**The Effect of Outcome Severity on Moral Judgment and Interpersonal Goals of
Perpetrators, Victims, and Bystanders**

Lisa Katharina Frisch¹, Markus Kneer¹, Joachim Israel Krueger², Johannes Ullrich¹

¹ University of Zurich

² Brown University

Author Note:

Lisa Katharina Frisch, University of Zürich, Department of Social Psychology.

Markus Kneer, University of Zürich, Department of Philosophy.

Joachim Israel Krueger, Brown University, Cognitive, Linguistic & Psychological Sciences.

Johannes Ullrich, University of Zürich, Department of Social Psychology.

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Correspondence concerning this article should be addressed to Lisa Frisch, University of Zurich, Binzmühlestrasse 14/15, 8057 Zürich, Switzerland. E-mail:

lisakatharina.frisch@uzh.ch

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Abstract

When two actors have exactly the same mental states but one happens to harm another person (unlucky actor) and the other one does not (lucky actor), the latter elicits milder moral judgment among bystanders. To understand how this outcome effect would affect post-harm interactions between victims and perpetrators, we examined (a) how the social role from which transgressions are perceived moderates the outcome effect, and (b) how outcome effects on moral judgments transfer to agentic and communal interpersonal goals. In a preregistered experiment ($N = 576$), we asked participants to imagine and respond to moral scenarios as either the actor (i.e., perpetrator), the victim, or a bystander. Results revealed highly similar outcome effects on moral judgment across social roles. As predicted, the social role moderated the strength of the outcome effect on interpersonal goals such that the outcome sensitivity of victims was most and that of perpetrators' least pronounced, with bystanders' outcome sensitivity falling in between. Victims responded to harmful (vs. harmless) outcomes with increases in agentic goals and decreases in communal goals, whereas perpetrators showed the reverse pattern. Moral judgment did not mediate the effects of outcome severity on agentic and communal goals. We discuss the possibility that outcome severity raises normative expectations regarding interaction in a transgression's aftermath that are unrelated to moral considerations.

Keywords: outcome effect, moral judgement, moral luck, social role, needs-based model, interpersonal goals

The Effect of Outcome Severity on Moral Judgment and Interpersonal Goals of Perpetrators, Victims, and Bystanders

Imagine, as Adam Smith did in his *Theory of Moral Sentiments* (1759), a man throwing a stone over a tall wall onto a public street, killing a person. This man, we feel, should be punished. However, Smith cautioned that nothing “would appear more shocking to our natural sense of equity, than to bring a man to the scaffold merely for having thrown a stone carelessly into the street without hurting anybody. The folly and inhumanity of his conduct, however, would in this case be the same; but still our sentiments would be very different” (p. 152).

How laypeople make moral judgments is a question that concerns not only moral philosophers but anyone who is familiar with the feeling that they have been wronged. Some philosophers wonder if their ethical maxims resonate with people’s intuitions, while many philosophers and laypeople simply assume that others share their moral judgments. Indeed, it would make for a smoother resolution of conflicts if victims and perpetrators agreed on the amount of blame an action deserves, and if bystanders were to further validate their judgments. Considering that moral judgment seems likely to influence how the parties will interact with each other in the aftermath of a transgression, the consensus of moral judgment appears all the more desirable.

From a social exchange perspective, consensus about the inequity the transgression caused is an important step toward reconciling the parties involved: Reconciliation is achieved when victims and perpetrators correct the imbalance of material or symbolic resources that the transgression has caused (e.g., Adams, 2016). Yet, victims and perpetrators often disagree about what happened (e.g., for intentionality, see Adams & Inesi, 2016; Exline et al., 1998; for transgression severity, see Baumeister, 1999; Kearns & Fincham, 2005) and

what kind of response the transgression requires (e.g., for apologies, see Leunissen et al., 2013). These disagreements are especially problematic when the immorality of transgressions is not clear-cut. For example, harm can be due to unintentional or negligent actions, sometimes even pure chance. Even if the harm that occurs is beyond the agent's control, people judge actions and agents more harshly when the consequences are more severe (as in the opening example of a man throwing a stone and fatally hitting a person), thereby exhibiting *outcome effects* (Cushman, 2008; Cushman et al., 2009; Gino et al., 2009; Gino et al., 2010; Kneer & Machery, 2019; Lench et al., 2015; Young et al., 2010; for a review, see Martin & Cushman, 2015).

To the best of our knowledge, no research has compared outcome effects across victims, perpetrators and bystanders, or examined whether their moral judgments are related to their interpersonal goals (i.e., the desired result of interactions with another person). Previous research on outcome effects has been limited to scenarios in which respondents take the perspective of an uninvolved bystander (but see Gold et al., 2015; Schaich Borg et al., 2006; Tassy et al., 2013, for research on actor vs. observer differences in the trolley dilemma). Since our interest in moral judgment is focused on social interactions following a transgression, it is important to also investigate outcome effects among perpetrators and victims and to ask how these effects are related to interpersonal goals. A better understanding of how role-specific moral judgment might affect interpersonal interactions will inform restorative justice and reconciliation procedures as well as disputes and conflicts people face in their everyday lives.

In the present research, we use the outcome effect as a vehicle to understand post-transgression social interaction. Specifically, we (a) study outcome effects for the different social roles of perpetrator, victim, and bystander, and (b) explore how these outcome effects affect the assessor's goals for interacting with the other parties involved. We present the

findings of a preregistered experiment testing the proposition that victims are the most sensitive to outcome information and perpetrators the least.

