

# Volition Speaks Louder Than Action: Offender Atonement, Forgivability, and Victim Valuation in the Minds of Perceivers

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## Abstract

On hearing of others' offenses, people frequently intervene to encourage offenders to correct their wrongs. However, externally imposed reconciliatory behaviors may not effectively convince outside observers that offenders value victims' welfare and deserve forgiveness. Four studies examined meta-judgments of victim valuation and offender forgivability when restitution was initiated voluntarily versus externally coerced. The same compensatory actions produced greater perceived valuation/forgivability when atonement was voluntary versus court-ordered (Experiment 1). Across multiple harm/measure types, voluntary (vs. imposed) atonement consistently yielded greater valuation/forgivability, but differences between imposed and no-atonement conditions were not captured using indirect valuation measures (Experiments 2–3). Experiment 3 also showed that voluntary (vs. imposed) atonement positively influenced perceivers' inferences about their own valuation. In Experiment 4, observers perceived greater valuation/forgivability when restitution was made voluntarily rather than imposed by an intervener or requested by the victim. These studies highlight that beyond their compensatory acts, offenders' volition to atone influences third-party evaluations.

## Keywords

forgivability, valuation, volition, reconciliation, welfare trade-off ratio (WTR)

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“Give Colin Kaepernick a job back! Don't come with some empty apology . . . we want him repaired.” These were Reverend Al Sharpton's words as he criticized the National Football League's (NFL) *mea culpa* regarding its handling of past NFL players' peaceful protests (West, 2020). Despite not being directly harmed, the reverend (intervener) demanded a restorative act from the NFL owners (offenders) who likely refrained from reemploying Kaepernick (victim) because they believed his protest might be “bad for business” (Robinson, 2020). Notably, the reverend emphasized that verbal apology was not enough and called for concrete actions aimed at repair. This raises a question: If the NFL were to re-sign Kaepernick only after an intervener's demand, would third-party observers believe their atonement truly conveyed the league's positive regard for him and other community members? This question is important because in cases like this, offenders' actions—both during and after the transgression—have impacts beyond those parties who are directly involved. Specifically, even without directly intervening on behalf of a victim, third parties' inferences about offenders' restorative efforts likely influence their downstream decisions to promote reconciliation or pursue punishment on their own (e.g., boycotting the NFL).

Past research has shown that third-party observers are concerned with the mistreatment of others (Delton & Krasnow, 2017; Fehr & Fischbacher, 2004; Henrich et al., 2006). Twitter outrage, protests, and boycotts of businesses are just a few examples of people's reactions to injustices that others experience. Although research on blame attribution and punishment has examined offenders' *pre*-transgression mental states from distant observers' perspectives (Alicke, 1992; Cushman, 2008; Laurent et al., 2015, 2016), a surprisingly understudied topic is how *post*-transgression reparative behaviors influence third parties' perceptions of offenders. Similarly, although understanding when and why people punish bad behavior is important, understanding people's reactions to offenders' post-transgression responses (e.g., making amends) seems equally important. For example, victims' own forgiveness decisions may be influenced by evaluations from third-party observers (Eaton, 2013). Observers'

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judgments are also consequential for offenders attempting to mitigate the taint of transgression (Watanabe & Laurent, 2020) and for observers' own decisions regarding whether to reintegrate offenders into their community (Gromet & Okimoto, 2014). In addition, because third parties sometimes escalate conflicts (Eaton, 2013; Lee et al., 2014), it is critical to understand how they perceive offenders' reconciliatory efforts. The current work therefore investigates whether third-party observers believe that the voluntary making of amends (vs. being coerced to do so) communicates greater valuing of victims' welfare and leads to greater offender forgiveness.

## Voluntary and Imposed Atonement

Although definitions of apology vary considerably, key components of effective apology include acknowledgment of responsibility, declaration of repentance, and offers of repair (Lewicki et al., 2016). Because verbal apologies (e.g., saying "sorry") cost little, it is questionable whether they actually demonstrate offenders' remorse or lack of intention to cause further harm. More credible apologies should therefore involve concrete actions aimed toward improving victims' well-being. Consistent with this, "actions speak louder than words" for victims—the recipients of apologies and restitution—and apologies containing behavioral amends are perceived as more sincere, promote forgiveness to a greater degree, and reduce later complaints compared with "cheap" verbal apologies (Carlisle et al., 2012; Drell & Jaswal, 2016; Jeter & Brannon, 2018; Ohtsubo & Watanabe, 2009). To distinguish costly apology from mere verbal apology, we label it "atonement," operationalized as observable post-transgression reparative behavior from offenders, directed toward "making things right" with victims.

Atonement is often imposed on offenders by authorities or prompted by social norms and expectations. In legal contexts, judges may order defendants to compensate plaintiffs. In educational domains where student conflicts occur daily, teachers often demand reparative actions from misbehaving students. Service managers may be compelled to offer discounts to disgruntled clients. Moreover, offenses and subsequent atonement are often observed by people other than those directly involved. For example, other classmates and customers may passively observe interactions between offenders, victims, and interveners. Notably, when offenders make amends, victims are compensated at offenders' expense regardless of whether atonement was imposed by others or not. Thus, for victims simply wanting "payment" for misdeeds (Gollwitzer et al., 2011; Strelan et al., 2017), receiving restitution may restore their sense of justice regardless of offenders' voluntariness. However, third-party observers who reap no direct benefits from atonement may not be convinced of offenders' intent to reform when they incur the costs of reparation only at another's request. That is, although

a victim's material losses may be compensated, observers of transgressions may wonder whether coerced atonement truly signifies offenders' relational commitment or denunciation of their past wrongful acts (Okimoto & Wenzel, 2008).

As we describe in the next section, the effects of coerced verbal apologies on victims and observers have been documented. However, the current research is the first to examine whether the voluntariness of *atonement* (apart from verbal apology) matters for third parties. By voluntariness, we mean that offenders' decisions to make amends are made freely and without coercion from others. In contrast, imposed atonement is when offenders are forced or pressured to make amends by external agents. Because the question of whether people actually *possess* free will is beyond the scope of this research, we frame atonement as "voluntary" when offenders choose to act without obvious external influence, and as "imposed" when offenders, despite having the *ability* to do otherwise, are under strong constraints to make amends (Baumeister & Monroe, 2014). Given that the folk conceptualization of free will is linked to choice capacity free from external constraints (Feldman et al., 2014; Monroe & Malle, 2010), we believe this operationalization of voluntariness is appropriate.

Psychological coercion can reduce intentionality judgments of both antisocial and prosocial behaviors (Monroe & Reeder, 2011), and attempts to make post-transgression amends—even when unsuccessful—are viewed more favorably than not trying at all (Okimoto, 2008; Watanabe & Laurent, 2020). As such, compensatory actions yielding the same positive outcomes may be discounted if offenders do not perform them voluntarily. We therefore hypothesize that relative to when atonement is absent or imposed, voluntary atonement will be perceived more positively.

## Prior Work on Coerced Apologies: Still No Clear Answers

The effects of voluntariness on post-transgression judgments are not as intuitive as one might imagine because past evidence on this issue is mixed. In addition, due to substantial variability in the focus and methods of prior studies, no firm conclusions can yet be drawn. For example, Robbennolt (2013) found that when taking a victim's perspective in civil disputes, people evaluated intervener-prompted and victim-requested apologies to be as sincere as spontaneous apologies. In contrast, victims in Jehle et al. (2012) viewed offenders most favorably and punished them least when apologies were voluntary, followed by weakly coerced apologies (the experimenter told their assistant to apologize), strongly coerced apologies (the experimenter threatened to alter the assistant's grade if they did not apologize), and the absence of an apology. However, in both of these studies, researchers focused solely on victims' responses to an apology.

In work examining both observer and victim reactions to apologies, Risen and Gilovich (2007) found an asymmetry

wherein observers (but not victims) differentiated between spontaneous and coerced apologies—a conclusion partially confirmed by Robbenolt (2013). Specifically, while victims in Risen and Gilovich (2007) responded similarly to both types of apology, observers rated offenders more harshly when they apologized after being asked to by their peers. Contrary to this, however, Hashimoto and Karasawa (2012) found that observers (but not victims) were *more* rather than less forgiving following coerced apology (i.e., when an offender apologized after the victim demanded it). The same researchers also later found that observers were generally more forgiving of sincere (vs. insincere) apologizers, whereas victims discriminated apology sincerity only when they were highly involved with offenders (Hashimoto & Karasawa, 2016).

