

FEELING BAD AND DOING GOOD:  
FORGIVENESS THROUGH THE LENS OF UNINVOLVED OTHERS

BY

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THESIS

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## **ABSTRACT**

Previous forgiveness research has mostly focused on victims' forgiveness for transgressors, and variables expected to promote forgiveness, such as transgressors' repentance and atonement, have been collectively branded as apology. However, decisions concerning forgiveness frequently occur outside of dyadic contexts, and the unique roles of repentance and atonement in achieving forgiveness, despite their preeminence in theology and law, have received little empirical attention. Across four experiments ( $N=601$ ), we show that repentance and atonement independently promote third-party forgiveness for a variety of harms, even without direct apology and even in disinterested contexts. Our findings provide a systematic examination of third-party forgiveness disentangled from personal involvement, resulting in a clearer understanding of components facilitating forgiveness.

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# CHAPTER 1

## INTRODUCTION

Forgiveness among relatives and friends is commonly depicted in classical and modern literature (e.g., *King Lear*, *The Brothers Karamazov*), and religious scholars and contemporary psychologists have widely investigated the art and science of forgiveness. Forgiveness helps repair damaged personal relationships, but people also evaluate whether a stranger who has harmed other strangers should be forgiven. Although the ultimate decision to forgive may be reserved for involved parties, such as victims and their close others, uninvolved and unharmed third parties may experience a similar process of forgiveness or unforgiveness. This question of *forgivability* permeates distance and time such that upon hearing news of school shootings, hate crimes, or international conflicts, perceivers outside of harmed communities ponder, even generations later, whether these offenders deserve to be forgiven. *One Love Manchester*, for example, attracted emotional and financial support worldwide—a poignant reminder that even when revenge and punishment may seem adaptive, uninvolved third parties wish to promote healing and forgiveness.

Forgiveness has been described as the process by which negative reactions toward offenders (i.e., avoidance and revenge) are transformed into prosocial motivations (McCullough, Bellah, Kilpatrick, & Johnson, 2001). Supporting this idea, empirical evidence has demonstrated when and why victims forgive transgressors, and physiological and social benefits of forgiveness for both parties have been documented (e.g., Harris & Thoresen, 2005; Lawler et al., 2003; Witvliet, Ludwig, & Vander Laan, 2001). However, disinterested third-party observers also make social and moral judgments about interpersonal transgressions despite having no connection to victims or offenders. People experience negative emotions (e.g., moral outrage)

even when they are not the direct or indirect victims of injustice (e.g., Montada & Schneider, 1989; Skarlicki, Ellard, & Kelln, 1998). Uninvolved third parties are even willing to boycott, protest against, or speak ill of offenders in response to their mistreatment of others (e.g., the #MeToo movement). In these cases, personally unharmed third-party observers are willing to incur costs to punish offenders. Given our knowledge of how third-party punishment helps maintain large-scale cooperation (Fehr & Fischbacher, 2004; Henrich et al., 2006) and how transgressions have impacts beyond victim-transgressor dyads, understanding third parties' forgiving (rather than punishing) responses to transgressions is an understudied topic that is worthy of research.

Past forgiveness research has identified post-transgression factors that facilitate forgiveness such as apology, remorse, and restitution primarily within victim-transgressor dyads (e.g., McCullough et al., 1998; Zechmeister, Garcia, Romero, & Vos, 2004). For victims, the decision to forgive hinges on future exploitation risk and relationship value of the offender, and offenders who successfully display relational commitment (e.g., conciliatory behavior) and reduce the perceived likelihood of future threat (e.g., sincere apology) attain victims' forgiveness (McCullough, Kurzban, & Tabak, 2013). Yet, little is known about whether these gestures—which provide no direct benefit for third parties—also influence forgiveness judgments from uninvolved observers. When relational value and future harm are not at stake, can repentance and atonement still redeem offenders and restore their damaged reputations? Using a person-perception approach, we demonstrate an uninvolved third-party forgiveness (U3PF) effect, whereby disinterested observers, who have no motivated reason to care, promote forgiveness based on offenders' post-transgression attitudes (e.g., repentance) and actions (e.g., atonement).

### **“Involved” vs. “Uninvolved” Third Parties**

As noted above, most past interpersonal forgiveness research has concentrated on victim-transgressor dyads (e.g., Boon & Sulsky, 1997; McCullough, Worthington, & Rachal, 1997; McCullough et al., 1998). One exception is third-party forgiveness research involving cases where offenders seek forgiveness from victims’ family members or communities. Learning that someone close has been harmed can be painful; close friends or relatives of victims are less forgiving than victims, despite not being directly harmed (Green, Burnette, & Davis, 2008). Although third-party forgiveness characterized by indirect harm helps us understand how involved (but not directly victimized) people forgive, judgments regarding forgivability are also made by people completely unconnected to transgressions. For example, people evaluate the behavior of athletes (e.g., Lance Armstrong), politicians (e.g., Bill Clinton), actors (e.g., Kevin Spacey), or criminals (e.g., mass-shooters) and decide whether these people deserve forgiveness for their (alleged) misdeeds. This impersonal judgment is U3PF.

Unlike victims or involved third parties—the targets of previous forgiveness research, uninvolved observers have no agendas to uphold, and no obvious motivations underscoring their decisions about whether forgiveness is deserved. Therefore, post-transgression behaviors such as apology or offers of restitution provide no apparent benefit for uninvolved observers. Moreover, whereas forgiveness from involved parties depends on desire for reconciliation, costs of retaliation, and avoiding further harm (McCullough et al., 2013), uninvolved third parties are likely unconcerned with these issues. On what basis, then, will uninvolved observers make judgments about forgivability? Apart from work on public confession (e.g., Weiner, Graham, Peter, & Zmuidinas, 1991; Gold & Weiner, 2000) and victim-observer asymmetries in

discriminating apology sincerity (Risen & Gilovich, 2007; Hashimoto & Karasawa, 2012; 2016), no forgiveness studies to our knowledge have tackled this subject.

Although relationship maintenance is not relevant for uninvolved observers who arguably lack “standing” to grant forgiveness, one reason to study U3PF is that related moral judgments such as punishment and blame frequently accompany disinterested bystander evaluations (e.g., Alicke, 1992; Laurent, Nuñez, & Schweitzer, 2015; Lotz, Okimoto, Schlösser, & Fetchenhauer, 2010). Overlap between blame, punishment, and forgivability exists, but these constructs are conceptually distinct. For example, although blame and forgivability both depend on transgression severity, blameworthiness relies on agents’ *pre*-transgression mental states (e.g., intentions and reasons for acting; Malle, Guglielmo, & Monroe, 2014), and forgiveness—which relies on offenders’ *post*-transgression attitudes and behaviors—is a reasonable response only *after* a transgressor has been justifiably blamed (Adams, Zou, Inesi, & Pillutla, 2015). Despite these conceptual differences, studies of perceived *forgivability* have been surprisingly neglected in the field, and gaining insight into the factors that promote forgiveness from uninvolved third parties is informative beyond what we know about blame, punishment, and forgiveness from victims.

Exploring U3PF allows a clearer view of how people think about forgiveness when no reconciliation concerns exist (Fincham, Paleari, & Regalia, 2002; Finkel, Rusbult, Kumashiro, & Hannon, 2002). For example, unharmed observers, with no motivation to seek revenge or fear counter-retaliation, may perceive offenders who display remorse and/or offer restitution to victims as worthy future cooperation partners who deserve forgiveness. That is, if forgiveness is a cognitive adaptation for maintaining existing cooperative relationships between involved parties (McCullough et al., 2013), then recognizing repentance and atonement from offenders

should be advantageous not only for harmed parties but also for uninvolved third-party observers seeking to build cooperation. Although the importance of offenders' relational value may be disparaged in modern welfare systems (e.g., equality under the law), third-party intervention has been linked to adaptive strategies designed for small-scale interdependent environments of the past (Petersen, Sell, Tooby, & Cosmides, 2012; Krasnow, Delton, Cosmides, & Tooby, 2016). Whereas repentance and atonement directly benefit involved parties in achieving reconciliation, we argue that the same mechanisms—perceived remorse and restitution—aid in transforming third parties' negative perceptions of offenders (e.g., blame, punishment) into positive evaluations, through the process known as forgiveness (i.e., U3PF).

### **Repentance and Atonement**

The view that repentance and atonement are prerequisites for attaining forgiveness has a long tradition in theological thought. Jesus instructed his disciples to forgive if offenders repent (Luke 17:3), a sentiment also endorsed by John the Baptist (Matthew 3:2; 4:17). Likewise, the Jewish process of *teshuvah*, described in Maimonides's *Laws of Forgiveness*, requires both repentance through public confession and atonement by compensating the victim (Rye et al., 2000). Outside of Western religion, the idea of “making things right” is the centerpiece of the traditional Hawaiian conflict resolution strategy called ho'oponopono (Miura, 2000).

Repentance and atonement often co-occur with apology, a topic that has been studied alongside forgiveness (e.g., Darby & Schlenker, 1982; Carlisle et al., 2012). Because repentance and atonement share conceptual overlap with apology, systematically disentangling the three is challenging. For example, atonement through monetary compensation may be perceived as an apology or expression of repentance. Likewise, sincere apologies imply that offenders feel bad about their actions. Consistent with this, past research has treated remorse and restitution as



forms of apology (e.g., Schlenker & Darby, 1981; Ohtsubo & Watanabe, 2009), but there are crucial differences between feeling bad about one's actions (i.e., repentance) and behavior aimed at making amends (i.e., atonement). Here, we define repentance as negative emotion experienced by an offender—regret, guilt, and remorse—associated with acknowledgement of responsibility for a transgression (Eaton, Struthers, & Santelli, 2006; Schlenker & Darby, 1981). On the other hand, we define atonement as concrete actions by offenders to make amends, which encompass both behavioral *attempts* to “make things right” and the natural *consequences* of such efforts that typically result in restitution. In sum, repentance involves transgressors' internal states (that may be communicated), atonement is about observable behaviors directed toward (and typically resulting in) improving victims' well-being, and apology falls somewhere in the middle.

