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THE TEMPORAL COURSE OF SELF–FORGIVENESS

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This study examined the temporal course of self–forgiveness using 8 waves of data collected from 148 participants. Self–forgiveness increased linearly over time, and fluctuations in 6 time–varying covariates were related to changes in self–forgiveness beyond those accounted for by the self–forgiveness trajectory. Decreases in guilt, perceived transgression severity, and conciliatory behavior toward a higher power were associated with increases in self–forgiveness. Increases in perceived forgiveness from the victim and a higher power and conciliatory behavior toward the victim were also related to increases in self–forgiveness. These findings suggest that self–forgiveness is a dynamic process associated with multiple factors and lend preliminary support to J.H. Hall and F.D. Fincham's (2005) theoretical model of self–forgiveness.

Intrapersonal or self–forgiveness has been largely neglected by psychological researchers. The small body of literature on this topic has been generated principally by philosophers (e.g., Holmgren, 1998) and thus has been more theoretical than empirical. In the absence of a well–developed and empirically supported psychological theory, very little is known about the process of self–forgiveness and the variables that may facilitate this process. This is a serious oversight, as there is preliminary evidence that the disposition to forgive oneself is related to important aspects of mental health; it is positively associated with self–esteem and life satisfaction and neg-

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atively associated with neuroticism, depression, anxiety, and hostility (Coates, 1997; Leach & Lark, 2004; Maltby, Macaskill, & Day, 2001; Mauger et al., 1992). We therefore use Hall and Fincham's (2005) conceptual analysis of self–forgiveness to (a) develop a model of self–forgiveness as a motivational transformation; (b) model how self–forgiveness unfolds over time; and (c) identify some of the emotional, social–cognitive, behavioral, and offense–related variables associated with self–forgiveness.

CONCEPTUALIZING SELF–FORGIVENESS

Philosophers conceptualize self–forgiveness as the release from negative feelings toward the self in the wake of an objective fault or wrongdoing and the restoration of goodwill, self–respect, and self–acceptance (Dillon, 2001; Holmgren, 1998; Horsbrugh, 1974). Similarly, in the psychology literature, self–forgiveness has been defined as "a willingness to abandon self–resentment in the face of one's own acknowledged objective wrong, while fostering compassion, generosity, and love toward oneself" (Enright, 1996, p. 115). However, a significant limitation of such definitions is that they fail to integrate interpersonal and intrapersonal forgiveness processes. Hall and Fincham (2005) sought to bridge the gap in the forgiveness literature by offering a conceptual analysis of self–forgiveness that built on interpersonal forgiveness theory. Paralleling McCullough, Worthington, and Rachal's (1997) definition of interpersonal forgiveness as a process of replacing relationship–destructive responses with constructive behavior, self–forgiveness of a transgression was defined as a set of motivational changes whereby one becomes decreasingly motivated to avoid stimuli associated with the offense (e.g., the victim), decreasingly motivated to retaliate against the self (e.g., punish the self, engage in self–destructive behaviors), and increasingly motivated to act benevolently toward the self.

SELF-FORGIVENESS AND INTERPERSONAL FORGIVENESS: BIRDS OF A FEATHER?

Hall and Fincham (2005) outlined several similarities between self–forgiveness and interpersonal forgiveness, citing both as pro-

cesses that unfold over time and require an objective wrong for which the offender is not entitled to forgiveness but is granted forgiveness nonetheless (Enright, 1996).[1] In addition, neither self–forgiveness nor interpersonal forgiveness implies that transgressions should be condoned, excused, or forgotten. Despite these commonalities, the authors also identified a number of differences between forgiving another and forgiving oneself. First, the avoidance motivation overcome has different targets; for interpersonal forgiveness it concerns the victim evading the transgressor, whereas for self–forgiveness it involves motivation to avoid the victim and/or thoughts, feelings, and situations associated with the transgression. A second important distinction between self–forgiveness and interpersonal forgiveness deals with the conditional nature of these processes. Forgiveness of another is typically viewed as unconditional, yet self–forgiveness may be contingent on a variety of factors, such as making continued reparations to the victim of one's offense or resolving to never again commit such an offense (Enright, 1996; Horsbrugh, 1974). Finally, self–forgiveness and interpersonal forgiveness differ in their implications for reconciliation. Although one need not reconcile with an offender to engage in interpersonal forgiveness, reconciliation with the self is seen as a necessary aspect of intrapersonal forgiveness (Enright, 1996).

THE TEMPORAL COURSE OF SELF–FORGIVENESS

In conceptualizing self–forgiveness, it is important to consider how this process unfolds over time. The current study is the first to explore this issue. Although forgiveness can be assessed at any point after a transgression, to fully understand this process one must examine it from the baseline (i.e., the time of the transgression). Assuming that self–forgiveness unfolds similarly to interpersonal forgiveness, we would expect it to increase linearly after a transgression, as this pattern characterizes change in interpersonal forgiveness (McCullough, Fincham, & Tsang, 2003). However, some

1. For a more detailed discussion of self–forgiveness of objective (vs. subjective) wrongs as well as the importance of integrating self–forgiveness and interpersonal forgiveness research, please refer to Hall and Fincham (2005).

scholars have suggested that self–forgiveness is a nonlinear process, as transgressors may vacillate between self–acceptance and self–loathing (Bauer et al., 1992; Enright, 1996). It is also possible that self–forgiveness remains stable over time, or that the rate of change is variable. Thus, we examine whether change in self–forgiveness is positive or negative and whether it is best described as linear or nonlinear. It is predicted that self–forgiveness will unfold similarly to interpersonal forgiveness, in that it will increase linearly over time.