Methodologically, several limitations of these previous studies also suggest more work is needed to understand how voluntary (vs. coerced) atonement affects third-party evaluations. First, coercion manipulations in past research have been relatively weak because interveners were offenders' peers who simply told them to apologize (Hashimoto & Karasawa, 2016; Risen & Gilovich, 2007) or a mediator who suggested that an apology might help (Robbenolt, 2013). Although reprimands from same-status peers are unfavorable, whether offenders felt "coerced" to apologize is questionable when serious consequences are absent (see Jehle et al., 2012). Second, apology manipulations in some prior studies had confounds. For example, spontaneous versus coerced apologies differed on dimensions such as remorsefulness (Hashimoto & Karasawa, 2016), approach versus avoidance (e.g., rushing to the hospital to apologize vs. avoiding a victim; Hashimoto & Karasawa, 2012), and interveners' acknowledgment of harm (Jehle et al., 2012). Finally, because current guidelines for best practices advise against small sample sizes (Simmons et al., 2011), the fact that some prior studies had fewer than 20 observations per cell is potentially problematic.

The current research aims to provide more definitive answers while focusing on observer reactions to offenders' post-transgression behaviors. Specifically, we used larger sample sizes and systematically compared voluntary atonement with atonement that is intervener-imposed, victim-requested, or absent (i.e., no atonement at all). To disentangle the effects of atonement from other related constructs (e.g., remorse, culpability, approach vs. avoidance), potentially confounding features of apology were held constant in our atonement manipulations. We also employed a variety of transgressions (e.g., physical, material, financial harms), varied victim-transgressor relationships (e.g., housemates, friends, business partners), and included impositions with both low and high consequence of noncompliance (e.g., court order vs. friendly advice). In addition to these improvements, this work extends prior work by examining a variety of measures related to forgiveness, broadening our understanding of how atonement not only affects the forgivability

of transgressors but also influences beliefs about the extent to which transgressors value victims and the self. We describe these variables in the next section.

## Perceived Forgivability and Victim Valuation

The extent to which a person believes an offender deserves forgiveness is informed by evaluations of the offenders' original act and the reparative behaviors they have (or have not) engaged in to make up for the wrongs they committed (Watanabe & Laurent, 2020). When navigating social decisions, such as determining who deserves forgiveness instead of punishment, accurately estimating how much a person values another's welfare also becomes important (Forster et al., 2017; Sell et al., 2009; Smith et al., 2017). This internal regulatory variable is termed the welfare trade-off ratio (WTR). The higher an individual's WTR is toward a target person, the more the individual will incur costs (e.g., sacrifice) to enhance the target's welfare. Likewise, the lower an individual's WTR toward a target is, the more likely they will inflict costs on the target (e.g., harm) when it is personally beneficial. Within an adaptationist framework, behavior is perceived as transgressive when the self is treated with less regard or valued less than expected based on previous interactions or relationship status (McCullough et al., 2013; Petersen et al., 2010, 2012). Achieving reconciliation involves upregulating an offender's WTR toward the victim to mutually acceptable levels such that cooperative interactions may resume (McCullough et al., 2013; Petersen et al., 2010). A crucial consideration in recalibrating the WTR of someone who has recently caused harm may be the voluntariness of their atonement. Just as self-punishment is sometimes more effective than other-inflicted punishment for achieving reconciliation with third parties (de Vel-Palumbo et al., 2019), we contend that perceivers care not only whether offenders make amends but whether they choose to do so of their own volition.

Information that effectively conveys a transgressor's lack of intent to cause future harm should be relevant for observers of a transgression. Some researchers have proposed that bystander intervention emerges because mistreatment of others is seen as later mistreatment of oneself (Krasnow et al., 2016). When transgressions occur, victims are devalued, and observers infer that they may also be devalued by the offender (Delton et al., 2011; Krasnow et al., 2013, 2016). From this perspective, the WTR for victims should be restored when offenders sincerely atone, and observers may use this information about post-transgression efforts to recalibrate offender's WTR toward themselves. Therefore, we propose that the voluntariness of offenders' atonement will influence perceived victim valuation, which should guide observers' inferences regarding how much offenders value *them*.

In the current research, we directly assess perceived victim/self-valuation—the extent to which third-party observers believe offenders value victims/self—and also use decision-making tasks to estimate the WTR for victims/self. Methodological advantages of using the WTR task include performance-based target evaluation, target specificity, and similar decision outcomes for real or hypothetical choices (Delton, 2010; Krasnow et al., 2016). The WTR is also a theoretically relevant variable because judgments of forgiveness inherently involve computing the expected future value of a relationship with an offender (McCullough et al., 2013). Although personal decisions to forgive are typically reserved for victims, observers commonly evaluate whether offenders deserve to be forgiven. Therefore, we also assess perceived forgivability of offenders. In addition to internal assessment of how much an offender seems to value others and deserve forgiveness, we also explore offenders' prosocial motivation and observers' intent to cooperate with or punish the offender. Offenders who successfully display behavioral cues of commitment to a victim's well-being should be more likely to obtain forgiveness, convey prosocial motivation, resume cooperative interactions, and avoid punishment (Bottom et al., 2002; McCullough et al., 2014; Zechmeister et al., 2004).

## The Present Research

Four experiments tested the hypothesis that third-party observers perceive more forgivability and victim valuation when atonement is voluntary rather than imposed. In Experiment 1, imposed atonement was court-ordered compensation. Experiment 2 included the WTR task, impositions made by same-status peers, and a variety of transgressions. Experiment 3 replicated Experiment 1, testing whether observers' inferences about their own valuation could be predicted from perceived victim valuation. Finally, Experiment 4 assessed third-party evaluations of forgivability, victim valuation, cooperative intent, offenders' prosocial motivation, and desire to punish as a function of atonement type.

We report all measures, manipulations, and exclusions in the studies. All experimental materials are reported in the Online Supplemental Material (OSM). R codes and data for all studies are available at <https://osf.io/rvp5c/>. Results for main dependent measures did not substantively vary as a function of excluding participants who failed attention checks. Results including all participants are reported in the OSM. Sample sizes were determined a priori, and no analyses were conducted before data collection for each study was complete. Sensitivity analyses showed that using  $\alpha = .05$ , our final sample sizes had 80% power to detect effect sizes of  $d = 0.42$  (Experiment 1), omnibus  $f = .25$  (Experiment 2), omnibus  $f = .28$  (Experiment 3), and omnibus  $f = .20$  (Experiment 4).

Participants were U.S. residents recruited from Amazon Mechanical Turk with above 97% human intelligence task (HIT) approval ratings (Table 1). Informed consent was

obtained prior to participation, and demographic information was collected at the end of each study. No participant participated in more than one experiment. Supplementary variables and analyses as well as correlations among all dependent variables are reported in the OSM.

## Experiment 1

Experiment 1 tested whether perceiver judgments in a civil dispute context would vary depending on whether an offender's atonement was voluntary or imposed by an authority. We hypothesized that despite equal restitution, voluntary atonement would yield greater perceived victim valuation and forgivability relative to mandated atonement.

## Method

**Participants and procedure.** After excluding participants who failed attention checks, the final sample size was 183 (see Table 1). Participants were randomly assigned to voluntary or mandatory atonement conditions. Participants read a vignette about David (victim) and his housemate, Shane (offender). Shane gets in an accident while driving David's car, totaling it. David considers filing a civil claim against Shane. In the voluntary condition, Shane pays David's transportation costs and eventually buys him a new car without being asked to by anyone. In the mandatory condition, Shane is ordered to do these things by the court. Participants then responded to dependent measures.

**Measures.** Unless noted, all items in all experiments used 7-point scales ranging from 1 = *entirely disagree* to 7 = *entirely agree*. All measured items are fully described in the OSM.

**Compensation ( $\alpha = .67$ ).** The extent to which participants believed the offender compensated the victim was assessed with three statements (e.g., "David was compensated for the damage Shane caused").

**Voluntariness ( $\alpha = .94$ ).** Four items measured perceptions of whether the offender voluntarily atoned (e.g., "Shane decided on his own to pay for the damage he caused").

