship closeness, commitment, and satisfaction. These variables are described as situational because individuals experience offenses from partners to whom they are variously committed (e.g., friends vs. strangers) just as they experience offenses with varying levels of severity. Thus, even though constructs, such as commitment, are fairly stable within dyads, they vary across different dyads within which a victim can experience conflict.

At the dispositional level, it is also important to recognize that victims may be motivated to forgive via internalized socio-moral expectations, regardless of the specific event that has transpired. Such internalized expectations could stem from victims' religious systems (measured via religiosity) or stable motivations to be viewed by others in a positive light (measured via social desirability). Both religiosity and social desirability are characterized herein as dispositional constructs, with a focus on trait differences across time and situations.

#### **Situational Correlates**

**Relationship closeness, commitment, and satisfaction.** Interdependence theory (Kelley & Thibaut, 1978), accommodation theory (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991), and

forgiveness research (McCullough et al., 1998) highlight multiple means through which the closeness–forgiveness relationship is likely to operate. McCullough et al. (1998) have suggested that relationship closeness might facilitate forgiveness by enhancing victim motivation for relationship preservation and by fostering a long-term orientation wherein parties are cognizant of the costs of continuing the conflict (McCullough et al., 1998; Rusbult et al., 1991; Van Lange et al., 1997). A unification of these mechanisms coalesces around the idea of constraint. When embedded in a close relationship, a victim can leave the relationship only through significant personal sacrifice (Mitchell et al., 2001), be it financial, socio-affective, or otherwise. To maintain the relationship, victims will seek avenues toward resolution. Offenders, too, will seek a path to relationship restoration through such avenues as apology.

Within lasting relationships, such as marriage and friendship, commitment and satisfaction have been posited to play influential roles in forgiveness as well. Research suggests that commitment cultivates forgiveness as a function of victims' intent to persist (Finkel et al., 2002). In other words, committed relationship partners forgive each other because forgiveness represents an effective means to achieving victims' primary goal: to remain in the relationship to which they are committed. Fincham and colleagues (e.g., Fincham et al., 2002) identified more indirect mechanisms for relationship satisfaction. One key finding of theirs is that relationship satisfaction decreases victims' responsibility attributions, in turn creating feelings of increased empathy and decreased negative affect. Thus, relational constraints may influence forgiveness both directly through an intent to persist and indirectly through a tendency to perceive close others' offenses as uniquely understandable or unintentional. Given the above arguments, we hypothesize the following:

*Hypothesis 5a:* Relationship closeness is positively related to forgiveness.

*Hypothesis 5b:* Relationship commitment is positively related to forgiveness.

*Hypothesis 5c:* Relationship satisfaction is positively related to forgiveness.

#### **Dispositional Correlates**

Whereas situational constraints on forgiveness emphasize dyadic embeddedness, dispositional constraints on forgiveness emphasize stable internalized socio-moral expectations. As with embeddedness, these internalized expectations become overarching concerns that move beyond the offense itself. It is for this reason, perhaps, that concepts such as "unconditional forgiveness" are modally associated with socio-moral mechanisms such as religiosity: the fiat of a deity or prescribed system of internalized standards that demands forgiveness regardless of how the victim thinks or feels about a specific offense or offender (Exline et al., 2003).

**Religiosity.** As previously noted, the religiosity construct suggests an internalized socio-moral mechanism for forgiveness. According to this perspective, religion exerts a social pressure on victims to perform in a socially desirable manner (i.e., forgive) regardless of their offense-specific cognitions or affect (McCullough & Worthing-



ton, 1999; Mullet et al., 2003; Tsang, McCullough, & Hoyt, 2005). Recent theorizing suggests that religiosity is best characterized as a self-regulatory system (McCullough & Willoughby, 2009), providing individuals with not only a moral code but also with an ability to self-regulate and thus adhere to that code. Religiosity can consequently be posited to influence forgiveness by (a) emphasizing the socio-moral value of forgiveness and (b) providing individuals with the regulatory control needed to adhere to those expectations.

**Social desirability.** Crowne and Marlowe (1964) define social desirability as “the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviors” (p. 109). Social desirability can therefore be conceptualized as an individual difference in the tendency to present oneself favorably to others, even if the presented self does not reflect the actual self (Lalwani, Shrum, & Chiu, 2009). As noted by Podsakoff, MacKenzie, Lee, and Podsakoff (2003), social desirability presents a methodological concern, as it may bias self-report data and can inflate or suppress the true relationship between two variables (cf. Ganster, Hennessey, & Luthans, 1983). The link between forgiveness and social desirability is furthermore of theoretical interest, inasmuch as it suggests an internalized socio-moral mechanism for forgiveness. Forgiveness is, generally speaking, a socially desirable response to interpersonal offense.<sup>1</sup> Thus, victims who adhere to socially desirable behavior in general should by extension be more motivated to forgive (a socially desirable response) than to not forgive (a socially undesirable response). Following this logic, we put forth the following hypotheses:

*Hypothesis 6a:* Religiosity is positively related to forgiveness.

*Hypothesis 6b:* Social desirability is positively related to forgiveness.

The tripartite typology of forgiveness as presented in Hypotheses 1–6 is one of the first comprehensive syntheses of forgiveness’s correlates as studied in the psychological literature. Vis-à-vis a typological approach, 22 correlates of forgiveness were delineated across three categories: cognitions, affect, and constraints. Cognitions focus upon victims’ perceptions of both the offenses they experience and the offenders that commit them. Affect focuses upon victims’ emotions and mood states following an offense. Constraints focus upon the roles of embeddedness and socio-moral expectations, regardless of the specific cognitions or affect elicited by an offense. Before testing each of the presented hypotheses meta-analytically, we conclude the theoretical overview with a consideration of four key sample and study characteristics.

### Sample and Study Characteristics: Main Effects and Moderation

Beyond the cognitions, affect, and constraints theorized to correlate with forgiveness, it is important to consider how sample and study characteristics might also exert an impact. Indeed, a key advantage of meta-analysis is an ability to test the role of sample and study characteristics that may have gone untested in a systematic way (see, e.g., our discussion of age as presented below). In this study, both main effects and moderators are examined. First,

victim gender and victim age are examined as demographic predictors of forgiveness. Then, time since offense and methodology (scenario vs. recall) are put forth as key study characteristics that may exert direct or moderated effects, respectively.