CORRELATES OF SELF–FORGIVENESS

Having conceptualized several facets of self–forgiveness, we are now in a position to consider Hall and Fincham's (2005) initial conceptualization of this process, depicted in Figure 1.[2]

According to this model, the motivational shift that characterizes self–forgiveness is driven by changes in emotional (e.g., shame, guilt, empathy), social–cognitive (e.g., attributions, perceived forgiveness), behavioral (e.g., conciliatory behavior), and offense–related variables (e.g., perceived transgression severity). Although intrapersonal forgiveness can take several forms (e.g., state vs. trait) and can focus on different types of offenses (e.g., transgressions against the self vs. transgressions against others), the model depicts self–forgiveness of specific *inter*personal transgressions (see Hall & Fincham, 2005, for a more thorough rationale for this focus). Such transgressions may include lying, insulting another person, or not following through on a promise. Moreover, the group of potential correlates of self–forgiveness included in the proposed model is not exhaustive and intentionally omits certain variables, such as personality characteristics, in lieu of offense–specific variables. Although dispositional factors may be important in self–forgiveness, we con-

2. The original model of self–forgiveness has been modified to more accurately reflect the nature of the relationship between guilt, conciliatory behavior, and self–forgiveness. Although conciliatory behavior was initially postulated to mediate the association between guilt and self–forgiveness, we now believe that it is more appropriately viewed as a moderator of this association. Thus, we expect that guilt and self–forgiveness will be negatively related when conciliatory behavior is low and will be positively associated when conciliatory behavior is high.

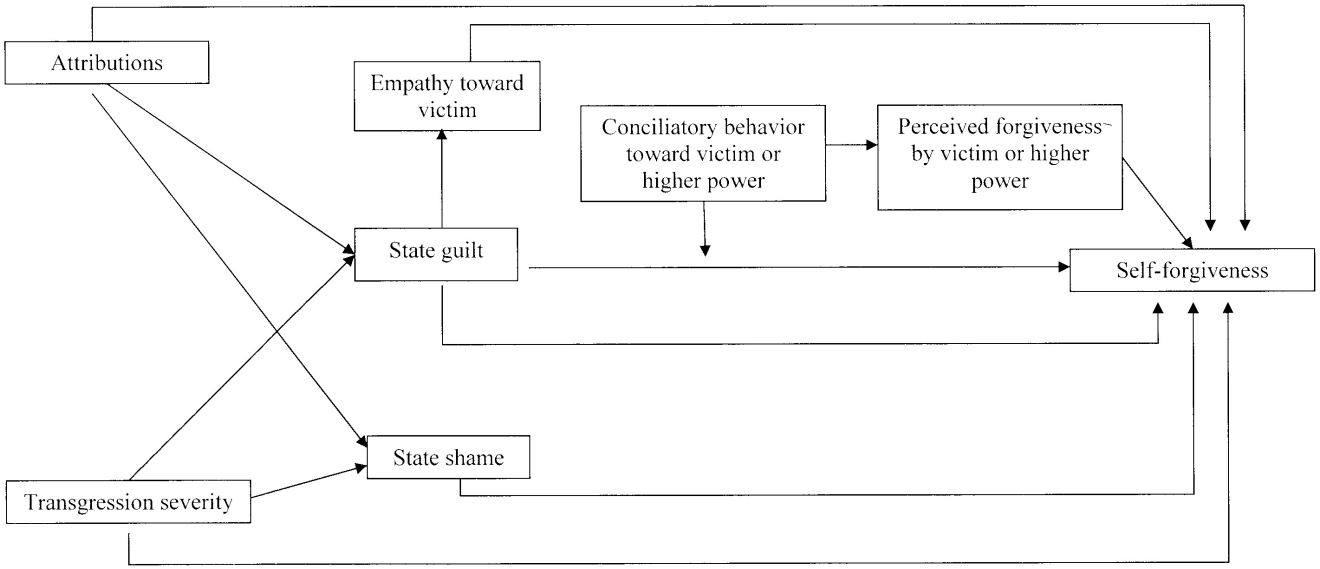

FIGURE 1. Proposed model of self-forgiveness.
Note. From "Self-forgiveness: The stepchild of forgiveness research," by J. H. Hall and F. D. Fincham (2005), *Journal of Social and Clinical Psychology*. Copyright 2005 by Guilford Publications. Adapted with permission.

cur with McCullough et al. (1998) that personality factors are likely more distally related to self–forgiveness than the variables proposed here.

A preliminary step in examining this model is to first establish whether each variable identified is related to self–forgiveness and to describe the nature of these relationships. This is one of the goals of the current study. Below, we elaborate on the four categories of variables and their predicted associations with self–forgiveness. We consider these associations in two ways: first, in terms of the concurrent relationships between these variables and self–forgiveness across individuals and, second, in terms of associations between changes in the covariates and changes in self–forgiveness within individuals over time.

EMOTIONAL CORRELATES

State (vs. trait) shame and guilt are hypothesized to be the primary emotional covariates of self–forgiveness. Although often interchanged, these variables are distinct in that guilt involves a focus on one's negative behavior, whereas shame is associated with a negative focus on the self (Lewis, 1971; Tangney, 1995). Across individuals, we expect that greater levels of shame and guilt will be associated with lower levels of self–forgiveness. Within individuals, we predict that decreases in shame and guilt over time will be associated with increases in self–forgiveness, because drops in shame and guilt will inhibit motivation to act negatively toward the self (i.e., retaliation and avoidance) and foster motivation to act benevolently toward the self. There is preliminary support for this relationship, as Zechmeister and Romero (2002) found that self–forgiving individuals were less likely to report guilt than those who had not forgiven themselves.

Empathy toward the person whom one has hurt is also expected to be negatively related to self–forgiveness, as empathic transgressors may be so concerned about those they have hurt that they find it difficult to forgive themselves. We expect that decreases in empathy within individuals over time will allow them to switch their focus from the victim to the self and to replace negative feelings toward the self with more positive feelings by shifting their

perspective. Indeed, there is emerging evidence that individuals who have forgiven themselves are less likely to be empathic than are individuals who have not forgiven themselves (Zechmeister & Romero, 2002). However, in light of findings that suggest the ability to empathize is unrelated to self–forgiveness (Barbetta, 2002), the predicted negative association between empathy and self–forgiveness is viewed as tentative.