Because no empirical research to our knowledge has focused on distinctions between repentance and atonement, the apology literature helps in understanding the two constructs. Positive effects of apology on forgiveness have been documented in surveys about past transgressions (e.g., Davis & Gold, 2011; McCullough et al., 1997), experiments with hypothetical transgressions (e.g., Ohtsubo & Watanabe, 2009; Weiner et al., 1991), staged offenses (e.g., Darby & Schlenker, 1982; Ohbuchi, Kameda, & Agarie, 1989), and economic games (e.g., Fischbacher & Utikal, 2013; Ho, 2012). Evidence indicates that repentance leads to forgiveness (e.g., Darby & Schlenker, 1982; Exline & Baumeister, 2000) by helping to validate victims and dissipate self-threat arising from experiences of devaluation caused by a transgression (Eaton et al., 2006; Scobie & Scobie, 1998). For example, remorse attribution reduced sentences for assault cases where harm was salient but not for administrative proceedings such as breach of confidentiality (Pipes & Alessi, 1999). If remorse conveys the lack of intention to impose further harm, offenders who repent may regain their positive image back

from uninvolved observers, even without direct apology to the victim. Alternatively, display of repentance may have diminished value for impartial third parties because they do not directly experience threat. Thus, we hypothesize that repentance will have a weak yet positive effect on U3PF.

Atonement, in the context of apology with offers of restitution, also has positive effects on forgiveness (e.g., Carlisle et al., 2012; Drell & Jaswal, 2016; Jeter & Brannon, 2017). Offenders' post-transgression behavior to make amends will typically result in favorable outcomes for victims; however, victims value costly apologies even when they do not receive material compensation (Ohtsubo & Watanabe, 2009). Evidence from organizational, ethnographic, and animal behavior research also suggests that substantive penance or conciliatory gestures, even when they do not fully compensate the original transgression, can rebuild cooperation (Bottom, Gibson, Daniels, & Murnighan, 2002; Boehm, 1984; de Waal, 1989). Although atonement provides no material or emotional benefit for uninvolved observers, it nonetheless signifies offenders' commitment to the wellbeing of others (McCullough et al., 2013). Therefore, we hypothesize that atonement will have a strong positive effect on U3PF.

### **The Current Research**

Four experiments, using a variety of harms and relationships between victims and transgressors, tested the hypothesis that repentance and atonement independently promote U3PF. Experiment 1 examined whether communicating repentance would increase forgivability. Experiment 2 investigated the effects of atoning behavior on forgivability. Experiment 3's story featured a physical harm and simultaneously manipulated repentance and atonement. Experiment 4 used a new design allowing us to track how forgivability unfolded across an event and tested whether costliness of restitution mediated the effect of atonement on U3PF.

## General Method: Participants

We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the studies. Study 1's sample size was determined based on a pilot study. In Studies 2-4, sample sizes were determined a priori using the criterion of 80% power ( $\alpha = .05$ ) to detect a medium-sized effect ( $d = 0.50$ ). Participants were excluded from analyses for unusually short reading times or failure to respond correctly to one or more attention check items.<sup>1</sup> Final sample sizes were  $n = 191$  (Experiment 1),  $n = 111$  (Experiment 2),  $n = 141$  (Experiment 3), and  $n = 158$  (Experiment 4). All experiments were between-participants. Research was approved by the Institutional Review Board where data were collected. All participants provided informed consent prior to participation and demographic information after responding to primary measures. Participants were U.S. residents recruited from Amazon Mechanical Turk. Table 1 lists demographic information for all studies.

Table 1. Demographics (Experiments 1 to 4)

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Final sample size	191	111	141	158
Exclusion				
Short reading time	11	3	0	6
Attention check miss	17	9	4	7
Gender (% female)	46.6%	48.6%	57.4%	43.0%
Age ( $M$ and $SD$ )	35.97 (12.05)	38.86 (12.92)	38.28 (13.35)	36.41 (10.45)
Ethnicity				
Asian/Asian American	12.3%	7.2%	6.4%	8.9%
Black/African American	8.0%	5.4%	4.3%	4.4%
Hispanic/Latino(a)	4.8%	7.2%	10.6%	5.1%
White/European American	70.1%	78.4%	75.2%	79.1%
Other	4.8%	1.8%	3.5%	2.5%

<sup>1</sup> In Experiment 4, two participants with incomplete responses and 13 participants who had participated in the pilot study for Experiment 2 were excluded. For all studies, analyses that retained all participants did not differ substantively from those reported, except the effect of repentance on overall forgivability in Experiment 4 did not reach significance, and its effect on recovery was marginally significant.

## CHAPTER 2

### EXPERIMENT 1

#### Overview

Experiment 1 examined how communicating repentance affects perceived forgivability. Specifically, we tested whether expressing remorse to a victim, relative to not doing so, would influence U3PF. Although repentance and apology naturally co-occur, to isolate the effects of repentance from verbal apology, Experiment 1 tested whether communication of the offender's mental state (i.e., feeling bad) can facilitate forgivability without apology. We hypothesized that participants would promote forgiveness for a repentant offender more than a non-repentant offender.

#### Method

**Procedure.** Participants read a vignette about a senior in college who was failing a required course and who submitted an extra credit assignment that was then lost by a teaching assistant (TA).<sup>2</sup> Participants were then randomly assigned to read one of two emails the TA wrote to the student. In the No Repent condition, the TA inadvertently left the student's assignment in the copy room. In the Repent condition, the TA additionally acknowledged that it could affect the student's grade and articulated remorse. Participants then responded to a series of questions. Unless otherwise noted, all reported items used 7-point scales ranging from 1=*entirely disagree* to 7=*entirely agree*.

**Measures.** Agreement with four statements that the TA "was repentant," "felt guilty," "felt bad," and "regretted what happened" assessed perceived remorse ( $\alpha = .94$ ), which served as manipulation check. Three items ( $\alpha = .86$ ) adapted from McCullough et al. (1998) measured

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<sup>2</sup> All vignettes are available in the Appendices.

forgivability: “Jamie (the student) should forgive the TA,” “Despite what the TA did, Jamie should have compassion for him,” and “Jamie should let go of any anger she may feel toward the TA.” To explore whether participants inferred apology or atonement from the repentance manipulation, we asked two binary-response questions: “Did the TA apologize to Jamie for losing her assignment?” and “Did the TA make amends to atone for losing Jamie’s assignment?” An additional item assessed transgression severity: “How severe was the impact of what the TA did?” (1=*not at all severe* to 7=*very severe*).

## Results and Discussion

R codes and data for all studies are available at <https://osf.io/6jqky>. As expected, remorse was higher in the Repent condition ( $M = 4.86$ ,  $SD = 1.32$ ) than the No Repent condition ( $M = 3.63$ ,  $SD = 1.52$ ),  $t(189) = 5.94$ ,  $p < .001$ ,  $d = 0.86$ , demonstrating that the repentance manipulation was successful. As hypothesized, forgivability was higher in the Repent condition ( $M = 4.33$ ,  $SD = 1.34$ ) than in the No Repent condition ( $M = 3.82$ ,  $SD = 1.53$ ),  $t(189) = 2.43$ ,  $p = .016$ ,  $CI_{.95} = [0.10, 0.92]$ ,<sup>3</sup>  $d = 0.35$ , showing that even in a disinterested context, repentance promoted a belief that a transgressor deserved forgiveness. Offense severity did not differ significantly across conditions, ( $M_{\text{repent}} = 6.21$ ,  $SD_{\text{repent}} = 0.88$ ;  $M_{\text{no repent}} = 6.06$ ,  $SD_{\text{no repent}} = 1.24$ ),  $t(179) = 0.89$ ,  $p = .376$ , ruling out the possibility that the observed difference in forgivability was due to condition-based differences in perceived severity of the offense.<sup>4</sup> When asked whether the TA apologized, 74.4% of participants in the Repent condition and 29.9% in the No Repent condition responded with “yes,” and this difference was significant,  $\chi^2(1) = 35.32$ ,  $p < .001$ ,  $\phi = 0.45$ . However, the proportions of participants indicating that the TA atoned (13.3% in Repent

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<sup>3</sup> All reported CIs represent the lower and upper bounds of the difference between means.

<sup>4</sup> The degrees of freedom for offense severity were 179 because 10 participants’ responses to the transgression severity item were not recorded due to a technical error.

and 14.4% in No Repent) were statistically equal,  $\chi^2(1) = 0.00, p = .996, \phi = -0.02$ . Experiment 1 showed that repentance promoted U3PF. Additionally, although the TA's email did not contain direct apology, people inferred apology (but not atonement) from expression of repentance, suggesting that uninvolved third parties differentiate repentance from atonement.

## CHAPTER 3

### EXPERIMENT 2

#### Overview

Experiment 2 explored the role of atonement, defined as an offender's post-transgression behavior directed toward alleviating the consequences of an offense. We believe that concrete actions *aimed at* repair are what primarily influence U3PF rather than differences in outcome that naturally result from these actions. Experiment 2 tests this idea of atoning action as a social signal by manipulating an agent's attempt to atone while holding constant the (negative) outcome resulting from the transgression across conditions. We hypothesized that relative to an offender who does not attempt to make amends, uninvolved third parties will view an offender who tries but fails to atone as deserving greater forgiveness.

#### Method

**Procedure.** Participants read a story about a well-qualified bank employee who did not get a promotion because her supervisor failed to submit a promised letter of recommendation. Participants were randomly assigned to read one of two versions of the story's ending. In the Atone condition, the supervisor explained her oversight to the hiring manager and asked her to reconsider the employee's application. Though her application was reviewed, the employee ultimately did not get the position. In the No Atone condition, the supervisor did not actively seek to fix the situation despite conversing with the same hiring manager, and the employee did not get the position. To isolate the atonement manipulation, no explicit mention of repentance was made; in both versions, no apology was offered and no description of the supervisor's feelings about the transgression was given. Participants then responded to questions about the story.

**Measures.** As manipulation check, attempted restitution ( $\alpha = .98$ ) was measured with four items: “Kayce (the supervisor)...” “tried to atone for not submitting Maya’s (the employee’s) letter on time,” “tried to ‘make things right’ after failing to send the hiring committee her letter,” “attempted to correct her mistake of not sending the letter for Maya,” and “wanted to fix the problem her oversight had caused.” Forgivability ( $\alpha = .87$ ) was measured using the same three items from Experiment 1 with names changed to match the new vignette.