**Perceived victim valuation ( $\alpha = .92$ ).** Six items were adapted from Communal Strength Scale (Mills et al., 2004). Participants were instructed to recall David (victim) and Shane (the person who wrecked David's car) from the story and answer six questions (0 = *not at all* to 10 = *extremely*): "How large a cost would Shane incur to meet David's needs?"; "How reluctant would Shane be to sacrifice for David (reverse-coded)?"; "How happy would Shane feel when doing something that helps David?"; "How much would Shane be willing to give up to benefit David?"; "How far would Shane go out of his way to do something

**Table 1.** Demographics (Experiments 1–4).

Variables	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Total respondents	202	176	176	301
Exclusions	19	16	49	63
Final sample size	183	160	127	238
Gender, male (%)	48.09	55.00	49.61	59.49
Age, <i>M</i> ( <i>SD</i> )	36.05 (12.13)	36.86 (12.63)	34.93 (11.53)	36.93 (10.75)
Ideology, <i>M</i> ( <i>SD</i> )	3.33 (1.75)	3.37 (1.74)	3.28 (1.85)	3.50 (1.78)
Ethnicity (%)				
Asian/Asian American	3.85	6.88	7.87	5.91
Black/African American	6.59	6.25	9.45	13.92
Hispanic/Latino(a)	3.30	4.38	3.15	5.49
White/European American	82.97	75.62	75.59	71.31
Native American/Pacific Islander	0.00	1.25	2.36	0.84
More than one	2.75	1.88	0.79	2.11
Other/Prefer not to say	0.55	3.76	0.79	0.42

Note. Although we advertised for 200 (Experiment 1) and 175 (Experiments 2–3), a few extra respondents completed each study. For Experiment 4, we originally advertised for 600 because a hypothetical victim condition was also included. Full sample demographics and results for Experiment 4 including the victim condition are provided in the Online Supplemental Material. Experiments 1 to 3 were conducted in April to July 2018, and Experiment 4 was conducted in February 2020. The higher exclusion rates in the latter studies may reflect general shifts in MTurk data quality since summer 2018 (Chmielewski & Kucker, 2020). Ideology was measured with a 7-point Likert-type scale where 1 = *extremely liberal*, 4 = *middle of the road*, and 7 = *extremely conservative*.

for David?"; and "How high of a priority for Shane is meeting the needs of David?"

**Forgivability** ( $\alpha = .88$ ). Three items measured forgivability (McCullough & Hoyt, 2002; Rye et al., 2001): "Shane deserves David's forgiveness," "Despite what Shane did, David should have compassion for him," and "David should let go of any anger he may have toward Shane."

## Results and Discussion

Perceived compensation was somewhat higher for voluntary ( $M = 6.48$ ,  $SD = 0.78$ ) atonement relative to mandatory ( $M = 5.88$ ,  $SD = 0.90$ ),  $t(181) = 4.82$ ,  $p < .001$ ,  $d = 0.71$ , 95% confidence interval ( $CI_{.95}$ ) = [0.36, 0.85].<sup>1</sup> However, perceivers in both conditions likely believed the offender's actions compensated the victim because mean compensation was above the midpoint in both mandatory,  $t(87) = 19.48$ ,  $p < .001$ ,  $CI_{.95} = [5.68, 6.07]$ , and voluntary conditions,  $t(94) = 30.76$ ,  $p < .001$ ,  $CI_{.95} = [6.32, 6.64]$ . Checking the manipulation, voluntariness was higher in the voluntary ( $M = 6.17$ ,  $SD = 0.89$ ) than mandatory condition ( $M = 2.18$ ,  $SD = 0.94$ ),  $t(181) = 29.48$ ,  $p < .001$ ,  $d = 4.36$ ,  $CI_{.95} = [3.72, 4.26]$ .

As hypothesized, participants perceived greater victim valuation when atonement was voluntary ( $M = 8.23$ ,  $SD = 1.16$ ) than mandatory ( $M = 4.27$ ,  $SD = 2.19$ ),  $t(181) = 15.43$ ,  $p < .001$ ,  $d = 2.28$ ,  $CI_{.95} = [3.45, 4.46]$ . This difference was robust to the inclusion of perceived compensation and offense severity as control variables (see OSM Table S3). Voluntary atonement ( $M = 6.24$ ,  $SD = 0.92$ ) also led to greater perceived forgivability than mandatory ( $M = 4.44$ ,  $SD = 1.38$ ),

$t(181) = 10.41$ ,  $p < .001$ ,  $d = 1.54$ ,  $CI_{.95} = [1.45, 2.13]$ . Thus, although costs of atonement and reparation the victim received remained constant across conditions, participants perceived greater victim valuation and forgivability when the offender chose to atone of his own volition.

## Experiment 2

Several changes were implemented in Experiment 2. Although atonement continued to be manipulated between participants, we added a comparison condition where offenders did not attempt to atone. In addition, impositions to atone were suggested by mutual peers instead of mandated by an authority. A within-participants factor was added wherein participants read and evaluated three transgression vignettes describing different harm types and victim–transgressor relationships. Last, in addition to self-reported scale measures, we measured perceived valuation using the WTR task. We hypothesized that voluntary atonement would yield greater perceived victim valuation, forgivability, and WTR than imposed atonement, and that these measures would be greater in the imposed than the no-atonement condition.

## Method

**Participants and procedure.** After excluding participants who failed more than half of attention checks, the final sample size was 160 (see Table 1). After being randomly assigned to one of three atonement conditions (imposed, voluntary, no atonement), all participants read about Kyle (offender), who fails to water Ashley's (victim) plant, which dies (material harm); Stephen (offender) who fails to relay a phone

**Table 2.** Possible Choices of the Welfare Trade-Off Ratio Task in Experiment 2.

Offender receives	OR	Victim receives
US\$85		US\$75
US\$75		US\$75
US\$65		US\$75
US\$55		US\$75
US\$45		US\$75
US\$35		US\$75
US\$25		US\$75
US\$15		US\$75
US\$5		US\$75
US\$0		US\$75

Note. OR means that for each trial, the choice was either offender receives a certain amount OR the victim receives a certain amount.

message, causing Austin (victim) to miss a job interview (financial harm); and Lauren (offender), who gets drunk and shoves Kayla (victim), who injures her head (physical harm). Stories were presented in individualized random orders.

In the voluntary condition, offenders made amends (e.g., buying a new plant) without being asked to do so by anyone. In the imposed condition, offenders made the same amends after mutual friends suggested that they should. In the comparison condition, offenders did not make amends despite having had opportunities to do so, but outcomes were held constant (e.g., Ashley received a plant from someone else).<sup>2</sup> After being presented with each story, participants responded to attention checks, followed by measures assessing voluntariness, compensation, perceived victim valuation, and forgiveness. Participants then provided estimates of how much the offender valued the victim's welfare (WTR) before proceeding to the next story.

### Measures

**Compensation.** Two true/false items assessed whether offenders compensated victims (e.g., "[Victim] was compensated in some way for the damage caused by [Offender's] action").

**Voluntariness ( $\alpha = .90$ ) and forgiveness ( $\alpha = .90$ ).** The same items from Experiment 1 with names and actions changed were used. Voluntariness was not assessed in the no-atonement condition.

**Perceived victim valuation ( $\alpha = .95$ ).** Victim valuation was assessed with four items: "[Offender] values [Victim]," "For [Offender], maintaining a good relationship with [Victim] is important," "[Offender] respects [Victim]," and "[Offender] will treat [Victim] fairly in the future."

**WTR task.** For each vignette, participants responded to 10 hypothetical trade-off decisions adapted from Forster

et al. (2017). In standard versions of this task, each decision forces an "allocator" to choose between allocating some varying amount of money to themselves and offering a fixed amount to a recipient. For example, an allocator might have to choose on one trial between a recipient getting US\$75 (but the allocator gets nothing) and the allocator getting US\$15 for themselves (but the recipient gets nothing). In our adaptation, participants were instructed to imagine that the allocator and recipient were, respectively, the offender and victim from each story. Each trade-off (Table 2) was presented one at a time and in random order, and participants were asked to choose the option they believed the offender would prefer (see the OSM for full instructions).

Valuation scores for each offender–victim pair were computed from participants' decisions by looking for "switch points" (Delton, 2010; Kirkpatrick et al., 2015). For example, if a participant believed the offender would choose to get US\$35 themselves over directing US\$75 to the victim but believed the offender would give up the opportunity to get US\$25 to deliver US\$75 to the victim, the valuation score would be calculated as the average of the ratios bounding this switch point  $(35 / 75 + 25 / 75) / 2 = 0.40$ . By taking note of the switch point, it becomes possible to infer participants' perceptions of offenders' WTRs toward victims (Delton, 2010; Delton & Robertson, 2016).<sup>3</sup> Here, scores were bounded at 0 and 1.13 with greater numbers representing greater inferred valuation.

### Results and Discussion

**Manipulation checks.** As expected and across scenarios, when asked whether the victim was compensated, 78% in the imposed and 75% in the voluntary conditions responded affirmatively, while 68% in the no-atonement condition responded negatively. Similarly, when asked whether offenders' actions helped fix the problem, 83% of imposed and 85% of voluntary responded affirmatively while 94% in the no-atonement condition responded negatively. These results confirmed that compensation in both atonement conditions and its absence in the no-atonement condition were generally recognized.