SOCIAL–COGNITIVE CORRELATES

Given the robust association between attributions and interpersonal forgiveness (e.g., Boon & Sulsky, 1997), we expect that this relationship will also apply to self–forgiveness. It is predicted that forgiveness–promoting attributions for one's behavior, those that are external, unstable, and specific, will be linked to greater self–forgiveness, whereas forgiveness–inhibiting (i.e., internal, stable, and global) attributions will be related to lower levels of self–forgiveness. The documented tendency to attribute one's own behavior to external forces and attribute others' behavior to internal forces (i.e., the actor–observer effect; Jones & Nisbett, 1972) may facilitate the formation of forgiveness–promoting attributions in the aftermath of a transgression. Within individuals, we expect that a decrease in forgiveness–inhibiting attributions over time will be related to an increase in self–forgiveness. However, attributions are distally located in Hall and Fincham's (2005) model of self–forgiveness and therefore may only be weakly associated with this process.

A more proximal social–cognitive covariate of self–forgiveness may be the extent to which an offender believes that others forgive him for the transgression. Perceived forgiveness from the victim and from a higher power are hypothesized to be positively associated with self–forgiveness. We also expect that increases in perceived forgiveness within individuals across time will be linked to increases in self–forgiveness, as when one is granted forgiveness for an offense, it likely becomes easier to be at peace with one's behavior. However, preliminary tests of these predictions have shown mixed results. Witvliet, Lugwig, and Bauer (2002) found support for the hypothesis, as imagining a victim's merciful re-

sponse to one's transgression was associated with physiological changes consistent with self–forgiveness. In contrast, Zechmeister and Romero (2002) did not find an association between self–forgiveness and reports of being forgiven by the victim. Thus, we attempt to clarify the nature of this association between perceived forgiveness from the victim and self–forgiveness.

We also contend that perceived forgiveness must be measured in relation to a higher power, such as God. Until recently, spiritual aspects of forgiveness have been overlooked in empirical articles. Yet it is important to consider the possibility that spirituality is uniquely and distinctly related to self–forgiveness and cannot be subsumed by non–spiritual variables. Without data to suggest otherwise, we expect that greater perceived forgiveness from a higher power will also be associated with higher levels of self–forgiveness. There is emerging support for this idea, as Cafaro and Exline (2003) found that self–forgiveness was positively correlated with believing that God had forgiven the self for a transgression. We also expect that increases in perceived forgiveness from a higher power within individuals will be linked to increases in self–forgiveness. Thus, we predict that perceived forgiveness from both the victim and a higher power will be strongly positively associated with self–forgiveness.

BEHAVIORAL CORRELATES

Hall and Fincham (2005) hypothesized that conciliatory behaviors, such as apologizing, making amends, and seeking forgiveness, would be related to higher levels of self–forgiveness. Such conciliatory behavior could be directed at the victim of the offense and/or at a higher power and may facilitate self–forgiveness by alleviating the offender's guilt about the transgression (Goffman, 1971). Indeed, self–forgiving offenders are more likely to report engaging in conciliatory behaviors toward the victim than individuals who are unable to forgive themselves (Zechmeister & Romero, 2002). We also expect that increases in conciliatory behavior within individuals over time will be associated with increases in self–forgiveness, as perceptions of self–forgiveness tend to increase when offenders imagine seeking forgiveness from someone they have wronged

(Witvliet et al., 2002). Again, we maintain that the spiritual and nonspiritual realms of conciliatory behavior should be considered separately. However, because we are unaware of any research on the association between conciliatory behavior toward a higher power and self–forgiveness, we predict that this relationship will follow the same pattern as conciliatory behavior toward a victim.

OFFENSE–RELATED CORRELATES

The final correlate of self–forgiveness proposed by Hall and Fincham (2005) is the perceived severity of a transgression. Similar to the association between transgression severity and interpersonal forgiveness (e.g., Boon & Sulsky, 1997), we expect that offenses with severe consequences will be associated with lower levels of self–forgiveness. Although negative consequences are an inherent part of a transgression, some offenses are obviously more severe than others. In addition, even with a major transgression, it is possible that an offender may realize some positive consequences of the transgression. For example, the offender may feel that he or she has grown from the event or that his or her postoffense relationship with the victim is stronger. Preliminary evidence suggests that self–forgiving offenders report more positive consequences and fewer lasting negative consequences of the transgression than do offenders who have not forgiven themselves (Zechmeister & Romero, 2002). Thus, we expect that perceived transgression severity will be negatively related to self–forgiveness. We also predict that decreases in perceived severity within individuals will be associated with increases in self–forgiveness over time. However, transgression severity is distally located in Hall and Fincham's conceptual model and may only be weakly associated with self–forgiveness.

THE PRESENT INVESTIGATION

We examined the longitudinal course of self–forgiveness and considered four groups of variables hypothesized to be related to instantaneous levels of self–forgiveness and changes in self–forgiveness over time. To accomplish the first objective, we used

multilevel random coefficient longitudinal models to examine the trajectories of people's self–forgiveness scores over the first 7 weeks following an interpersonal transgression. We expected self–forgiveness to increase linearly over time. To meet our second goal, we examined correlations among the key variables at Time 1 and also explored whether fluctuations in the various covariates were associated with changes in self–forgiveness. We expected that increases in guilt, shame, empathy, forgiveness–inhibiting attributions, and perceived transgression severity would be associated with decreases in self–forgiveness and that increases in perceived forgiveness and conciliatory behavior would be associated with increases in self–forgiveness.

METHOD

Participants

Participants ($N = 148$) were 55 male and 93 female university undergraduates enrolled in an introductory psychology course (mean age = 19.9 years). Several ethnic groups were represented (52% Caucasian, 22% Asian, 11% African American, 5% Latino/a, 10% other). Students were eligible to participate in the study if they indicated that they had done something hurtful and regrettable to another person within the past 3 days. Participants received up to two research credits in exchange for their participation.

Measures

Self–Forgiveness. We measured participants' levels of self–forgiveness with an item that read, "To what extent do you forgive yourself for hurting the other person?" This was rated on a 7–point Likert–type scale (1 = *not forgiven self at all*, 7 = *forgiven self completely*). Although single–item measures are not optimal from a psychometric perspective, they are commonly used in forgiveness research because of the difficulty of capturing participants' idiosyncratic understanding of forgiveness using a priori, investigator-defined items. This decision was also based on the fact that there are currently no existing measures of state self–forgiveness. Test–retest correlations ranged from .35 to .78 across the eight assessments.