## **Results and Discussion**

As expected, attempted restitution was higher in the Atone condition ( $M = 6.27$ ,  $SD = 0.93$ ) than the in No Atone condition ( $M = 3.77$ ,  $SD = 1.77$ ),  $t(109) = 9.34$ ,  $p < .001$ ,  $d = 1.77$ . Mean forgivability was also higher in the Atone condition ( $M = 5.63$ ,  $SD = 0.96$ ) than the No Atone condition ( $M = 4.35$ ,  $SD = 1.38$ ),  $t(109) = 5.71$ ,  $p < .001$ ,  $CI_{.95} = [0.84, 1.73]$ ,  $d = 1.08$ . The strong effect of atonement on forgivability suggests a robust connection between actions directed toward “making things right” and deservingness of forgiveness without communicated apology or repentance. Consistent with the idea of signaling cooperation commitment, this suggests that the action of trying to atone—even when this attempt fails—makes a transgressor seem more forgivable to uninvolved third parties. Though attempt at repair should typically result in positive outcomes by design, the outcome here remained unfavorable for the victim in both conditions. Thus, Experiment 2 showed that an *attempt* to atone was sufficient for influencing U3PF.

One issue worth consideration is that in both Experiments 1 and 2, offenders had power over victims. People may be compelled to promote forgiveness with little effort from offenders if the cost of not forgiving is amplified by a power status difference (Aquino, Tripp, & Bies, 2001). Third parties’ forgivability evaluations may therefore have been influenced by the consideration



that not forgiving could lead to further disadvantages to the victim. To address this, Experiment 3 investigated the effects of repentance and atonement when the transgressor and victim have equal status. To increase our ability to generalize, we also used a new vignette involving physical harm.

## CHAPTER 4

### EXPERIMENT 3

#### Overview

In many contexts, actions aimed at atonement might accompany repentance. In fact, feeling bad about a transgression might lead offenders to atone, particularly if repentance alone is insufficient to obtain forgiveness. In Experiment 3, repentance and atonement were manipulated within the same design. To focus solely on the offender's internal response, the repentance manipulation in Experiment 3 reflected the offender's private thoughts that were not communicated to the victim. We hypothesized that both repentance and atonement would increase perceived forgivability and that atonement, which signals offenders' behavioral commitment to cooperation, would produce a stronger effect than repentance. We explored whether the manipulations would work synergistically to influence forgivability (i.e., interactions) or exert additive effects but had no predictions.

#### Method

**Procedure.** Participants read a vignette divided into two parts. Part 1 introduced a college student (Jesse) who, while riding his bike one night, was hit by a car driven by a classmate (Chris). The bike was damaged and after Jesse claimed to be fine, Chris drove away. Later, Jesse realized he was seriously injured and received emergency surgery on his knee. The next day, Chris learned about Jesse's injury and the repentance manipulation was embedded in the following narrative:

**Repent.** *Hearing this, Chris felt terrible about himself. He thought to himself, "Poor Jesse. It was my fault this happened, wasn't it? [...] Jesse would be here right now if I was driving more carefully."*

*No Repent.* Hearing this, Chris didn't feel particularly bad. He thought to himself, "I don't know why he's blaming me for what happened [...] and it's not my fault I couldn't stop in time."

Part 2 described a meeting between the two a few months after the accident and contained the atonement manipulation. In the Atone condition, participants read that Chris bought a new bike for Jesse at the cost of denying himself the purchase of a wanted item. In the No Atone condition, Chris bought the item he had intended to purchase for himself, and Jesse bought the bike himself. Perceived remorse was measured between Part 1 and Part 2, and remaining measures were collected after Part 2.

**Measures.** The four remorse items from Experiment 1 ( $\alpha = .97$ ) were used to check the repentance manipulation. Four restitution items ( $\alpha = .97$ ) assessed the atonement manipulation: "Chris..." "atoned for the damage he caused Jesse," "tried to make amends to Jesse," "repaired the harm he had caused Jesse," and "made up for his earlier actions." Forgivability ( $\alpha = .85$ ) was measured with three items: "Jesse should forgive Chris for what happened," "Jesse should let go of any anger he may feel toward Chris," and "Chris deserves to be forgiven for what he did."<sup>5</sup>

## Results and Discussion

**Manipulation check.** Because atonement was manipulated after the measure of remorse was collected (and thus, atonement could not influence remorse), a *t*-test was used to examine differences in remorse as a function of repentance. Predictably, remorse was higher ( $M = 6.18$ ,  $SD = 0.74$ ) in the Repent condition than in the No Repent condition ( $M = 2.16$ ,  $SD = 1.25$ ),  $t(139) = 23.22$ ,  $p < .001$ ,  $d = 3.91$ . For all other means analyses,  $2$  (No Repent/Repent)  $\times$   $2$  (No

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<sup>5</sup> In addition to our primary measure of interest (i.e., U3PF), several related constructs were measured in Experiments 3 and 4. To keep the focus solely on U3PF, those variables and associated analyses are reported only in the Appendices.

Atone/Atone) ANOVAs with 1, 137 *df* were used. Restitution was perceived as higher in the Atone condition ( $M = 5.70$ ,  $SD = 1.00$ ) than in the No Atone condition ( $M = 1.67$ ,  $SD = 0.99$ ),  $F = 572.05$ ,  $p < .001$ ,  $d = 4.05$ . No main effect of repentance ( $p = .650$ ) or interaction of atonement and repentance ( $p = .198$ ) was found on restitution.

**Forgivability.** As hypothesized, participants in the Repent condition indicated higher forgivability ( $M = 4.83$ ,  $SD = 1.33$ ) than participants in the No Repent condition ( $M = 4.39$ ,  $SD = 1.63$ ),  $F = 10.26$ ,  $p = .002$ ,  $CI_{.95} = [0.05, 0.83]$ ,  $d = 0.30$ . Similarly, participants in the Atone condition indicated higher forgivability ( $M = 5.48$ ,  $SD = 1.03$ ) than participants in the No Atone condition ( $M = 3.72$ ,  $SD = 1.39$ ),  $F = 83.75$ ,  $p < .001$ ,  $CI_{.95} = [1.37, 2.15]$ ,  $d = 1.44$ . The interaction was not significant ( $p = .098$ ).

Experiment 3 replicated our findings from Experiments 1 and 2, further showing that repentance and atonement work independently to influence perceived forgivability. Notably, repentance still influenced forgivability even when the offender did not communicate his remorse or directly apologize to the victim, highlighting that uninvolved third parties are sensitive to offenders' mental states. As hypothesized, atonement had a much stronger effect on forgivability than repentance. Experiment 3 critically demonstrated that atonement increases perceived forgivability even when it does not fully restore the victim to a pre-transgression state (e.g., replacing the bike does not heal the physical wound or pay for any associated health care costs), corroborating the conclusion from Experiment 2 that atonement effects are not driven solely by outcome. Finally, Experiment 3 demonstrated the effects of repentance and atonement on U3PF in a new context where harm was physical, fairly severe, and involved people similar in power status.

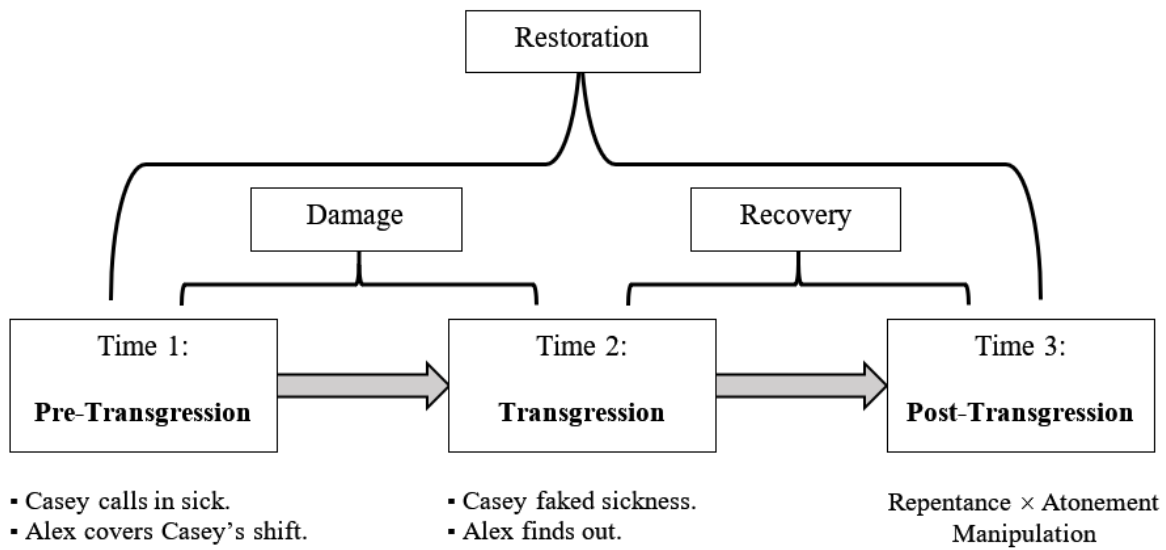
## **CHAPTER 5**

### **EXPERIMENT 4**

#### **Overview**

Despite finding consistent effects of repentance and atonement on forgivability in Experiments 1-3, questions remain about whether uninvolved third-party perceptions of transgressors can be truly restored. Although repentance and atonement may function to mend damaged relationships with the direct recipients of such reconciliatory gestures (i.e., victims or those close to victims), for uninvolved observers, repentance, atonement, or the combination of the two may not fully restore offenders to the moral status they originally enjoyed before committing the offense. Just as certain transgressions can leave scars or lingering bitterness within victims, offenders may suffer permanent reputational damage from those who witness their offenses. Even when reconciliation with victims is achieved, redemption may not extend beyond the victim to individuals who dispassionately judge the transgression. Thus, repentance and atonement may serve as attempts to undo the damage wrought, in hopes of full restoration in the eyes of those they have wronged as well as others who are aware of their misdeeds.

Experiment 4 again manipulated both repentance and atonement, using a new context involving a workplace transgression affecting a coworker and his girlfriend. To assess how U3PF unfolds across an event, the vignette was presented in three parts. The negative event was first described (Part 1), followed by a description of the transgression (Part 2), followed by manipulations of repentance and atonement (Part 3). This new design (Figure 1) allowed us to systematically measure forgivability post-event at Time 1 (T1), post-transgression at Time 2 (T2), and post-manipulations at Time 3 (T3).



