



Feeling Bad and Doing Good

Forgivability Through the Lens of Uninvolved Third Parties

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Abstract: Previous forgiveness research has mostly focused on victims' forgiveness of transgressors, and offenders' post-transgression efforts intended to promote victim forgiveness 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 determining forgivability of offenders, despite their preeminence in theology and law, have received little empirical attention. Across five experiments ($N = 938$), we show that repentance and atonement independently influence third-party perception of forgivability for a variety of harms, even in disinterested contexts. Our findings provide a systematic examination of decisions about forgivability disentangled from direct personal involvement, demonstrating that components of apology known to facilitate forgiveness in victims also increase perceived forgivability from unharmed observers.

Keywords: third-party, forgivability, repentance, atonement, moral judgment, cooperation

Forgiveness among relatives and friends is commonly depicted in classical and modern literature (e.g., *King Lear*, *The Brothers Karamazov*). Religious scholars and contemporary psychologists have also widely investigated forgiveness. For victims and transgressors, forgiveness helps repair damaged relationships, but people also evaluate whether strangers who have harmed other strangers deserve forgiveness. This question of *perceived forgivability* permeates distance and time. Upon hearing about school shootings, hate crimes, or international conflicts, perceivers outside of harmed communities ponder, even generations later, whether offenders deserve forgiveness. *One Love Manchester*, for example, attracted worldwide support – reminding us that even when revenge and punishment seem adaptive, third parties desire 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, empirical evidence has demonstrated when and why victims forgive transgressors, including physiological and social benefits of forgiveness (e.g., Harris & Thoresen, 2005; Lawler et al., 2003; Witvliet, Ludwig, & Vander Laan, 2001). However, disinterested third-party observers also make moral judgments about interpersonal transgressions despite having no personal connections to victims or offenders. For example, people experience negative emotions (e.g., moral outrage) even when they are not directly or indirectly victimized (Montada & Schneider, 1989;

Skarlicki, Ellard, & Kelln, 1998). Third parties even boycott or protest against offenders in response to mistreatment of others (e.g., #MeToo). Despite detachment from immediate harm, strong negative reactions may have unhealthy consequences for third parties' well-being, just as ruminating or grudge-holding deleteriously affects victims (Witvliet et al., 2001). Given how transgressions have impacts beyond victim-transgressor dyads, understanding how third parties evaluate whether offenders should be forgiven (rather than punished) is an understudied topic of research.

Apology, remorse, and restitution are post-transgression factors that facilitate forgiveness (e.g., McCullough et al., 1998; Zechmeister, Garcia, Romero, & Vas, 2004) and can have positive effects on victims. In victim-transgressor dyads, decisions to forgive hinge on future exploitation risk and offenders' relationship value. Offenders who successfully display relational commitment (e.g., conciliatory behavior) and reduce the perceived likelihood of future threat (e.g., sincere apology) attain forgiveness (McCullough, Kurzban, & Tabak, 2013). Yet, little is known about whether these gestures – which provide no direct benefit for third parties – also influence uninvolved observers' forgivability judgments.¹ When relational value and future harm are not at stake, can post-transgression offender efforts such as repentance and atonement still restore their damaged reputations? Using a person-perception approach, we examine whether offenders' post-transgression attitudes (e.g., repentance) and actions (e.g., atonement) impact uninvolved third parties' perceptions of forgivability – the

¹ We acknowledge that transgressions may affect third parties symbolically (Okimoto & Wenzel, 2008). Thus, the term “uninvolved third party” references observers not personally known to victims or transgressors.

extent to which third parties believe forgiveness is deserved.

Third-Party “Forgiveness” Versus “Forgivability”

Most past interpersonal forgiveness research has concentrated on victim-transgressor dyads (e.g., Boon & Sulsky, 1997; McCullough et al., 1998; McCullough, Worthington, & Rachal, 1997). One exception is third-party forgiveness research where offenders seek forgiveness from victims’ family members or communities. Learning that someone close has been harmed can be painful; indeed, friends and relatives of victims are less forgiving than victims, despite not being directly harmed (Green, Burnette, & Davis, 2008). Yet, judgments regarding deservingness of forgiveness are sometimes made by people unconnected to transgressions. For example, people evaluate the behavior of athletes (e.g., Lance Armstrong), actors (e.g., Kevin Spacey), politicians (e.g., Bill Clinton), and criminals (e.g., mass-shooters) and decide whether these people deserve forgiveness for their (alleged) misdeeds.

Unlike victims and their close others, unharmed parties arguably lack “standing” to grant forgiveness. Nonetheless, third parties’ decisions regarding forgivability can have real-world consequences for transgressors (e.g., loss of sponsorships and television deals, impeachment, and death sentences vs. life imprisonment). We refer to this impersonal judgment as *forgivability* – the extent to which an offender deserves forgiveness – to distinguish it from *forgiveness*, which denotes a personal decision to forgive an offender. This distinction also applies to victims, who may choose to forgive despite believing that offenders are undeserving of their forgiveness. However, deserved forgiveness (i.e., when transgressors apologize or make amends) is understandably more beneficial for victims than undeserved forgiveness (Strelan, McKee, & Feather, 2016).

When transgressions occur, third parties likely evaluate whether or not offenders *should be* forgiven or punished. Whereas personally unharmed third parties can and do punish offenders even in anonymous interactions (Fehr & Fischbacher, 2004; Henrich, Ensminger, et al., 2010), actually *forgiving* offenders may not be a relevant concept for unharmed third parties. Relatedly, offenders might be instrumentally punished for deterrence yet be seen as deserving forgiveness, or retributively punished while remaining unforgiven. Despite conceptual differences, studies of perceived *forgivability* have been surprisingly neglected in the field, and gaining insight into how uninvolved third parties decide whether forgiveness is deserved is informative beyond what we know about punishment and forgiveness from victims.

Unlike victims and their close others, post-transgression apologies or compensation provide no apparent benefit to unharmed observers. Although forgiveness depends on desire for reconciliation, costs of retaliation, and avoiding further harm for involved parties (McCullough et al., 2013), uninvolved parties should be less concerned with these issues. On what basis, then, will third-party observers decide that offenders deserve forgiveness? Apart from work on public confession (Cerulo & Ruane, 2014; Gold & Weiner, 2000; Weiner, Graham, Peter, & Zmuidinas, 1991) and victim-observer asymmetries in discriminating apology sincerity (Hashimoto & Karasawa, 2012, 2016; Risen & Gilovich, 2007), no studies to our knowledge have tackled this subject.

Exploring third-party perceptions of forgivability allows a clear view of how people think about forgiveness when no reconciliation concerns exist (Fincham, Paleari, & Regalia, 2002; Finkel, Rusbult, Kumashiro, & Hannon, 2002). Without personal revenge motivation, unharmed observers may perceive offenders who display remorse and/or offer restitution to victims as worthy future cooperation partners who deserve rehabilitation instead of punishment (Petersen, Sell, Tooby, & Cosmides, 2012). 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 observers seeking to build cooperation. Pointing to third-parties’ sensitivity to post-transgression offender efforts, Gromet and Okimoto (2014) found that organizational peers preferred to work with forgiving victims (i.e., who accepted offender amends) more than unforgiving victims. Considering that repentance and atonement directly benefit involved parties in achieving reconciliation and that deserved forgiveness results in improved well-being of victims (Strelan et al., 2016), we argue that the same factors help transform third parties’ negative perceptions of offenders into positive beliefs that they should be forgiven.