### Gender

The first demographic question to consider is whether gender might exert a direct effect on forgiveness. Given previous research suggesting that women are more empathic and relational than men (e.g., Eisenberg & Lennon, 1983; Lennon & Eisenberg, 1987), it stands to reason that women might likewise exhibit a greater tendency to forgive. However, research on the gender–empathy relationship is not without controversy. For instance, some data suggest the effect may be driven by self-report biases rather than underlying behavioral response patterns, casting some doubt upon the gender–forgiveness relationship (e.g., Derntl et al., 2010). In a recent meta-analysis, Miller et al. (2008) theorized a gender-forgiveness effect and reported a correlation in the predicted direction ( $\bar{r} = .14$ ), indicating that women are somewhat more forgiving than men. Our purpose is to build upon Miller et al.’s meta-analysis in three ways. First, we include 45 effects that have not previously been analyzed, encompassing data from many dissertations that may mitigate the “file drawer” effect. Second, following from McCullough et al.’s (2000) definition of forgiveness as a prosocial change toward a perceived transgressor, our meta-analysis focuses on individual acts of interpersonal forgiveness between a single victim and a single offender. Thus, we diverge from the approach of Miller et al. by excluding studies that adopt diverging conceptualizations of forgiveness (e.g., assessments of self-forgiveness and forgiveness as a disposition). Third, our data include a catalogue of studies that simply recorded a nonsignificant effect that can be compared against the Fail-safe  $k$ , which is recommended in the meta-analysis literature by numerous scholars (e.g., Rosenthal, 1979).

*Hypothesis 7:* Women are more forgiving than men.

### Age

From early adulthood through old age, research suggests that people become more reflective and relaxed as they grow older (Heckhausen, Dixon, & Baltes, 1989). Multiple theoretical perspectives underlie the related hypothesis that age is associated with forgiveness. First, age differences may emerge as a function of time perspective (Allemand, 2008). Put differently, people may become more forgiving as they age because they tend to shift toward a present time perspective, causing them to value forgiveness as a means to acquire short-term hedonic reward. In a related series of arguments, scholars have drawn from the tenants of socio-emotional selectivity theory to posit that people become increasingly motivated to derive affective meaning from life during old age (Carstensen, 1992; Carstensen, Fung, & Charles,

<sup>1</sup> It is important to note that forgiveness may not always be seen as a virtue—philosophers have noted that forgiveness may instead imply weakness (Murphy, 2003; 2005). Nonetheless, we suggest that forgiveness is, on average, seen as a virtuous reaction to victimization and aggression and is even a moral imperative.

2003). These motivations are manifest in a range of conflict-reducing behaviors, including a focus on close, meaningful social ties (Lansford, Sherman, & Antonucci, 1998) and an enhanced tendency toward affective self-regulation (Carstensen et al., 2003). It is therefore possible to hypothesize the following:

*Hypothesis 8:* Age is positively related to forgiveness.

## Time

It is a commonsense notion that “time heals all wounds.” This adage suggests that forgiveness increases along with a victim’s temporal distance from an offense. Nonetheless, the true relationship between forgiveness and time remains largely unclear. Scholars have noted the potential for “unforgiveable offenses” that are unaffected by time (Exline et al., 2003), and evaluations of forgiveness trajectories over months or years are scarce. Recent work by McCullough et al. (2003) theorized about the roles of empathy, harm severity, and attributions in forgiveness over time, yet they found few consistent results for these mediating factors. Nonetheless, there remains an intuitive sense that time both decreases the negative affect elicited by an offense and allows offenders the opportunity to shift victims’ impressions of them (e.g., by expressing empathy or offering compensation; Fehr & Gelfand, in press). Although time may also be theorized to moderate the impact of forgiveness’s correlates, the limited number of source studies reporting these data precluded such analyses. Thus, we limit our time hypothesis to the following:

*Hypothesis 9:* Time is positively related to forgiveness.

## Methodology

The majority of studies in the forgiveness literature can be classified as either *recall* or *scenario*. Recall methodologies ask participants to report on an event that happened to them in the past. This most commonly involves the recollection of an event from everyday life but may also involve the recollection of a recent transgression by a confederate in a laboratory context (e.g., Ohbuchi et al., 1989). Scenario studies instead ask victims to *imagine* how they would react to a transgression. Gonzales, Manning, and Haugen (1992), for instance, presented participants with scenarios wherein a hypothetical offender gossips about a victim, destroys a victim’s computer data, or fails to hand in a victim’s paper to a professor. These methodologies possess the obvious advantage of experimental control, but they lack the realism of recall methodologies. Broadly speaking, scenario studies are often criticized for their tendency to emphasize cold judgments and cognitions, whereas studies of real-world behavior (e.g., recall studies) emphasize emotions and moods. We therefore hypothesize that scenario studies strengthen the effects of cognitions, whereas recall methodologies strengthen the effects of affect.

*Hypothesis 10a:* Victim affect exerts a stronger impact on forgiveness when assessed via recall versus scenarios.

*Hypothesis 10b:* Victim cognitions exert a stronger impact on forgiveness when assessed via scenarios versus recall.

## Method

### Procedures

**Data collection.** The search for articles began with an electronic database search of published studies. PsycINFO, ERIC, and SOCINDEX were utilized to locate articles containing the phrases “forgiv\*” (to cover variants such as forgiveness, forgiving, and forgive) and/or “revenge.” To minimize the file drawer problem, we also ran the same set of keywords through Dissertation Abstracts International. These searches returned several thousand items, each of which was manually reviewed according to the inclusion criteria described below. Next, we searched the reference sections of each retained article for additional publications. We then went back to the electronic databases and reviewed all articles published by the first authors of the retained studies. Then, we sent a request for unpublished studies to multiple listservs (e.g., the Society for Personality and Social Psychology). Finally, we cross-checked our final list of studies with two recent forgiveness bibliographies (Burnette, 2010; Scherer et al., 2005). Data collection ended on December 31st, 2008. Thus, no articles published after this date (with the exception of in-press studies obtained through listservs) are included in our findings. The data collection procedures ultimately resulted in the retention of 175 unique studies or samples and 26,006 individual study participants. Analyzed journals spanned the discipline of psychology, including publications from social and personality psychology (e.g., *Journal of Personality and Social Psychology* and *Journal of Personality*), organizational psychology (e.g., *Journal of Applied Psychology*), clinical psychology (e.g., *Journal of Consulting and Clinical Psychology*), and health psychology (e.g., *Journal of Behavioral Medicine*), among many others.

**Inclusion criteria.** To be included, we required that a study contain a quantitative measure of forgiveness (e.g., the Transgression-Related Interpersonal Motivations Scale, the Enright Forgiveness Inventory), a quantitative measure of at least one key correlate of forgiveness (e.g., gender, apology), and sufficient information to compute a bivariate relationship (e.g., *d*, *r*, group means) between the two measures. Studies were screened to exclude preadolescent samples, and only studies written in English were retained. When a study measured forgiveness across multiple offenses, the decision to include or exclude the study was established through conversation among the authors. Generally, this decision hinged on the theoretical focus of the authors and the variability of the examined offenses. In several instances, the same data were reported in multiple outlets. Typically, this situation occurred when a published study was based on a dissertation. In these cases, two criteria were used. When the results were identical across the two outlets, the source providing the most detail was retained. When the results conflicted, the most recent source was retained.