Shame and Guilt. We measured participants' shame and guilt re-

garding the transgression with Marschall, Saftner, and Tangney's (1994) State Shame and Guilt Scale. This 15–item scale consists of three subscales, two of which were of interest in the current study. The Shame subscale comprises 5 items that measure in–the–moment shameful feelings (e.g., "I want to sink into the floor and disappear"). The Guilt subscale consists of 5 items that measure current guilty feelings (e.g., "I feel remorse, regret"). These items were rated on a 5–point Likert–type scale (1 = *not feeling this way at all*, 5 = *feeling this way very strongly*), such that higher scores indicated greater levels of shame or guilt. Both subscales have high internal consistency (α = .82 – .89; Marschall et al., 1994). Across the eight assessments, test–retest correlations ranged from .52 to .83.

Empathy for the Victim. We measured participants' empathy toward the victim with the mean of their scores on eight emotion words (*sympathetic, empathic, concerned, moved, compassionate, warm, softhearted,* and *tender*) that have been used in past forgiveness research (e.g., McCullough et al., 1997, 1998). This measure has demonstrated adequate internal consistency (αs = .87 – .92; McCullough et al., 2003). Participants rated these items on a 6–point Likert–type scale (0 = *not at all*, 5 = *extremely*), on the basis of their current feelings toward the person whom they hurt; higher scores indicated greater empathy. Test–retest correlations ranged from .71 to .89 across the eight assessments.

Attributions. Participants' attributions regarding their behavior were measured with a revised version of the Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992). The RAM assesses causal and responsibility attributions about partner behavior and has high internal consistency (α = .84–.89) and test–retest correlations (*r*s = .61–.87). This measure was modified for the current study to target attributions about one's own behavior, rather than a partner's behavior. Participants answered six questions about their attributions for the self–committed transgression (e.g., "Do you deserve to be blamed for your behavior?"); items were rated on a 7–point Likert–type scale, such that higher scores reflected more forgiveness–inhibiting attributions. Across the eight assessments, test–retest correlations ranged from .55 to .90.

Perceived Forgiveness. Two single–item measures were used to assess the degree to which the transgressor felt he or she had been for-

given for the offense. Participants rated the extent to which they believed they had been forgiven by the other person and by a higher power, on separate 5–point Likert–type scales (1 = *not at all*, 5 = *completely).* Higher scores indicated greater levels of perceived forgiveness. Across the eight assessments, test–retest correlations ranged from .51 to .81 for perceived forgiveness from the other person and from .67 to .90 for perceived forgiveness from a higher power.

Conciliatory Behavior. We measured participants' conciliatory behavior with respect to the victim and to a higher power. Conciliatory behavior toward the victim was assessed with three self–report items: (a) "I apologized to the other person for my behavior," (b) "I asked the other person to forgive me," and (c) "I did something to make amends for my behavior." Conciliatory behavior toward a higher power was measured with two self–report items: (a) "I apologized to a higher power (e.g., God) for my behavior" and (b) "I asked a higher power to forgive me." Participants rated the extent to which they had performed those actions since the time of the transgression on the basis of a 5–point Likert–type scale (1 = *not at all,* 5 = *extensively*), such that higher scores indicated greater conciliatory efforts. Scores on these items were averaged at each assessment point to form one score for each participant in terms of conciliatory behavior toward the victim and a second score for conciliatory behavior toward a higher power. Across the eight assessments, test–retest correlations ranged from .75 to .91 for conciliatory behavior toward the victim (Time 1 α = .77) and from .80 to .94 for conciliatory behavior toward a higher power (Time 1 α = .94).

Perceived Transgression Severity. To indicate how severe participants perceived their transgressions to be, they completed three items related to how their behavior affected themselves, the victim, and their relationship with the victim (e.g., "How did your behavior affect the other person?"). Each item was rated on a 7–point Likert–type scale (1 = *very positively*, 7 = *very negatively*), such that higher scores reflected more severe transgressions. Scores on these three items were averaged to form an overall rating of perceived transgression severity for each participant at each assessment point (Time 1 α = .71). Across the eight assessments, test–retest correlations ranged from .59 to .84.

Mood. In–the–moment levels of positive and negative affect were assessed using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). This 20–item self–report measure consists of two 10–item mood scales (i.e., positive and negative affect). Individuals endorsed the extent to which they were feeling each emotion at the present moment, on a scale ranging from 1 = *very slightly or not at all*, to 5 = *extremely.* Both scales of this measure have been shown to be internally consistent (α = .85 for negative affect, α = .89 for positive affect) when assessing in–the–moment mood levels (Watson et al., 1988). Across the eight assessments, test–retest correlations ranged from .36 to .71 for negative affect and from .58 to .77 for positive affect. This measure was included to control for mood when examining the associations between self–forgiveness and potential covariates.

Procedure

Introductory psychology students signed up for the current study using Experimetrix, the university's online scheduling program for psychology experiments. Students were allowed to enroll in the study if they met the two criteria for eligibility: (a) They reported behaving in a way that was hurtful to someone else within the past 3 days, and (b) they indicated that they regretted what they had done or wished they had handled the situation differently. Participants were scheduled to come to the laboratory within 1–3 days of signing up for the study, such that the first round of questionnaires was completed during the same week that the reported transgression occurred.

Sessions 2–8 were completed online to increase convenience for study participants. Participants were instructed to complete the questionnaires on the same day each week (beginning exactly 1 week from the current date), and each participant was given a unique identifier to enter when completing the online survey. Participants were sent e-mail reminders the day before they were scheduled to complete the questionnaires each week as well as the following day if they had not logged in as assigned. Participants were permitted to complete the questionnaires up to 72 hr following the assigned day of completion, although this occurred in fewer than 10% of the cases.

Despite the fact that some have raised concerns about the quality of online data, Internet research was recently declared "no more risky than traditional observational, survey, or experimental methods" (Kraut et al., 2004, p. 105 in a report by the Board of Scientific Affairs' Advisory Group). Nevertheless, we took several steps to ensure the integrity of our data. World–Wide Web Survey Assistant software (Schmidt, 1997), which was used to create the online questionnaire, has several protective features. It allows for variable range and type checking, protects against missing responses, and filters out data resubmission (Schmidt, 2002). Participants logged in using a unique identifier, and after each completed session, the Web server logged the IP (internet protocol) address of the responder as well as the date and time of completion. This combination of information allowed the researchers to monitor and eliminate data from repeat responders or non–study responders.

