

Individual Differences in Third-Party Interventions: How Justice Sensitivity Shapes Altruistic Punishment

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Keywords

third-party interventions, altruistic punishment, moral emotions, justice sensitivity, justice.

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Abstract

Altruistic punishment refers to the phenomenon that humans invest their own resources to redress norm violations without self-interest involved. We address the question of who will intervene in situations that allow for altruistic punishment. We suggest that individual differences in a genuine concern for justice, as reflected by the personality trait of justice sensitivity, determine the experience of moral emotions in the face of injustice, which in turn trigger altruistic punishment. Results of two studies support the proposed mediation effect for other-regarding justice sensitivity, even though an opportunity for compensation of the victim (Study 2) was offered as an alternative to punishment (Study 1). Furthermore, the mediation effect was observed when moral outrage was measured by means of quantified open statements (Study 1) and self-report scales using discrete emotions (Study 2). The findings help to explain the psychological mechanisms underlying engagement in costly social sanctioning of norm violations.

Social norms guiding individuals' behavior are essential for the functioning of human social life (Tooby & Cosmides, 1992). However, many situations provide temptations to violate these norms at the expense of other people. But what happens if such transgressions are observed by independent third parties? In such situations, people typically engage in a decision of whether they should enter the scene to confront the transgressor.

Such kinds of confrontations reflect social behaviors such as whistle blowing (e.g., Hopman & van Leeuwen, 2009), civil courage, or other costly forms of bystander intervention (Latané & Nida, 1982; Levine & Crowther, 2008) against witnessed norm violations.

From a strictly self-interested perspective, this behavior is a puzzle. For example, people should not speak up at work when observing injustices of any kind, because whistle blowing might cost them their jobs. Likewise, civil courage, for example by intervening in street offenses, yields no personal benefits but implies a substantial risk of one's health or even one's life. Therefore, it can be considered a moral act, particularly when performed for others (i.e., third-party-punishment, Fehr & Fischbacher, 2003; Nelissen & Zeelenberg, 2009). Despite associated risks, third-party punishment can be observed by some people and, thus, has raised the interest of various fields of social science. It has been termed altruistic punishment (Fehr & Fischbacher, 2003; Fehr & Gächter, 2002; Heckathorne, 1989), strong reciprocity (e.g., Gintis, 2000), norm enforcement (e.g., Horne & Cutlip, 2002), third-party revenge (Tripp & Bies, 2009), or deontic justice (Cropanzano, Goldman, & Folger, 2003; Turillo, Folger, Lavelle, Umphress, & Gee, 2002).

Notwithstanding the importance of revealing the phenomenon as such, it raises the question of *who* is likely to engage in this kind of intervention and who is not. Thus far, research has hardly addressed this question, leaving systematic individual differences in such behavior largely under-researched. Yet, there is striking behavioral variance among bystanders observing norm violations. For instance, looking at real-life situations involving opportunities for civil courage (e.g., offenses in public trains), many people remain inactive (e.g., Latané & Darley, 1970), but others intervene and may be honored afterward for their heroic acts.

The current research aims to fill this gap by investigating individual differences in *justice sensitivity* (Schmitt, Baumert, Gollwitzer, & Maes, 2010; Schmitt, Gollwitzer, Maes, & Arbach, 2005) as an important predictor of who will engage in altruistic punishment—even if measured several weeks before the actual behavior. Moreover, to reveal the psychological processes that drive behavioral differences in situations allowing for third-party intervention, we propose moral outrage as a crucial link mediating the effect of justice sensitivity on altruistic punishment.

Justice Sensitivity and Altruistic Punishment

Justice sensitivity (JS) captures stable and consistent individual differences in one's *readiness* to perceive injustices as well as in the *strength* of responses to injustice (Huseman, Hatfield, & Miles, 1987; Lovas & Wolt, 2002). Schmitt, Neumann, and Montada (1995) suggested that people high in JS differ from people low in JS in four aspects: the frequency with which they experience situations as unjust, the intensity of their emotional reactions toward such situations, the degree of their rumination about injustice, and finally, their willingness to redress justice.