In the following, we first review the philosophical considerations that the literature offers to understand outcome effects among neutral bystanders. Second, we explore outcome effects across different hypothetical social roles with reference to the introspection illusion (Pronin, 2009), which suggest that victims will be more prone to the outcome effect than perpetrators. Third, drawing on the needs-based model of reconciliation (Shnabel & Nadler, 2015), we further hypothesize that the difference in judgments across the perpetrator and victim roles extends to their goals of seeking control, dominance, and power (agentic goals) as well as caring for, cooperating with, and being connected with others (communal goals). In the context of post-harm reconciliation, victims often pursue agentic goals and perpetrators often pursue communal goals (Aydin et al., 2019), which suggests that outcome severity might also influence the role-specific goals for agency and communion.

Should Outcome Severity Affect Moral Judgment?

How *should* outcome severity affect moral judgment? Two positions mark the endpoints of a spectrum in normative ethics: The first position is *Kantianism*, according to which “nothing in the world [...] could be called good without qualification except a good will” (Kant, 1785, p.1). According to this view, an action with a beneficial outcome can be bad if undertaken for bad reasons. The second position is *Consequentialism*, which regards an action as good to the extent that its consequences increase well-being. Strict consequentialists judge an action as morally better inasmuch as it yields a better outcome without regard to the intention. Whereas for Kantians an action’s moral quality depends exclusively on the agent’s intentions (or, broadly conceived, their mental states), consequentialists look primarily to actual or expected outcomes.

Outcome effects are thus consistent with consequentialist ethics, but they violate a fundamental maxim of Kantian ethics, the Control Principle. This principle states that agents are responsible only for those features of an action they can control: throwing Smith's stone deserves a fixed amount of blame, whether the agent is unlucky (the stone happens to fatally hit a person) or lucky (nobody is harmed). Philosophers assume widespread commitment to the Control Principle. And yet, they hypothesize, we are prone to judge unlucky agents more harshly than lucky agents, even when directly contrasting the two situations. If this were indeed the case, we would face a serious paradox, known as the *Puzzle of Moral Luck* (Nagel, 1979; Williams, 1981; for recent overviews, see Hartman, 2017; Nelkin, 2019). Empirical research has shown that in contrastive designs, where people are presented with both a lucky and an unlucky case side by side, they judge the actions and agents similarly (Schwitzgebel & Cushman, 2012; Lench et al. 2015; Kneer & Machery, 2019). The case for a deep puzzle of moral luck might thus have been overstated in the philosophical literature. However, in other designs the outcome effect has proven robust (Cushman, 2008; Gino et al. 2010; Kneer & Machery, 2019). This suggests that people, although they endorse the Control Principle in the abstract, are prone to violating it when presented with concrete cases where luck is at play.

Outcome Effects Across Social Roles

Research on outcome effects has largely ignored potential differences across the parties involved in a transgression: bystanders, victims, and perpetrators.¹ How will social

¹ Although philosophers or legal experts are likely to disagree as to whether the term “perpetrator” (rather than the more neutral term “transgressor”) is appropriate for an actor who is putting others at risk to be harmed, previous research on the social role of perpetrators may inform our understanding of the outcome effect. Laypeople judging such incidents may or may not make the same distinctions as philosophers or legal experts. Thus, we will refer to both lucky and unlucky actors as perpetrators in order to be able to merge the different literatures.

role impact the outcome effect? Schein and Gray (2018) assert that harm is a matter of perception, and perceived harm can differ from the vantage points of perpetrators, victims, and bystanders. From the actor perspective, people have direct access to their mental states and motives. From the observer perspective, by contrast, they must infer others' intentions, beliefs and other mental states from behavioral cues. The epistemic authority of the first-person perspective can be deceptive as misperceptions of one's own intentions are common (cf. Epley & Dunning, 2000; regarding emotions, cf. Gilbert et al., 1998; concerning prescient thoughts, cf. Pronin et al., 2006). Importantly, however, the asymmetry in epistemic access creates an introspection illusion² (Pronin, 2009). This illusion has two sides: In self-assessment, people tend to overweight introspectively available information (i.e., mental state information and personal feelings); in other-assessment, they overweight extrospectively available evidence (i.e., behavioral and outcome information; see also Malle, 2005; Malle & Pearce, 2001). This perspective-driven weighting differential persists even when actors and observers have access to the same overall set of information (Pronin & Kugler, 2007).

The introspection illusion suggests the following hypotheses: Victims and bystanders, who evaluate the perpetrator from an outside perspective, will focus on the outcome, and they will neglect the perpetrator's mental states. For perpetrators, the distribution of relative weight will be reversed. Therefore, we predict a stronger outcome effect for victims and bystanders than for perpetrators. For victims, research has already shown that they tend to exaggerate the negative consequences of unfair treatment and view them as a persistent pattern of misbehavior on the perpetrator's behalf (Baumeister, 1999; Baumeister et al., 1990). Yet, we do not expect the bystanders' judgments to be identical to the victims' judgments. Since

² For simplicity of exposition, we keep the term introspection *illusion* from the literature. We want, however, to remain non-committal concerning the question whether the underlying phenomena must be considered as biases or not.

victims are involved in the focal action (Adams & Inesi, 2017; Jones & Nisbett, 1972) and directly affected by the outcome (McCullough et al., 2003), their tendency to focus on the severity of outcome should be stronger than that of bystanders. In short, we predict the rank order of outcome effects to be this: Victims > bystanders > perpetrators.