Statistical Models and Analyses

Hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) and the HLM2L program of the HLM 5 statistical software package (Raudenbush, Bryk, Cheong, & Congdon, 2000) were used to model the course of longitudinal change in self–forgiveness over the 7–week period and identify covariates. HLM was chosen because it allows the researcher to simultaneously fit both within–subject longitudinal models and between–subjects models that explain individual differences in the parameters of Level 1 models.

Level 1 Model. We began with a simple linear model for individual change. According to this model, there is a tendency for self–forgiveness to change at a steady rate over the first 7 weeks since the transgression occurred. We first tested an unconditional within–subject model that took the form

$$\gamma_{ij} = \beta_{0j} + \beta_{1j}\,(\text{time}) + r_{ij} \qquad (1)$$

where γ_{ij} is person j's self–forgiveness score at Time i, β_{0j} is person j's initial self–forgiveness score when the time scale is set to zero, and β_{1j} (Time) is the rate of change in the instantaneous self–forgiveness scores as a linear function of time. The time variable was the number of weeks since the transgression occurred (ranging from 0 to 7).

Variation in the γ_{ij}s that cannot be accounted for by initial status or linear change in self–forgiveness was represented by r_{ij}.

Level 2 Model. The between–subjects models tried to capture individual differences in the Level 1 beta coefficients. We expected that the average rate of change (β_{ij}) would be positive over the 7 weeks but that there would be substantial variation across participants in these rates. We also expected variation across participants in initial self–forgiveness scores (β_{0j}). To examine these hypotheses, we formulated a simple Level 2 model that took the form

$$\beta_{0j} = \gamma_{00} + u_{0j} \quad (2)$$
$$\beta_{1j} = \gamma_{10} + u_{1j} \quad (3)$$

where γ_{00} is the grand mean self–forgiveness score during the week that the transgression was committed (i.e., Time 0), γ_{10} is the grand mean rate of change in self–forgiveness, u_{0j} is the random effect of person j on self–forgiveness at time 0, and u_{1j} is the random effect of person *j* on the rate of change in self–forgiveness.

Using the modeling approach described above, models were constructed to describe the typical longitudinal trajectory of self–forgiveness, examining possible linear and nonlinear trajectories. Following these analyses, we evaluated time–varying covariates that might account for changes in self–forgiveness by entering such variables into the Level 1 model. We examined whether fluctuations in participants' self–forgiveness scores above or below the values expected for them on the basis of their initial status and linear change estimates were associated with changes in variables such as guilt or attributions.

RESULTS

Descriptive Statistics and Preliminary Analyses

Participants' transgressions involved offenses committed against friends, romantic partners, and family members. Participants described a number of different transgressions, such as insulting someone, lying, or breaking a promise. The mean values for the given measures, across the eight time points, are displayed in Table 1.

Correlations among the variables at Time 1 are reported in Table

TABLE 1. Means and Standard Deviations for Major Study Variables, Assessments 1–8

Variable	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 3 *M (SD)*	Time 4 *M (SD)*	Time 5 *M (SD)*	Time 6 *M (SD)*	Time 7 *M (SD)*	Time 8 *M (SD)*
Self–forgiveness	4.49 (1.48)	4.52 (1.62)	4.62 (1.88)	4.94 (1.80)	4.88 (1.93)	4.70 (1.93)	4.84 (1.93)	4.82 (1.91)
Guilt	16.41 (4.77)	11.69 (4.89)	10.71 (4.95)	9.78 (4.03)	9.31 (4.44)	8.96 (3.84)	9.17 (4.19)	9.17 (4.12)
Shame	10.84 (4.11)	9.11 (3.98)	8.73 (3.79)	8.04 (3.54)	7.91 (3.46)	8.08 (3.77)	8.21 (3.93)	8.06 (3.93)
Attributions	24.22 (5.26)	23.51 (5.15)	22.50 (6.24)	22.67 (5.87)	22.58 (6.31)	22.45 (6.23)	22.29 (6.53)	22.09 (6.87)
Perceived transgression severity	5.43 (.97)	4.91 (.92)	4.76 (1.02)	4.78 (1.06)	4.71 (1.06)	4.74 (1.03)	4.68 (1.07)	4.70 (1.12)
Empathy	22.63 (8.22)	24.70 (9.04)	24.00 (10.19)	24.03 (9.72)	21.79 (10.57)	21.68 (10.48)	21.32 (10.17)	21.69 (10.29)
Conciliatory behavior (other)	2.91 (1.19)	3.03 (1.19)	2.86 (1.20)	3.00 (1.22)	2.89 (1.27)	2.92 (1.24)	3.02 (1.24)	2.99 (1.22)
Conciliatory behavior (higher power)	1.97 (1.31)	2.04 (1.30)	2.15 (1.33)	2.30 (1.35)	2.31 (1.38)	2.30 (1.35)	2.33 (1.37)	2.39 (1.41)
Perceived forgiveness (other)	3.40 (1.30)	3.45 (1.32)	3.47 (1.30)	3.57 (1.33)	3.47 (1.37)	3.50 (1.32)	3.40 (1.45)	3.53 (1.43)
Perceived forgiveness (higher power)	3.11 (1.57)	2.98 (1.54)	2.86 (1.48)	2.96 (1.57)	2.87 (1.57)	2.96 (1.54)	2.92 (1.58)	2.98 (1.54)

TABLE 2. Correlations Among Variables at Time 1

Measure	1	2	3	4	5	6	7	8	9	10
1. Self–forgiveness	—									
2. Guilt	–.21*	—								
3. Shame	–.09	.65**	—							
4. Attributions	–.17*	.37**	.20*	—						
5. Perceived transgression severity	–.18*	.39**	.18*	.13	—					
6. Empathy	–.11	.34**	.19*	.20*	.17*	—				
7. Conciliatory behavior (other)	.07	.39**	.20*	.15	.31**	.45**	—			
8. Conciliatory behavior (higher power)	.01	.18**	.25**	–.04	–.03	.31**	.29**	—		
9. Perceived forgiveness (other)	.25**	.01	.08	–.01	–.12	.22**	.31**	.13	—	
10. Perceived forgiveness (higher power)	.23**	–.09	–.01	–.14	–.18*	.06	–.01	.41**	.35**	—

*$p < .05$; **$p < .005$.