Repentance and Atonement

Repentance and atonement often co-occur with apology, a topic that has been studied alongside forgiveness (e.g., Carlisle et al., 2012; Darby & Schlenker, 1982). Positive effects of apology on forgiveness are found for 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., Ohbuchi, Kameda, & Agarie, 1989), and economic games (e.g., Fischbacher & Utikal, 2013; Ho, 2012). Despite links between apology and forgiveness, one limitation is

that conceptualizations of apology have varied considerably across studies (see Lewicki, Polin, & Lount, 2016 for a review). Thus, rather than introducing another definition, we focus directly on repentance and atonement – two components of apology that reflect offenders' post-transgression mental states and observable behavior.

Although these variables have conceptual overlap, crucial differences exist between feeling bad about one's actions (i.e., repentance) and efforts to make amends (i.e., atonement). Repentance is operationalized here as negative emotions like regret, guilt, and remorse that are associated with offender acknowledgment of responsibility for a transgression (Eaton, Struthers, & Santelli, 2006; Schlenker & Darby, 1981). On the other hand, we operationalize atonement as offenders' concrete actions directed toward improving victims' well-being, encompassing behavioral *attempts* to "make things right" and *consequences* of such efforts that result in restitution/compensation. In sum, we use the terms repentance and atonement to represent divergent forms of post-transgression offender efforts that have been uniformly referred to as "apology" in past work. By treating these components of apology as distinct, we examine the unique contributions of each in increasing perceived forgiveness.

Evidence indicates that repentance leads to forgiveness by validating victims and dissipating self-threat arising from devaluation caused by a transgression (Eaton et al., 2006; Scobie & Scobie, 1998). As such, conveying the lack of intention to impose further harm through repentance may function as an impression management strategy (Darby & Schlenker, 1982; Ohbuchi et al., 1989). Alternatively, repentance may have diminished value for third parties because they do not directly experience threat. Thus, we hypothesize that repentance will have a weak yet positive effect on forgiveness.

Atonement 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 typically results in favorable outcomes for victims. However, victims value costly apologies even absent 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, can rebuild cooperation (Boehm, 1987; Bottom, Gibson, Daniels, & Murnighan, 2002; de Waal, 1989). Although atonement provides no material or emotional benefit for uninvolved observers, it signifies offenders' commitment to the well-being of others (McCullough et al., 2013) and

symbolically redresses the values violated by the offense (Okimoto & Wenzel, 2008). Therefore, we hypothesize that atonement will have a strong positive effect on forgiveness.

The Current Research

Five experiments, using a variety of harms and relationships between victims and transgressors, tested the hypothesis that repentance and atonement independently increase forgiveness. Experiment 1 examined whether communicating repentance would increase forgiveness. Experiment 2 investigated the effects of atoning behavior on forgiveness. Experiment 3's transgression featured a physical harm and manipulated both repentance and atonement. Experiment 4 used a repeated-measures design allowing us to track how forgiveness unfolded across an event and tested whether costliness of restitution mediated the effect of atonement on forgiveness. Experiment 5 compared how victims, involved others, and uninvolved third parties perceive forgiveness as a function of repentance and atonement.

General Method: Participants

We report how we determined sample size, all data exclusions, manipulations, and measures used. Study 1's sample size was determined based on a pilot study reported in the Electronic Supplementary Material (ESM 1). In Studies 2–5, sample sizes were based on the criterion of having 80% power ($\alpha = .05$) to detect medium-sized effects ($d = 0.50$). Participants were excluded from analyses for unusually short reading times or incorrectly responding to attention check items.² Final sample sizes were $n = 191$ (Experiment 1), $n = 111$ (Experiment 2), $n = 141$ (Experiment 3), $n = 158$ (Experiment 4), and $n = 337$ (Experiment 5). All experiments were between-participants with random assignment to conditions. 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 with above 97% HIT approval ratings. Table 1 lists demographic information for all studies. Additional demographics are reported in the ESM 1 (Table S1).

² In Experiment 4, two participants with incomplete responses and 13 participants who had participated in a pilot study were excluded. For all studies, analyses retaining all participants did not differ substantively from those reported, except the effect of repentance on T2 forgiveness in Experiment 4 did not reach significance, and its effect on recovery was marginally significant (see Table S7 in ESM 1).

Table 1. Demographics (Experiments 1–5)

	Experiment 1	Experiment 2	Experiment 3	Experiment 4	Experiment 5
Final sample size	191	111	141	158	337
Exclusion					
Short reading time	11	3	0	6	4
Attention check miss	17	9	4	7	19
Gender (% female)	46.6%	48.6%	57.4%	43.0%	43.6%
Age (<i>M</i> and <i>SD</i>)	35.97 (12.05)	38.86 (12.92)	38.28 (13.35)	36.41 (10.45)	37.33 (11.14)
Ethnicity					
Asian American	12.3%	7.2%	6.4%	8.9%	6.5%
African American	8.0%	5.4%	4.3%	4.4%	9.2%
Hispanic/Latino(a)	4.8%	7.2%	10.6%	5.1%	6.2%
European American	70.1%	78.4%	75.2%	79.1%	75.1%
Other	4.8%	1.8%	3.5%	2.5%	3.0%

Experiment 1

Experiment 1 tested whether expressing remorse to a victim (i.e., repentance) versus not doing so would influence forgiveness. Although remorse and apology naturally co-occur, to isolate the effects of repentance from verbal apology, Experiment 1 tested whether an offender's communication of remorse can facilitate forgiveness without an explicit statement of "I'm sorry." We hypothesized that forgiveness would be higher for a repentant offender than a non-repentant offender.

Method

Procedure

All vignettes are available in the ESM 1. Participants read about a senior in college who was failing a required course and submitted an extra-credit assignment that was then lost by a teaching assistant (TA). Participants read about a senior in college who was failing a required course and submitted an extra-credit assignment that was then lost by a teaching assistant (TA). Participants then read one of two email responses from the TA. 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, writing, "I feel very bad about it." Participants then responded to dependent measures. Unless noted, all items in all experiments 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 existing forgiveness measures (McCullough & Hoyt, 2002; Rye et al., 2001) measured forgiveness: "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 verbal apology or atonement from the repentance manipulation, we asked two binary-response questions: "Did the TA..." "apologize to Jamie for losing her assignment?" and "make amends to atone for losing Jamie's assignment?" One 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, forgiveness was higher in the Repent condition ($M = 4.33$, $SD = 1.34$) than in the No-Repent condition ($M = 3.82$, $SD = 1.53$), $t(189) = 2.43$, $p = .016$, $CI_{.95} = [0.10, 0.92]$,³ $d = 0.35$, showing that repentance promoted a belief among observers 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 forgiveness was due to condition-based differences in perceived severity of the offense.⁴ When asked whether

³ CIs represent lower and upper bounds of the difference between means.

⁴ Due to a technical error, *df* for offense severity was 179 because responses from 10 participants to the transgression severity item were not recorded.

the TA apologized, significantly more participants in the Repent condition (74.4%) relative to the No-Repent condition (29.9%) responded “yes,” $\chi^2(1) = 35.32, p < .001$. However, the proportions of participants indicating that the TA atoned (Repent: 13.3%; No-Repent: 14.4%) were similar, $\chi^2(1) = 0.00, p = .996$. Experiment 1 showed that repentance promotes forgiveness. Additionally, although the TA’s email did not contain explicit verbal apology, people inferred apology (but not atonement) from expression of repentance, suggesting that uninvolved third parties differentiate repentance from atonement.