*Figure 1.* Diagram showing the 3-part design of Experiment 4. Forgivability was measured after each time point.

In addition to hypotheses about main effects of repentance and atonement on T3 forgivability (H1), we made several additional predictions. First, we predicted that relative to T1 (baseline), forgivability would decrease after the transgression was described at T2 (H2). Next, we expected “recovery” (i.e., increased forgivability) from T2 to T3 as a function of repentance and atonement (H3). Last, for restoration of forgivability (i.e., T3 as compared with T1), we expected to find only a main effect of atonement (H4a) and that restoration would be “complete” (i.e., back to T1 forgivability) only when the transgressor atoned (H4b). Because the cost of making amends should be relevant when making forgiveness judgments (Ohtsubo & Watanabe, 2009), we included a measure of perceived costliness as a possible mediator between atonement and forgivability. We predicted that atonement would affect forgivability through perceived costliness (H5), which might itself be mediated by restitution.

## Method

**Procedure.** Participants read a story divided into three parts. In Part 1, Alex was forced to cover his coworker's (Casey) shift, which led to Alex having to cancel an important date with his girlfriend to attend a concert on her birthday. In Part 2, it was revealed that Casey (offender) faked sickness to attend the same concert and that Alex (victim) discovers this. In Part 3, Casey either denied or communicated his repentance to Alex:

***No Repent.** Casey said, "To be honest, I don't really feel bad about this. Maybe I should have asked for the night off ahead of time, but you could have said no to coming in. I really enjoyed the concert and I don't regret calling in."*

***Repent.** Casey looked troubled and said, "I feel really bad about this. I never even considered that someone would have to cover my shift, but I should have and should have shown up to work yesterday. I know it doesn't change what happened, but just so you know, I feel pretty bad about it."*

Next, participants read that a few weeks after the incident, Alex had plans with his girlfriend but requested the wrong day off and asked if Casey could cover his shift. Casey's reply and subsequent action served as the atonement manipulation:

***No Atone.** Casey replied that he couldn't because he had a friend coming in from out of town that night. "We already have plans to just hang out and relax tomorrow," Casey said. "I really can't. My friend is only going to be in town for a few days, so tomorrow really doesn't work for me."*

***Atone.** Casey replied that he couldn't because he had a friend coming in from out of town that night. "We already have plans to just hang out and relax," Casey said, "so tomorrow really*

*doesn't work." At that point, Casey paused then said, "You know what, though? My friend will be in town for a few days, so I can cover for you."*

Immediately after each part of the story (i.e., at T1, T2, and T3), participants rated Casey's forgivability. Remaining measures were assessed after Part 3.

**Measures.** The same four items from Experiment 1 assessed remorse ( $\alpha = .98$ ). Restitution ( $\alpha = .99$ ) was measured with the same four items from Experiment 3 with names and transgressions changed to match the new vignette. Forgivability was measured with two items ("Alex should forgive Casey," and "Alex should let go of any anger he may feel toward Casey") at each time point (T1  $r = .87$ ; T2  $r = .73$ ; T3  $r = .87$ ). To capture "recovery," we subtracted T2 forgivability scores from T3 (higher numbers indicate greater recovery from any damage that occurred in T2). To capture "restoration," we subtracted T1 scores from T3 (higher numbers indicate greater restoration to pre-transgression forgivability levels).<sup>6</sup> Perceived costliness ( $\alpha = .83$ ) was measured using three items: "Casey tried hard to help Alex," "Covering Alex's shift required a lot of effort on Casey's part," and "To what extent did Casey sacrifice other plans to help Alex?" (1=*not enough at all*, 7=*more than enough*).

## Results

For the hypothesis that following report of the transgression at T2, forgivability would decrease overall (H2), a paired-samples *t*-test examined differences in forgivability between T1 and T2. Other hypotheses were examined using 2 (No Repent/Repent)  $\times$  2 (No Atone/Atone) ANOVAs with 1, 154 *df*.

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<sup>6</sup> Two focused hypotheses involved differences in forgivability at different time points: T3 (post-manipulations) relative to T2 (i.e., recovery) and to T1 (i.e., restoration). Thus, including all three levels of the within-participants (time) variable in one analysis would not provide an appropriate test of these hypotheses. With only two repeated measures, analyses of difference scores yield the same results as a mixed ANOVA, suggesting the appropriateness of this approach to ease interpretation of effects.



**Manipulation check.** For remorse, main effects of repentance ( $F = 50.97, p < .001, d = 0.82$ ) and atonement ( $F = 161.20, p < .001, d = 1.82$ ) were found. The interaction was not significant ( $p = .204$ ). For restitution, main effects of atonement ( $F = 478.92, p < .001, d = 3.32$ ) and repentance ( $F = 13.87, p < .001, d = 0.32$ ) were found, as well as a significant interaction ( $F = 4.11, p = .044, \eta_p^2 = .03$ ) that suggested the effects of atonement were slightly stronger when repentance was also present. Table 2 provides  $M$  and  $SD$  for all variables as a function of condition.

Table 2

*Experiment 4: Means and standard deviations as a function of repentance and atonement*

	No Repent				Repent			
	No Atone		Atone		No Atone		Atone	
	$M$	$SD$	$M$	$SD$	$M$	$SD$	$M$	$SD$
Remorse	1.49	1.00	4.06	1.83	2.81	1.60	5.95	1.03
Restitution	1.39	0.97	5.05	1.50	1.70	1.05	6.11	1.02
T1 Forgivability	4.91	1.49	4.95	1.81	5.21	1.75	4.87	1.77
T2 Forgivability	2.33	1.43	2.29	1.51	2.61	1.57	1.96	1.46
T3 Forgivability	3.14	1.45	4.93	1.72	3.54	1.76	5.54	1.39
Recovery (T3 minus T2)	0.81	1.20	2.64	1.86	0.93	1.23	3.57	1.94
Restoration (T3 minus T1)	-1.77	1.34	-0.03	1.74	-1.67	2.05	0.67	1.74
Costliness	1.97	0.85	3.83	1.53	2.12	0.92	4.50	1.28
Cell N	39		40		38		41	

Of interest, the effect size for remorse was larger as a function of atonement than of repentance, suggesting that actions aimed at making amends imply feeling bad about what one has done. To clarify these relationships, we examined the correlation between remorse and restitution ( $r = .84, p < .001$ ) and then respectively tested the effects of repentance and atonement on remorse and restitution while controlling for the other variable using  $2$  (No Repent/Repent)  $\times$   $2$  (No Atone/Atone) ANCOVAs with 1, 153  $df$ . While controlling restitution, atonement no

longer significantly predicted remorse ( $p = .245$ ; interaction  $p = .934$ ); repentance remained significant,  $F = 35.43$ ,  $p < .001$ . Similarly, while controlling remorse, repentance and the interaction no longer predicted restitution (respectively,  $ps = .252, .120$ ). Atonement remained significant,  $F = 156.97$ ,  $p < .001$ . This confirmed that although remorse and restitution responses were strongly associated, each manipulation worked to influence the linked construct above and beyond that of the other.

**Overall forgiveness (T3).** Supporting H1, atonement strongly predicted overall forgiveness ( $F = 56.04$ ,  $p < .001$ ,  $CI_{.95} = [1.40, 2.40]$ ,  $d = 1.19$ ). Repentance also predicted U3PF ( $F = 4.00$ ,  $p = .047$ ,  $CI_{.95} = [0.03, 1.03]$ ,  $d = 0.29$ ), although this effect size was much smaller. The interaction was not significant,  $p = .674$ .

**Damage, repair, and recovery.** Confirming H2, a paired-samples  $t$ -test indicated that forgiveness decreased at T2 ( $M = 2.29$ ,  $SD = 1.50$ ) from baseline ( $M = 4.98$ ,  $SD = 1.70$ ),  $t(157) = 18.80$ ,  $p < .001$ ,  $d = 1.68$  (see Figure 2). As predicted (H3), repentance and atonement were both independently associated with recovery in forgiveness following the transgression (i.e., T3 minus T2), respectively,  $F_s = 4.33$  and  $76.69$ ,  $p = .039$  and  $p < .001$ ,  $CI_{.95} = [0.07, 1.07]$  and  $[1.74, 2.74]$ ,  $d_s = 0.29$  and  $1.38$ . The interaction was not significant,  $F = 2.51$ ,  $p = .115$ . Single sample  $t$ -tests of each cell against zero demonstrated recovery in each cell of the design,  $t_s(37 \text{ to } 40) > 4.22$ ,  $ps < .001$ ,  $d_s > 0.68$ . Finding that even without any repentance or atonement, there was some recovery following the manipulation—rather than a potential *decrease* in forgiveness—is somewhat puzzling. Speculatively, the offender might have been seen as somewhat forgivable because (a) Casey’s counterfactual for the offense (i.e., suggesting Alex might have called in sick himself) created doubts about the severity of the offense, and (b) people considered it reasonable that Casey didn’t want to commit another offense by cancelling

plans with his friend. To address this, future research might describe a more serious offense where atonement does not require the potential commission of another offense against someone else.