2. As expected, guilt, forgiveness–inhibiting attributions, and transgression severity were negatively associated with self–forgiveness. Also consistent with our hypotheses, perceived forgiveness from the victim and a higher power were positively related to self–forgiveness. Shame, empathy, and conciliatory behavior toward the victim and a higher power were not significantly correlated with self–forgiveness at Time 1.

Longitudinal Trajectory of Self–Forgiveness and Rate of Change

We first examined the possibility of linear change in self–forgiveness, by breaking down participants' instantaneous self–forgiveness scores into initial status, linear change, and residual variance components. The statistics associated with these estimates, as well as the mean values across all individuals for initial status and linear change parameters, are listed in Table 3. The average participant had a self–forgiveness score of 4.49 immediately following the transgression and forgave at a rate of .05 scale units per week on the self–forgiveness metric. The linear change parameter estimate suggested that self–forgiveness increased in a linear manner over time, $t(147) = 2.07$, $p < .05$.

We added a third parameter, consisting of the squared values on

TABLE 3. Parameter Estimates for Linear Models of Longitudinal Change in Self–Forgiveness

Measure (parameter)	*M*	*SD*	*t*(147)	Reliability	% VAF	Significance of variance component $\chi^2(1, N = 141)$
Initial status	4.49	1.07	—	.55	—	332.69***
Linear change	.05	.21	2.06*	.53	49%	323.08***

Note. % VAF = percentage of Level 1 variance accounted for by the initial status and linear change parameters. *$p < .05$; ***$p < .001$.

TABLE 4. Within–Subject Associations Between Self–Forgiveness and Potential Determinants

Measure	Coefficient	*SE*	*t*	Effect size *r*
Guilt	–.06	.02	–3.80***	–.30
Shame	.01	.02	.29	.02
Empathy	–.01	.01	–1.37	–.11
Attributions	–.02	.01	–1.37	–.11
Perceived forgiveness (other)	.26	.08	3.49***	.28
Perceived forgiveness (higher power)	.21	.07	2.98***	.24
Conciliatory behavior (other)	.27	.09	2.99***	.24
Conciliatory behavior (higher power)	–.19	.08	–2.41*	–.19
Transgression severity	–.16	.07	–2.41*	–.19

Note. Effect size correlations were calculated using the following formula: $r = t/(t^2 - n - 2)^{1/2}$ (Hunter & Schmidt, 1990). *$p < .05$; **$p < .01$; ***$p < .005$.

the time variable (i.e., 0, 1, 2, 3, 4, 5, 6, and 7), to Equation 1 to consider the possibility of curvilinear change in self–forgiveness. The parameter representing quadratic change in self–forgiveness was not statistically significant ($p > .05$), suggesting that change in participants' levels of self–forgiveness over time was best described as linear.

Reliability of Initial Status and Linear Change Estimates

Table 3 also lists reliability coefficients, which constitute the percentage of variance in each parameter that can be considered true parameter variance (Bryk & Raudenbush, 1992). The current self–forgiveness measure represented individual differences in initial status with a reliability of .55. In addition, about half of the variance in our linear change parameter estimate stemmed from true differences in linear change (reliability = .53). This is somewhat impressive, as other single–item forgiveness measures have shown much lower reliability values for linear change parameters (e.g., reliability = .12; McCullough et al., 2003). However, the moderate reliability values in the current study do not bias the results, as the analyses conducted in HLM were based only on reliable variance in parameter estimates.

Fluctuations in Time–Varying Covariates in Relation to Self–Forgiveness

We then examined whether fluctuations in self–forgiveness were related to changes in guilt, shame, empathy for the victim, attributions, perceived forgiveness, conciliatory behavior, and perceived transgression severity. These variables were added as simultaneous, time–dependent covariates predicting deviations in self–forgiveness scores beyond what would be expected on the basis of initial status and linear change. All covariates were centered around each person's mean, with the exception of time, which remained uncentered; as is normally the case, these covariates were specified at Level 2 as fixed (Raudenbush & Bryk, 2002). These models took the form

$$\gamma_{ij} = \beta_{0j} + \beta_{1j}\,(\text{Time}) + \beta_{2j}\,(\text{guilt}_{ij}) + \beta_{3j}\,(\text{shame}_{ij}) + \beta_{4j}\,(\text{empathy}_{ij}) + \beta_{5j}\,(\text{attributions}_{ij}) + \beta_{6j}\,(\text{perceived forgiveness from victim}_{ij}) + \beta_{7j}\,(\text{perceived forgiveness from a higher power}_{ij}) + \beta_{8j}\,(\text{conciliatory behavior toward victim}_{ij}) + \beta_{9j}\,(\text{conciliatory}$$

behavior toward higher power$_{ij}$) + β_{10j} (perceived transgression severity$_{ij}$) + r_{ij} (4)

The unstandardized coefficients, standard errors, t values, and effect size correlations for the parameter estimates involved in these analyses are displayed in Table 4. Results indicate that all variables except shame, empathy, and attributions covaried considerably and uniquely with people's self–forgiveness scores.

We also re–ran the model specified in Equation 4 with the addition of positive and negative affect as fixed time–varying covariates. We did this to determine whether the results shown above would hold after controlling for mood. Indeed, we found that fluctuations in positive and negative affect were not associated with changes in self–forgiveness and that controlling for mood did not alter the original results.

Emotional Correlates. As expected, increases in guilt were associated with decreases in self–forgiveness, beyond those accounted for by the self–forgiveness trajectory. In fact, as indexed by the effect size correlations, guilt was the strongest covariate of self–forgiveness. Interestingly, neither changes in shame nor changes in empathy were significantly associated with deviations from the self–forgiveness trajectory.

Social–Cognitive Correlates. Somewhat surprisingly, changes in attributions were not significantly associated with changes in self–forgiveness beyond those accounted for by the self–forgiveness trajectory. As expected, increases in perceived forgiveness were related to increases in self–forgiveness beyond those accounted for by the self–forgiveness trajectory. This association held for perceived forgiveness from both the victim and from a higher power, although it was slightly stronger for victims' forgiveness.