Although meta-analysis, in the strictest sense, only requires two bivariate effects for the computation of relevant statistics (e.g., population correlations), a *k* of three is often cited as the minimum number of source studies from which population estimates can be derived (e.g., Bhaskar-Shrinivas et al., 2005; Dalton et al., 2003), with the precision of these estimates increasing along with sample size (Hunter & Schmidt, 1990). Thus, although each of the reported effects utilizes a  $k \geq 3$ , additional constructs of potential

theoretical interest (e.g., attachment) were excluded from both theoretical discussion and empirical analysis.

**Moderator coding.** To probe for moderation effects, we coded each study for scenario versus recall methodology as described in each study's Method section. A recall study was defined as any in which victims reported on an actual transgression (including both recalled events from participants' pasts and laboratory experiments that created a real offense). A scenario study was defined as any in which victims reported on a hypothetical transgression.

## Analysis

**Between-subjects effects.** In the present research, population parameters were estimated as correlations; importantly, a random-effects model was utilized to compute all relevant confidence intervals. Whereas fixed-effects models presume a single population effect from which each study draws, random-effects models presume a heterogeneous set of population parameters across studies (Hedges & Vevea, 1998). Statisticians have coalesced around the random-effects model as the favored approach (e.g., Field, 2001; National Research Council, 1992). The dominant view is that random-effects models incorporate more accurate and conservative assumptions than fixed effects models; therefore, we adopted the random-effects approach in our statistical analyses.

To compute each population correlation, we first converted all source study effects (means, standard deviations, effect sizes [ $t$  values,  $F$  values, and chi-square values], and exact  $p$  values) into correlation coefficients. Effects were converted to Fisher's  $Z$  for the calculation of relevant error statistics (Field, 2001) and weighted by their inverse variances. In addition to reporting both weighted and unweighted correlation coefficients, for each bivariate relationship, we calculated (a) the confidence interval for the found effect, (b) the standard error of each computed  $\bar{r}$  value, (c) the  $Q$ -statistic (to assess sample heterogeneity), and (d) the Fail-safe  $k$ , which indicates the number of unfound studies with  $r = 0$  needed to widen the confidence interval to include zero.

Main effects were computed for a total of 25 constructs, including eight cognitive constructs, nine affective constructs, five constraint constructs, and three sample and study characteristics. The number of participants utilized to estimate each population correlation ranged from 419 to 8,366 with a median of 2,442. The number of effect sizes utilized ranged from 4 to 53 with a median of 17.

**Moderation.** The goal of our moderation analyses was to assess the impact of study methodology on the strength of the relationship between victim forgiveness and their cognitions and affect. To be included in this subset of analyses, a construct must meet three criteria: (a) at least three effect sizes within each methodological subcategory (i.e., at least three effects from recall studies and three effects from scenario studies) to allow for stable estimations, (b) a significant  $Q$ -statistic to demonstrate sufficient heterogeneity, and (c) categorization as either a cognition or affect. Seven constructs met these criteria, including five cognitive constructs (intent, responsibility, apology, harm severity, and trait forgiveness) and two affective constructs (state empathy and negative mood). Analyses were conducted by independently assessing population parameters for each construct within the requisite methodological subcategories.

## Results

In this section, we report meta-analytic estimates for each hypothesis. Each main effect is reported in Table 2 and is delineated across the situational and dispositional components of victims' cognitions, affect, and constraints. Many studies reported the association between a correlate of forgiveness and several different forgiveness measures. In these cases, we computed bivariate correlations across each measure separately and then averaged these correlations to create an overall estimate for the given sample. When a single study reported separate analyses for two distinct samples (e.g., a U.S. sample and a Korean sample) we computed bivariate correlations separately and retained them independently.<sup>2</sup> Significant results are indicated by effects for which the confidence interval does not include zero. Although we report both weighted and unweighted effect sizes for each relationship, all substantive discussion is in reference to weighted effect sizes. Differences across these two measures were generally negligible. Moderation analyses are presented in Table 3.

### Cognitions

Hypotheses 1a–1e focused on victims' situational cognitions, including intent, responsibility, apology, harm severity, and rumination. The first pair of hypotheses posited a negative effect of both intent and responsibility on forgiveness. These hypotheses were supported, with population correlations of  $\bar{r} = -.49$  for intent, and  $\bar{r} = -.35$  for responsibility. The impact of apology on forgiveness was positive, with a population correlation of  $\bar{r} = .42$ . For harm severity, the effect was again significant ( $\bar{r} = -.27$ ). For rumination, the effect was significant ( $\bar{r} = -.32$ ). Following the guidelines of Cohen (1988), these effects can be said to range from low to medium. Specifically, effects were medium in size for intent, responsibility, apology, and rumination, but effects were low for harm severity.

Hypotheses 2a–2c examined the impact of victims' cognitive dispositions on forgiveness, including agreeableness, perspective taking, and trait forgiveness. This set of hypotheses received consistent support. For agreeableness,  $\bar{r} = .22$ , indicating that agreeable people tend to forgive their offenders. The mean population correlation for perspective taking ( $\bar{r} = .19$ ) was likewise significant. Trait forgiveness was found to exhibit a positive effect as well. Across 30 studies, the population correlation between trait and state forgiveness was  $\bar{r} = .30$ . Victim dispositions thus exhibited low to medium effects (Cohen, 1988).

### Affect

Proximal affective states, measured via positive mood, negative mood, state empathy, and state anger, exhibited nonsignificant to strong correlations with forgiveness. These data indicate that state differences in affective expression can exhibit important associations with forgiveness, but not always. Hypotheses 3a and 3b assessed the impact of state affect on victim

<sup>2</sup> Regardless, the separation of these samples does not influence a correlate's weighted  $\bar{r}$ .