Agentic and Communal Interpersonal Goals

Responses to moral transgressions rarely end with judgments of blameworthiness. The parties involved often continue to interact with each other. Human interaction can be parsimoniously described in terms of the broad dimensions of agency and communion (Abele & Wojciszke, 2014; Bakan, 1966; Fiske et al., 2002; Locke, 2015; Reeder & Brewer, 1979; Wiggins, 1979, 1991). Agentic goals include seeking control, dominance, and power, whereas communal goals include caring for, cooperating with, and being connected with others.

The literature on outcome effects does not offer much guidance on the goals that people in different social roles are likely to pursue. We draw on the needs-based model (Shnabel & Nadler, 2008, 2015) to make predictions as to how interpersonal goals emerge after moral transgressions. The model assumes that transgressions threaten victims' and perpetrators' identities in different ways, and activate different needs. Specifically, the needs-based model assumes that victims lack the power to influence their outcomes, whereas perpetrators lack moral integrity. Therefore, in the context of reconciliation, victims are primarily concerned with restoring their identity as powerful actors, whereas perpetrators are primarily concerned with restoring their identity as moral actors. It follows that victims and perpetrators employ different strategies to restore their threatened identities: Victims pursue agentic goals. Perpetrators, by contrast, pursue communal goals.

An important moderator of the effects of social role on agentic and communal goals is the extent to which the conflict parties view the action as immoral. For example, if

perpetrators reject responsibility, the model does not predict the pursuit of communal goals. In fact, in many protracted conflicts there is competition for the victim role (e.g., Noor et al., 2012) and where there is ambiguity with regard to the roles of victim and perpetrator, the agentic goals associated with the victim role are more pronounced (SimanTov-Nachlieli et al., 2018). Thus, the assumption bridging the needs-based model with the moral luck literature is that the harshness of moral judgment, capturing the perpetrator's moral debt to the victim, should determine whether and to what extent the perpetrator has communal goals vis-à-vis the victim and the victim has agentic goals vis-à-vis the perpetrator. If so, outcome severity, which we assume to affect moral judgment, should also affect the interpersonal goals of perpetrators and victims. Victims' interpersonal goals should also vary more strongly between situations with bad and neutral outcomes than perpetrators' interpersonal goals.

What kind of goals might bystanders have when interacting with victims and perpetrators? We propose that bystanders approach *perpetrators* with agency (signaling their behavior as deviant) and *victims* with communion (manifesting solidarity). Thus, bystanders will presumably approach victims with perpetrator-type interpersonal goals, whereas they'd approach perpetrators with victim-type interpersonal goals.

Although not specified in the needs-based model, there is evidence that an increase in agency is accompanied by a decrease in communion among victims and *vice versa* among perpetrators. For example, when respondents imagined interactions with members of an unjustifiably higher social class as opposed to interactions within their own class, they wanted to act more agentially *and* less communally. Conversely, when they imagined interactions with members of an unjustifiably lower social class, they wanted to act more communally *and* less agentially (Aydin et al., 2019). We might expect such hydraulic patterns among perpetrators and victims in the context of transgression. Compared with bystanders, victims might simultaneously pursue more agency (i.e., their role-specific goal) and less communion,

whereas perpetrators might simultaneously pursue more communion (i.e., their role-specific goal) and less agency.

The Present Research

We conducted a preregistered vignette study online to examine how social role moderates the outcome effect on moral judgment and interpersonal goals. An appendix, data, analyses, preregistrations, and materials – including all measures, manipulations and exclusions – are accessible at <https://osf.io/t7e2k/>. The appendix also includes full reports of two additional preregistered studies conducted prior to the study presented here, and these are briefly described after the analysis sections.

Drawing on the introspection illusion (Pronin, 2009), we hypothesized that victims exhibit stronger outcome effects than bystanders, who in turn exhibit stronger effects than perpetrators. Specifically, after bad rather than neutral outcomes, victims would indicate harsher moral judgments, stronger agentic goals, and weaker communal goals than bystanders interacting with the perpetrator. Compared with perpetrators, bystanders interacting with the victim would indicate harsher moral judgments, weaker agentic goals, and stronger communal goals when the outcome is bad rather than neutral.

Method

In a 4×2 design, we varied social role (perpetrator vs. bystander interacting with victim vs. bystander interacting with perpetrator vs. victim) between participants and outcome (neutral vs. bad) within participants. This latter design feature provided participants with a stable comparative context (Birnbaum, 1999). Order effects were likely, as negative information influences subsequent evaluations more heavily than neutral information (negative information bias; Ito, et al., 1998; see also Young & Tsoi, 2013). When participants

consider a bad outcome first, they may have difficulty ignoring information about the bad outcome when subsequently judging an action that end in a neutral outcome (see also Study A2 in the appendix). We therefore always presented the neutral outcome vignette first.

Participants

As determined *a priori* in our preregistration, we recruited 800 participants on Amazon Mechanical Turk, with IP address locations being restricted to the USA. After excluding individuals who failed at least one of the preregistered criteria (i.e. attention checks, comprehension checks, manipulation checks, native language, time to complete the survey, completion of the survey; for details see appendix), the data of 576 participants (265 women and 311 men, $Mdn_{age} = 35$, range 20 – 82) remained for analysis. A sensitivity analysis conducted with G*Power (Erdfelder, Faul, & Buchner, 1996) showed that this sample size provides 80 % power to detect an interaction effect size of $\eta_p^2 = 0.02$ using an alpha of .05.