Behavioral Correlates. Conciliatory behavior was an interesting variable, as it yielded divergent findings depending on the target of the conciliatory behavior. As predicted, increases in conciliatory behavior toward the victim were associated with increases in self–forgiveness beyond those accounted for by the self–forgiveness trajectory. However, in contrast to our hypothesis, increased conciliatory behavior toward a higher power was related to a de-

crease in self–forgiveness beyond that which would be predicted by initial status and linear change estimates.

Offense–Related Correlates. As expected, increases in perceived transgression severity were associated with decreases in self–forgiveness beyond those accounted for by the self–forgiveness trajectory.

DISCUSSION

Research on self–forgiveness is in its infancy, and the present study sought to provide a preliminary conceptual framework for future research on this topic, model how this process unfolds over time, and identify several correlates of change in self–forgiveness. In capturing self–forgiveness immediately after a transgression was committed and assessing it over a 7–week period, we are now in a unique position to describe this process.

DESCRIBING THE TEMPORAL COURSE OF SELF–FORGIVENESS

Self–forgiveness increased in a linear pattern, suggesting that the average person became more forgiving of his or her transgression over the 7 weeks following the offense. There was no support for a curvilinear pattern of change, although there might have been limited power to detect this pattern. This finding highlights a similarity between self–forgiveness and interpersonal forgiveness, as both processes appear to follow a linear growth pattern. The findings of the current study are consistent with longitudinal studies targeting interpersonal forgiveness of everyday transgressions. For example, McCullough et al. (2003) tracked forgiveness from baseline to 9 weeks post–transgression and found that interpersonal forgiveness followed a similar linear progression. Overall, these data support the theory that self–forgiveness, like interpersonal forgiveness, is a process that unfolds over time, even following mild transgressions. It appears that this process begins immediately following an offense and that self–forgiveness increases at a steady rate over time. However, it is important to note that there are no data to speak to how self–forgiveness changes over longer peri-

ods of time (e.g., years), and it is unlikely that the construct would display a linear pattern of change over such intervals. Further, the current study focused on relatively common offenses, and thus self–forgiveness may not increase linearly following more severe transgressions. It is also likely that self–forgiveness levels vary in conjunction with other relationship events.

POTENTIAL COVARIATES OF SELF–FORGIVENESS

In examining the association between the potential correlates and self–forgiveness, we focused on (a) whether instantaneous levels of each potential correlate and self–forgiveness were related across individuals and (b) whether fluctuations in each correlate within individuals were associated with deviations in self–forgiveness. It is interesting that the covariates of self–forgiveness differed depending on the type of association considered. For example, forgiveness–inhibiting attributions were negatively correlated with self–forgiveness at Time 1 but were unrelated to self–forgiveness in multilevel analyses. In contrast, conciliatory behavior was unrelated to concurrent levels of self–forgiveness, but fluctuations in conciliatory behavior over time were significantly associated with changes in self–forgiveness. These findings suggest that certain variables may not play a causal role in the self–forgiveness process but may covary with levels of self–forgiveness and vice versa. These results also illustrate the importance of longitudinal research in understanding psychological processes and informing clinical interventions. Without examining self–forgiveness over time, we might risk overstating the importance of certain variables (e.g., attributions) and overlooking the roles of others (e.g., conciliatory behavior).[3]

Guilt. Consistent with our hypotheses, guilt was negatively correlated with self–forgiveness at the initial assessment, such that

3. It is important to note that cross–sectional associations, unlike multilevel associations, were bivariate and thus did not control for other predictor variables. Therefore, direct comparisons between these associations could be biased by the overlap among predictors in some of the analyses.

greater levels of distress were associated with lower self–forgiveness. In multilevel analyses, increases in guilt were associated with drops in self–forgiveness and showed the greatest effect size. These results suggest that guilt is a critical variable in the self–forgiveness process and may significantly influence how people cope after committing a transgression. As self–forgiveness interventions begin to emerge in the psychological literature, it is important that such interventions pay attention to alleviating guilt, as this variable represents one plausible avenue for facilitating self–forgiveness. However, given the correlational nature of our data, it is also possible that changes in self–forgiveness predict changes in guilt or that a third variable influences both guilt and self–forgiveness (e.g., passage of time).

Perceived Forgiveness

As expected, perceptions of being forgiven by the victim or a higher power were associated with greater self–forgiveness in cross–sectional analyses. Multilevel analyses revealed similar findings, as increases in perceived forgiveness by the victim or a higher power were associated with increases in self–forgiveness. This suggests that when a person feels forgiven by others for his or her hurtful behavior, it becomes easier or more acceptable to extend compassion to the self. Interestingly, this finding characterized perceived forgiveness both by the victim and by a higher power, indicating that there is an important spiritual component to the self–forgiveness process. Thus, when appropriate, individual spirituality should be incorporated in self–forgiveness interventions. It appears that the idea that an offender is forgiven by others may make it easier for the person to make peace with the situation and to feel more benevolent toward the self. However, self–forgiveness may also enhance one's sense of being forgiven by others or a higher power.

Conciliatory Behavior

Contrary to expectations, behaviors such as apologizing or making amends toward the victim or a higher power were not significantly associated with self–forgiveness at the initial assessment. Multilevel analyses also revealed some surprising results, as increases in conciliatory behavior were related to increases in self–forgiveness when this behavior was directed toward the victim but were re-

lated to decreases in self–forgiveness when the target of such behavior was a higher power. Thus, whereas offenders may be able to forgive themselves by apologizing, making amends, or seeking forgiveness from the person whom they hurt, appealing to a higher power may actually inhibit the self–forgiveness process. One possible explanation is that individuals may believe in a punitive or vengeful God rather than a forgiving God, and this may hinder self–forgiveness (Leach & Lark, 2004). Alternatively, conciliatory behavior toward a higher power might serve to emphasize one's culpability for the offense or index a form of penance, a certain degree of which may be deemed necessary before self–forgiveness is possible. Although the reason behind our finding is unclear, it is important to note that attempting to increase conciliatory behavior toward a higher power may not always be in the best interest of the offender. This finding also suggests that conciliatory behavior cannot be considered as a general category, as the spiritual aspects of self–forgiveness may operate somewhat differently from the other aspects.