Table 2  
Main Effects for Cognitions, Affect, Constraints, and Sample/Study Characteristics

Correlates of forgiveness	<i>k</i> effect sizes	Total <i>n</i>	Mean $\bar{r}$	Weighted mean $\bar{r}$	<i>SE</i>	95% CI	<i>Q</i> -statistic $\chi^2$	Fail-safe <i>k</i>
<b>Cognitions</b>								
<i>Situational</i>								
Intent	15	2,624	-.50	-.49	.02	[-.64, -.34]	199.76 <sup>a</sup>	3,302
Responsibility	21	2,599	-.36	-.35	.02	[-.42, -.28]	54.68 <sup>a</sup>	2,567
Apology	23	4,009	.40	.42	.02	[.31, .53]	240.41 <sup>a</sup>	5,420
Harm severity	49	7,114	-.26	-.27	.01	[-.34, -.20]	368.86 <sup>a</sup>	8,611
Rumination	7	1,354	-.33	-.32	.03	[-.45, -.19]	34.91 <sup>a</sup>	359
<i>Dispositional</i>								
Agreeableness	10	1,732	.21	.22	.02	[.17, .27]	9.32	259
Perspective taking	4	506	.17	.19	.04	[.14, .24]	1.70	19
Trait forgiveness	30	5,685	.34	.30	.01	[.24, .36]	130.82 <sup>a</sup>	5,702
<b>Affect</b>								
<i>Situational</i>								
Positive mood	4	419	.12	.13	.05	[-.01, .27]	5.87	
Negative mood	12	1,463	-.28	-.27	.03	[-.39, -.15]	57.32 <sup>a</sup>	470
State empathy	32	4,906	.53	.51	.01	[.41, .61]	408.75 <sup>a</sup>	17,427
State anger	20	2,442	-.45	-.41	.02	[-.54, -.28]	178.39 <sup>a</sup>	3,249
<i>Dispositional</i>								
Neuroticism	9	1,551	-.22	-.24	.03	[-.32, -.16]	17.80 <sup>a</sup>	240
Trait anger	18	2,239	-.20	-.18	.02	[-.23, -.13]	22.53	446
Empathic concern	7	763	.11	.17	.04	[.04, .30]	17.59 <sup>a</sup>	28
Self-esteem	7	732	.13	.03	.04	[-.12, .19]	21.55 <sup>a</sup>	
Depression	14	1,611	-.27	-.26	.03	[-.31, -.21]	14.23	532
<b>Constraints</b>								
<i>Situational</i>								
Relationship closeness	12	1,814	.27	.28	.02	[.20, .36]	32.24 <sup>a</sup>	572
Relationship commitment	17	1,972	.19	.23	.02	[.15, .31]	44.52 <sup>a</sup>	474
Relationship satisfaction	21	3,678	.36	.32	.02	[.23, .41]	156.17 <sup>a</sup>	3,300
<i>Dispositional</i>								
Religiosity	28	5,224	.19	.19	.01	[.16, .22]	41.21 <sup>a</sup>	1,748
Social desirability	14	2,561	.09	.10	.02	[.02, .18]	49.15 <sup>a</sup>	108
<b>Sample and Study Characteristics</b>								
Gender <sup>b</sup>	53	8,366	.01	.01	.01	[-.03, .05]	146.35 <sup>a</sup>	
Age	21	2,999	.06	.06	.02	[.02, .10]	21.03	19
Time (between-subjects)	22	2,917	.04	.02	.02	[-.03, .07]	35.23 <sup>a</sup>	

Note. The random effects model was utilized for all CI estimates. *k* effect sizes = the total number of samples utilized to estimate a given effect; Total *n* = the total number of individuals utilized to estimate a given effect; Mean  $\bar{r}$  = the unweighted mean of correlations for a given correlate; Weighted mean  $\bar{r}$  = the weighted mean of correlations for a given correlate; *SE* = the standard error of a given effect; *Q*-statistic  $\chi^2$  = the presence of a moderation effect; Fail-safe *k* = the number of studies needed to shift the demonstrated effect to include zero.

<sup>a</sup> Indicates significant heterogeneity. <sup>b</sup> An additional 23 studies (3,364 participants) reported a nonsignificant gender effect but could not be included in the meta-analysis because they did not report specific effects. These studies are not specified in the references section, but a full list is available from the first author upon request.

forgiveness. The impact of positive mood was in the hypothesized direction ( $\bar{r} = .13$ ) but with a confidence interval that spans zero, indicating a nonsignificant effect. However, the theorized link between forgiveness and negative mood was supported ( $\bar{r} = -.27$ ). State empathy was the only variable among the 22 tested constructs to exhibit a strong correlation with forgiveness ( $\bar{r} = .51$ ). State anger likewise exhibited a significant relationship with forgiveness ( $\bar{r} = -.41$ ). These effects therefore range from nonsignificant (in the case of positive mood) to strong (in the case of state empathy).

The next set of hypotheses (4a–4d) examined the impact of affect-oriented traits on forgiveness, including neuroticism, trait anger, empathic concern, self-esteem, and depression. The first of

these variables, neuroticism, exhibited a small correlation with forgiveness ( $\bar{r} = -.24$ ). Thus, neurotic victims tend to exhibit lower motivations toward forgiveness than their less neurotic peers. The impact of trait anger on forgiveness was significant but weak ( $\bar{r} = -.18$ ). Empathic concern likewise exhibited a small but significant effect ( $\bar{r} = .17$ ). This finding suggests that trait inclinations toward empathic emotions facilitate forgiveness. Self-esteem exhibited no significant effect ( $\bar{r} = .03$ ), with a confidence interval spanning zero. In accordance with Hypothesis 4e, depression was negatively associated with forgiveness ( $\bar{r} = -.26$ ). Together, victims' affective dispositions exhibited effects that ranged from nonsignificant in the case of self-esteem to small in the case of the remaining four constructs.

Table 3  
Moderating Effects of Study Methodology on Victim Cognitions and Affect

Correlates of forgiveness	Methodology	<i>k</i> effect sizes	Total <i>n</i>	Mean $\bar{r}$	Weighted mean $\bar{r}$	95% CI	<i>Q</i> -statistic $\chi^2$
<b>Cognitions</b>							
Intent <sup>a</sup>	Recall	8	1,390	-.31	-.31	[-.36, -.26]	7.80
	Scenario	7	1,234	-.67	-.65	[-.86, -.44]	59.58 <sup>b</sup>
Responsibility <sup>a</sup>	Recall	12	1,595	-.30	-.29	[-.36, -.22]	18.83
	Scenario	9	1,004	-.43	-.45	[-.54, -.36]	15.64
Apology <sup>c</sup>	Recall	15	2,610	.37	.39	[.31, .47]	53.30 <sup>b</sup>
	Scenario	8	1,399	.46	.49	[.20, .78]	172.45 <sup>b</sup>
Harm severity <sup>c</sup>	Recall	42	6,118	-.23	-.24	[-.29, -.19]	172.87 <sup>b</sup>
	Scenario	7	996	-.42	-.48	[-.79, -.17]	131.12 <sup>b</sup>
Trait forgiveness <sup>c</sup>	Recall	26	5,047	.33	.30	[.24, .36]	120.15 <sup>b</sup>
	Scenario	4	638	.38	.34	[.18, .50]	10.58 <sup>b</sup>
<b>Affect</b>							
State empathy <sup>c</sup>	Recall	20	3,079	.59	.55	[.40, .70]	342.56 <sup>b</sup>
	Scenario	12	1,827	.43	.43	[.34, .52]	37.97 <sup>b</sup>
Negative mood <sup>c</sup>	Recall	8	820	-.31	-.29	[-.38, -.16]	15.82 <sup>b</sup>
	Scenario	4	643	-.23	-.24	[-.56, .02]	40.52 <sup>b</sup>