Procedure

After providing informed consent, participants were randomly assigned to the between-subjects conditions of the factorial design ($n = 139$ for the perpetrator condition, $n = 145$ for the bystander interacting with victim condition, $n = 157$ for the bystander interacting with perpetrator condition, and $n = 135$ for the victim condition). Participants then read two scenarios (adopted from Kneer & Machery, 2019) with an action leading to a neutral or bad outcome. Vignettes differed solely in their crucial words to manipulate treatment conditions. The following vignette was presented to participants in both bystander conditions:

Beth takes care of Mary's 2-year-old son. She fills the bath, while Mary's son stands near the tub. The phone rings in the next room. Beth tells Mary's son to stand near the tub while she answers the phone. Beth believes Mary's son will stand near the tub for

a few minutes and wait for her to return. Beth leaves the room for 5 minutes. When Beth returns, Mary's son is still standing near the tub. The boy then enjoys his bath.

The vignettes in the bad outcome condition concluded with the sentence: *When Beth returns, Mary's son is in the tub, dead, face down in the water.* In the victim condition, participants read the vignettes in the parent's role. In the perpetrator condition, they read the vignettes in the caretaker's role. Otherwise, the vignettes were identical across conditions. Both bystander conditions differed only in the assessment of interpersonal goals: Bystanders interacting with victims were asked to indicate their interpersonal goals towards the victim (the parent), whereas bystanders interacting with the perpetrator were asked to imagine an interaction with the perpetrator (the caretaker). Neither the vignette, nor the assessment of moral judgments, differed across these two conditions.

Measures

Moral Judgment. After each experimental vignette, participants rated the permissibility and the wrongness of the action, and how much blame and punishment the actor deserved (i.e., "To what extent was it permissible for Beth to leave Mary's son alone in the above scenario?", "How wrong was Beth to leave Mary's son alone in the above scenario?", "To what extent is Beth blameworthy for leaving Mary's son alone in the above scenario?", "How much punishment does Beth deserve for leaving Mary's son alone in the above scenarios?"). Scales ranged from 1 = Not at all (e.g., wrong) to 5 = Extremely (e.g., wrong). We averaged the items (reverse-scored) permissibility, wrongness, and blame after finding satisfactory internal consistency (Cronbach's $\alpha = .86$). Following our preregistered plan, we analyzed punishment ratings separately because recent research suggests that punishment is considerably more sensitive to outcome than permissibility, wrongness, and

blame (Kneer & Machery, 2019; but see Cushman, 2008). The correlations of repeated measures were .54 for moral judgment and .35 for punishment.

Interpersonal Goals. To measure interpersonal goals, we used the German version of the Circumplex Scales of Intergroup Goals (CSIG; Locke, 2014), adapted to the interpersonal level as in Aydin et al. (2019). The CSIG consists of eight four-item scales each representing one octant in the circumplex (see Figure 1). Upper and lower octants along the vertical axis define high and low agency scores, whereas right and left octants along the horizontal axis define high and low communal scores. Each point within the circumplex represents a weighted mixture of agency and communion.

After each experimental vignette (neutral or bad outcome), participants rated the 32 items of the CSIG. Specifically, they were asked to imagine an interaction with either the victim (Mary) or the perpetrator (Beth) – depending on the experimental condition – and rate the respective goals from 1 = not important to 5 = very important: “Please imagine you interact with Mary. Complete the following items while thinking of the question: When I interact with Mary it is important to me *that . . .*” (e.g., “I show concern for her welfare”, “I understand her point of view” [examples for communal items], “I am assertive”, “I appear confident” [examples for agentic items]; for complete list of items see appendix). We created an overall agency score by combining the octant scores as follows: $\text{agentic goals} = .414 \times (\text{PA} - \text{HI} + (.707 \times [\text{BC} + \text{NO} - \text{JK} - \text{FG}]))$ (note that each octant has by convention a generic two-letter code). This score represents a participant’s position on the vertical dimension in the circumplex shown in Figure 1. Likewise, we created an overall communal score by combining the octant scores as follows: $\text{communal goals} = .414 \times (\text{LM} - \text{DE} + (.707 \times [\text{JK} + \text{NO} - \text{BC} - \text{FG}]))$ (Leary, 1957; Locke 2014). This score represents a participant’s position on the horizontal dimension in the circumplex shown in Figure 1. Cronbach’s α were .85 for

agency and .85 for communion (see appendix for Cronbach's α of the octant scores).

Correlations of repeated measures were .6 for agency and .44 for communion.

Figure 1. Circumplex of interpersonal goals (octants depicted with dotted lines).

Results³

We conducted a series of 4(social role[perpetrator vs. bystander interacting with victim vs. bystander interacting with perpetrator vs. victim]) $\times$ 2(outcome[neutral vs. bad])

³ We used R (Version 3.4.3; R Core Team, 2017b) and the R-packages *afex* (Version 0.20.2; Singmann et al., 2016), *psy* (Version 1.1; Falissard, 2012), *emmeans* (Version 1.4.2; Lenth, 2019), *dplyr* (Version 0.8.3; Wickham et al., 2019), *tidyr* (Version 1.0.0; Wickham & Henry, 2019), and *taRifx* (Version 1.0.6.1; Friedman, 2018) for analyses of the three studies. We created the Figures using the R-package *ggplot2* (Wickham, 2016).

analyses of variance (ANOVAs) on moral judgment, punishment, agency, and communion with repeated measures on the second factor.

Moral Judgment

Replicating previous research, we found a significant main effect of outcome, $F(1, 572) = 313.92, p < .001, \eta_p^2 = .35$, such that bad outcomes elicited harsher judgments ($M = 4.73, SD = 0.57$) than neutral outcomes ($M = 4.18, SD = 0.86$; the appendix provides separate analyses of permissibility, wrongness, and blame). However, contrary to predictions, the interaction between outcome and social role was not significant for moral judgments, $F(3, 572) = 0.51, p = .673, \eta_p^2 = .00$. The similarity of outcome effects across social role conditions is apparent from the distributions of difference scores (moral judgment following bad outcome minus moral judgment following neutral outcome) on the upper left-hand side of Figure 2. The expansion of the density plot represents the frequency of observations. Means and 95 % confidence intervals are shown within the violin-shaped plots. Inspection of the plot further shows that in both social role conditions, the violin's expansion is greatest at the value of zero, which means that the most frequent response pattern (43 % of participants) was to make identical moral judgments across outcome conditions.