Because injustices can be experienced in different roles and reactions differ largely depending on the perspective that is adopted toward injustice (Mikula, Petri, & Tanzer, 1990; Weiss, Suckow, & Cropanzano, 1999), justice sensitivity has been decomposed

into the sensitivity to become a victim of injustice (JS_{victim}), the sensitivity of a neutral observer (JS_{observer}), and of a passive beneficiary ($JS_{\text{beneficiary}}$). For each perspective, a self-report scale has been developed (see Appendix; Schmitt et al., 2005, 2010). Several studies have addressed the specificity of the perspectives of justice sensitivity (Fetchenhauer & Huang, 2004; Gollwitzer, Rothmund, Pfeiffer, & Ensenbach, 2009; Gollwitzer, Schmitt, Schalke, Maes, & Baer, 2005; Lotz, Schlösser, Cain, & Fetchenhauer, 2011; Schmitt et al., 2005) and have demonstrated that all facets share a common variance, interpreted as capturing the individual's subjective importance of justice. Most importantly, despite correlations among the subscales (see Schmitt et al., 2010; for typical patterns), many studies have shown that JS_{victim} in particular can be distinguished from the remaining perspectives. JS_{observer} and $JS_{\text{beneficiary}}$ appear to reflect a genuine, other-related concern for justice (therefore, often combined to JS_{others} , Fetchenhauer & Huang, 2004; Lotz, Schlösser, et al., 2011). Consistently, JS_{others} has been found to predict prosocial attitudes and behavior. JS_{victim} seems to additionally capture a self-oriented justice concern. It involves a fear of being exploited (i.e., justice for the self) resulting in reluctance to cooperate and sometimes even in antisocial behavior (Gollwitzer et al., 2005, 2009; Rothmund, Gollwitzer, & Klimmt, 2011). Thus, JS_{victim} appears to reflect a combination of justice concerns for the self and for others (Gollwitzer et al., 2005). As these motivations might result in opposing behaviors, the pattern usually observed is a non-correlation of JS_{victim} and prosocial behaviors.

Correlation patterns with other individual difference measures support these interpretations. Research has shown that JS_{others} is correlated with prosocial personality traits such as empathy, social responsibility, and role taking (Schmitt et al., 2005, 2010). JS_{victim} , by contrast, has been found to correlate positively with measures such as Machiavellianism, jealousy, and vengeance (Gollwitzer et al., 2005; Schmitt et al., 2005, 2010).

In the context of behavioral game theory, JS has been consistently revealed as strong predictor of behavior (Fetchenhauer & Huang, 2004; Lotz, Schlösser, et al., 2011). In the dictator game (Forsythe, Horowitz, Savin, & Sefton, 1994), for instance, JS_{others} robustly predicted altruistic behavior toward an anonymous and powerless other, even if temptations to behave selfishly existed (Lotz, Schlösser, et al., 2011). This effect was not found for JS_{victim} . People high in JS_{victim} and people low in JS_{others} exploited situations for the sake of their material self-interest. In the ultimatum game (Camerer, 2003; Güth, 1995), JS_{others} predicted rejection rates of unequal offers despite the fact that this implied losing money (Fetchenhauer & Huang, 2004). Most importantly in the present context, JS_{others} determined punishment behavior in a third-party punishment game (Fetchenhauer & Huang, 2004). In this game (Brandstätter, Güth, Himmelbauer, & Kriz, 1999), a target person witnesses the allocation of money of one person *A* to another powerless person *B*. The target person is unaffected by this allocation because he or she receives a fix amount of money. However, he or she can decide to reject the allocation of person *A* in which case neither *A*, *B*, nor the target person receives any money. Thus, this setting captures the willingness to invest own money to prevent an unequal allocation that would violate a justice principle but that would leave the person him- or herself unaffected.

Taken together, JS_{others} distinguishes people who truly care about justice principles from people who care less about them (low JS_{others}) and people (high JS_{victim}) who have

conflicting justice concerns for themselves and others. Consistent with the findings of Fetschenhauer and Huang (2004), caring about justice principles can be considered as a crucial motivation for altruistic punishment. However, to fully understand individual differences in altruistic punishment, it is necessary to investigate the psychological processes that translate the concern for justice into real costly behavior in situations of observed norm violations. For this reason, the present studies complement the previous findings in an important way by investigating the mediating role of moral emotions in the relationship between JS_{others} and third-party punishment.