Experiment 2

Experiment 2 explored the role of post-transgression behavior directed toward alleviating the consequences of an offense (i.e., atonement) on forgiveness. We believe that concrete actions aimed at repair are what primarily influence forgiveness rather than outcome differences that naturally result from these actions. Experiment 2 tested this idea by manipulating an agent’s attempt to atone while holding constant the negative outcome resulting from the transgression. We hypothesized that participants would view an offender who tries but fails to atone as more deserving of forgiveness than an offender who does not attempt to make amends.

Method

Procedure

Participants read about an employee who did not get promoted because her supervisor failed to submit a promised recommendation. Two versions of the story’s ending were used. Atone: The supervisor explained her oversight to the hiring manager and asked that the employee’s application be reconsidered. After review, the employee did not get the promotion. No-Atone: Despite conversing with the hiring manager, the supervisor did not seek to fix the situation. The employee did not get the promotion. No mention of repentance or verbal apology was made, and no description of the supervisor’s feelings about the transgression was given. Participants then responded to dependent measures.

Measures

A 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.” Forgiveness ($\alpha = .87$) was measured using the same three items from Experiment 1 with names changed to match the new vignette.

Results and Discussion

Attempted restitution was higher in the Atone condition ($M = 6.27, SD = 0.93$) than the No-Atone condition ($M = 3.77, SD = 1.77$), $t(109) = 9.34, p < .001, d = 1.77$. Forgiveness 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 large effect of atonement on forgiveness suggests a robust connection between trying to “make things right” and deservingness of forgiveness. Consistent with the idea of displaying cooperation commitment, this suggests that even failed attempts at atonement make transgressors seem more forgivable to unharmed observers. Though attempts at repair may typically result in positive outcomes, the outcome here was unfavorable in both conditions. Thus, Experiment 2 showed that attempts to atone are sufficient for influencing forgiveness.

In Experiments 1 and 2, both offenders had power over victims. People may be compelled to forgive offenders if the cost of not forgiving is amplified by power status differences (Aquino, Tripp, & Bies, 2001). Forgiveness may have been influenced by the consideration that not forgiving could further disadvantage the victim. In subsequent studies, the transgressor and victim have equal status.

Experiment 3

In Experiment 3, repentance and atonement were jointly manipulated. To focus solely on the offender’s internal response, their repentant thoughts were revealed to participants but not communicated to the victim. We hypothesized that repentance and atonement would both increase forgiveness but that the effect size for atonement, which indicates offenders’ behavioral commitment to cooperation, would be descriptively larger. We had no prediction regarding whether the manipulations would work synergistically or exert additive effects.

Method

Procedure

Participants read a two-part vignette. Part 1: A college student (Jesse), while riding his bike, was hit by a car driven

by a classmate (Chris). After Jesse claimed to be unhurt, Chris drove away. Later, Jesse realized he was seriously injured and received emergency surgery. The next day, Chris learned about Jesse's injury. The repentance manipulation was embedded in the 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: Chris encountered Jesse at a mall a few months after the accident. In the Atone condition, Chris bought a new bike for Jesse by denying himself the purchase of a wanted item. In the No-Atone condition, Chris bought his desired item and Jesse bought the bike himself. Perceived remorse was measured between Part 1 and Part 2. 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." Forgiveness ($\alpha = .85$) 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." Several related constructs were measured in Experiments 3 and 4; associated analyses are reported in the ESM 1 (Tables S11–S14).

Results and Discussion

Manipulation Check

Because atonement was manipulated in Part 2 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 measures, 2 (No-Repent/Repent) \times 2 (No-Atone/Atone) ANOVAs with 1, 137 *df* were used. Perceived restitution was higher in the Atone condition ($M = 5.70$, $SD = 1.00$) than 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

Forgivability was higher in the Repent condition ($M = 4.83$, $SD = 1.33$) than 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, forgiveness was higher in the Atone condition ($M = 5.48$, $SD = 1.03$) than the No-Atone condition ($M = 3.72$, $SD = 1.39$), $F = 83.75$, $p < .001$, $CI_{.95} = [1.42, 2.20]$, $d = 1.44$. The interaction was not significant ($p = .098$).

Experiment 3 confirmed the findings of Experiments 1 and 2, further showing that repentance and atonement independently influence forgiveness. Corroborating the conclusion that atonement effects are not driven solely by outcome (Experiment 2), Experiment 3 demonstrated that atonement increases forgiveness even without fully restoring the victim to a pre-transgression state. Notably, repentance influenced forgiveness even though the offender's remorse was not communicated to the victim, highlighting uninvolved third parties' sensitivity to offenders' mental states. Suggesting that atonement might exert a greater influence on forgiveness than repentance, the effect size for atonement was 480% larger than the effect size for repentance. Finally, these effects were demonstrated in a new context where harm was physical, fairly severe, and described people similar in power status.

Experiment 4

Experiment 4 used a repeated-measures design that allowed us to track how forgiveness changes as a function of repentance and atonement and to conceptually replicate the results of Experiment 3 using a new workplace transgression. To assess how forgiveness unfolds across an event and is increased by repentance and/or atonement, a 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 design (Figure 1) allowed us to measure forgiveness post-transgression/pre-manipulations at Time 1 (T1) and post-manipulations at Time 2 (T2), to assess "repair" in perceived forgiveness as a function of repentance and atonement.

Beyond predicted main effects of repentance and atonement on forgiveness at T2, we hypothesized that forgiveness would be higher at T2 than at T1 (i.e., positive difference score for T2 – T1), indicating recovery from baseline forgiveness as a function of repentance and atonement. Because the cost of making amends should be relevant for forgiveness (e.g., Ohtsubo & Watanabe, 2009), we also measured perceived costliness as a possible mediator

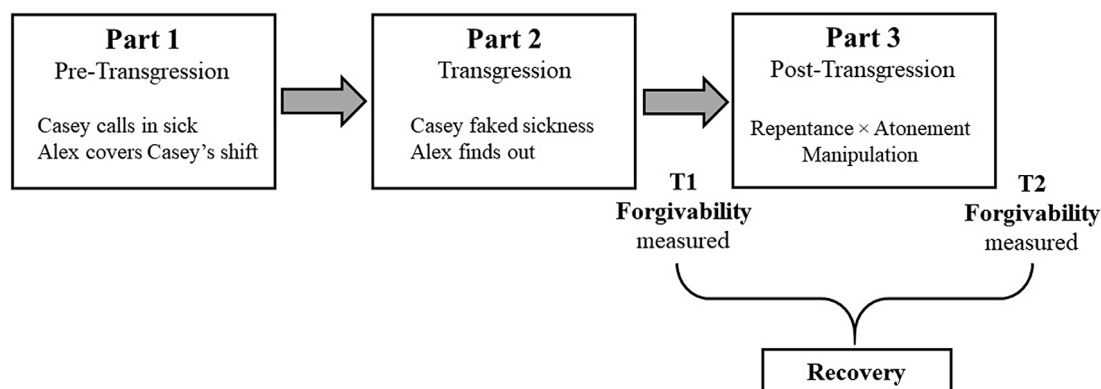


Figure 1. Diagram showing the repeated-measures design of Experiment 4. Forgivability was measured after Part 2 and Part 3.

between atonement and forgiveness and predicted that atonement would affect forgiveness through perceived costliness, which might itself be mediated by restitution.

Method

Procedure

Participants read a three-part story. Part 1: Alex was forced to cover Casey's shift, which led Alex to cancel plans to celebrate his girlfriend's birthday with her. Part 2: Alex (victim) learned that Casey (offender) faked sickness to attend a concert. Part 3: Casey communicated or denied his repentance to Alex and atoned or did not atone a few weeks later when Alex needed a favor. Repentance was manipulated as follows:

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."

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."