Punishment

The interaction between outcome and social role was not significant for judgments of punishment either, $F(3, 572) = 1.62, p = .18, \eta_p^2 = .01$. There was an unsurprising main effect of outcome, $F(1, 572) = 1278.13, p < .001, \eta_p^2 = .69$, such that punishment in the bad outcome conditions ($M = 4.46, SD = 0.85$) exceeded punishment in the neutral outcome conditions ($M = 2.80, SD = 1.08$; see Table 1a, 1b). The upper right-hand side of Figure 2 shows that the outcome effect was more pronounced for punishment than for moral judgment.

Interpersonal Goals

In contrast to the results for moral judgment and punishment, there were significant interactions between outcome and social role for both agentic, $F(3, 572) = 50.44, p < .001, \eta_p^2 = .21$, and communal goals, $F(3, 572) = 82.05, p < .001, \eta_p^2 = .30$. As predicted, victims' increases in agency following the bad outcome were more pronounced than the increases in agency of bystanders interacting with the perpetrator, $t(572) = 3.34, p = .001, d = .42$, and the decreases in agency of perpetrators, $t(572) = 4.9, p < .001, d = .6$. One unexpected result apparent from the lower left plot in Figure 2 is that the outcome effect among perpetrators (decreases in agency) was stronger than the (non-significant) outcome effect among bystanders interacting with victims, $t(572) = 2.53, p = .012, d = .28$ (see also Table 1). However, perpetrators' outcome effect was smaller than the outcome effect of bystanders interacting with perpetrators, though not significantly so $t(572) = -1.71, p = .087, d = .22$.

The lower right plot in Figure 2 illustrates the pattern of outcome effects on communion across social role conditions. Statistical comparisons confirm the impression that the violin plot representing communion is virtually a mirror image of the violin plot representing agency: As predicted, victims' decreases in communion were stronger than the decreases in communion of bystanders interacting with the perpetrator, $t(572) = 6.5, p < .001, d = .74$, and the increases in communion of perpetrators, $t(572) = 10.93, p < .001, d = 1.35$. Similar to the results observed for agency, the condition of bystanders interacting with the victim did not conform to predictions, with its outcome effect being indistinguishable from the outcome effect of perpetrators, $t(572) = 0.15, p = .882, d = .02$. Also unexpectedly, bystanders interacting with the victim showed less communion following the bad outcome than following the neutral outcome. However, perpetrators' outcome effect was significantly

smaller than the outcome effect of bystanders interacting with perpetrators, $t(572) = -4.78, p < .001, d = .59$.

Figure 2. Violin plot of the difference scores (bad – neutral outcome) of perpetrators’, bystanders’, and victims’ moral judgments (permissibility, wrongness, blame), punishment judgments, agency, and communion. Bystander_V indicates bystanders interacting with the victim, whereas Bystander_P indicates bystanders interacting with the perpetrator. Points represent means, error bars represent 95 % confidence intervals, and the width of density plots represent the frequency of observations.

The Outcome Effect Among Perpetrators, Victims, and Bystanders

Table 1

Means and Standard Deviations of Study Variables

Variable	Perpetrator		Bystander interacting with victim		Bystander interacting with perpetrator		Victim	
	neutral	bad	neutral	bad	neutral	bad	neutral	bad
Moral Judgment	4.33 (0.77)	4.85 (0.44)	4.06 (0.91)	4.66 (0.60)	4.17 (0.83)	4.71 (0.56)	4.18 (0.93)	4.68 (0.65)
Punishment	2.88 (1.12)	4.65 (0.66)	2.70 (1.07)	4.43 (0.83)	2.89 (1.10)	4.39 (0.90)	2.70 (1.02)	4.39 (0.98)
Agency	0.09 (0.76)	-0.28 (0.84)	0.27 (0.80)	0.36 (1.14)	0.49 (0.88)	1.05 (1.08)	0.73 (0.81)	1.65 (1.09)
Communion	1.43 (1.02)	1.71 (1.08)	1.08 (1.15)	0.78 (1.53)	0.66 (1.15)	-0.26 (1.29)	1.03 (1.10)	-0.78 (1.29)

Note. Means and standard deviations (in parentheses) are given for perpetrators', bystanders', and victims' moral judgments, punishment judgments, agency, and communion after neutral and bad outcomes.

Summary of Results

The outcome effect on moral judgment and punishment judgments was not significantly different across social roles. In light of the fact that the sensitivity of our design allowed us to detect effects as small as $\eta_p^2 = 0.02$, this suggests that differences due to social role are negligible. The lack of interaction is also unlikely to be due to a ceiling effect, considering that victims' moral judgment following bad outcomes – predicted to be more severe – was actually lower than perpetrators' moral judgment.

However, as predicted, social role moderated the outcome effect on interpersonal goals: Compared with perpetrators, victims showed stronger outcome effects on agency and communion. Furthermore, we found that victims' outcome effects were larger than bystanders' outcome effects when interacting with perpetrators.