Table 3 provides mean and standard deviation for all variables. A 2 (atonement, between participants: imposed, voluntary)  $\times$  3 (story, within participants: plant, job, drunk) mixed analysis of variance (ANOVA)<sup>4</sup> on voluntariness showed the expected main effect of atonement type,  $F(1, 101) = 283.02$ ,  $p < .001$ ,  $\eta_g^2 = .66$ . A main effect of story also emerged,  $F(2, 202) = 3.28$ ,  $p = .040$ ,  $\eta_g^2 = .01$ . The Atonement  $\times$  Story interaction was not significant,  $F(2, 202) = 2.95$ ,  $p = .055$ . Voluntariness of atonement was rated higher in the voluntary condition in all three stories, respectively, for plant, job, and drunk,  $t(101) = 18.30$ , 11.45, and 13.80;  $ps < .001$ ;  $ds = 3.61$ , 2.26, and 2.72;  $CIs_{.95} = [3.23, 4.01]$ ,  $[2.56, 3.63]$ , and  $[3.02, 4.03]$ .

**Table 3.** Experiment 2: Means and Standard Deviations as a Function of Atonement Type and Story.

Variables	No atonement			Imposed atonement			Voluntary atonement		
	Plant	Job	Drunk	Plant	Job	Drunk	Plant	Job	Drunk
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Voluntariness	—	—	—	2.51 (0.97)	2.96 (1.39)	2.45 (1.26)	6.13 (1.04)	6.05 (1.35)	5.97 (1.33)
Victim valuation	2.98 (1.47)	2.25 (1.21)	2.38 (1.17)	3.83 (1.13)	3.83 (1.25)	3.47 (1.57)	5.33 (1.21)	5.28 (1.23)	4.63 (1.41)
Forgivability	3.87 (1.49)	3.10 (1.49)	2.93 (1.36)	4.42 (1.16)	4.50 (1.06)	3.93 (1.45)	5.38 (1.24)	5.21 (1.32)	4.36 (1.60)
WTR for victim	0.21 (0.36)	0.17 (0.35)	0.20 (0.36)	0.26 (0.37)	0.25 (0.36)	0.22 (0.35)	0.49 (0.41)	0.43 (0.40)	0.45 (0.42)
N		57			51			52	

Note. WTR = welfare trade-off ratio.

**Perceived victim valuation.** A 3 (atonement: no atonement, imposed, voluntary)  $\times$  3 (story: plant, job, drunk) mixed ANOVA was used to examine the remaining dependent measures. For perceived victim valuation, there was a main effect of atonement type,  $F(2, 157) = 80.20, p < .001, \eta_g^2 = .40$ ; a main effect of story,  $F(2, 314) = 13.94, p < .001, \eta_g^2 = .03$ ; and an interaction,  $F(4, 314) = 3.62, p = .007, \eta_g^2 = .02$  (Figure 1). Although the Atonement  $\times$  Story interaction was unexpected, the hypothesized atonement effect was evident within each story. Relative to imposed atonement, participants in the voluntary condition perceived greater victim valuation for all stories, plant:  $t(101) = 6.51, p < .001, d = 1.28, CI_{.95} = [1.04, 1.96]$ ; job:  $t(101) = 5.96, p < .001, d = 1.17, CI_{.95} = [0.97, 1.94]$ ; and drunk:  $t(101) = 3.93, p < .001, d = 0.77, CI_{.95} = [0.57, 1.74]$ . As predicted, imposed atonement yielded greater victim valuation than no atonement for plant,  $t(106) = 3.35, p = .001, d = 0.65, CI_{.95} = [0.35, 1.35]$ ; job,  $t(106) = 6.67, p < .001, d = 1.29, CI_{.95} = [1.11, 2.05]$ ; and drunk,  $t(106) = 4.13, p < .001, d = 0.80, CI_{.95} = [0.57, 1.62]$ .

**Forgivability.** For forgivability, there was a main effect of atonement type,  $F(2, 157) = 30.28, p < .001, \eta_g^2 = .21$ ; a main effect of story,  $F(2, 314) = 31.86, p < .001, \eta_g^2 = .06$ ; and an interaction,  $F(4, 314) = 4.09, p = .003, \eta_g^2 = .02$ . Except for the drunk story,  $t(101) = 1.43, p = .155$ , participants in the voluntary (vs. imposed) condition perceived greater forgivability— $t(101) = 4.06$  and  $3.03, p < .001$  and  $.003, ds = 0.80$  and  $0.60, CIs_{.95} = [0.49, 1.43]$  and  $[0.25, 1.18]$  for plant and job scenarios, respectively. For plant, job, and drunk scenarios, participants in the imposed condition perceived greater forgivability relative to no atonement,  $t(106) = 2.11, 5.56, \text{ and } 3.69; p = .037, <.001, \text{ and } <.001; ds = 0.41, 1.07, \text{ and } 0.71; CIs_{.95} = [0.03, 1.06], [0.90, 1.90], \text{ and } [0.46, 1.53], \text{ respectively.}$

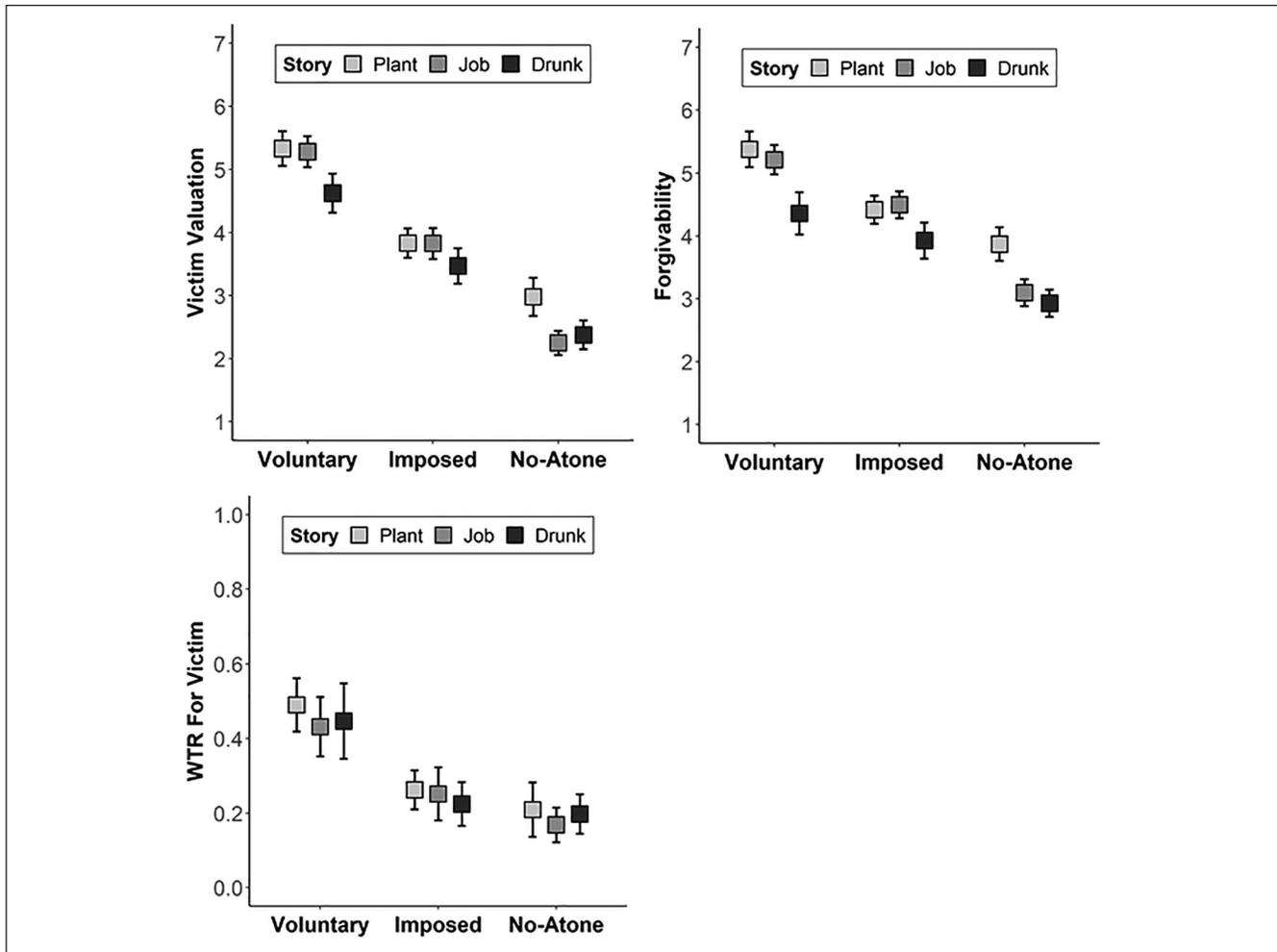
**WTR for victim.** A main effect of atonement on WTR scores was found,  $F(2, 157) = 10.30, p < .001, \eta_g^2 = .08$  (Figure 1). Neither the story main effect,  $F(2, 314) = 1.00, p = .370$ , nor the interaction,  $F(4, 314) = 0.24, p = .914$ , was significant. As hypothesized and consistent with the victim