In all versions, Casey initially declined Alex's later request to return the favor by covering Alex's shift, saying he couldn't because a friend was visiting him. Atonement was manipulated as follows:

Atone

"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."

No-Atone

"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."

Forgivability was assessed after Part 2 and again after Part 3, and other measures were assessed only after Part 3. Although forgiveness was also assessed after Part 1, the meaning of perceived forgiveness prior to awareness that a transgression has been committed is conceptually unclear. We therefore do not discuss this further.

Measures

The same items (with names/transgressions changed) from Experiments 1 and 3 respectively assessed remorse ($\alpha = .98$) and restitution ($\alpha = .99$). Forgiveness was measured with two items: "Alex should forgive Casey," and "Alex should let go of any anger he may feel toward Casey" (T1 $r = .73$; T2 $r = .87$). At T2, two additional forgiveness items were used. To maintain consistency in measurement across time points, we report only the analyses using the 2-item measure here. Analyses using the full measure are reported in the ESM 1 (Tables S13-S14). To capture "recovery," we subtracted T1 forgiveness from T2 (higher numbers indicate greater recovery). Three items measured perceived costliness ($\alpha = .83$): "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 and Discussion

Primary hypotheses were examined using 2 (No-Repent/Repent) \times 2 (No-Atone/Atone) ANOVAs with 1, 154 *df*.

Table 2. Experiment 4: Means and standard deviations as a function of repentance and atonement

	No repent				Repent			
	No Atone		Atone		No Atone		Atone	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
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 forgiveness	2.33	1.43	2.29	1.51	2.61	1.57	1.96	1.46
T2 forgiveness	3.14	1.45	4.93	1.72	3.54	1.76	5.54	1.39
Recovery (T2 – T1)	0.81	1.20	2.64	1.86	0.93	1.23	3.57	1.94
Costliness	1.97	0.85	3.83	1.53	2.12	0.92	4.50	1.28
Cell <i>N</i>	39		40		38		41	

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.

Of interest, the effect size for remorse was descriptively 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*. When 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, $ps = .252, .120$), but 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.

Forgivability

Atonement strongly predicted forgiveness at T2 ($F = 56.04$, $p < .001$, $CI_{.95} = [1.39, 2.39]$, $d = 1.19$). Repentance also predicted T2 forgiveness ($F = 4.00$, $p = .047$, $CI_{.95} = [0.03, 1.03]$, $d = 0.29$), although this effect size was descriptively much smaller. The interaction was not significant, $p = .674$. The effects of repentance and atonement on recovery from transgression (T2 – T1) were both significant, respectively, $F_s = 4.33$ and 76.69 , $p = .039$ and $p < .001$,

$CI_{.95} = [0.07, 1.07]$ and $[1.73, 2.74]$, $d_s = 0.29$ and 1.38 . The interaction was not significant, $F = 2.51$, $p = .115$. This demonstrates that repentance and atonement are independently associated with increases in forgiveness from baseline. Single sample *t*-tests of each cell against zero demonstrated recovery in each cell of the design, $ts(37-40) > 4.22$, $ps < .001$, $d_s > 0.68$.

It is somewhat puzzling that there was some recovery even in the No-Repent/No-Atone cell. Speculatively, Casey might have been seen as somewhat forgivable because (a) his offering of a counterfactual (i.e., Alex could have said he couldn't cover Casey's shift) created doubts about the severity of the offense, and (b) people considered it reasonable that Casey didn't want to commit another offense by canceling 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.

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 nonsignificant ($p = .174$). Because costliness was affected by repentance, we considered examining whether it might statistically mediate the effects of repentance on forgiveness but did not because this effect was unpredicted and not theoretically grounded, making explanation of any statistically significant effect necessarily post-hoc. Additionally, 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, $t(75) = 0.78$, $p = .438$. Conversely, the simple effects of atonement on costliness were significant at both levels of repentance, $ts(77) > 6.64$, $ps < .001$ (see Table 2). Thus, the main effect of repentance likely reflects a slight boost in perceived costliness when the offender not only

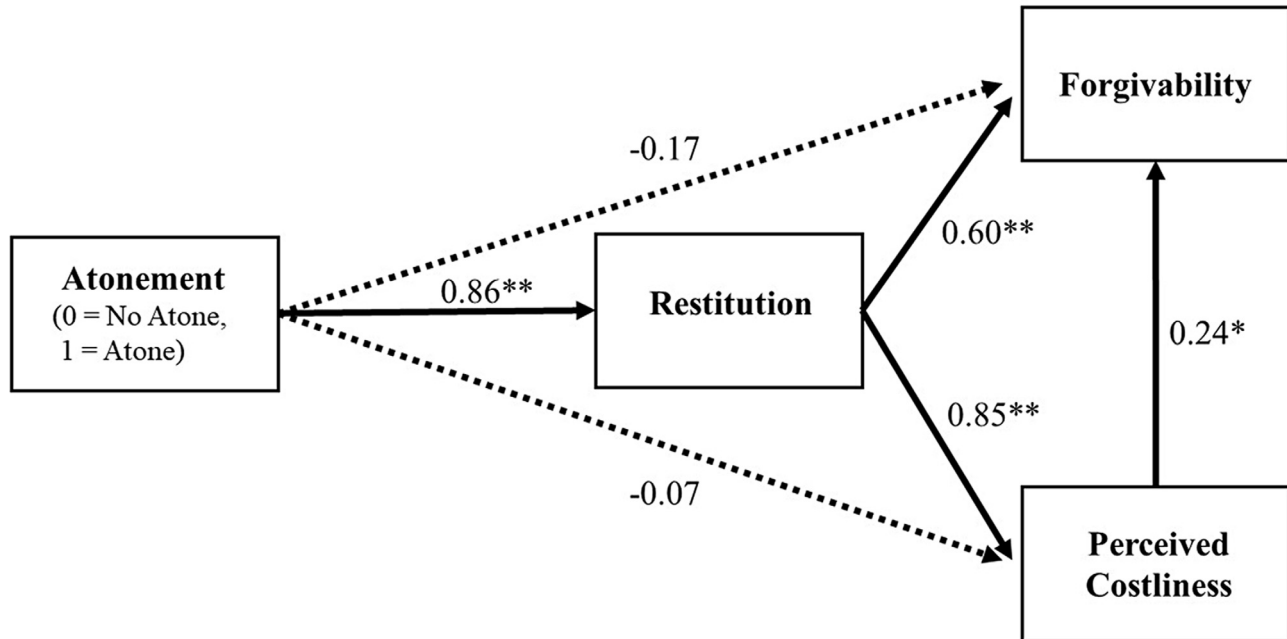


Figure 2. Mediation model predicting forgiveness from atonement, restitution, and perceived costliness in Experiment 4. Path coefficients are standardized coefficients. Confidence intervals of path coefficients and significance levels of all indirect effects are reported in text. * $p < .05$; ** $p < .001$.

expended effort but did so because he felt bad about causing harm. Given these findings, mediation tests focused solely on explaining the effect of the atonement manipulation on T2 forgiveness.