Results for the condition of bystanders interacting with victims were not as expected. First, outcome effects were not stronger than in the perpetrator condition. Second, bystanders interacting with victims pursued less communion following the bad outcome than following the neutral outcome. These unexpected results might have been due to the subtlety of the instructions. We first asked participants to judge the perpetrator's behavior (e.g. "How wrong was it for Beth to leave Mary's son alone in the above scenario"), and we then asked them to indicate their interpersonal goals towards the victim (e.g. "When I interact with Mary, it is important to me that I am friendly"). The name of the parent ("Mary") was the only cue that participants should imagine an interaction with the victim. Some participants may have overlooked this information, and instead imagined further interactions with the perpetrator (as they also had to assess the behavior of the perpetrator in moral regards just beforehand). This might have compromised the construct validity of this condition. Therefore, we omit the bystander interacting with victim condition for subsequent analyses.

Robustness Checks Using Bayesian Regression Modeling

Might our non-significant result regarding moral judgment and punishment judgments be due to violated statistical assumptions? We conducted Bayesian analyses for ordinal variables because we could not be certain that our measures of moral judgments satisfied the assumptions of interval scaling (cf. Liddell & Kruschke, 2018). Bayesian modeling allows for specifying a potentially more appropriate distribution of the dependent variable.

Using the R-Package *brms* (Bürkner, 2017), we fitted Bayesian Generalized Multilevel Models by regressing each item (permissibility, wrongness, blame, and punishment) separately on social role and outcome, using a cumulative link function, minimally informative priors, and random intercepts for participants. Results were highly similar to the results obtained with ANOVA modeling. Bad outcomes were judged more

harshly than neutral outcomes: the Highest Density Intervals (HDI) did not include 0 (for full report of results see appendix). With regard to the interaction between outcome and social role, in line with ANOVA models, these analyses generally (in 11 out of 12 analyses) confirmed the absence of evidence for a moderating effect of social role. Treating moral judgments as ordinal data, as the Bayesian Generalized Multilevel Model allowed us to do, is statistically sounder than the preregistered metric ANOVAs reported above. These analyses increase our confidence in the overall conclusion that divergent moral judgments following bad and neutral outcomes are not moderated by social role.

Are Judgments and Goals Related?

The evidence suggests that the social role people assume during a transgression moderates the size of outcome effects on interpersonal goals, but not the size of outcome effects on moral judgments. This divergence is at variance with our theoretical assumption that the harshness of moral judgments determines the strength of subsequent role-specific interpersonal goals. Given that both moral judgments and interpersonal goals were measured but not manipulated, we do not know whether moral judgments are causes, consequences, or mere correlates of interpersonal goals. As an indirect test of within-subject mediation (Judd, et al., 2001), we performed correlation analyses. Depicted in Table 2, the correlations of the outcome effects on judgments and goals were small and mostly not significantly different from zero, yielding no evidence for mediation or reverse mediation. In other words, the extent to which victims and perpetrators adjust the level of harshness of their moral judgment to the severity of the outcome does not predict the extent to which they adjust their goals for interacting with each other. The only exceptions were that (a) bystanders' outcome effects on moral judgments and agentic as well as communal goals were correlated; and (b) victims' and bystanders' outcome effects on punishment and communal goals were correlated, such that

outcome-dependent increases in the willingness to punish the perpetrator were accompanied by decreases in communal goals.

Considering neutral and bad outcomes separately (see Table 3), however, we find systematic correlations between moral judgments and interpersonal goals speaking to individual differences in the extremity of judgments independent of outcome severity. The more harshly perpetrators judged their own actions, the stronger the communal goals they wanted to pursue. By contrast, victims' and bystanders' moral judgment and calls for punishment were positively associated with their agentic goals and negatively with their communal goals. The more harshly they judged a transgression, the more agentially and the less communally they wanted to act. This pattern fits the predictions of the needs-based model (Shnabel & Nadler, 2015). The degree to which parties view an action as immoral corresponds to the intensity of role-specific agentic and communal goals.

Taken together, the findings suggest that (pre-existing) individual differences in moral judgment are systematically related to interpersonal goals, but that the moral judgment differences produced by the manipulation of outcome severity are for the most part unrelated to differences in interpersonal goals between neutral and bad outcomes.

Table 2

Correlations of Outcome Effects on Moral Judgment and Punishment with Outcome Effects on Agency and Communion

Social Role	Correlation of Outcome Effects on Moral Judgment and		Correlation of Outcome Effects on Punishment and	
	Outcome Effects on Agency	Outcome Effects on Communion	Outcome Effects on Agency	Outcome Effects on Communion
Victim	.08	.03	.12	-.29***
Bystander ^a	.18*	-.16*	.15	-.19*
Perpetrator	.07	.07	.03	.03

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. ^a Bystander interacting with perpetrator.

Table 3

Correlations of Moral Judgment and Punishment with Agency and Communion Within Outcome Conditions

	Correlation of Moral Judgment and Agency		Correlation of Moral Judgment and Communion		Correlations of Punishment and Agency		Correlations of Punishment and Communion	
	Neutral Outcome	Bad Outcome	Neutral Outcome	Bad Outcome	Neutral Outcome	Bad Outcome	Neutral Outcome	Bad Outcome
Victim	.31***	.35***	-.17*	-.43***	.17	.35***	-.33***	-.5***
Bystander ^a	.32***	.31***	-.1	-.2	.29***	.33***	-.25**	-.27***
Perpetrator	.02	-.04	.24**	.27**	-.02	-.05	-.05	.21*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. ^a Bystander interacting with perpetrator.

Summary of Additional Studies

We briefly summarize two additional studies that we conducted prior to the study presented above but chose not to include in this report due to their redundancy. In the first study ($N = 107$), we contrasted only perpetrators and victims using a different moral scenario. This study revealed the predicted interaction for moral judgment and communion but not for punishment and agency.