valuation measure, WTR scores in the voluntary condition were higher than in the imposed condition,  $t(101) = 3.32, p = .001, d = 0.54, CI_{.95} = [0.08, 0.34]$ . Counter to our prediction and diverging from the scale measure results, WTR scores did not differ between the imposed and no-atonement conditions,  $t(106) = 0.90, p = .370$ . Thus, participants perceived greater victim valuation and WTR for victim when offenders voluntarily atoned versus when atonement was imposed. However, when comparing imposed atonement with no atonement, victim valuation but not WTR differed. We discuss this further in Experiment 3.

### Experiment 3

Across multiple harm contexts, Experiment 2 demonstrated that perceivers inferred greater victim valuation, WTR, and forgivability when atonement was voluntary than when it was imposed. However, it is unknown whether voluntariness of atonement extends beyond the victim-offender dyad and affects third-party observers. Experiment 3 examines whether perceivers who are unharmed by the original offense use meta-judgments about victim valuation to further infer how their own welfare might be regarded by offenders. Experiment 3 replicated the design from Experiment 1 but also measured WTR to examine whether the difference between no-atonement and imposed atonement conditions would emerge again only for forgivability and victim valuation but not for WTR.

We again expected voluntary (vs. mandatory) atonement and mandatory atonement (vs. no atonement) to yield greater forgivability, victim valuation, and WTR for victim. Moreover, we predicted that perceived self-valuation (i.e., participants' beliefs that they are valued by the offender) and WTR for self (i.e., participants' estimates of offender's WTR toward self) would be greater when the offender voluntarily atoned than when atonement was mandatory. However, we were less certain whether self-valuation and WTR for self would differ for mandatory atonement and no atonement. Finally, we hypothesized that perceived victim valuation would mediate the effect of atonement type (i.e., voluntary vs. mandatory) on WTR for self.



**Figure 1.** Experiment 2: Mean perceived victim valuation, forgivability, and WTR scores for victim.

Note. Error bars depict the 95% confidence intervals for repeated measures (Cousineau, 2005; Morey, 2008). WTR = welfare trade-off ratio.

## Method

**Participants and procedure.** After excluding respondents who failed attention checks, 127 participants remained (see Table 1). Participants were presented with the car accident vignette used in Experiment 1. In addition to the voluntary and mandatory atonement conditions, a no-atonement condition was included. In this condition, the offender (“Shane”) did not pay for the victim’s (“David”) transportation costs or buy the victim a new car; however, David’s father helped him financially. Thus, material consequences were held constant across all conditions.

Participants were randomly assigned to one of the three atonement conditions. After reading the vignette, participants responded to attention checks and measures of compensation, voluntariness, forgivability, perceived victim valuation, and self-valuation. Participants then provided WTR estimates of how much the offender valued the victim’s welfare and the participant’s own welfare.

## Measures

**Compensation** ( $r = .97$ ) and **voluntariness** ( $\alpha = .92$ ). Two compensation items from Experiment 1 were used to assess the extent to which the offender compensated the victim. In the voluntary and mandatory atonement conditions, three voluntariness items from Experiment 1 again assessed perceptions of the offender’s volition.

**Forgivability** ( $\alpha = .92$ ), **perceived victim valuation** ( $\alpha = .96$ ), and **self-valuation** ( $\alpha = .97$ ). Forgivability items were identical to Experiment 1. Perceived victim valuation was assessed with three items: “Shane values David,” “For Shane, maintaining a good relationship with David is important,” and “Shane respects David.” Self-valuation items were identical to victim valuation, except participants were asked to imagine they were acquainted with the offender, and the word “me” replaced “David” (e.g., “Shane values me”).

**Table 4.** Experiment 3: Means and Standard Deviations as a Function of Atonement Type.

Variables	No atonement		Mandatory atonement		Voluntary atonement	
	M	SD	M	SD	M	SD
Compensation	1.26	0.82	5.43	1.86	6.61	0.64
Voluntariness	—	—	1.70	0.79	6.16	1.14
Forgivability	2.73	1.57	4.02	1.60	6.25	0.88
Perceived victim valuation	1.86	1.27	3.05	1.64	6.26	0.79
Perceiver self valuation	2.39	1.46	2.98	1.41	5.92	0.96
WTR for victim	0.31	0.43	0.40	0.46	0.79	0.42
WTR for self	0.24	0.40	0.30	0.42	0.60	0.45
N	45		35		47	

Note. WTR = welfare trade-off ratio.

*Victim WTR and self WTR.* The WTR task was the same as in Experiment 2 except each participant completed two rounds of this task, with the victim and the self as recipients. The order of rounds was randomized across participants. In both rounds and for each trade-off decision (see Table 2), participants were asked to select the option that Shane (offender) would prefer. Two scores were obtained from each participant: WTR for victim and WTR for self.

## Results

*Manipulation checks.* Table 4 provides mean and standard deviation for all variables. A one-way ANOVA showed that perceived compensation differed across conditions,  $F(2, 124) = 266.50, p < .001, \eta_g^2 = .81$ . Relative to the no-atonement condition, the offender was perceived as having compensated the victim more in both the mandatory,  $t(78) = 13.52, p < .001, d = 3.05, CI_{.95} = [3.56, 4.79]$ , and voluntary,  $t(90) = 35.03, p < .001, d = 7.31, CI_{.95} = [5.05, 5.65]$ , atonement conditions.<sup>5</sup> As expected, perceived voluntariness of atonement was higher in the voluntary (vs. mandatory) condition,  $t(80) = 19.92, p < .001, d = 4.45, CI_{.95} = [4.01, 4.90]$ .

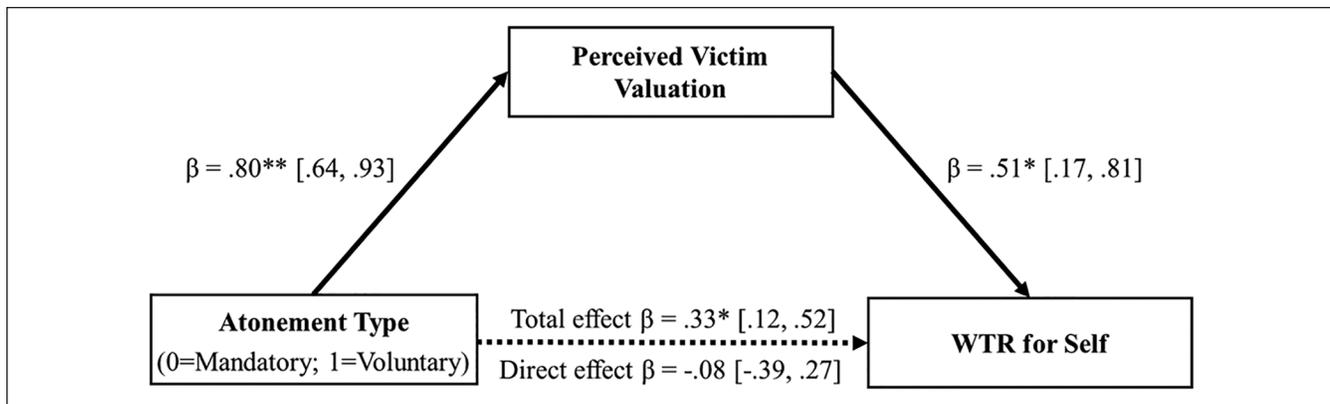
*Forgivability.* Perceived forgivability differed across conditions,  $F(2, 124) = 78.19, p < .001, \eta_g^2 = .56$ . Replicating Experiments 1 and 2, forgivability was higher in the voluntary (vs. mandatory) atonement condition,  $t(80) = 8.07, p < .001, d = 1.80, CI_{.95} = [1.68, 2.78]$ . Participants also perceived greater forgivability in the mandatory atonement (vs. no-atonement) condition,  $t(78) = 3.61, p < .001, d = 0.81, CI_{.95} = [0.58, 1.99]$ . Thus, perceivers believed that an offender who voluntarily made amends was the most forgivable, followed by an offender who was ordered to atone and further by an offender who did not attempt to atone at all.