Costliness was correlated with T2 forgiveness and restitution ($r_s = .61, .79$, respectively, $p_s < .001$), 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 (see Figure 2). In this model (10,000 bootstrap resamples), atonement predicted restitution ($b = 4.04$, $CI_{.95} = [3.67, 4.42]$, $p < .001$), but its direct effect on costliness ($b = -0.21$, $CI_{.95} = [-0.85, 0.45]$, $p = .525$) and forgiveness ($b = -0.62$, $CI_{.95} = [-1.62, 0.39]$, $p = .229$) were not significant. Restitution predicted both costliness ($b = 0.58$, $CI_{.95} = [0.43, 0.72]$, $p < .001$) and forgiveness ($b = 0.47$, $CI_{.95} = [0.21, 0.75]$, $p < .001$), and costliness predicted forgiveness ($b = 0.28$, $CI_{.95} = [0.04, 0.51]$, $p = .018$). The indirect effects of atonement on costliness through restitution ($b = 2.33$, $CI_{.95} = [1.66, 2.99]$, $p < .001$), on forgiveness through restitution alone ($b = 1.91$, $CI_{.95} = [0.82, 3.03]$, $p < .001$), and on forgiveness through restitution and

costliness ($b = 0.66$, $CI_{.95} = [0.03, 1.26]$, $p = .035$), were all significant. Thus, atonement influenced forgiveness by increasing perceptions that the offender tried to “make things right,” and when perceivers saw this action as more costly, forgiveness was further increased.

Experiment 4 replicated the primary findings from Experiments 1 to 3 and provided insight into how repentance and atonement promote recovery from initial damage associated with a transgression. In addition, Experiment 4 demonstrated that efforts aimed at repair, particularly when costly, can impact forgiveness, suggesting that third-party observers may notice social cues displayed by offenders even when personal motives for reconciliation are absent. We note, however, that because repentance preceded atonement and forgiveness was not assessed between the two manipulations, people in the No Atone condition might have questioned the sincerity of repentance when the subsequent action was inconsistent with the offenders’ stated attitudes (Laurent & Clark, 2019).

Experiment 5

Past work has shown that repentance and atonement increase forgiveness from victims and close others. Experiments 1–4 demonstrated how repentance and atonement uniquely contribute to uninvolved observers’ perceptions

of forgiveness. One remaining question is whether repentance and atonement have similar or different effects on forgiveness from outside observers as compared with victims or victims' close others. A last experiment was conducted to examine this question.

Based on the third-party unforgiveness effect (Green et al., 2008), we hypothesized that involved third parties would perceive the offender to be less forgivable than would victims but were uncertain whether forgiveness from uninvolved third parties would differ from that of victims or involved parties. That is, although outside observers – despite having only a symbolic stake in the matter – may believe forgiveness is deserved on the basis of repentance and atonement, we were not certain whether these factors would have a weaker or stronger effect for uninvolved parties than for victims.

Because no interactions of repentance and atonement emerged on forgiveness in Experiments 3–4, Experiment 5 focused on their unique effects (i.e., repentance without atonement, atonement without repentance, neither repentance nor atonement). This manipulation was crossed with perceiver role: victim, victim's close friend, or stranger.

Method

Procedure

Experiment 5 used a 3 (Offender-Response: Repent/No-Atone, No-Repent/Atone, No-Repent/No-Atone) \times 3 (Role: Victim, Friend, Uninvolved) design. Participants in the Friend condition typed the first name of their closest friend in a textbox, and this name ["friend"] appeared where

relevant thereafter in the survey. Participants read a vignette, adapted from Okimoto, Wenzel, and Feather (2009), about a neighbor damaging the victim's car. Participants were told to imagine the transgressor was their own neighbor (Victim), their closest friend's neighbor (Friend), or "Jordan's" (a stranger's) neighbor (Uninvolved). The offender-response manipulation was embedded in the neighbor's reply:

Repent/No-Atone

The neighbor looks regretful and says, "I understand that you're upset and I should've told you as soon as it happened. . . I feel really bad about it." Despite their remorseful attitude, the neighbor does not say they are sorry or attempt to financially compensate you [friend/Jordan] for the damage.

No-Repent/Atone

The neighbor, showing no visible regret, says, "I understand that you're upset and that you think I should've told you as soon as it happened." Despite their apparent lack of remorse and failure to say they are sorry, the neighbor offers to financially compensate you [friend/Jordan] for the damage.

No-Repent/No-Atone

The neighbor, showing no visible regret, says, "I understand that you're upset and that you think I should have told you as soon as it happened." In addition to their apparent lack of remorse, the neighbor does not say they are sorry or attempt to financially compensate you [friend/Jordan] for the damage.

Table 3. Experiment 5: Means and standard deviations as a function of offender-response and perceiver role

	Victim			Friend			Uninvolved		
	None	Repent	Atone	None	Repent	Atone	None	Repent	Atone
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Remorse	1.57 (0.95)	3.85 (1.65)	2.39 (1.24)	1.74 (1.36)	3.76 (1.27)	2.66 (1.59)	1.74 (1.15)	3.88 (1.76)	2.71 (1.42)
Restitution	1.28 (0.78)	1.52 (0.82)	5.09 (1.72)	1.48 (1.15)	2.01 (1.27)	5.42 (1.24)	1.49 (0.99)	1.83 (1.28)	5.38 (1.04)
Forgivability	2.47 (1.47)	3.02 (1.46)	4.28 (1.75)	2.67 (1.32)	3.05 (1.41)	4.33 (1.37)	2.69 (1.60)	3.06 (1.48)	4.30 (1.26)
Cell <i>N</i>	33	41	35	40	38	40	37	39	34

Table 4. Experiment 5: Summary of inferential statistics for main and interaction effects of offender-response and perceiver role on remorse, restitution, and forgiveness

	Offender-Response			Role			Offender-Response \times Role		
	<i>df</i> = (2, 328)			<i>df</i> = (2, 328)			<i>df</i> = (4, 328)		
	<i>F</i>	<i>p</i>	η_p^2	<i>F</i>	<i>p</i>	η_p^2	<i>F</i>	<i>p</i>	η_p^2
Remorse	67.07	< .001	.29	0.43	.652	.00	0.19	.944	.00
Restitution	364.65	< .001	.69	2.60	.076	.02	0.16	.960	.00
Forgivability	39.30	< .001	.19	0.15	.858	.00	0.05	.995	.00

Measures

Four remorse items ($\alpha = .97$) checked the repentance manipulation: “The neighbor felt. . .” “guilty,” “remorse,” “regret about what happened,” and “bad about damaging the car.” Four restitution items ($\alpha = .97$) checked the atonement manipulation: “The neighbor. . .” “tried to atone for the damage they had caused,” “tried to ‘make things right,’” “attempted to repair the harm they had caused,” and “offered to fix the problem they had caused.”

Forgivability ($\alpha = .88$) was measured with three items reflecting participants’ assigned roles: “Despite what happened to me [friend/Jordan], I would have compassion for the neighbor,” “the neighbor deserves to be forgiven for what they did to you [friend/Jordan],” and “I would let go of any anger I might feel toward the neighbor.” Finally, participants responded to, “I was asked to imagine that the neighbor was. . .” by selecting “my neighbor,” “my closest friend’s neighbor,” or “not related to me in any way.”

Results and Discussion

A series of 3 (Offender-Response: Repent/No-Atone, No-Repent/Atone, No-Repent/No-Atone) \times 3 (Role: Victim, Friend, Uninvolved) ANOVAs were conducted to examine effects on remorse, restitution, and forgivability. Table 3 provides *M* and *SD* for all variables. Inferential statistics for all analyses below are reported in Table 4.

Manipulation Check

Planned *t*-tests revealed that the repentance manipulation significantly increased offender remorse relative to the No-Repent/Atone, $t(225) = 6.24$, $p < .001$, $d = 0.83$ and No-Repent/No-Atone conditions, $t(226) = 11.70$, $p < .001$, $d = 1.55$. Similarly, restitution in the No-Repent/Atone condition was higher than in the Repent/No-Atone, $t(225) = 21.15$, $p < .001$, $d = 2.81$ and No-Repent/No-Atone conditions, $t(217) = 24.16$, $p < .001$, $d = 3.26$. No main effects of perceiver role or interactions of role and offender-response were found on remorse or restitution (see Table 4). Regarding their relationship to the neighbor, 27.3% of participants in Uninvolved, 15.3% in Friend, and 7.3% in Victim condition responded incorrectly, and these proportions were significantly different, $\chi^2(2) = 15.94$, $p < .001$. We report the results with the full sample below. Analyses excluding these participants are reported in the ESM 1.