Note. The random effects model was utilized for all CI estimates. Moderator analyses were conducted on variables with at least three studies utilizing each methodology and a significant *Q*-statistic in the main effect analyses. *k* effect sizes = the total number of samples utilized to estimate a given effect; Total *n* = the total number of individuals utilized to estimate a given effect; Mean  $\bar{r}$  = the unweighted mean of correlations for a given correlate; Weighted mean  $\bar{r}$  = the weighted mean of correlations for a given correlate; *Q*-statistic  $\chi^2$  = the presence of a moderation effect.

<sup>a</sup> Moderator effect is significant. <sup>b</sup> Indicates significant heterogeneity. <sup>c</sup> Moderator effect is in the predicted direction.

## Constraints

The third set of hypotheses examined the impact of constraint on victim forgiveness. Hypotheses 5a–5c specifically posited that forgiveness would be positively associated with social constraint, measured by relationship closeness, relationship commitment, and relationship satisfaction. Each of these hypotheses received support. Relationship closeness exhibited a population correlation of  $\bar{r} = .28$ , indicating that victims are most likely to forgive offenders with whom they are in a close relationship. The associations between forgiveness and relationship satisfaction and commitment were likewise significant, indicating that victims are likewise most likely to forgive offenders with whom they share a satisfying or committed relationship, with population correlations of  $\bar{r} = .32$  and  $\bar{r} = .23$ , respectively. Dyadic constraints therefore appear to exhibit small to medium effects.

The final two constraint hypotheses (6a–6b) posited an internalized socio-moral mechanism for forgiveness, driven by individual differences in religiosity and social desirability. Religiosity exhibited a significant effect ( $\bar{r} = .19$ ). It is a common perception that religion and forgiveness are closely related (Rye et al., 2000). However, this effect is small in accordance with Cohen's (1988) recommended cutoffs: Religiosity accounted for only 3.6% of variance in victim forgiveness. The effect of social desirability was significant but likewise quite small. Across 14 studies, social desirability was correlated with forgiveness such that  $\bar{r} = .10$ .

## Sample and Study Characteristics

Hypothesis 7 posited that women are more forgiving than men. Across 53 studies and 8,366 participants, the relationship between gender and forgiveness was not significant ( $\bar{r} = .01$ ). An additional 23 studies (3,364 participants) also reported a nonsignificant gender effect in verbal descriptions of their findings. For example,

McCullough et al. (1998) reported the following in Study 4: "We determined through a series of *t*-tests that males and females participants' scores . . . did not differ" (p. 1595). Although such effects could not be quantitatively analyzed in lieu of exact data on the bivariate gender–forgiveness relationship, taken together they lend further support to the apparent null effect of gender on forgiveness.

Looking next to age, the main effect of age on forgiveness was significant but very small. Across 23 studies,  $\bar{r} = .06$ . The impact of time was nonsignificant ( $\bar{r} = .02$ ) with a confidence interval spanning zero, revealing a negligible association between the time since an offense occurred and forgiveness. Thus, neither Hypothesis 8 nor Hypothesis 9 received support.

Hypotheses 10a–10b assessed the moderating role of study methodology. In Hypothesis 10a, scenario methodologies were theorized to strengthen the impact of victim cognitions when compared against recall methodologies. This hypothesis received some support. Across five constructs, all were in the predicted direction: In each case, the weighted population correlation accounted for greater variance in forgiveness when assessed via a scenario methodology. Two of these effects (intent and responsibility) were statistically significant as indicated by nonoverlapping confidence intervals. Population correlations for recall (scenario) methodologies were as follows: for intent,  $\bar{r} = -.31$  (–.65); for responsibility,  $\bar{r} = -.29$  (–.45); for apology,  $\bar{r} = .39$  (.49); for harm severity,  $\bar{r} = -.24$  (–.48); for trait forgiveness,  $\bar{r} = .30$  (.34).

Data related to Hypothesis 10b were available for only two constructs (state empathy and negative mood) because most studies of affect and forgiveness utilized only recall methodologies. Both effects were in the predicted direction, such that the constructs accounted for greater variance in forgiveness when assessed via recall methodologies. However, neither effect was significant—in both cases, confidence intervals across methodologies

were overlapping. Population correlations for recall (scenario) methodologies were as follows: for state empathy,  $\bar{r} = .55$  (.43); for negative mood,  $\bar{r} = -.29$  (-.24).

## Discussion

Forgiveness is a ubiquitous social phenomenon. Throughout history, forgiveness has helped to heal the wounds of countless protracted conflicts, from South African apartheid and Rwandan genocide to Australian colonization and American slavery (Brooks, 1999; Staub, 2005; Tutu, 2000). At the individual level, forgiveness has facilitated physiological and psychological well-being following countless interpersonal conflicts. The centrality of forgiveness in social life is further evidenced by its important place in the world's major religions (Griswold, 2007a; Rye et al., 2000) and its prevalence in many creative works (McLean, 1996; Owen, 1976; Shifflett, 2003).

Within psychology, recent trends indicate a sustained scholarly interest in forgiveness (McCullough et al., 2000; Worthington, 2005). Nearly 800 studies on forgiveness were conducted before 2005; many more continue to be published every year (Burnette, 2010; Scherer et al., 2005). Divergent perspectives emanating from social, personality, clinical, developmental, and organizational points of view furthermore place forgiveness within a uniquely interdisciplinary psychological context. Yet, at the same time, forgiveness scholarship has suffered from a lack of paradigmatic integration. Research has instead tended to move forward in relative isolation with little interaction across disciplines. The goal of the present meta-analysis was to provide empirical integration of this disparate literature.

## Mapping Forgiveness

Within psychology, there is a particular interest in the question of *when* people forgive—that is, the situations and dispositions that correlate with victims' motivations to forgive their offenders. To unify this expansive literature, we have advanced a tripartite typology incorporating victims' cognitions, affect, and constraints following offense. Through victim cognitions, we emphasize a sensemaking process wherein victims seek to understand what has happened and interpret the role of the offender in the event. Through victim affect, we emphasize emotions and mood-as-input processes whereby victims' affective states inform their contextualized behaviors and thus correlate with their prosocial versus antisocial motivations. Through victim constraints, we emphasize victim concerns that extend beyond the offense at hand and thus inform the likelihood of forgiveness via such external factors as dyadic embeddedness and internalized socio-moral expectations.