*Perceived victim valuation and WTR for victim.* Perceived victim valuation and WTR for victim also differed across conditions,  $F_s(2, 124) = 153.40$  and  $15.56, p_s < .001, \eta_g^2 = .71$

and .20, respectively. As predicted, victim valuation and WTR from an offender whose atonement was voluntary (vs. mandatory) were higher, respectively,  $t_s(80) = 11.73$  and  $3.94, p_s < .001, d_s = 2.62$  and  $0.88, CI_{.95} = [2.67, 3.76]$  and  $[0.19, 0.58]$ . In addition, greater victim valuation was again perceived for mandatory atonement relative to no atonement,  $t(78) = 3.65, p < .001, d = 0.82, CI_{.95} = [0.54, 1.84]$ . However, replicating Experiment 2, the size of this effect was much smaller and non-significant for victim WTR,  $t(78) = 0.97, p = .337, d = 0.22, CI_{.95} = [-0.10, 0.30]$ . Thus, making amends when coerced to do so results in somewhat greater perceptions of valuation toward victims than no atonement, but this effect may be harder to capture or not evident using the WTR task.

*Self-valuation and WTR for self.* Condition-based differences in perceived self-valuation and self WTR were respectively observed,  $F_s(2, 124) = 98.36$  and  $9.62, p_s < .001, \eta_g^2 = .61$  and  $.13$ . As hypothesized, when atonement was voluntary rather than mandatory, perceivers rated self-valuation as higher,  $t(80) = 11.23, p < .001, d = 2.51, CI_{.95} = [2.42, 3.46]$ , and indicated that offender's WTR toward self was also higher,  $t(80) = 3.11, p = .003, d = 0.70, CI_{.95} = [0.11, 0.50]$ . However, the comparison of mandatory and no-atonement conditions was not significant for reported self-valuation,  $t(78) = 1.81, p = .074, d = 0.41, CI_{.95} = [-0.06, 1.23]$ . Mirroring the results on WTR for victim, participants did not infer significantly greater WTR for self when atonement was mandatory (vs. no atonement),  $t(78) = 0.66, p = .510, d = 0.15, CI_{.95} = [-0.12, 0.24]$ .

*Mediation.* An important goal of Experiment 3 was to test whether the effect of atonement type on perceivers' estimates of offender's WTR toward self can be explained by the extent to which offenders seem to value the victim. Because WTR scores did not significantly differ between mandatory and no atonement, our model focused on the two atonement conditions (mandatory = 0, voluntary = 1). In addition, because all participants responded to the scale valuation measures



**Figure 2.** Experiment 3: Mediation model of the indirect effect of atonement type on WTR for self through perceived victim valuation. Note. Path coefficients are standardized. Values in brackets represent bias-corrected 95% confidence intervals obtained from 10,000 bootstrap resamples. Bootstrap standard errors, confidence intervals, and significance levels of indirect effects are reported in text. WTR = welfare trade-off ratio. \* $p < .01$ . \*\* $p < .001$ .

prior to the WTR tasks, we tested whether perceived victim valuation mediated the effect of atonement type on perceivers' self WTR (Figure 2). We tested this model using the *lavaan* package in R (Rosseel, 2012). The direct effect of atonement type on perceived victim valuation was significant, as was the direct effect of victim valuation on WTR for self (Figure 2). Consistent with our hypothesis, the indirect effect of atonement type on WTR for self via victim valuation was significant ( $b = 0.40$ ,  $SE = 0.13$ ,  $z = 3.10$ ,  $p = .002$ ,  $CI_{.95} = [0.16, 0.68]$ ), suggesting that perceivers inferred their own valuation based on how voluntary atonement influenced perceptions of victim valuation.<sup>6</sup>

## Discussion

Experiment 3 showed that voluntary (vs. mandatory) atonement yielded greater forgivability, perceived victim and self-valuation, and WTR for both victim and self. Furthermore, the effectiveness of voluntary atonement extended beyond the victim as perceivers inferred their own valuation through how much the victim seemed to be valued by the offender. However, although mandatory atonement (vs. no atonement) yielded greater perceived forgivability and valuation for the victim, this comparison was not significant for self-valuation, and there was no significant effect of this comparison on WTR for victim or self. This suggests that if atonement is not made voluntarily, it has little effects on self-valuation beyond not atoning at all.

Contrary to our predictions, WTR scores did not significantly differ between no-atonement and imposed atonement conditions. Given that the task is relatively simple (Delton, 2010; Kirkpatrick et al., 2015) and 92% of participants indicated that they comprehended the WTR instruction in Experiment 3, we do not believe that participants' misunderstanding of the task explains the unexpected results. Possibly, the valuation measure in Experiment 1 may be

more directly comparable with the WTR than the items used in Experiments 2 and 3, which do not address trade-offs. However, valuing a relationship should be relevant for making trade-off decisions, and perceived victim valuation correlated significantly with WTR in both Experiments 2 and 3 (see OSM Tables S5 and S9).

Trade-off decisions are often made quickly and intuitively (Delton & Robertson, 2016). Although the WTR computations are somewhat complex, from participants' perspective regarding each trade-off decision (which were presented in random order), they were simply selecting options that felt appropriate for each decision and were likely unaware that their choices were assessing precise welfare trade-off switch points. Thus, although the WTR task is different from other indirect measures (e.g., reaction time), WTR decisions may be more influenced by associative processes than direct self-report measures requiring deliberate consideration of an agent's valuation. Speculatively, it may take more evidence to substantially update meta-judgments of others' beliefs using indirect assessments like the WTR relative to explicit measures of valuation. Research on attitude formation suggests people can revise implicit impressions from negative to positive, if explanations about original information lacking validity are believable (Cone et al., 2019; Mann et al., 2019). However, dissociations between implicit and explicit impressions may persist when new evidence is weak. Future research should examine potential discrepancies between explicit and implicit forgiveness responses.

## Experiment 4

Experiment 4 extends Experiments 1 to 3 with several additional goals. Although interveners often demand restorative actions on behalf of victims, it is also common for victims to request compensation (e.g., a consumer who has received poor service). Therefore, we introduced a new condition in

which the victim directly requests atonement from the offender. We refer to this new condition as “victim-requested” atonement to distinguish it from atonement imposed by interveners.<sup>7</sup> Comparing imposed and requested atonement conditions allows a test of whether it is only coercion from outside a victim–transgressor dyad that undermines the effectiveness of atonement for third-party observers. Alternatively, if both imposed and requested atonement result in reduced valuation, then decisions to atone must be strictly voluntary in order for atonement to be maximally effective. In addition, Experiment 4 explores the impact of atonement type on perceptions of offenders’ prosocial motivation and people’s behavioral intent toward the offender (willingness to cooperate, desire to punish). Finally, to enhance generalizability beyond communal victim–offender relationships, Experiment 4 featured an exchange relationship between business partners (Clark & Mills, 1993).

Whereas compliance with imposed or requested atonement may be externally motivated (e.g., to avoid punishment), atonement initiated by an offender likely signifies their internal conviction to reform (de Vel-Palumbo et al., 2019). Thus, we hypothesized that voluntary atonement would yield greater victim valuation and forgivability than imposed and victim-requested atonement. We remained agnostic, however, as to whether participants would distinguish between imposed and requested atonement. We had similar predictions for prosocial motivation, willingness to cooperate, and punitive desire, but these variables were exploratory.

## Method

**Participants and procedure.** After excluding participants who failed more than half of the attention checks, the final sample size was 238 (see Table 1).<sup>8</sup> After consenting to participate, participants read a vignette (adapted from Tomlinson et al., 2004) about a violation in a negotiated agreement between two business owners. Participants were told to imagine that they were not directly involved but knew the two business owners, Pat (offender) and Alex (victim). Atonement was manipulated as follows: Participants read that Pat remedied Alex’s financial loss without being asked by Alex or anyone else (voluntary), after a mutual colleague’s suggestion (imposed), or after Alex requested Pat to fix the situation (victim-requested). Participants then responded to attention checks, followed by measures assessing perceived victim valuation, forgivability, prosocial motivation, punitive desire, and willingness to cooperate. After responding to dependent measures, participants completed compensation and voluntariness items.

## Measures

**Compensation ( $r = .64$ ) and voluntariness ( $\alpha = .67$ ).** The same two compensation items from Experiment 3 were used with changed names. All conditions contained three state-

ments similar to previous experiments’ voluntariness items (e.g., “Pat voluntarily decided to make amends to Alex”).