Forgivability

A main effect of offender-response was found on forgivability. Planned *t*-tests revealed that all three offender-response conditions significantly differed in ratings of forgivability. Forgivability was higher in Repent/No-Atone than in No-Repent/No-Atone, $t(226) = 2.21$, $p = .028$, $d = 0.29$, $CI_{.95} = [0.05, 0.80]$, and higher in No-Repent/Atone than in

Repent/No-Atone, $t(225) = 6.55$, $p < .001$, $d = 0.87$, $CI_{.95} = [0.88, 1.64]$, and No-Repent/No-Atone conditions, $t(217) = 8.55$, $p < .001$, $d = 1.16$, $CI_{.95} = [1.30, 2.07]$.

Although we expected that perceivers in the Friend role would see the offender as less forgivable than perceivers in the Victim role, our findings did not support that prediction as no main effect of role or interaction of role and offender-response were found on forgivability (see Table 4). The role participants were asked to take had relatively little influence on how forgivable the offender seemed, suggesting that the positive effects of repentance and atonement on forgivability worked similarly in each case.

Speculatively, differences between the current study and those reported in Green et al. (2008) might have emerged for two reasons. First, in the current study, the dependent variable was perceived forgivability rather than actual forgiveness or willingness to forgive. Although involved third parties may be less forgiving than victims, both parties may recognize offenders’ forgivability to a similar degree. Second, to ensure that the neighbor’s offense was one that could be objectively atoned for, we used a form of harm that solely involved material damage. Because the transgression in Green et al. (2008) was emotional harm through social embarrassment by the victim’s romantic partner, additional moral violations (e.g., trust betrayal) may have been inferred. Future research might investigate these possibilities directly.

In sum, Experiment 5 extended previous third-party forgiveness research by demonstrating that for uninvolved observers, as well as victims and their close others, an offender who atoned without repenting deserved forgiveness more than one who repented without atoning, and an offender who repented without atoning deserved forgiveness more than an offender who made no post-transgression efforts.

General Discussion

When blameworthy transgressions occur, offenders’ post-transgression responses influence whether they will be forgiven by victims (e.g., Tabak, McCullough, Luna, Bono, & Berry, 2012). The current research examined whether offender efforts extend beyond victims and influence third parties’ perceptions of forgivability. Five experiments showed that repentance and atonement each independently increase perceived forgivability from socially distant third parties. By examining forgiveness from this relatively disinterested perspective, this work extends prior research, demonstrating that post-transgression attitudes and actions are important factors in enhancing the perceived forgivability of offenders in the eyes of uninvolved third parties.

A second contribution of this work regards the disentangling of repentance from atonement, both of which are implied in apology, and demonstrating their independent effects on forgivability. Separating these concepts is a useful endeavor that should spur further research. For example, offenders can apologize without repenting (Ohtsubo et al., 2012) or deceptively express remorse to reduce punishment (Hogue & Peebles, 1997). Similarly, offenders can repent without informing anyone about their mental states, and behaviors aimed at restitution can exist with or without remorse. By empirically isolating repentance and atonement, the current work has taken initial steps in understanding how, why, and what parts of apology function to promote forgivability.

Five studies featuring different categories of harm, victim-offender relationships, and perceiver roles found converging evidence that repentance and atonement individually influence perceived forgivability. In Experiment 1, a TA who communicated repentance was viewed as more forgivable than a non-repentant one. In Experiment 2, a supervisor was seen as more deserving of forgiveness when she tried but failed to make up for her oversight relative to when she did not attempt to atone. By isolating atonement from the positive outcomes typically associated with attempts at restitution, Experiment 2 demonstrated the robust connection between actions directed at “making things right” and forgivability. Experiment 3 manipulated both repentance and atonement, replicating the results of Experiments 1 and 2 and extending them to a situation with severe physical harm and equal power status between the parties. Experiment 3 also showed that offender remorse can increase forgivability even when it is not communicated to the victim (but is revealed to participants). In Experiment 4, we found that both repentance and atonement facilitate recovery from negative judgments associated with a transgression, further demonstrating how each factor worked to repair forgivability from a baseline level. Finally, Experiment 5 demonstrated that at least in the provided context, repentance and atonement worked to increase forgivability in the same way for victims, victims’ friends, and outside observers. Together, these results suggest that offenders’ post-transgression mental states and behaviors influence perceived forgivability and that costly behavior aimed at repair can redeem offenders from the taint of transgression.

Limitations and Future Directions

Limitations to the present research should be noted. First, each experiment used hypothetical vignettes to describe unintended transgressions. This method allowed control over what information people received about post-transgression attitudes, behaviors, and outcomes and is similar to how third-party perceivers might receive information in

real contexts. Yet, this design may have elicited different evaluations than would naturally occur. Second, because participants were asked in most studies to evaluate the extent to which victims should forgive transgressors, participants may have tried to adopt the described victims’ perspectives and based their forgivability ratings on what they would have done in the same situation. Future research might explore whether this is the case, perhaps examining whether perspective-taking instructions enhance or decrease perceived forgivability. Third, the current research relied on self-reported measures. Although social desirability might not be as critical as it would be for victims (Risen & Gilovich, 2007), using behavioral or physio-neurological responses could complement our conclusions. Fourth, repentance and atonement may influence forgivability differently in other cultural contexts. Because participants in the current experiments were all US residents recruited online, further research would be needed to test whether our findings would replicate in non-Western populations (Henrich, Heine, & Norenzayan, 2010). We have no reason to believe that the results depend on other characteristics of the participants, materials, or context (Simons, Shoda, & Lindsay, 2017).

Several areas for future research seem promising. Although we have identified repentance and atonement as influential in promoting forgivability, the psychological mechanisms by which these factors exerted effects remain unknown. One possibility involves third parties’ feelings of injustice when offenders illegitimately violate shared values and/or achieve power/status over the group with which third parties identify (Okimoto & Wenzel, 2008; Okimoto et al., 2009). Third-party punishment reestablishes social order by invalidating an offender’s presumed power/status over the group and the rules. Similarly, repentance and atonement may drive third-party forgivability by reaffirming shared societal values and offenders’ commitment to them; future research might examine this hypothesis.

The present research focused on third-party perceptions of offenders. However, victims’ reactions to offenders’ repentance and atonement can be valuable information for observers in evaluating future cooperation partners. For example, the deterrence hypothesis posits that third-party intervention emerges because mistreatment of a third-party connotes the potential for later mistreatment of oneself (Krasnow, Delton, Cosmides, & Tooby, 2016). Accordingly, being attentive to the retaliatory or forgiving capability of others might be advantageous for third parties (dos Santos, Rankin, & Wedekind, 2011). Recent work has already begun to examine what forgiveness signals to uninvolved observers (Yao & Chao, 2019); future work might contrast how offenders’ post-transgression actions influence third-party perceptions of forgiving and unforgiving victims. In addition, future 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. Experiment 4 provided supporting evidence for the role of perceived costliness in facilitating forgivability. Thus, examining the net cost incurred by an atoning agent in light of potential or actual benefits is worth considering. Although smaller offers of penance might be equally effective as larger offers for victims (Bottom et al., 2002), observers may be particularly attentive to the costs offenders are willing to incur to reestablish cooperation. Finally, another important question concerns the mental states motivating harmful actions. Here, all experiments investigated repentance and atonement for unintended harms. Will repentance and atonement affect forgivability for foreseen, reckless, or intended transgressions?