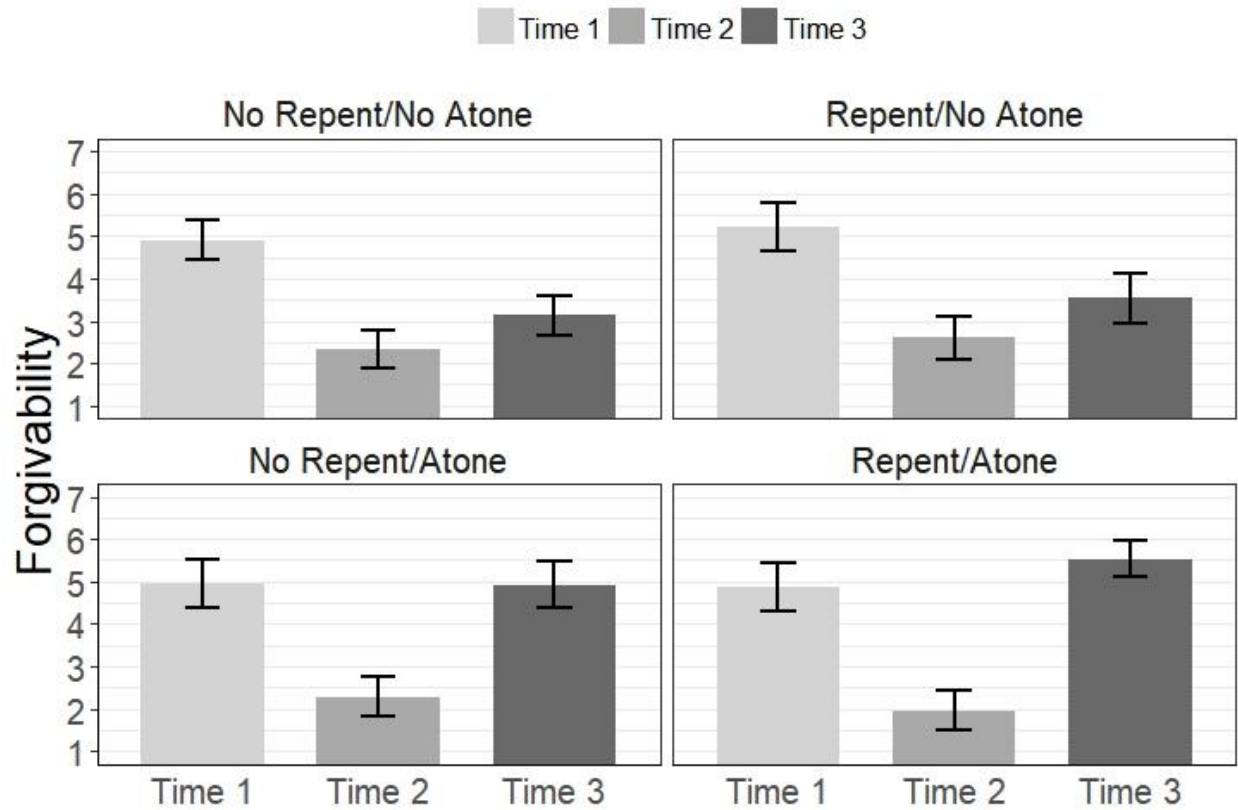


Figure 2. Forgivability across time in Experiment 4. Error bars are 95% confidence intervals.

Consistent with H4a, only atonement was associated with restoration of forgivability back to baseline (i.e., T3 minus T1),  $F = 54.64$ ,  $p < .001$ ,  $CI_{.95} = [1.55, 2.55]$ ,  $d = 1.17$ . Neither repentance ( $p = .153$ ) nor the interaction ( $p = .281$ ) was significant. Examination of cell means using single-sample  $t$ -tests showed that restoration was incomplete in both cells where Casey did not atone,  $ts(37, 38) < -5.01$ ,  $ps < .001$ ,  $ds > 0.81$ . However, supporting H4b, in the No Repent/Atonement condition, the T3–T1 difference scores did not differ from zero,  $t(39) = 0.09$ ,  $p = .928$ ,  $d = 0.01$ , indicating that complete restoration had occurred. Unexpectedly, in the

Repent/Atone cell, there was more than complete restoration: People thought the offender deserved greater forgiveness than when they had no information about his transgression and might have assumed he was genuinely absent from work because of sickness,  $t(40) = 2.47, p = .018, d = 0.39$ . Although speculative, this suggests that unknowingly committing an offense, feeling bad about it, and making up for it display strong moral character to uninvolved observers.

**Mediation.** Prior to testing mediation, we first tested whether atonement impacted the putative mediator, perceived costliness. Both repentance ( $F = 4.83, p = .029, d = 0.28$ ) and atonement ( $F = 126.23, p < .001, d = 1.77$ ) impacted costliness; the interaction was non-significant ( $p = .174$ ). Because costliness was affected by our repentance manipulation, we considered examining whether it might statistically mediate the effects of repentance on forgivability but did not test this for two reasons. First, this effect was unpredicted and lacked theoretical basis, making explanation of any statistically significant effect necessarily post-hoc and speculative. Second, absent atonement, repentance should not affect costliness because no effort was expended to help the victim in the No Atone cells. Confirming this, the simple effect of repentance on costliness when atonement was absent was not significant,  $t(75) = 0.78, p = .438$ . On the other hand, the simple effects of atonement on costliness were significant at both levels of repentance,  $ts(77) > 6.64, ps < .001$ . Thus, the main effect of repentance likely reflects a slight boost in perceived costliness when the offender not only expended effort but did so because he felt bad about causing harm. Given these findings, mediation tests focused solely on explaining the effects of the atonement manipulation on perceived forgivability.

Costliness was correlated with T3 forgivability and restitution ( $rs = .61$  and  $.79, ps < .001$ ), making mediation of atonement on forgiveness through costliness possible. Because restitution conceptually represents perceptions that the offender *performed* a concrete action

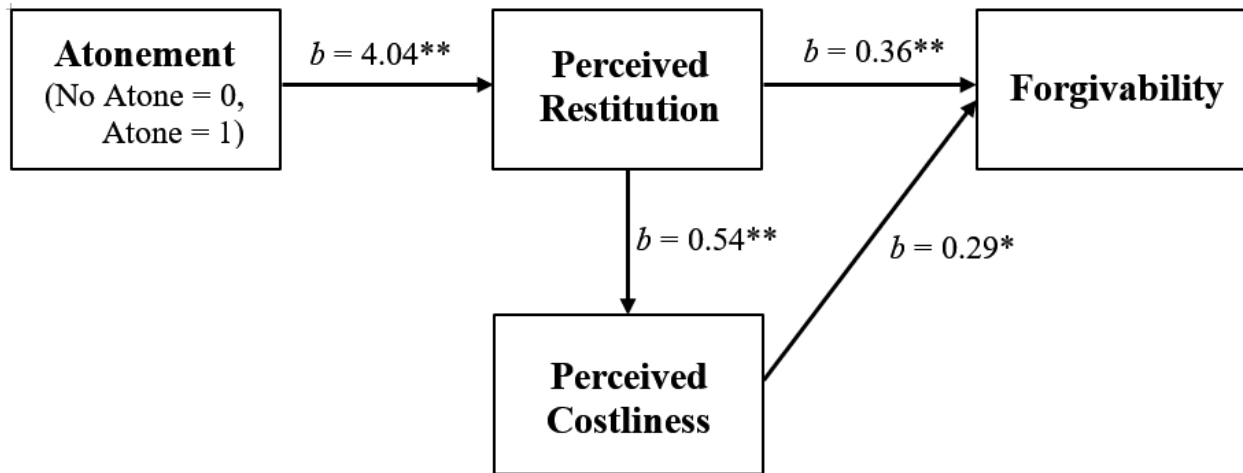
aimed at making amends, and costliness conceptually represents *the extent to which this action was effortful*, we tested a model with atonement (No Atone = 0; Atone = 1) as an exogenous predictor of restitution, costliness, and forgiveness, and restitution as an endogenous predictor of costliness and forgiveness, with costliness also predicting forgiveness. In this model (10,000 bootstrap resamples), atonement predicted restitution ( $p < .001$ ), but its direct effect on costliness ( $p = .523$ ) and forgiveness ( $p = .219$ ) were not significant. Restitution predicted both costliness ( $p < .001$ ) and forgiveness ( $p < .001$ ), and costliness predicted forgiveness ( $p = .001$ ). The indirect effects of atonement on forgiveness through restitution alone ( $p = .001$ ), and through restitution and costliness ( $p = .037$ ), were both significant. Thus, atonement worked to influence forgiveness by increasing perceptions that the offender tried to “make things right.” When perceivers saw this action as more costly, forgiveness was further increased.

To determine whether this model adequately fit the data, the non-significant direct paths from atonement to costliness and forgiveness were removed, and the model was re-estimated. This model fit the data well,  $\chi^2(2) = 2.61$ ,  $p = .272$ , CFI = 0.99, RMSEA = 0.04,  $p\text{-close} = .402$ . All direct effects were significant ( $ps < .001$ ; except costliness  $\rightarrow$  forgiveness,  $p = .018$ ). Confirming H5, the indirect effect of atonement on forgiveness through restitution was significant ( $b = 1.44$ ,  $CI_{95} = 0.78, 2.12$ ,  $p < .001$ ) as was the path through restitution and costliness ( $b = 0.64$ ,  $CI_{95} = 0.09, 1.18$ ,  $p = .023$ ; see Figure 3 for all direct path coefficients).

## Discussion

The three-part design of Experiment 4 allowed a novel and straightforward examination of the process of assigning forgiveness as information unfolded. For example, when participants learned of the transgression in Part 2, forgiveness significantly decreased below baseline. In addition, we demonstrated how repentance and atonement promoted recovery from damage

associated with a transgression, and further highlighted the unique role atonement plays in promoting full restoration to baseline forgivability. Finally, Experiment 4 demonstrated that efforts aimed at repair, particularly when costly, help explain how atonement can impact U3PF. This suggests that third party observers are attentive to the social signals displayed by offenders even when personal motives for reconciliations are absent.



*Figure 3.* Indirect effects of Atonement on perceived costliness and forgivability via restitution in Experiment 4. Coefficients are unstandardized.  $^*p < .05$ .  $^{**}p < .001$ .

## **CHAPTER 6**

### **GENERAL DISCUSSION**

#### **Theoretical Contributions**

When blameworthy transgressions occur, what offenders feel and do afterwards influences whether they will be forgiven. This is true not only for victims and their close others but also for uninvolved third parties who, despite not being harmed, may have tainted perceptions of offenders. The current research showed that repentance and atonement uniquely increase forgiveness by such observers and that atonement, but not repentance, fully restores offenders' forgivability to pre-transgression levels. Unlike previous forgiveness research on victims and involved parties, the current work on U3PF tested the effects of repentance and atonement independent of motivational concerns for reconciliation. By examining forgiveness from this disinterested perspective, we extend prior research and demonstrate that offenders' post-transgression attitudes and actions can transform negative judgments into positive responses, resulting in forgiveness from uninvolved third parties who have little reason to care.

A second novel contribution we provide regards disentangling repentance from atonement and demonstrating the independent effects of offenders' internal remorse and external behaviors aimed at restitution—both of which are implied in apology—on forgivability. Separating these concepts is a useful endeavor that should spur further research. People can apologize without ever repenting (Ohtsubo et al., 2012) or deceptively express remorse to reduce punishment (Hogue & Peebles, 1997). Similarly, people can repent without apologizing or informing anyone about their mental states, and behaviors aimed at restitution can exist with or without apology or repentance. By empirically isolating the three concepts, the current work

contributes to a clearer understanding of how, why, and what parts of apology function to promote forgiveness.