**Perceived victim valuation ( $\alpha = .86$ ) and forgivability ( $\alpha = .81$ ).** The same items from Experiment 3 with changed names were used to assess perceived victim valuation and forgivability.

**Prosocial motivation ( $\alpha = .85$ ).** Four items measured offender’s prosocial desire toward victim: “Pat sincerely wanted to help Alex,” “Pat wanted to do the right thing for Alex,” “Pat did not really want to help Alex but did it anyway (reverse-coded),” and “Pat was not truly convinced that helping Alex was the correct thing to do (reverse-coded).”

**Future cooperation ( $r = .67$ ).** Two items assessed participants’ beliefs about cooperative interactions with the offender: “Alex should continue to do business with Pat in the future,” and “If you were looking for a business partner to start a new venture in a brand-new market, would you consider working with Pat?” (1 = *not at all likely*, 7 = *very likely*).

**Punishment.** Participants’ desire to punish the offender was measured with one item, “To what extent do you think Pat should be punished for going back on the initial business agreement to purchase 500,000 juice labels from Alex?” (1 = *not at all*, 7 = *quite a lot*).

## Results and Discussion

**Manipulation checks.** Table 5 provides mean and standard deviation for all variables. Perceived compensation was high across conditions (Table 5), indicating that participants generally reported that the offender compensated the victim. A one-way ANOVA revealed no significant condition-based differences in perceived compensation,  $F(2, 235) = 1.01$ ,  $p = .365$ ,  $\eta_g^2 = .01$ , which was expected because restitution occurred in all atonement conditions. In contrast, voluntariness differed across conditions,  $F(2, 235) = 21.95$ ,  $p < .001$ ,  $\eta_p^2 = .16$ . As expected, voluntariness was rated higher for voluntary atonement than imposed,  $t(160) = 5.49$ ,  $p < .001$ ,  $d = 0.86$ ,  $CI_{.95} = [0.73, 1.55]$ , and requested atonement,  $t(156) = 5.97$ ,  $p < .001$ ,  $d = 0.95$ ,  $CI_{.95} = [0.85, 1.68]$ . Participants in imposed and requested conditions perceived similar levels of voluntariness,  $t(154) = 0.56$ ,  $p = .576$ , which was expected because atonement was externally coerced in both conditions.

**Perceived victim valuation and forgivability.** As hypothesized, perceived victim valuation and forgivability, respectively, differed across conditions,  $F_s(2, 235) = 3.89$  and  $4.77$ ,  $p_s = .022$  and  $.009$ ,  $\eta_g^2 = .03$  and  $.04$ . Relative to imposed atonement, voluntary restitution yielded greater victim valuation,  $t(160) = 2.69$ ,  $p = .008$ ,  $d = 0.42$ ,  $CI_{.95} = [0.11, 0.73]$ ,

**Table 5.** Experiment 4: Means and Standard Deviations as a Function of Atonement Type.

Variables	Imposed atonement		Victim-requested atonement		Voluntary atonement	
	M	SD	M	SD	M	SD
Compensation	5.96	1.09	5.93	0.99	6.14	0.96
Voluntariness	4.45	1.34	4.32	1.36	5.59	1.31
Victim valuation	5.74	1.12	5.84	1.01	6.16	0.85
Forgivability	5.57	1.09	5.37	1.13	5.89	0.98
Prosocial motive	5.46	1.20	5.65	1.24	5.96	1.11
Cooperation	5.14	1.38	4.99	1.50	5.50	1.23
Punishment	2.85	1.69	2.88	1.83	2.62	1.71
N	80		76		82	

and forgivability,  $t(160) = 1.99, p = .049, d = 0.31, CI_{.95} = [0.01, 0.65]$ . Voluntary atonement also led to greater victim valuation,  $t(156) = 2.13, p = .035, d = 0.34, CI_{.95} = [0.02, 0.61]$ , and forgivability,  $t(156) = 3.08, p = .003, d = 0.49, CI_{.95} = [0.19, 0.85]$ , relative to victim-requested atonement. Victim valuation and forgivability did not differ significantly between requested and imposed atonement conditions, respectively,  $t(154) = 0.61$  and  $1.09, ps = .542$  and  $.277$ . Thus, the same restorative act, if imposed by an intervener or requested by the victim themselves, failed to be as effective as voluntarily initiating amends. Furthermore, no differences between imposed and requested atonement emerged, suggesting that observers evaluate offenders similarly when restorative efforts come after bystander intervention or a victim's direct request.

**Prosocial motivation.** For perceptions of the offender's prosocial motivation toward the victim, the main effect of atonement was significant,  $F(2, 235) = 3.80, p = .024, \eta_g^2 = .03$ . Participants in the voluntary atonement (vs. imposed) condition perceived greater prosocial motivation,  $t(160) = 2.80, p = .006, d = 0.44, CI_{.95} = [0.15, 0.87]$ , suggesting that volition influenced meta-judgments about the extent to which the offender truly believed that atoning was the right thing to do. Similarly, prosocial motivation was greater when atonement was voluntary (vs. requested), but this difference did not reach significance,  $t(156) = 1.67, p = .097, d = 0.27, CI_{.95} = [-0.06, 0.68]$ .<sup>9</sup> Mirroring the results of valuation/forgivability, requested atonement did not differ from imposed,  $t(154) = 0.20, p = .319$ . Thus, evaluations of offenders' prosocial motivation were negatively influenced when their actions were externally coerced, but somewhat less so when victims requested atonement directly.

**Future cooperation and punishment.** The main effect of atonement for future cooperation did not reach significance,  $F(2, 235) = 2.90, p = .057, \eta_g^2 = .02$ . Voluntary atonement yielded significantly greater cooperation intent relative to requested atonement,  $t(156) = 2.33, p = .021, d = 0.37, CI_{.95} = [0.08, 0.94]$ . Although cooperation intent was greater in voluntary atonement (vs. imposed), this

difference did not reach significance,  $t(160) = 1.77, p = .079, d = 0.28, CI_{.95} = [-0.04, 0.77]$ . Again, imposed and requested atonement conditions did not differ,  $t(154) = 0.63, p = .532$ . Our data suggest that participants were most willing to cooperate with the offender when atonement was performed voluntarily and somewhat less willing when the victim or an intervener had to demand atonement.

Desire to punish was low overall (Table 5) and did not differ across conditions,  $F(2, 235) = 0.53, p = .589, \eta_g^2 = .00$ . This suggests that although voluntary atonement positively affects observers' perceptions of victim valuation, forgivability, and prosocial motivation of the offender, volition information may be less effective in determining cooperation intent and possibly insufficient to influence punishment decisions. Although internal evaluations of offenders (e.g., victim valuation) were robustly affected by atonement type, any restorative act—voluntary or externally coerced—seemed to mitigate our participants' desire to punish. Speculatively, however, the observed low levels of punishment may be unique to the scenario we used. Using a financial transgression ensured that damage could be objectively and fully atoned for; however, complete restoration from other types of harm is rare. In addition, because the transgressor and victim in Experiment 4 shared an exchange or transactional relationship rather than a communal relationship (e.g., Experiments 1–3), monetary restitution in this case may have attenuated desire to punish. When offenders and victims share bonds other than business, perceivers may rely on inferences from atonement type to decide whether additional sanctions are needed or whether offenders' post-transgression actions fully convey their intent to reform.

## General Discussion

The idea that interpersonal conflicts and redemptions affect more than just the people directly involved is not new. Centuries ago, John Donne (1624/1923) poignantly expressed, "No man is an island, entire of itself . . . any man's death diminishes me, because I am involved in mankind" (p. 98). Beyond victim–transgressor dyads, what third-party

perceivers infer from an offender's reparative actions can have consequences for all parties who become aware of the transgression. As people are generally concerned about mistreatment of others and potential exploitation risks for the self (Krasnow et al., 2016), evaluating offenders' restoration efforts is important in ascertaining how much offenders value not only those they have wronged but also other community members. Observing mistreatment and restoration of others should also be relevant for subsequent decisions such as whether to encourage forgiveness and pursue cooperation (Oostenbroek & Vaish, 2019; Watanabe & Laurent, 2020). Conciliatory deeds that signify relational commitment (e.g., compensation) reduce the need for victims and their allies to punish offenders, and cooperation can be restored when offenders successfully convey their lack of intent to cause further harm (McCullough et al., 2013, 2014; Tabak et al., 2012).