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 that these factors influence forgivability in disinterested contexts. Examining perceived forgivability can contribute to our understanding of person-perception processes that require some degree of objectivity, such as decisions made in criminal justice contexts. Repentance and atonement may serve as attempts to undo the damage wrought, in hopes of restoration in the eyes of those whom offenders have wronged as well as others who are aware of their misdeeds. As we have discussed, prior research has shown the social function of apology in mending damaged relationships with the direct recipients of such reconciliatory gestures. Understanding third-party responses to offender efforts at repair can illuminate consequences that surpass victim-transgressor dyads, influencing offender reintegration, social harmony, and peace-making.

Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at <https://doi.org/10.1027/1864-9335/a000390>

ESM 1. Study materials, supplementary measures and analyses

References

Aquino, K., Tripp, T. M., & Bies, R. J. (2001). How employees respond to personal offense: The effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace. *Journal of Applied Psychology, 86*, 52–59. <https://doi.org/10.1037/0021-9010.86.1.52>

Boehm, C. (1987). *Blood revenge: The enactment and management of conflict in Montenegro and other tribal societies*. Philadelphia, PA: University of Pennsylvania Press.

Boon, S. D., & Sulsky, L. M. (1997). Attributions of blame and forgiveness in romantic relationships: A policy-capturing study. *Journal of Social Behavior and Personality, 12*, 19–44.

Bottom, W. P., Gibson, K., Daniels, S. E., & Murnighan, J. K. (2002). When talk is not cheap: Substantive penance and expressions of intent in rebuilding cooperation. *Organization Science, 13*, 497–513. <https://doi.org/10.1287/orsc.13.5.497.7816>

Carlisle, R. D., Tsang, J.-A., Ahmad, N. Y., Worthington, E. L., Witvliet, C. V. O., & Wade, N. (2012). Do actions speak louder than words? Differential effects of apology and restitution on behavioral and self-report measures of forgiveness. *The Journal of Positive Psychology, 7*, 294–305. <https://doi.org/10.1080/17439760.2012.690444>

Cerulo, K. A., & Ruane, J. M. (2014). Apologies of the rich and famous: Cultural, cognitive, and social explanations of why we care and why we forgive. *Social Psychology Quarterly, 77*, 123–149. <https://doi.org/10.1177/0190272514530412>

Darby, B. W., & Schlenker, B. R. (1982). Children's reactions to apologies. *Journal of Personality and Social Psychology, 43*, 742–753. <https://doi.org/10.1037/0022-3514.43.4.742>

Davis, J. R., & Gold, G. J. (2011). An examination of emotional empathy, attributions of stability, and the link between perceived remorse and forgiveness. *Personality & Individual Differences, 50*, 392–397. <https://doi.org/10.1016/j.paid.2010.10.031>

de Waal, F. B. M. (1989). *Peacemaking among primates*. Cambridge, MA: Harvard University Press.

dos Santos, M., Rankin, D. J., & Wedekind, C. (2011). The evolution of punishment through reputation. *Proceedings: Biological Sciences, 278*, 371–377. <https://doi.org/10.1098/rspb.2010.1275>

Drell, M. B., & Jaswal, V. K. (2016). Making amends: Children's expectations about and responses to apologies. *Social Development, 25*, 742–758. <https://doi.org/10.1111/sode.12168>

Eaton, J., Struthers, C. W., & Santelli, A. G. (2006). The mediating role of perceptual validation in the repentance-forgiveness process. *Personality and Social Psychology Bulletin, 32*, 1389–1401. <https://doi.org/10.1177/0146167206291005>

Fehr, E., & Fischbacher, U. (2004). Third-party punishment and social norms. *Evolution and Human Behavior, 25*, 63–87. [https://doi.org/10.1016/S1090-5138\(04\)00005-4](https://doi.org/10.1016/S1090-5138(04)00005-4)

Fincham, F. D., Paleari, F. G., & Regalia, C. (2002). Forgiveness in marriage: The role of relationship quality, attributions, and empathy. *Personal Relationships, 9*, 27–37. <https://doi.org/10.1111/1475-6811.00002>

Finkel, E. J., Rusbult, C. E., Kumashiro, M., & Hannon, P. A. (2002). Dealing with betrayal in close relationships: Does commitment promote forgiveness? *Journal of Personality and Social Psychology, 82*, 956–974. <https://doi.org/10.1037/0022-3514.82.6.956>

Fischbacher, U., & Utikal, V. (2013). On the acceptance of apologies. *Games and Economic Behavior, 82*, 592–608. <https://doi.org/10.1016/j.geb.2013.09.003>

Gold, G. J., & Weiner, B. (2000). Remorse, confession, group identity, and expectancies about repeating a transgression. *Basic and Applied Social Psychology, 22*, 291–300. https://doi.org/10.1207/S15324834BASP2204_3

Green, J. D., Burnette, J. L., & Davis, J. L. (2008). Third-party forgiveness: (Not) forgiving your close other's betrayer. *Personality and Social Psychology Bulletin, 34*, 407–418. <https://doi.org/10.1177/0146167207311534>

Gromet, D. M., & Okimoto, T. G. (2014). Back into the fold: The influence of offender amends and victim forgiveness on peer reintegration. *Business Ethics Quarterly, 24*, 411–441. <https://doi.org/10.5840/beq20147814>

Harris, A. H. S., & Thoresen, C. E. (2005). Forgiveness, unforgiveness, health, and disease. In E. L. Worthington (Ed.), *Handbook of forgiveness* (pp. 321–333). New York, NY: Routledge.