## **Summary**

Four studies involving different categories of harm and varying victim-offender relationships found converging evidence that repentance and atonement individually influence perceived forgivability. In Experiment 1, observers perceived that a TA who communicated repentance was more forgivable than a non-repentant one. This effect emerged even though the context of the vignette was arguably not relevant to our non-student sample. In Experiment 2, a supervisor was forgiven more when she tried but failed to make up for her oversight relative to one who did not attempt to atone. Experiment 2, therefore, effectively isolated atonement from the positive outcomes typically associated with attempts at restitution, demonstrating the robust connection between actions directed at “making things right” and forgivability. Experiment 3 simultaneously manipulated repentance and atonement, replicated the results of Experiments 1 and 2 and extended them to a situation with equal power status between the parties. Experiment 3 also involved severe physical harm, and offender remorse was not communicated to the victim; even so, the predicted effects emerged. The effect sizes in Experiments 1-3 also confirmed that U3PF relied more strongly on atonement than repentance. Experiment 4 further demonstrated that both repentance and atonement facilitate recovery from negative judgments associated with a transgression. Moreover, Experiment 4 provided evidence that full restoration relies on atonement, and perceived costliness associated with restitution helps mediate the effect of atonement on U3PF. Together, these results suggest that offenders’ post-transgression mental states and behaviors influence perceived forgivability and that concrete behavior aimed at repair



can fully redeem offenders from the taint of transgression, even in the eyes of dispassionate observers.

### **Limitations and Future Directions**

Limitations to the present research should be noted. First, each experiment used hypothetical vignettes to describe unintended transgressions. Vignettes allowed us to control the information people received about post-transgression attitudes, behaviors, and outcomes and is similar to how perceivers might receive information in real contexts. However, the experimental setting might have generated responses that differ from how third-party evaluations naturally occur in real-life contexts. Second, the current research relied on self-reported measures. Although social desirability may not be as critical as it is for the role of victims (Risen & Gilovich, 2007), using behavioral or physio-neurological responses could complement our conclusions. Third, repentance and atonement may influence perceived forgivability differently in other cultural contexts. Because participants in the current experiments were all U.S. residents recruited online, further research would be needed to test whether our findings would replicate in non-Western populations. We have no reason to believe that the results depend on other characteristics of the participants, materials, or context.

Several areas for future research seem promising. Our research has focused on third-party perceptions of offenders; however, how victims react to the offenders' repentance and atonement is also valuable information for perceivers in evaluating future cooperation partners. For example, the third-party deterrence hypothesis is predicated on the idea that observers are attentive to the retaliatory capability of victims and adjust their course of actions accordingly (dos Santos et al., 2011). Thus, future work might contrast how offenders' post-transgression actions influence third-party perceptions of forgiving and unforgiving victims.

In addition, future U3PF research should address how forgivability may be influenced by the degree and type of actions aimed at atonement, as well as offenders' motives for atonement. Just as some types of apologies (e.g., coerced, self-interested) are negatively associated with forgiveness (Skarlicki, Folger, & Gee, 2004; Zechmeister et al., 2004), perhaps, effective atonement requires voluntary action or self-sacrifice. Experiment 4 provided supporting evidence for the role of perceived costliness in facilitating U3PF; thus, examining the net cost incurred by the atoning agent in light of potential or actual benefits is worth considering. Although smaller offers of penance might be equally as effective as larger offers for victims (Bottom et al., 2002), uninvolved third parties may be more attentive to the cost offenders are willing to incur to reestablish cooperation.

Finally, another important question concerns the mental states motivating actions that result in harm. Here, all experiments investigated repentance and atonement for unintended harms. Will repentance and atonement affect U3PF for foreseen, reckless, or intended transgressions? Given that blame is highest when harms are intended (e.g., Malle et al., 2014) and criminal justice intuitions regarding rehabilitation rely more on perceptions of the criminal than the crime (Petersen et al., 2010), full restoration, if possible in such cases, may require not only attempts at reparation but a substantial contribution to the welfare of the victims and their community.

The current research has not answered all of these questions, but it has provided important initial steps in distinguishing the roles of mental states from observable reparative actions and in showing how these factors influence forgivability in disinterested contexts. Examining third party forgiveness can contribute to our understanding of person perception processes that require some degree of objectivity, such as decisions made in criminal justice

contexts. In similar ways that people forgive those who trespass against them, so do uninvolved perceivers forgive the sins of unknown others.

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## APPENDIX A: EXPERIMENT 1 STIMULI

In Experiment 1, participants read the vignette described below and then were randomly assigned to see either the “No Repent” or “Repent” email from the Teaching Assistant (TA).

Jamie is a senior in college this year. Jamie has been working diligently in all of her classes, but especially in statistics because this class is required for her degree. Even though Jaime reviewed her notes and studied hard, she ended up getting a failing grade on the final exam. She found out that she needed a few more points to receive a passing grade. So Jaime decided to take advantage of an extra credit assignment that would boost her grade, enabling her to graduate on time. Two weeks went by after she submitted this assignment and then Jaime got the following email message from the graduate teaching assistant for her class.

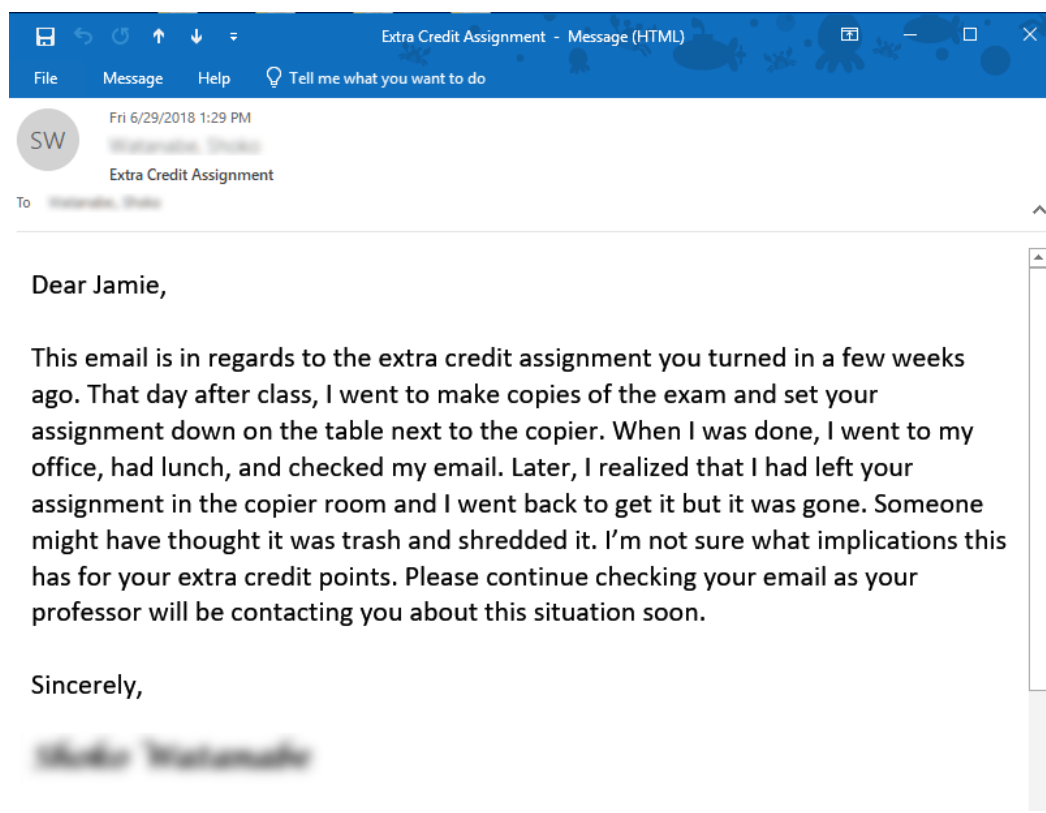
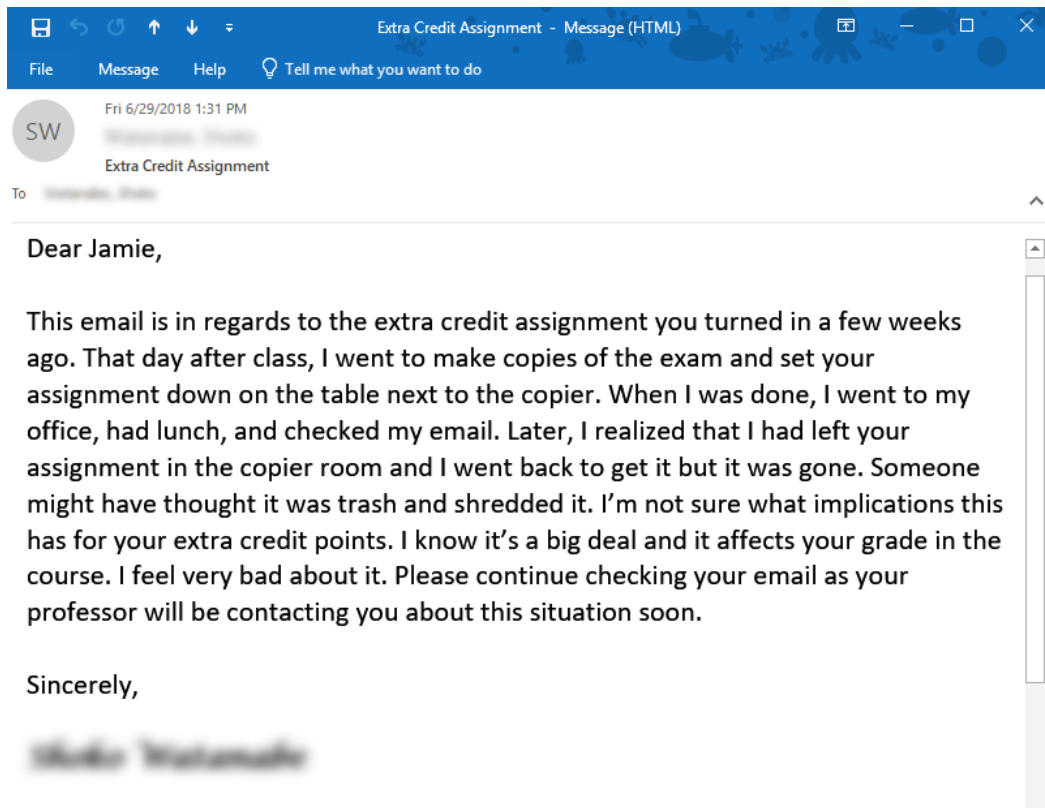


Figure 4. The TA’s email in the No Repent condition in Experiment 1.