**Cognitions, affect, or constraints?** As summarized in Table 2, all eight cognitive correlates of forgiveness exhibited significant associations with forgiveness. When victims perceive the offenses they suffer as severe, intentional, and caused by their offenders, they are unlikely to forgive. They likewise exhibited less forgiveness when they ruminated over the events. Conversely, apologies were positively associated with forgiveness. Regarding victim dispositions, traits that predispose victims to perceive offenses in a positive light, including agreeableness, trait forgiveness, and perspective taking, were shown to correlate with forgiveness as well. Taken together, victim cognitions accounted for greater

variance in forgiveness than victims' affect or constraints. Mean and median correlations between forgiveness and situational cognitions were .37 and .35, respectively, indicating an average of 12%–14% of variance explained. Mean and median correlations for dispositional cognitions were .24 and .22, respectively, suggesting 5%–6% of variance explained. Yet, it is important to note that correlations between forgiveness and specific constructs within these categories varied considerably. For instance, although situational cognitions typically accounted for greater variance in forgiveness than victim dispositions, the effects of victim trait forgiveness ( $\bar{r} = .30$ ) and harm severity perceptions ( $\bar{r} = .27$ ) were similar.

Seven of nine affective constructs were shown to relate to forgiveness. At the situational level, negative mood ( $\bar{r} = -.27$ ), state empathy ( $\bar{r} = .51$ ), and state anger ( $\bar{r} = -.41$ ) were each shown to correlate negatively with forgiveness. The effect of positive mood, although in the positive direction, was not significant. At the dispositional level, neuroticism, depression, and trait anger were each shown to correlate negatively with forgiveness. Self-esteem did not exhibit an effect. We note that measurement issues may be salient here: Each analyzed effect utilized an explicit, rather than implicit, measure of self-esteem. Mean and median correlations between forgiveness and situational affect were .23 and .34, indicating between 5% and 12% of variance explained. Mean and median correlations for situational affect were both .18, indicating 3% of variance explained. Again, effect sizes varied considerably across constructs. State empathy accounted for the greatest amount of variance in forgiveness ( $\bar{r} = .51$ ,  $r^2 = 26\%$ ), followed by state anger ( $\bar{r} = -.41$ ,  $r^2 = 17\%$ ).

The final factor theorized to relate to forgiveness is constraints, encompassing three situational constructs and two dispositional constructs. At the situational level, we drew from embeddedness theory to suggest that victims' desire to maintain their relationships with their offenders will correlate with their tendency to forgive. Across the constructs of relationship closeness, relationship satisfaction, and relationship commitment, situational constraints exhibited mean and median effects of  $\bar{r} = .28$ , accounting for 8% of criterion variance. At the dispositional level, religiosity and social desirability were theorized to play an additional role in forgiveness via internalized socio-moral forgiveness expectations. Both effects were significant ( $\bar{r} = .19$ ;  $\bar{r} = .10$ ), although the average variance accounted for (1%–3%) was small.

**Sample and study characteristics.** One oft-cited benefit of meta-analysis is that it allows for the analysis of sample and study characteristics often of only secondary focus in primary research. In this study, four of these factors were examined: gender, age, time, and methodology. Little support was found for the idea that demographics influence forgiveness. Although previous research has suggested that (a) women are more forgiving than men, and (b) people become more forgiving as they grow older, neither factor yielded a notable effect (for gender,  $\bar{r} = .01$ ; for age,  $\bar{r} = .06$ ). The gender finding is consistent with recent research on the gender-empathy relationship, suggesting that such differences may be limited to self-report scales (Derntl et al., 2010). One possible explanation for dissemination of the belief that gender relates to forgiveness is the file drawer effect (Rosenthal, 1979). Because gender is almost always measured but seldom a point of focus, authors may have historically emphasized their gender findings only when they align with the popular belief that women are more forgiving than men.

Looking next to the role of study characteristics, findings were again mixed. The effect of time was nonsignificant ( $\bar{r} = .02$ ). It should be noted, however, that this finding is based on between-subjects data. Several studies have consistently documented a within-person induction of forgiveness over time. The effect of time between subjects may instead be mitigated by recall biases. For instance, it is likely that when participants recall events from the far past, they are recalling particularly severe and, thus, memorable events. Findings on the moderating role of study methodology partially support the idea that scenario studies emphasize cognitions, whereas recall methodologies emphasize affect. Across five cognitive constructs and two affective constructs, each weighted population correlation was in the predicted direction. However, significant effects as indicated by nonoverlapping confidence intervals were found only for the constructs of intent and responsibility. At the very least, it is nonetheless clear that recall and scenario methodologies are not analogous and should thus be treated as complementary rather than redundant methodologies in forgiveness research.

### Theoretical and Practical Implications

The integrated theoretical and practical implications of the current meta-analysis can first be reviewed via the typological approach to theory building (Doty & Glick, 1994). Drawing from this approach, it can be said that victims' cognitions, affect, and constraints are not mutually exclusive. Instead, these are idealized factors from which individual constructs can be expected to deviate. Many constructs (e.g., empathy) could be traced to both victims' affective experiences and their cognitions. Likewise, other constructs, such as harm severity, could be theorized to relate to forgiveness both directly (e.g., via cognitive processes) and indirectly (e.g., as mediated by victims' emotional states).

Given these interrelationships, a further theoretical implication of the current research is that cognitions, affect, and constraints represent simultaneous paths to forgiveness. With any given offense, victims are likely to be influenced at once by their perceptions of the offender and offense, the affect they experience, and the potential consequences of their forgiveness for the victim-offender relationship and their internalized socio-moral standards. The precise weights given to these three factors may be determined by any number of dispositional or situational moderators. Future research in turn should seek to understand and model these weightings and interrelationships. Does trait forgiveness obviate the importance of situational constructs, such as apologies and intent? Do cognitions, affect, and constraints exhibit independent effects on forgiveness, or is one class of factors broadly mediated by another?

Looking again to main effect population parameters as presented in Table 2, the overall strengths of these effects highlight important areas for future research as well. It is particularly important to examine the degree to which these constructs have received sufficient theoretical attention given their demonstrated population correlations with forgiveness. A key exemplar is apology. Although its effects were notable ( $\bar{r} = .42$ ), there has been relatively sparse theoretical consideration within psychology of precisely when and why apologies influence forgiveness. What does it mean to apologize? Do offers of compensation and acknowledgements of violated norms represent equally viable operationalizations of the construct? Do all people respond to apologies

in the same way, and if not, what are the specific moderators of these responses? Recent research has begun to explore these issues, examining the interaction between victim dispositions and apology content (Fehr & Gelfand, in press; Santelli, Struthers, & Eaton, 2009). However, much more work is needed to explore precisely when and why apologies are effective.