Perceived Transgression Severity

Consistent with our hypotheses, perceived transgression severity was negatively correlated with self–forgiveness at the initial assessment, such that more severe transgressions were associated with lower self–forgiveness scores across participants. In multilevel analyses, increases in perceived transgression severity were linked to drops in self–forgiveness within individuals. Taken together, these findings suggest that self–forgiveness can be facilitated by decreasing one's focus on the negative consequences of an offense and emphasizing potential positive outcomes (e.g., becoming a stronger person). Yet, given the correlational nature of our data, it is also possible that increases in self–forgiveness lead one to perceive a transgression as less severe.

Other Covariates

One of our concerns was that the prior results might be more parsimoniously explained by fluctuations in mood over the 7–week time period. However, our confidence in these results is strengthened by the fact that the findings were not altered by controlling for positive and negative affect. Thus, the role of situational factors in

self–forgiveness cannot be accounted for by changes in general affectivity.

Surprisingly, we did not find that shame was related to self–forgiveness in cross–sectional or initial multilevel analyses. Changes in empathy or attributions were also not associated with deviations in self–forgiveness within individuals over time. Empathy toward the victim was not significantly related to intrapersonal forgiveness at the group or individual level, which suggests that this variable does not play a critical role in the self–forgiveness process. This finding was not completely unexpected, given conflicting findings about the role of empathy in self–forgiveness (e.g., Barbetta, 2002), and it highlights another important difference between self–forgiveness and interpersonal forgiveness, as empathy toward one's offender is a strong predictor of interpersonal forgiveness (e.g., McCullough et al., 1998). Although attributions were not linked to self–forgiveness in multilevel analyses, forgiveness–inhibiting attributions were associated with lower levels of self–forgiveness at Time 1. This suggests that attributions do not play a causal role in the self–forgiveness process but may covary with levels of self–forgiveness. This finding also stands in contrast to research on interpersonal forgiveness, as attributions appear to predict forgiveness of others (McCullough et al., 2003). Thus, even though interpersonal and intrapersonal forgiveness share certain common features and correlates, they also function in unique ways and may not easily be accommodated in a single, overall model of forgiveness.

TOWARD A MODEL OF SELF–FORGIVENESS

Although the present investigation did not directly test the model of self–forgiveness proposed in Figure 1 because of the preliminary nature of this research, it is important to reconsider the hypothesized model in light of the current findings. The present results reveal which model variables were significantly associated with self–forgiveness and provide suggestive evidence of how changes in such constructs may facilitate or inhibit self–forgiveness. First, the findings suggest that the predicted pathways from shame, empathy, and attributions to self–forgiveness should be removed or considered tentative in future investigations. It does not appear

that these variables play as proximal a role in the self–forgiveness process as other model constructs. In addition, the results suggest that conciliatory behavior should be broken down within the proposed model, such that conciliatory behavior toward the victim and conciliatory behavior toward a higher power are represented separately to better capture their unique relationships with self–forgiveness. Finally, the present results lend preliminary support to the proposed pathways from guilt, perceived forgiveness, conciliatory behavior, and transgression severity to self–forgiveness. However, it is important to note that the current findings are exploratory and further longitudinal work is necessary to evaluate the model of self–forgiveness proposed in Figure 1. It is also critical to examine the associations among covariates of self–forgiveness to better understand how these variables are related to one another over time.

LIMITATIONS AND IMPLICATIONS FOR FUTURE WORK

The current findings need to be interpreted in light of several limitations to the data. First, the lack of a comprehensive measure of state (vs. trait) self–forgiveness forced us to rely on a single–item measure of this construct. Although this measure demonstrated modest reliability, single–item measures are undesirable from both a psychometric and a theoretical standpoint. This measure was obviously unable to capture the positive and negative motivational states hypothesized to underlie self–forgiveness. However, there is emerging evidence that single–item measures can serve as reliable and valid proxies for longer questionnaires (Robins, Hendin, & Trzesniewski, 2001) and thus may not be as flawed as previously thought. Nevertheless, the development of a comprehensive measure of self–forgiveness for specific transgressions is critical to the future of research on this process. Second, this study used an undergraduate sample, and the generalization of the findings to other populations needs to be demonstrated rather than assumed. In addition, the sample was self–selected, as not all individuals who were eligible to participate (i.e., had committed a recent transgression) likely elected to do so. Further, given variation in religious

and spiritual beliefs, questions regarding a higher power likely referred to different entities across participants. It will be important in future research for investigators to consider an individual's spirituality when assessing self–forgiveness. Finally, although our data were longitudinal in nature, the correlational nature of the associations among variables prevented us from drawing causal conclusions. Despite our theoretical rationale for viewing covariates as potentially influencing self–forgiveness, it is also possible that self–forgiveness predicts changes in these variables or that a third variable may affect both self–forgiveness and its covariates.

Notwithstanding these limitations, this study makes several important contributions to our understanding of self–forgiveness. To our knowledge, it is the first to explore self–forgiveness as a temporal process. Using eight waves of data, we were able to watch this process unfold, starting from the time the transgressions occurred. In addition, this study examined plausible emotional, social–cognitive, behavioral, and offense–related correlates of self–forgiveness. The results lend preliminary support to the self–forgiveness model proposed by Hall and Fincham (2005) and have the potential to inform self–forgiveness interventions, as they highlight several viable avenues for the facilitation of intrapersonal forgiveness. In addition, this study allows researchers to begin to compare interpersonal and intrapersonal forgiveness processes.

CONCLUSION

The time has come for psychological researchers to turn their attention to self–forgiveness. In this article, we have attempted to lay the foundation for future research on this topic, by considering the theoretical and temporal nature of self–forgiveness and by documenting several emotional, social–cognitive, behavioral, and offense–related variables that appear to influence this process. Our findings have the potential to inform self–forgiveness interventions and stimulate future research on this topic. As we begin to accumulate findings on self–forgiveness and refine our understanding of this process, self–forgiveness will earn the place it deserves in the forgiveness literature.

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