Recent research has explored the role of the WTR—an index of the extent to which one person values another person's welfare—in initiating cooperative relationships and executing third-party punishment (Delton & Krasnow, 2017; Smith et al., 2017). However, the present research is the first to apply this WTR framework in examining third-party evaluations of post-transgression offender efforts. The present study also extends past moral judgment research on pre-transgression choice capacity (Krueger et al., 2014; Monroe et al., 2017) by examining the role of voluntariness of atonement (*post-transgression* prosocial action) in shaping third-party meta-judgments about forgivability, victim valuation, and self-valuation (*post-atonement* prosocial outcomes). That is, the present research introduces and tests the idea that offenders' willingness to voluntarily make amends, not the making of amends alone, drives how people evaluate attempts to rectify past behavior. In addition to these contributions, the current work helps resolve inconsistencies in past findings by addressing methodological limitations of prior research, providing more robust evidence for the role of volition in evaluations of offenders. Specifically, our findings support and extend work by Risen and Gilovich (2007), which showed that observers discriminate between different apology types, contrary to a conclusion proposed by Hashimoto and Karasawa (2012), which suggested that observers are equally forgiving of coerced and spontaneous apologizers.

Four experiments demonstrated that the same compensatory action results in greater perceived forgivability and victim valuation when performed voluntarily. Voluntary (vs. imposed) atonement resulted in greater perceived forgivability and victim valuation for a civil dispute involving material damages (Experiments 1 and 3) and for a variety of interpersonal and professional offenses (Experiments 2 and 4). Notably, this effect was observed when imposed atonement would have had a relatively high consequence of incomppliance (e.g., court order) and also when weaker impositions

were made by same-status peers. Similar differences between voluntary and imposed atonement were also observed for WTR for victim and for self. Interestingly, although imposed atonement yielded greater perceived forgivability/valuation than no atonement, this difference was not observed for WTR scores. Experiment 3 additionally showed that perceived victim valuation mediated the effect of atonement type on perceivers' own WTR, suggesting that perceivers infer their self-valuation from how offenders make amends to victims. Finally, Experiment 4 demonstrated that observer ratings of forgivability, victim valuation, cooperative intent, and offender's prosocial motivation were highest when offenders voluntarily atoned. However, offender evaluations did not differ between intervener-imposed and victim-requested atonement. This suggests that voluntary restitution is best, but if it cannot be achieved, subsequent evaluation may not depend on whether atonement is requested from a victim or a party outside the victim-transgressor dyad.

Together, these studies demonstrate that atonement is not simply about the act of making amends. Rather, greater perceived valuation results from offenders' decisions to perform voluntary actions that benefit victims, suggesting that people are sensitive to cues of relational commitment. These findings have several important implications. Just as transgressions affect third parties via symbolic violation of shared values (Okimoto & Wenzel, 2008), offenders' voluntary restorative efforts indirectly and positively affect third parties' beliefs that they, too, are valued. Importantly, although purely voluntary restitution is ideal, in daily interactions, social norms, policies, and mediation procedures often precede reparatory responses. The fact that participants also reported greater forgivability/valuation for imposed atonement relative to no atonement at all is also telling and highlights the importance of third-party interventions: People infer offenders' commitment to the well-being of others to some extent even when they are coerced to make amends. This is good news for someone like Roger Goodell, the NFL commissioner who has moved beyond "cheap" verbal apologies and is now encouraging teams to once again sign Colin Kaepernick (Vera & Martin, 2020).

### *Limitations and Future Directions*

One limitation worth noting is when responding to straightforward vignettes, rather than observing actual interactions, people's reactions may differ from how third-party evaluations naturally occur in real-life contexts. However, in many situations, social observers only learn about transgressions, post-transgression reparative efforts, and the reasons motivating such efforts on the basis of others' fairly straightforward reports (e.g., from the victim, gossip, news, social media). Thus, although participants' responses to described scenarios may not fully reflect all aspects of how they might respond in other contexts, the consistency of responses here suggest that

our conclusions will likely hold up outside of the experimental setting.

In addition, because cultural differences exist in how moral behaviors are interpreted and evaluated (Arutyunova et al., 2016; cf. Hauser, 2006), and the present work is based on responses from U.S. residents who were recruited online, our findings might not replicate perfectly outside of this context. Yet, despite potential variability in the extent to which people from other cultures respond differently to moral violations and efforts aimed at repair, it seems unlikely that information about the reasons motivating atonement would be systematically discounted as a function of culture. For example, findings from the third-party punishment literature involving WTR seem to be somewhat generalizable beyond U.S. samples (e.g., Pedersen et al., 2019).

Several directions for future research are indicated. For example, to what extent is perceived valuation as a function of atonement influenced by the mental states of offenders prior to the transgression (e.g., whether a violation was intentional, reckless, or due to negligence)? Relatedly, research on the costs and motives underlying atonement would be of interest. For example, are voluntary but less costly restorative actions judged as more meaningful than coerced but expensive compensation? Do offenders deserve forgiveness when their atonement is voluntary but also “calculated” to benefit themselves along with their victims? In addition, investigating the long-term effects of voluntary and imposed atonement on sustaining cooperation or preventing recidivism in naturalistic social groups would be an interesting avenue of future research.

## Conclusion

Prior work on moral judgments has informed our understanding of how offenders’ pre-transgression mental states influence attributions of blame and the desire to punish, but that is only half of the story. In many cases, offenders also try to undo damage they have caused to convey positive regard not only for victims but also for third parties who become aware of their misdeeds. The present research is the first to document that the voluntariness of offenders’ post-transgression reparative efforts influences perceivers’ meta-judgments about victim valuation and that perceivers use this information to infer how much they might be valued by offenders. In a world where “meeting now suggests we meet again” (Krasnow et al., 2013), people should naturally be alarmed by mistreatment of others and respond in ways to deter exploitation. This research has demonstrated that the positive impacts of voluntarily choosing to repair broken relationships extend beyond victim–transgressor dyads, enhancing offender forgiveness even in the minds of distant perceivers.

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## Supplemental Material

Supplemental material is available online with this article.

## Notes

1. For all tests comparing means, 95% confidence intervals (CIs) represent lower and upper bounds of the difference between means. For other tests (e.g., single-sample *t* tests), CIs are lower and upper bounds of the mean.
2. In the “drunk” story, the victim received no equivalent benefit of atonement due to the physical nature of the harm.
3. Perfect consistency (i.e., having only one switch point) is not required as the actual scoring method computes the best-fitting switch point (Delton, 2010).
4. For omnibus tests using analyses of variance (ANOVAs), generalized eta-squared ( $\eta_g^2$ ) is reported as a measure of effect size, where 0.02 is small, 0.13 is medium, and 0.26 is large (Bakeman, 2005; Olejnik & Algina, 2003).
5. As in Experiment 1, perceived compensation was higher for voluntary (vs. mandatory),  $t(80) = 4.05$ ,  $p < .001$ ,  $d = 0.90$ ,  $CI_{.95} = [0.60, 1.76]$ , suggesting that the magnitude of the compensatory act itself was somewhat influenced by violation. Analyses controlling for compensation are reported in the Online Supplemental Material (OSM Tables S10–S11).
6. In the OSM, we report a speculative model that reverses the causal ordering reported here. That is, instead of perceivers inferring their own self welfare trade-off ratio (WTR) from how the victim was treated by the offender, we also examined whether perceivers inferred WTR for victim from perceptions of their own valuation. This model was not supported (OSM Figure S2). In addition, we examined indirect effects when victim valuation was the mediator and self-valuation was the outcome variable (OSM Figure S3) and where victim WTR was the mediator and self WTR was the outcome variable (OSM Figure S4). Consistent with the reported model, these indirect effects were also significant.
7. The no-atonement comparison condition was not included because both voluntary and imposed atonement yielded higher perceived valuation/forgivability than no atonement in Experiments 2 and 3. Experiment 4 also tested the effects of atonement from a hypothetical victim perspective. At the request of the associate editor, who pointed out the potential lack of ecological validity for hypothetical victimization (De Cremer et al., 2011), these results are reported only in the OSM.
8. After attention check exclusions, the original sample size of Experiment 4 including the hypothetical victim-perspective condition was  $N = 483$ .
9. For analyses including the full sample that also included a victim-perspective condition (reported in the OSM), this comparison was significant ( $p < .001$ ,  $d = 0.39$ ). Similarly, analyses on future cooperation that included the full sample found that

the omnibus main effect of future cooperation was significant ( $p < .001$ ), as was the comparison of voluntary with imposed atonement ( $p < .001$ ,  $d = 0.39$ ) and with requested atonement ( $p = .005$ ,  $d = 0.31$ ). For both variables, there were no Perspective  $\times$  Atonement interactions (see OSM Table S16).

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