The second study ($N = 267$) followed the same procedure as the study presented above except that it did not include a bystander interacting with the victim condition and the order of bad and neutral outcomes was varied. When the bad outcome was presented first, outcome effects on moral judgment and interpersonal goals were negligible. By contrast, when participants judged the neutral outcome first, outcome effects on moral judgment emerged for all social roles. A fixed order of vignettes, with the neutral outcome vignette preceding the bad outcome vignette, therefore seemed to be a methodological prerequisite for examining moderators of the outcome effect. Focusing on the subset of participants who received the neutral outcome vignette first ($N = 125$), we found that the outcome effects on moral judgment and punishment judgments were not significantly different across social roles. However, consistent with our hypothesis about interpersonal goals, social role moderated

outcome effects on agency and communion: Victims showed the strongest outcome effects and perpetrators showed the weakest outcome effects, with bystanders falling in between.

Including these two additional studies in the Bayesian robustness checks of moral judgment items and mediation analyses of judgments and goals does not change conclusions. The only discrepancy was that Bayesian regression analyses revealed evidence for the absence of an interaction between outcome and social role on moral judgment also for the first study, where the ANOVA yielded a significant interaction. Overall, results of these two additional studies (a) increase our confidence that the moderation of social role on the outcome effect may not exist for moral judgment, and (b) corroborate our predictions about the interaction of social role and outcome on interpersonal goals. For a full description of methods and results the reader is referred to the appendix.

General Discussion

The present research replicates and extends previous research on outcome effects by considering the different social roles of judges and measuring their goals for interactions following a transgression. We first discuss how our results add to the literature on moral judgment, before we turn to our key finding that social role moderated the outcome effect on interpersonal goals.

Implications for Moral Judgment

We replicated the outcome effect for moral judgment among bystanders (e.g., Cushman, 2008; Cushman et al., 2009; Gino et al., 2009; Lench et al., 2015; Young et al., 2010) and extended it to victims and perpetrators. Participants judged actions resulting in a bad outcome more harshly than actions resulting in a neutral outcome even when the bad

outcome was a matter of bad luck. However, contrary to predictions, social roles did not moderate these effects.

We confirmed previous reports of large proportions of participants making identical moral judgments for neutral and bad outcomes (43 %; Schwitzgebel & Cushman, 2012; Kneer & Machery, 2019). However, our proportions are lower than the ones reported by Schwitzgebel and Cushman (2012) or Kneer and Machery (2019). The latter report that roughly 80 % of participants ascribe the same measure of wrongness, permissibility and blame to the lucky and the unlucky agents. The philosophical *Puzzle of Moral Luck*, they suggest, is thus misconceived: The puzzle refers to a within-subjects intuition or a comparative evaluation of actions and agents, but robust outcome effects can only be obtained in between-subjects designs. In our experiment, the proportion of participants who judge the agents identically across outcomes, although still substantial, is lower. We would like to suggest that this difference is the consequence of two design features: First, rather than inviting a comparative assessment by having participants read both scenarios before making their judgments, participants read one scenario, judged the agent, filled in a lengthy questionnaire concerning interpersonal goals with more than two dozen questions, and were then presented with the second scenario. The contrastive aspect of the within-subjects design was thus considerably reduced. Second, based on evidence that outcome effects are stronger when the neutral outcome is presented first (see appendix), we purposefully chose not to counterbalance the order of outcomes. In short, the present results are consistent with previous research and cannot support a revival of the philosophical *Puzzle of Moral Luck*.

As will be recalled, we followed Cushman (2008) by using four distinct variants of moral judgment: permissibility, wrongness, blame and deserved punishment. Cushman's model separates moral judgment into two kinds. They differ in their relative weighting of information pertaining to the agent's mental states on the one hand and factors regarding the

causal action sequence (including outcome) on the other. On Cushman's view, permissibility and wrongness judgments (Type₁) are predominantly – though not exclusively – influenced by mental factors, whereas judgments of blame and deserved punishment (Type₂) are strongly sensitive to causal factors such as severity of outcome. However, recent studies suggest that blame patterns with permissibility and wrongness rather than with deserved punishment, in so far as the latter is more sensitive to causal factors than the other three types of moral judgment (for a discussion, see Kneer & Machery, 2019). We too found the effect size of outcome on blame to be similar to those for outcome on permissibility and wrongness (they ranged between $\eta_p^2 = .23$ and $.31$ for permissibility, wrongness and blame). The effect size of outcome on punishment, by contrast, was about twice as pronounced ($\eta_p^2 = .69$ in, see appendix for detailed results). Note, however, that the question concerning the status of blame is far from settled and pursued in more detail in ongoing research by Prochownik and Cushman (2020).

Implications for Moral Action

Our key finding was that victims and perpetrators differed in their outcome effects on interpersonal goals regarding their social interaction after the transgression. Consistent with the needs-based model (Shnabel & Nadler, 2015), victims had more agentic and more uncommunal goals when transgressions resulted in harm rather than no harm, whereas perpetrators had more communal and unagentic goals. Consistent with the prediction that victims would weight outcome information more heavily than perpetrators (cf. Pronin, 2009), the outcome effects on role-specific goals were stronger among victims than among perpetrators, with outcome effects among bystanders falling in between.