*Figure 5.* The TA's email in the Repent condition in Experiment 1.

## APPENDIX B: EXPERIMENT 2 STIMULI

In Experiment 2, participants read the following scenario and then were randomly assigned to read either the “No Atone” or “Atone” version of Part 2.

### Part 1

Maya has been working as a loan specialist in a bank for 3 years. She is very good at her job, consistently receiving positive feedback from her clients on customer surveys. Over the last 3 years, Maya has also won multiple employee of the month awards, and all of her coworkers respect her very much. When Maya recently learned that the bank was opening a new location and was looking for an assistant branch manager, she decided to apply for the position. Maya’s supervisor, Kayce, agreed to write her a letter of recommendation for the position. Maya was very nervous about the result, but her coworkers assured her that she was perfectly qualified for the position and that she would most likely get the promotion.

A week after the deadline for her application, Maya received an email stating that although her qualifications were extraordinary, her application for the assistant branch manager position was rejected because she did not have a letter of recommendation from her supervisor. Evidently, Kayce had missed the deadline for Maya’s application and as a result, Maya was not being considered for the position. Maya was very disappointed. However, she decided not to approach Kayce about it, not knowing whether she had changed her mind, assuming that it was too late to change anything now anyway, and not wanting to create any friction at work.

### Part 2

When a coworker noticed that Maya seemed to be feeling down, Maya first said it was nothing and not to worry. The coworker then asked whether she had gotten the assistant branch manager position she was applying for. At this point, Maya decided to tell her what had happened. Afterwards, Maya asked the coworker to keep it to herself because she didn’t want to start any trouble with Kayce, who might have had her own reasons for not submitting the letter. Although the coworker said she would keep quiet, she decided to say something to Kayce the next day. Kayce seemed a little annoyed when she responded, “I thought I had sent it out, but I must have overlooked it.”

**No Atone.** That afternoon, Kayce was in an unrelated lunch meeting with Gina, the head of the hiring committee in charge of finding the assistant branch manager. During their conversation, Kayce asked her if the position Maya applied for had been filled yet. Gina said that two finalists had been chosen but no offer had yet been made. *Kayce mentioned that she thought Maya would have been a good candidate if the committee had received all of her materials on time. Gina agreed that Maya would have been a good candidate because of her qualifications, but mentioned that it was past the deadline. Kayce said she understood. She did not ask Gina to accept her letter late, and consequently, the assistant branch manager position was offered to one of the other candidates.*

**Atone.** That afternoon, Kayce was in an unrelated lunch meeting with Gina, the head of the hiring committee in charge of finding the assistant branch manager. During their conversation, Kayce asked her if the position Maya applied for had been filled yet. Gina said that two finalists had been chosen but no offer had yet been made. *Kayce, then, explained her oversight in failing to send her letter, and asked if the committee would be willing to accept it late so they could still consider Maya for the job. Gina mentioned that it was past the deadline and she would ordinarily say no, but then reluctantly agreed as a favor to Kayce. Maya's application was reviewed by the committee, but ultimately, the assistant branch manager position was offered to one of the other candidates.*

## APPENDIX C: EXPERIMENT 3 STIMULI

In Experiment 3, participants read the following scenario and then were randomly assigned to read either the “No Repent” or “Repent” version of Part 1’s ending, followed by either the “No Atone” or “Atone” version of Part 2.

### Part 1

Jesse, a college student, was riding his bike home in a rainstorm after studying for an upcoming final exam at the library. As he was about to cross an intersection where he had the right-of-way, he saw a car approaching from the side road, moving too fast for the road conditions. Jesse heard the tires of the car skidding but realized in a split second that the driver probably would not be able to stop in time. He tried to pedal faster to avoid being hit, but it didn’t work. As the car was coming to a stop, the front bumper hit his rear tire, knocking Jesse off from his bike onto the ground. The driver got out.

“Dude, are you OK? In the rain, I didn’t see the stop sign, and didn’t even know you were there until I hit your bike,” explained the driver, nervously. Jesse got up slowly, grunting in pain and still feeling shaken up.

“I think I’m OK. My leg hurts a little, but it’s no big deal.” The driver then asked, “Hey, don’t I know you? I think you’re in my chemistry class. I’m Chris. You ready for the final?”

“Yeah, that’s right,” Jesse said. “I’m Jesse. And yeah, I think I’ll pass.”

“It’s a tough class, for sure,” Chris said. He paused for a moment, then noted, “Your bike doesn’t look too good. The back wheel looks bent.”

“Yeah, I guess it is,” Jesse agreed. “I’ve been meaning to get a new one for a while, anyway,” said Jesse, forcing a smile. “Now, I guess I have an excuse to get rid of this one.”

“Uh, OK,” Chris mumbled. “So...I’ve got to head home and study. Are you sure you’re fine?”

“Yeah. I’ll be OK,” Jesse replied, “I only live like a block from here.”

“OK,” Chris said. “See you in class, then.”

Because neither Jesse nor Chris had been involved in a car accident before, they did not even consider calling the police and filing an accident report. Chris got back into his car and drove away, and Jesse picked up his bike and began walking, limping the whole way home. Later that night, when Jesse’s knee swelled up and got so stiff that he couldn’t walk, Jesse realized he was hurt more than he thought he was. He called a friend who drove him to the hospital. At the hospital, he found out that ligaments in his knee had torn from falling off his bike, requiring immediate surgery.

The next day was the chemistry final. Before class began, Chris overheard another student explaining something to the professor.

“Jesse wanted me to tell you that he won’t be able to take the final exam today,” the student said. “I had to take him to the hospital last night. He ended up needing emergency surgery on his knee.”

“That sounds terrible,” the professor said. “What happened?”

“When he was riding his bike home last night, someone ran a stop sign and ended up knocking him off his bike. He tore some ligaments. The doctor said the surgery went well and he’ll be OK in about a month.”

“All right, thanks for letting me know. Tell Jesse I hope he feels better soon, and let him know he can take the exam when he’s up and around again.”

“Yes, I’ll tell Jesse. I’m sure he’ll be relieved. He was saying how worried he was when I drove him in.”

**No Repent.** Hearing this, Chris didn’t feel particularly bad. He thought to himself, *“I don’t know why he’s blaming me for what happened...who rides their bike home in the rain without any lights or anything? I didn’t even see him. And it’s not my fault I couldn’t stop in time. I tried, but the road was super-slippery. And in any case, I didn’t think he was hurt. I just bumped into him. And the doctor told him he’ll be fine.”* At that point, the professor handed Chris his exam. Chris tried to put what he had heard out of his mind and concentrated on the final.

**Repent.** Hearing this, Chris felt terrible about himself. He thought to himself, *“Poor Jesse. It was my fault this happened, wasn’t it? I mean, I didn’t even see him...he wasn’t using any lights or anything on his bike. Still, Jesse would be here right now if I was driving more carefully. I tried to stop in time, but I just couldn’t. The road was super-slippery! I didn’t think he was hurt. I only bumped into him...but I guess that was all it took.”* At that point, the professor handed Chris his exam. Chris tried to put what he had heard out of his mind and concentrated on the final.

## **Part 2**

That summer, Chris went out to the mall, planning on buying himself a new TV with money he had been saving all year. Chris didn’t think his TV was big enough or that it had high enough resolution, so he really wanted to treat himself to a new top-of-the-line model. Seeing as he had friends over all the time to watch sports and play video games, Chris reasoned to himself that it was almost a necessary investment. On the way to the electronics store, Chris happened to run into Jesse, who was at the mall to visit the bike store to replace his now-useless bicycle.

“Hey Jesse,” Chris called. “I heard in class what happened to you after I left that night. I’m glad to see that you’re doing OK.”



“Thanks,” said Jesse, recognizing Chris. “Yeah, it was a bummer. I thought I was fine when I went home, but I ended up having to get surgery later that night. But luckily, my knee is all healed up now so that feels good after a month of wheelchair and crutches. I’m just glad I can still walk!”

“Yeah, that’s good,” Chris said. “Anyway, what are you up to this summer?”

“The usual,” replied Jesse, “You know, working. Making up class work. And I’m finally getting a new bike to replace the old one.”

**No Atone.** Chris laughed nervously. “I guess that makes sense. *Anyway, I’ve got to head out. See you around.*”

*Jesse replied, “Yeah, see you.”*

*Chris headed off to the electronics store where he shopped around for a while before making his purchase. Jesse went to the bike store and bought a new bike.*

**Atone.** Chris laughed nervously. “I guess that makes sense.” *He paused for a moment and then said, “You know, why don’t you let me buy your bike for you, seeing as I trashed your last one.”*

*Jesse replied, “Really? You don’t have to do that. It’s a lot of money.”*

*Chris said, “Nah, it’s OK.”*

*Jesse said, “I really appreciate that. Thanks!”*

*Chris ended up buying Jesse a new bike with the money he had saved and in the end, Chris didn’t buy the new TV he really wanted.*

## **APPENDIX D: EXPERIMENT 4 STIMULI**

In Experiment 4, participants read a story divided into three parts. Parts 1 and 2 were identical for all participants, and participants were randomly assigned to read a version of Part 3 where the offender either repented/did not repent and either atoned/did not atone.

### **Part 1**

Alex has been working at his new job for a month. Lately, he's been working overtime because his girlfriend's (Riley) birthday is coming up next weekend and he wants to surprise her with concert tickets for her favorite band. When Alex requests the weekend off, his supervisor – who rarely grants new employees time off – agrees because Alex has been working exceptionally hard and because he is giving the manager plenty of advance notice. Alex purchases the concert tickets and is thrilled at the thought of how special Riley will feel on her birthday. On the day of the concert, however, Alex gets a call from his supervisor asking him to come in to work because a co-worker (Casey) who is scheduled to work that day has called in sick. Alex reminds his supervisor about the concert and his girlfriend's birthday, but the supervisor says that none of the other employees can be reached and Alex will have to cover. Despite his desire to celebrate Riley's birthday with her, Alex agrees to work that day, fearing that saying no will lose him his job. Alex still surprises Riley with the concert tickets but explains the situation to her, and suggests that she take a friend instead of him. Although she says she understands and thanks him for the concert tickets, Alex senses a hint of disappointment in her as he leaves for work.