At the same time, it is important to acknowledge which constructs do not correlate with forgiveness despite theorizing to the contrary. Gender, for instance, exhibited a nonsignificant effect on forgiveness. The first implication of this finding is to "put to rest" the idea that gender exerts an overall, main effect on forgiveness: Across 53 studies, the correlation was a meager  $\bar{r} = .01$ . The second implication of this finding is that researchers could seek out more complex gender-forgiveness relationships. Gender may moderate the effects of forgiveness's correlates or its behavioral expressions, such as its role in cooperation, reconciliation, trust, and so forth. A similar case can be made for age. Within a mixed population of student and adult samples, the relationship between age and forgiveness was negligible. This null effect diminishes support for the hypothesis of a linear main effect, although nonlinear findings might emerge. For instance, the effects of age on forgiveness as posited by socio-emotional selectivity theory may only emerge at the very end of life. Looking beyond victim demographics, the weak association between forgiveness and religiosity bears note. Despite a long history of forgiveness within religious literature and doctrine, there appears to be only a small association between dispositional religiosity and forgiveness. That said, additional studies may shed light on more nuanced associations between forgiveness and religious constructs. For instance, Lambert, Fincham, Stillman, Graham, and Beach (in press) found that prayer induces forgiveness via selfless caring for one's offender.

**Limitations.** Meta-analysis is by definition limited by the quality and characteristics of the work from which it derives. Although issues associated with individual studies are not a concern, systematic trends in the methodologies of source research may present notable problems (Bobko & Stone-Romero, 1998). One key limitation of the current research is the degree to which causality can be inferred. The question of causality is of particular concern where population correlations are often strongest—namely, among the situational correlates of forgiveness, such as state empathy and state anger. As noted by Podsakoff et al. (2003), attitude-attitude relationships, measured at the same point in time, are limited in the degree to which they can inform causal hypotheses. That victims who respond positively to an empathy scale (e.g., describe themselves as "warmhearted" toward an offender) also self-report forgiveness tells us little about causality. Indeed the causal relationships among such factors may be bidirectional. Consider the construct of depression. Depression may, as we have argued, influence victims' affective experiences following conflict and thus inhibit forgiveness. Yet, it is also true that forgiveness itself may mitigate victims' depressive symptoms and thus create a feedback loop.<sup>3</sup> In addition to collecting data at multiple points in time (see McCullough & Root, 2005, for a review of longitudinal modeling in forgiveness research), future research could mitigate the source bias dilemma by utilizing rater-coded measures of forgiveness or third-party observation.

<sup>3</sup> We thank an anonymous reviewer for this insight.

Beyond questions of causality, it is likewise important for future research to assess whether constructs, such as forgiveness, anger, and empathy, actually tap distinct constructs or are instead tied to a single, latent factor. Factor analyses and structural equation models may illuminate the true distinctiveness of these constructs' operationalizations; detailed assessments of their incremental predictive validity may likewise clarify their empirical and theoretical distinctness or reveal a single latent construct (e.g., Judge, Erez, Bono, & Thoresen, 2002). Looking to additional measurement issues, we note the heterogeneity in how both forgiveness and its correlates have been operationalized. We were not, for instance, able to disentangle the effects of different measures of forgiveness, although measurement implications could be hypothesized. A central measurement issue, as discussed in the introduction, is whether forgiveness is operationalized as an induction of prosocial motivations or a reduction of antisocial motivations (Fincham, 2009). Deeper consideration of the link between concept and measurement could positively influence the validity of future meta-analytic findings within the forgiveness literature and lead to greater theoretical precision within the literature as a whole.

A final limitation of note is that we were not able to test the *simultaneous* effects of the predictors of forgiveness. For instance, we were unable to assess the predictive validity of trait anger above and beyond state anger or the predictive validity of relationship satisfaction above and beyond relationship closeness. Although each of these variables possesses clear theoretical distinctions, there is no guarantee that they are likewise empirically distinct. Rather, some variables might overshadow others in their prediction of forgiveness following an interpersonal offense.

## Conclusion

Forgiveness is a pervasive phenomenon, transcending across time, cultures, and even species. Forgiveness allows individuals to overcome interpersonal offense not through denial, justification, or vengeance but through prosocial processes that yield an array of positive outcomes for victim and offender alike. In this meta-analysis, we sought clarification in delineating the cognitive, affective, and constraining correlates of forgiveness. In looking toward the future, we emphasize a need for studies that further explore the role of constraint, the interrelationships among the factors of the tripartite typology, a shift in emphasis on gender and age research in the field, and the examination of constructs not yet assessed in primary research studies.

Desmond Tutu (1998) has been quoted as saying that "without forgiveness there is no future" (p. xiii). Indeed, humanity likely owes many of its greatest successes to forgiveness, which has allowed people throughout the world to move forward despite enmity and conflict. Yet, forgiveness is complex. It is the product of a broad array of factors, from depression and commitment to apology and empathy. It is our hope that the present research will encourage scholars to continue their work on forgiveness and to seek to understand precisely what it means to forgive.

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References marked with an asterisk indicate studies included in the meta-analysis that are discussed in the text. For a complete list, go to <http://dx.doi.org/10.1037/a0019993.supp>

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### New APA Editors Appointed, 2012–2017

The Publications and Communications Board of the American Psychological Association announces the appointment of 9 new editors for 6-year terms beginning in 2012. As of January 1, 2011, manuscripts should be directed as follows:

- *Emotion* (<http://www.apa.org/pubs/journals/emo>), **David DeSteno, PhD**, Department of Psychology, Northeastern University, Boston, MA 02115
- *Experimental and Clinical Psychopharmacology* (<http://www.apa.org/pubs/journals/pha>), **Suzette M. Evans, PhD**, Columbia University and the New York State Psychiatric Institute, New York, NY 10032
- *Journal of Abnormal Psychology* (<http://www.apa.org/pubs/journals/abn>), **Sherryl H. Goodman, PhD**, Department of Psychology, Emory University, Atlanta, GA 30322
- *Journal of Comparative Psychology* (<http://www.apa.org/pubs/journals/com>), **Josep Call, PhD**, Max Planck Institute for Evolutionary Biology, Leipzig, Germany
- *Journal of Counseling Psychology* (<http://www.apa.org/pubs/journals/cou>), **Terence J. G. Tracey, PhD**, Counseling and Counseling Psychology Programs, Arizona State University, Tempe, AZ 85823
- *Journal of Personality and Social Psychology: Attitudes and Social Cognition* (<http://www.apa.org/pubs/journals/psp>), **Eliot R. Smith, PhD**, Department of Psychological and Brain Sciences, Indiana University, Bloomington, IN 47405
- *Journal of Experimental Psychology: General* (<http://www.apa.org/pubs/journals/xge>), **Isabel Gauthier, PhD**, Department of Psychology, Vanderbilt University, Nashville, TN 37240
- *Journal of Experimental Psychology: Human Perception and Performance* (<http://www.apa.org/pubs/journals/xhp>), **James T. Enns, PhD**, Department of Psychology, University of British Columbia, Vancouver, BC V6T 1Z4
- *Rehabilitation Psychology* (<http://www.apa.org/pubs/journals/rep>), **Stephen T. Wegener, PhD, ABPP**, School of Medicine Department of Physical Medicine and Rehabilitation, Johns Hopkins University, Baltimore, MD 21287

**Electronic manuscript submission:** As of January 1, 2011, manuscripts should be submitted electronically to the new editors via the journal's Manuscript Submission Portal (see the website listed above with each journal title).

Manuscript submission patterns make the precise date of completion of the 2011 volumes uncertain. Current editors, Elizabeth A. Phelps, PhD, Nancy K. Mello, PhD, David Watson, PhD, Gordon M. Burghardt, PhD, Brent S. Mallinckrodt, PhD, Charles M. Judd, PhD, Fernanda Ferreira, PhD, Glyn W. Humphreys, PhD, and Timothy R. Elliott, PhD will receive and consider new manuscripts through December 31, 2010. Should 2011 volumes be completed before that date, manuscripts will be redirected to the new editors for consideration in 2012 volumes.

## Correction to Fehr et al. (2010)

In the article “The Road to Forgiveness: A Meta-Analytic Synthesis of Its Situational and Dispositional Correlates,” by Ryan Fehr, Michele J. Gelfand, and Monisha Nag (*Psychological Bulletin*, 2010, Vol. 136, No. 5, pp. 894–914), there are errors in Table 2 on page 905 and Table 3 on page 906.

In Table 2, weighted population correlations and associated standard errors and confidence intervals are incorrectly reported. In Table 3, weighted population correlations and associated confidence intervals are incorrectly reported, as well as the  $Q$  statistic for trait forgiveness. Corrected data are presented below. The authors note that substantive interpretations of the results are not affected by the corrections. The median absolute value correction for the weighted population correlations in both tables is  $\bar{r} = .01$ .

A complete corrected version of the tables is available online at [<http://dx.doi.org/10.1037/a0019993.supp>].

Table 2  
*Main Effects for Cognitions, Affect, Constraints, and Sample/Study Characteristics*

Correlates of forgiveness	Weighted mean $\bar{r}$	SE	95% CI
<b>Cognitions</b>			
<i>Situational</i>			
Intent	-.49	.08	[-.60, -.36]
Responsibility	-.36	.03	[-.41, -.30]
Apology	.39	.05	[.30, .48]
Harm severity	-.27	.03	[-.33, -.20]
Rumination	-.32	.07	[-.44, -.20]
<i>Dispositional</i>			
Agreeableness	.22	.02	[.17, .26]
Perspective taking	.19	.04	[.10, .27]
Trait forgiveness	.32	.03	[.27, .37]
<b>Affect</b>			
<i>Situational</i>			
Positive mood	.13	.07	[-.01, .27]
Negative mood	-.28	.06	[-.39, -.16]
State empathy	.53	.05	[.45, .60]
State anger	-.46	.07	[-.55, -.35]
<i>Dispositional</i>			
Neuroticism	-.22	.04	[-.30, -.15]
Trait anger	-.18	.03	[-.23, -.13]
Empathic concern	.13	.07	[.00, .25]
Self-esteem	.09	.08	[-.06, .23]
Depression	-.26	.03	[-.31, -.21]
<b>Constraints</b>			
<i>Situational</i>			
Relationship closeness	.27	.04	[.19, .34]
Relationship commitment	.20	.04	[.12, .27]
Relationship satisfaction	.36	.05	[.27, .44]
<i>Dispositional</i>			
Religiosity	.19	.02	[.15, .22]
Social desirability	.10	.04	[.02, .17]
<b>Sample and Study Characteristics</b>			
Gender	.01	.02	[-.03, .04]
Age	.06	.02	[.03, .10]
Time (between-subjects)	.03	.03	[-.02, .08]

*Note.* The random effects model was utilized for all CI estimates. Weighted mean  $\bar{r}$  = the weighted mean of correlations for a given correlate; SE = the standard error of a given effect.

Table 3  
*Moderating Effects of Study Methodology on Victim Cognitions and Affect*

Correlates of forgiveness	Methodology	Weighted mean $\bar{r}$	95% CI	$Q$ -statistic $\chi^2$
<b>Cognitions</b>				
Intent <sup>a</sup>	Recall	-.31	[-.36, -.26]	7.80
	Scenario	-.66	[-.76, -.53]	59.58 <sup>b</sup>
Responsibility <sup>a</sup>	Recall	-.29	[-.35, -.23]	18.83
	Scenario	-.44	[-.51, -.36]	15.64
Apology <sup>c</sup>	Recall	.37	[.30, .44]	53.30 <sup>b</sup>
	Scenario	.45	[.20, .65]	172.45 <sup>b</sup>
Harm severity <sup>c</sup>	Recall	-.24	[-.29, -.19]	172.87 <sup>b</sup>
	Scenario	-.42	[-.64, -.14]	131.12 <sup>b</sup>
Trait forgiveness <sup>c</sup>	Recall	.32	[.26, .37]	120.15 <sup>b</sup>
	Scenario	.37	[.23, .49]	9.59 <sup>b</sup>
<b>Affect</b>				
State empathy <sup>c</sup>	Recall	.58	[.47, .68]	342.56 <sup>b</sup>
	Scenario	.43	[.35, .50]	37.97 <sup>b</sup>
Negative mood <sup>c</sup>	Recall	-.30	[-.39, -.20]	15.82 <sup>b</sup>
	Scenario	-.23	[-.48, .06]	40.52 <sup>b</sup>

*Note.* The random effects model was utilized for all CI estimates. Weighted mean  $\bar{r}$  = the weighted mean of correlations for a given correlate;  $Q$ -statistic  $\chi^2$  = the presence of a moderation effect.

<sup>a</sup> Moderator effect is significant. <sup>b</sup> Indicates significant heterogeneity. <sup>c</sup> Moderator effect is in the predicted direction.