Within-subjects mediation analyses suggested that the outcome effects on moral judgment and interpersonal goals were for the most part unrelated. This raises questions about

strict cognitivism, according to which moral judgment (and not, for instance, nonconscious affective responses) drives moral action (here interpersonal goals). However, from the point of view of cognitivism, it is a welcome finding that moral judgment is insensitive to social role: whether or not an action is wrong, and whether or not an agent is blameworthy, does not depend on whether the judging party finds themselves in the role of victim, perpetrator or bystander. All it takes is an explanation for the decoupling of the outcome sensitivity with regard to judgments and action dispositions.

Recall that the *Puzzle of Moral Luck* arises due to the fact that, in line with the Control Principle inspired by Kant, we do not want to blame people for factors that go beyond their control. On the other hand, and in line with Consequentialism, we do seem to register a normative difference across the lucky and the unlucky agent. According to one intriguing attempt to reconcile the conflicting intuitions, the perceived normative difference across agents is not *moral* in nature (and hence cannot clash with the Control Principle). Could something along these lines explain our surprising findings?

In his original discussion of moral luck, Williams (1981) argues that in cases where an agent is the causal origin of a bad consequence yet entirely free from moral blame, they will feel a type of regret that differs from both ordinary (nonmoral) regret on the one hand and (morally inflected) remorse or guilt on the other. What is distinctive of this kind of situation is that, in contrast to a mere bystander, the agent “might have acted otherwise, and the focus of the regret is on that possibility, the thought being informed [in part by first-personal conceptions of how one might have acted otherwise]” (Williams, 1981, p. 27).

Agent-regret, Williams emphasizes, is not confined to the mental level but engenders distinctive behavioral dispositions: those who blamelessly harm another tend to be disposed to make amends. What is more, rather than being morally *obliged*, they have – as philosophers

would say – special normative *powers* to *take* responsibility for the outcome, much like parents do for their children (Enoch, 2012). The kind of responsibility the blameless agents can decide and might be expected to shoulder, Enoch suggests, parallels the kind of responsibility we assume in making a promise: It doesn't arise from a moral debt towards others, but is generated by a voluntary commitment.

If the specific social role (agent vs. bystander) leaves a morality-independent normative footprint, then it will not stop short of the victim: The victim can reasonably expect the agent to manifest agent-regret, to take responsibility for the outcome, and to provide restitution of some sort.

While Williams and Enoch predict distinctive, role-specific interpersonal goals, these are created directly by the causal structure, and they are independent of the moral considerations invoked by the needs-based model. Agent-regret would thus provide the kind of explanation needed in defense of (the possibility of) cognitivism: Moral judgments are not, and should not, be role-dependent. Moral action, rather than being a direct consequence of an assessment of the moral debt that the perpetrator owes to the victim (Shnabel & Nadler, 2015), might result from normative expectations regarding the voluntary commitment the perpetrator should make to redress the harm.

One might think that agent regret and the normative powers it engenders apply first and foremost to agents, i.e., perpetrators. It is perpetrators who feel agent regret, and whose normative powers are increased when the consequences of their actions are dire. This might seem at odds with the fact that we observed the largest outcome effects not among perpetrators, but among victims. However, it is important to note that normative expectations drive the quality of the behavior (i.e., instead of the moral judgments), but not the extent to

which outcome information is utilized. As we predicted and found, victims pay more attention to outcome information when setting their interpersonal goals than bystanders or perpetrators.

Implications for Reconciliation Processes

Our results regarding the independence of moral judgments and interpersonal goals have interesting implications for the explanation of the different needs of perpetrators and victims postulated by the needs-based model. Building on the assumption that moral debt is what drives interpersonal behavior, manipulation checks used in previous research typically assessed the extent to which perpetrators acknowledged their offenses (e.g., Shnabel & Nadler, 2008) or privileged groups conceded that their privileges are illegitimate (e.g., Aydin et al., 2019). Apparently, the predictions of the needs-based model also hold when agents accidentally and thus blamelessly harm others, in which case they cannot be considered perpetrators proper. This is an intriguing finding which deserves further study.

Reconciliation is fundamentally a dyadic process as is evident in the apology-forgiveness cycle where apology and forgiveness presuppose each other (Tavuchis, 1991). To the extent that this dyadic exchange involves sensitive calibration of responses, our results regarding the mismatch of moral judgments and interpersonal goals also have important implications for successful reconciliation. Apologies are more likely to be accepted and lead to forgiveness if they are matched in length and content to the severity of the transgression (Bennett & Earwaker, 1994; Kirchhoff et al., 2012). However, the lack of connection between moral judgment and moral action causes concern about such a fit: Parties adapt their interpersonal goals in response to outcome severity differently. No matter whether actions resulted in harm or not, perpetrators always showed communal goals towards the victim, whereas victims only increased their agentic goals towards the perpetrator after harmful outcomes. Thus, our finding that victims' interpersonal goals are more contingent on outcome

severity than on perpetrators' goals suggests a potential miscalibration between the type of apology expected by the victim and the one the perpetrator is offering.

Conclusion

Our results suggest that when victims and perpetrators reflect on a transgression, they tend to agree with each other (and with bystanders) in their judgments of the permissibility and wrongness of the action, their (self-)blame, and the degree of appropriate punishment. For some participants, these moral judgments were unaffected by the severity of the outcome, while for others, judgments were harsher when outcomes were more severe, driving the overall outcome effects that we observed. Largely independent of moral judgment, however, victims and perpetrators were differentially sensitive to outcome information when they reported their interpersonal goals regarding agentic and communal action toward each other. Our discussion points to the fascinating possibility that moral action can, at least in parts, be explained by role-specific non-moral normative demands familiar from the philosophical literature on agent-regret (Williams, 1981; Enoch, 2012) paired with selective information-processing predicted by the introspection illusion (Pronin, 2009).

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