### **Part 2**

Later that night, while waiting for the concert to start, Riley chats with the guy sitting next to her and finds out that he works for the same company as Alex.

“You must have worked really hard to get this day off,” said Riley, “My boyfriend was supposed to be here tonight but unfortunately, he had to work.”

“Actually, I forgot to request the night off, so I ended up calling in sick,” said the guy with a chuckle, “but I love this band and I wouldn't have missed it for the world!”

“I see,” said Riley, “well the show is about to start...it's nice meeting you. What was your name?”

“Nice to meet you too,” he said, smiling. “And my name is Casey.” As it turns out, this person was the same one that Alex covered for at work.

### **Part 3**

The next day, Alex confronted Casey about faking sickness and how Casey spoiled the birthday plans he had with his girlfriend.

**No Repent.** Casey said, *“To be honest, I don’t really feel bad about this. Maybe I should have asked for the night off ahead of time, but you could have said ‘no’ to coming in. I really enjoyed the concert and I don’t regret calling in.”*

**Repent.** Casey looked troubled and said, *“I feel really bad about this. I never even considered that someone would have to cover my shift, but I should have, and should have shown up to work yesterday. I know it doesn’t change what happened, but just so you know, I feel pretty bad about it.”*

\*\*\*

A few weeks later, Alex and Riley were hanging out when Riley smiled and said, “Are you looking forward to our night out tomorrow? I am! Dinner and a movie; it’s been a while.” Alex looked confused when he replied, “Tomorrow? I thought you said next week!” “No, tomorrow,” Riley said. “Remember? The movie is only playing through tomorrow. Last week you said you had requested the night off. I really wanted to see that movie with you.” Alex could tell that Riley was getting upset, and felt upset himself. “I’m so sorry...I must have mixed the date up, and requested the night off for next week.” He hung his head low for a minute, and then raised it slowly, smiling. “I’ve got an idea,” Alex said. “Maybe Casey can cover for me! He totally owes me one after your birthday.” Alex called Casey and explained the problem, asking him if he would cover his shift. “You’d really be helping me out if you could,” added Alex.

**No Atone.** Casey replied that he couldn’t because he had a friend coming in from out of town that night. “We already have plans to just hang out and relax tomorrow,” Casey said. *“I really can’t. My friend is only going to be in town for a few days, so tomorrow really doesn’t work for me. You know how it is.”* Riley was understandably upset, as was Alex, who worked his shift because he needed the job. Riley didn’t want to see the movie alone, so she stayed home that night.

**Atone.** Casey replied that he couldn’t because he had a friend coming in from out of town that night. “We have plans to just hang out and relax,” Casey said, “so tomorrow really doesn’t work.” *At that point, Casey paused, then said, “You know what, though? My friend will be in town for a few days, so I can cover for you. I certainly owe you one.”* Riley was understandably happy, as was Alex. *The next day, Casey covered Alex’s shift as promised, and Alex and Riley went out to dinner and saw the movie. They both had a great time.*

## APPENDIX E: SUPPLEMENTARY MEASURES

For Experiments 3 and 4, in addition to the variables reported in the main text, we also explored whether our manipulations would affect three related variables: moral judgment of the transgressors, desire to punish transgressors, and negative affect. Below, we describe the supplementary measures used in Experiments 3 and 4. Unless otherwise noted, all items were measured with 7-point scales (1=*entirely disagree*, 7=*entirely agree*).

### Moral Judgment

For Experiment 3, moral character was measured with one item (reverse-coded): “Where would you rate Chris on the following scale?” (1=*not a very immoral person*, 7=*a very immoral person*).

For Experiment 4, moral judgments were measured with two items that assessed the extent to which the offender was moral (i.e., moral character) and how moral the offender’s action was (i.e., moral act). Both items were reverse-coded so that higher numbers indicated less immorality: “Where would you rate Casey on the following scale?” (1=*not a very bad person*, 7=*a very bad person*), and “How do you view what Casey did? Casey calling in sick to work was...” (1=*not at all bad*, 7=*very bad*). The moral judgment items were presented at Time 1, Time 2, and Time 3 following the forgivability items. The two items at each time point were aggregated into a single measure of moral judgment.

### Desire to Punish

In Experiment 3, desire to punish was measured with two items: “Chris deserves to be punished,” and “How much punishment does Chris deserve for what he did?” (1=*none at all*, 7=*quite a lot*).

In Experiment 4, three items measured desire to punish: “If I were the supervisor and found out what Casey did, I would punish him for it,” “Casey should have to pay for calling in sick and making Alex have to work,” and “Casey deserves punishment for messing up Alex’s plans for his girlfriend’s birthday.”

### Negative Affect

For Experiments 3-4, negative affect was measured with two items: “[Chris’s/Casey’s] behavior makes me angry,” and “reading this story made me mad.”

## APPENDIX F: ADDITIONAL SAMPLE DEMOGRAPHIC INFORMATION

We collected additional demographic information for each experiment. After completing primary measures in each experiment, participants provided demographic information in addition to those reported in the main text, summarized in Table 3. For the majority of participants, English was their native language. Religious backgrounds were mixed; responses to two questions, “How religious are you?” (1=*not at all religious*, 7=*very religious*) and “How important is religion to you in your everyday life?” (1=*not at all important*, 7=*extremely important*) were aggregated as a measure of religiosity. Ideologically, the sample was diverse in response to the question: “Where would you place yourself on the following ideological spectrum?” (1=*extremely liberal*, 4=*middle of the road*, 7=*extremely conservative*).

Table 3. Additional demographics (Experiments 1 to 4)

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
English Native	97.3%	95.5%	97.2%	98.1%
Political Orientation				
<i>M</i> and <i>SD</i>	3.51 (1.79)	3.45 (1.78)	3.48 (1.81)	3.45 (1.85)
Religiosity				
Reliability ( <i>r</i> )	.96	.92	.93	.95
<i>M</i> and <i>SD</i>	3.37 (2.25)	3.28 (2.28)	2.98 (2.16)	2.81 (2.14)
Religion				
Atheism	11.2%	15.3%	17.0%	22.8%
Agnosticism	15.5%	7.2%	12.1%	17.1%
Buddhism	2.1%	3.6%	3.5%	0.6%
Christianity	50.8%	54.1%	45.4%	43.0%
Hinduism	1.1%	0.0%	1.4%	3.2%
Judaism	2.7%	0.9%	2.8%	1.3%
Islam	0.0%	0.0%	1.4%	0.6%
Other	16.6%	18.9%	16.4%	11.4%

## APPENDIX G: SUPPLEMENTARY RESULTS AND ANALYSES

Here, we report additional results and analyses that provide converging evidence and serve to supplement the primary findings presented in the main text. Below, we present the summary statistics on the supplementary variables and report analyses of supplementary measures for Experiments 3-4.

### Experiment 3 Results

Table 4. Experiment 3 means, standard deviations, and reliabilities for supplementary measures.

Measures	$\alpha/r$	No Repent		Repent	
		No Atone	Atone	No Atone	Atone
		$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$
Moral Judgment	-	2.75 (1.55)	4.18 (1.32)	3.66 (1.66)	3.94 (1.65)
Desire to Punish	.80	4.98 (1.49)	3.40 (1.58)	4.71 (1.43)	3.13 (1.31)
Negative Affect	.81	5.41 (1.53)	3.68 (1.68)	4.93 (1.56)	2.85 (1.62)
N		32	40	38	31

Table 5. Experiment 3 results for supplementary measures.

Measures	$F(1, 137)$	$p$	$d/(\eta_p^2)$
Moral Character			
Repent	1.63	.203	0.15
Atone	10.60	.001	0.53
Repent $\times$ Atone	4.82	.030	(0.03)
Desire to Punish			
Repent	1.21	.273	0.06
Atone	40.86	< .001	1.07
Repent $\times$ Atone	0.00	.995	(0.00)
Negative Affect			
Repent	5.68	.019	0.24
Atone	49.41	< .001	1.13
Repent $\times$ Atone	0.41	.522	(0.00)

## Experiment 4 Results

Table 6. Experiment 4 means, standard deviations, and reliabilities for supplementary measures.

Measures	$\alpha/r$	No Repent		Repent	
		No Atone	Atone	No Atone	Atone
		$M (SD)$	$M (SD)$	$M (SD)$	$M (SD)$
Time 1 Moral Judgment	.81	4.71 (1.32)	4.74 (1.68)	5.00 (1.54)	4.77 (1.85)
Time 2 Moral Judgment	.69	2.32 (0.87)	2.16 (1.11)	2.42 (1.26)	1.89 (1.15)
Time 3 Moral Judgment	.57	2.06 (0.85)	3.26 (1.21)	2.57 (1.41)	3.77 (1.18)
Desire to Punish	.86	5.27 (1.02)	4.83 (1.41)	5.20 (1.44)	4.33 (1.70)
Negative Affect	.79	5.32 (1.26)	5.00 (1.41)	5.04 (1.79)	4.65 (1.57)
N		39	40	38	41

Table 7. Experiment 4 results for supplementary measures.

Measures	$F (1, 154)$	$p$	$d/(\eta_p^2)$
Time 3 Moral Judgment			
Repent	7.23	.008	0.39
Atone	41.08	<.001	1.01
Repent $\times$ Atone	0.00	.991	(0.00)
Moral Recovery (Time 3–Time 2)			
Repent	12.40	.001	0.47
Atone	85.14	<.001	1.42
Repent $\times$ Atone	1.27	.262	(0.01)
Moral Restoration (Time 3–Time 1)			
Repent	1.54	.216	0.20
Atone	22.43	<.001	0.76
Repent $\times$ Atone	0.24	0.626	(0.02)
Desire to Punish			
Repent	1.60	.207	0.21
Atone	8.40	.004	0.46
Repent $\times$ Atone	0.90	.344	(0.01)
Negative Affect			
Repent	1.72	.191	0.21
Atone	2.18	.142	0.24
Repent $\times$ Atone	0.02	.881	(0.00)