- Hashimoto, T., & Karasawa, K. (2012). Victim and observer asymmetries in their reactions to an apology: How responsibility attribution and emotional empathy lead to forgiveness. *Journal of Experimental Social Psychology, 51*, 104–117. <https://doi.org/10.2130/jjesp.51.104>
- Hashimoto, T., & Karasawa, K. (2016). When and by whom are apologies considered? The effects of relationship and victim/observer standing on Japanese people's forgiveness. *Interpersonal, 10*, 171–185. <https://doi.org/10.5964/ijpr.v10i2.214>
- Henrich, J., Ensminger, J., McElreath, R., Barr, A., Barrett, C., Bolyanatz, A., ... Ziker, J. (2010). Markets, religion, community size, and the evolution of fairness and punishment. *Science, 327*, 1480–1484. <https://doi.org/10.1126/science.1182238>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world? *Behavioral and Brain Sciences, 33*, 61–83. <https://doi.org/10.1017/S0140525X0999152X>
- Ho, B. (2012). Apologies as signals: With evidence from a trust game. *Management Science, 58*, 141–158.
- Hogue, T. E., & Peebles, J. (1997). The influence of remorse, intent and attitudes toward sex offenders on judgments of a rapist. *Psychology, Crime and Law, 3*, 249–259. <https://doi.org/10.1080/10683169708410821>
- Jeter, W. K., & Brannon, L. A. (2017). I'll make it up to you: Examining the effect of apologies on forgiveness. *The Journal of Positive Psychology, 13*, 597–604. <https://doi.org/10.1080/17439760.2017.1291854>
- Krasnow, M. M., Delton, A. W., Cosmides, L., & Tooby, J. (2016). Looking under the hood of third-party punishment reveals design for personal benefit. *Psychological Science, 27*, 405–418. <https://doi.org/10.1177/0956797615624469>
- Laurent, S. M., & Clark, B. A. M. (2019). What makes hypocrisy? Folk definitions, attitude/behavior combinations, attitude strength, and private/public distinctions. *Basic and Applied Social Psychology, 41*, 104–121. <https://doi.org/10.1080/01973533.2018.1556160>
- Lawler, K. A., Younger, J. W., Piferi, R. L., Billington, E., Jobe, R., Edmondson, K., & Jones, W. H. (2003). A change of heart: Cardiovascular correlates of forgiveness in response to interpersonal conflict. *Journal of Behavioral Medicine, 26*, 373–393. <https://doi.org/10.1023/A:1025771716686>
- Lewicki, R. J., Polin, B., & Lount, R. B. (2016). An exploration of the structure of effective apologies. *Negotiation and Conflict Management Research, 9*, 177–196. <https://doi.org/10.1111/ncmr.12073>
- McCullough, M. E., Bellah, C. G., Kilpatrick, S. D., & Johnson, J. L. (2001). Vengefulness: Relationships with forgiveness, rumination, well-being, and the Big Five. *Personality and Social Psychology Bulletin, 27*, 601–610. <https://doi.org/10.1177/0146167201275008>
- McCullough, M. E., & Hoyt, W. T. (2002). Transgression-related motivational dispositions: Personality substrates of forgiveness and their links to the Big Five. *Personality and Social Psychology Bulletin, 28*, 1556–1573. <https://doi.org/10.1177/014616702237583>
- McCullough, M. E., Kurzban, R., & Tabak, B. A. (2013). Cognitive systems for revenge and forgiveness. *Behavioral and Brain Sciences, 36*, 1–15. <https://doi.org/10.1017/S0140525X11002160>
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L. Jr., Brown, S. W., & Hight, T. L. (1998). Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement. *Journal of Personality and Social Psychology, 75*, 1586–1603.
- McCullough, M. E., Worthington, E. L. Jr., & Rachal, K. C. (1997). Interpersonal forgiving in close relationships. *Journal of Personality & Social Psychology, 73*, 321–336.
- Montada, L., & Schneider, A. (1989). Justice and emotional reactions to the disadvantaged. *Social Justice Research, 3*, 313–344. <https://doi.org/10.1007/BF01048081>
- Ohbuchi, K., Kameda, M., & Agarie, N. (1989). Apology as aggression control: Its role in mediating appraisal of and response to Harm. *Journal of Personality & Social Psychology, 56*, 219–227. <https://doi.org/10.1037/0022-3514.56.2.219>
- Ohtsubo, Y., & Watanabe, E. (2009). Do sincere apologies need to be costly? Test of a costly signaling model of apology. *Evolution and Human Behavior, 30*, 114–123. <https://doi.org/10.1016/j.evolhumbehav.2008.09.004>
- Ohtsubo, Y., Watanabe, E., Zhang, J., Kim, J., Kulas, J., Muluk, H., ... Wang, F. (2012). Are costly apologies universally perceived as being sincere? *Journal of Evolutionary Psychology, 10*, 187–204. <https://doi.org/10.1556/JEP.10.2012.4.3>
- Okimoto, T. G., & Wenzel, M. (2008). The symbolic meaning of transgressions: Towards a unifying framework of justice restoration. In K. A. Hegtvéd & J. Clay-Warner (Eds.), *Advances in group processes: Justice* (Vol. 25, pp. 291–326). Bingley, UK: Emerald Group Publishing Limited. [https://doi.org/10.1016/S0882-6145\(08\)25004-6](https://doi.org/10.1016/S0882-6145(08)25004-6)
- Okimoto, T. G., & Wenzel, M. (2009). Punishment as restoration of group and offender values following a transgression: Value consensus through symbolic labelling and offender reform. *European Journal of Social Psychology, 39*, 346–367. <https://doi.org/10.1002/ejsp.537>
- Okimoto, T. G., Wenzel, M., & Feather, N. T. (2009). Beyond retribution: Conceptualizing restorative justice and exploring its determinants. *Social Justice Research, 22*, 156–180. <https://doi.org/10.1007/s11211-009-0092-5>
- Petersen, M. B., Sell, A., Tooby, J., & Cosmides, L. (2012). To punish or repair? Evolutionary psychology and lay intuitions about modern criminal justice. *Evolution and Human Behavior, 33*, 682–695. <https://doi.org/10.1016/j.evolhumbehav.2012.05.003>
- Risen, J. L., & Gilovich, T. (2007). Target and observer differences in the acceptance of questionable apologies. *Journal of Personality and Social Psychology, 92*, 418–433. <https://doi.org/10.1037/0022-3514.92.3.418>
- Rye, M. S., Loiacono, D. M., Folck, C. D., Olszewski, B. T., Heim, T. A., & Madia, B. P. (2001). Evaluation of the psychometric properties of two forgiveness scales. *Current Psychology, 20*, 260–277. <https://doi.org/10.1007/s12144-001-1011-6>
- Schlenker, B. R., & Darby, B. W. (1981). The use of apologies in social predicaments. *Social Psychology Quarterly, 44*, 271–278. <https://doi.org/10.2307/3033840>
- Scobie, E. D., & Scobie, G. E. W. (1998). Damaging events: The perceived need for forgiveness. *Journal for the Theory of Social Behaviour, 28*, 373–402. <https://doi.org/10.1111/1468-5914.00081>
- Simons, D. J., Shoda, Y., & Lindsay, D. S. (2017). Constraints on generality (COG): A proposed addition to all empirical papers. *Perspectives on Psychological Science, 12*, 1123–1128. <https://doi.org/10.1177/1745691617708630>
- Skarlicki, D. P., Ellard, J. H., & Kelln, B. R. (1998). Third-party perceptions of a layoff: Procedural, derogation, and retributive aspects of justice. *Journal of Applied Psychology, 83*, 119–127. <https://doi.org/10.1037/0021-9010.83.1.119>
- Strelan, P., McKee, I., & Feather, N. T. (2016). When and how forgiving benefits victims: Post-transgression offender effort and the mediating role of deservingness judgements. *European Journal of Social Psychology, 46*, 308–322. <https://doi.org/10.1002/ejsp.2167>
- Tabak, B. A., McCullough, M. E., Luna, L. R., Bono, G., & Berry, J. W. (2012). Conciliatory gestures facilitate forgiveness and feelings of friendship by making transgressors appear more

- agreeable. *Journal of Personality*, 80, 503–536. <https://doi.org/10.1111/j.1467-6494.2011.00728.x>
- Weiner, B., Graham, S., Peter, O., & Zmuidinas, M. (1991). Public confession and forgiveness. *Journal of Personality*, 59, 281–312. <https://doi.org/10.1111/j.1467-6494.1991.tb00777.x>
- Witvliet, C. V. O., Ludwig, T. E., & Vander Laan, K. L. (2001). Granting forgiveness or harboring grudges: Implications for emotion, physiology, and health. *Psychological Science*, 12, 117–123. <https://doi.org/10.1111/1467-9280.00320>
- Yao, D. J., & Chao, M. M. (2019). When forgiveness signals power: Effects of forgiveness expression and forgiver gender. *Personality and Social Psychology Bulletin*, 45, 310–324. <https://doi.org/10.1177/0146167218784904>
- Zechmeister, J. S., Garcia, S., Romero, C., & Vas, S. N. (2004). Don't apologize unless you mean it: A laboratory investigation of forgiveness and retaliation. *Journal of Social and Clinical Psychology*, 23, 532–564. <https://doi.org/10.1521/jscp.23.4.532.40309>


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