Moral Outrage and Altruistic Punishment

Moral emotions have been revealed as important links between perceived injustice and subsequent behavior (e.g., Barclay, Skarlicki, & Pugh, 2005; Chebat & Slusarczyk, 2005; Murphy & Tyler, 2008). Of particular importance is the experience of *moral outrage* (Feather, 2006; Mikula, 1986). It involves anger, contempt, and disgust emotions evoked by a perceived intentional violation of cherished moral principles (Darley, 2002; Haidt, 2003). Moral outrage has been shown to determine retributive responses to norm violations, such as retaliation, punishment, and aggression (e.g., Averill, 1982; Barclay et al., 2005; Feather, 2006; Skitka, 2002). Indeed, moral outrage as an intuitive-affective demand for “just deserts” has been demonstrated as the critical emotion mediating the effect of the severity of perceived injustice on punishment (Carlsmith & Darley, 2008; Carlsmith, Darley, & Robinson, 2002).

In the special case of third-party punishment, moral emotions have also been analyzed as a crucial cause of third-party responses to injustice (e.g., Lotz, Okimoto, Schlösser, & Fetschenhauer, 2011; Nelissen & Zeelenberg, 2009). These effects are robust even if intervention is costly (e.g., Fehr & Gächter, 2002) or has a limited potential to prevent injustices in the future (e.g., Tyler, 2006). Frank (2004) argued that moral emotions may serve as a “commitment device” in the promotion of prosocial behavior. To overcome immediate costs of punishment, moral emotions may have evolved as a trigger to secure long-term gains within a social group. Among these gains of punishment for social groups are the leveling of power imbalances (Bies & Tripp, 1996; Miller, 2001; Vidmar, 2000), revalidation of social consensus (e.g., Bies, 1987; Okimoto & Wenzel, 2008), and the confirmation of a victim’s group status (Okimoto & Wenzel, 2011). A neuro-imaging study by DeQuervain et al. (2004) is consistent with this. Altruistic punishment was associated with activation in brain regions connected to rewards and was shown to be functionally different from mere self-interested revenge, leading the researchers to argue that it “feels good” to punish unfair others as an act of altruism that results in a “warm glow”.

Taken together, based on findings regarding behavioral responses to norm violations, moral outrage can be expected as a core determinant of altruistic punishment. It seems highly plausible to assume moral outrage as the emotional process that provides the activating link between an individual’s care for justice principles and costly reactions to violations of these principles. Thus, we expect moral outrage to mediate the effect of JS_{others} on altruistic punishment.

Overview of Studies

Two studies were conducted to address the relationship between justice sensitivity, moral outrage, and altruistic punishment. Across both studies, we used a third-party punishment game similar to the one described earlier. The design was adopted following the previous research (Brandstätter et al., 1999; Fehr & Fischbacher, 2003; Fetschenhauer & Huang, 2004). Participants were ostensibly assigned at random to the role of a person *C* of a game involving two more people. They witnessed person *A* making an unfair offer. Having had the opportunity to distribute €10 among him-/herself and a powerless person *B*, person *A* decided to keep the entire amount leaving person *B* empty-handed. In the role of person *C*, our participants were endowed with €5. They were notified about the proposal of person *A*, and only after their emotional responses were measured, they learned about their opportunity to punish the offender (Study 1) or to punish the offender and/or compensate the victim (Study 2).

Because in this setting person *A* clearly violates the equality rule as a justice principle, we predict that persons high in JS_{others} are particularly motivated to restore justice and invest own money to intervene in the allocation compared to persons low in JS_{others} (Hypothesis 1). Moral outrage as an emotional reaction to violations of personally important moral norms should determine altruistic punishment as well (Hypothesis 2). Finally, as persons high in JS_{others} have a stronger genuine concern for justice than persons low in JS_{others} , they are expected to react with stronger moral outrage toward the norm violation by person *A*. Therefore, we predict that the impact of JS_{others} on altruistic punishment is mediated by the strength of moral outrage (Hypothesis 3).

Study 1

Method

Participants

Ninety-one undergraduate students (33 men) from the University of Cologne participated in exchange for a monetary compensation that depended on their decision in the experiment. Ages ranged from 19 to 42 years ($M = 23.0$; $SD = 3.44$). Participants were recruited on campus.

Procedure and Measurements

Justice Sensitivity Participants were handed a questionnaire, which included 20 items to measure JS_{others} (JS_{observer} and $JS_{\text{beneficiary}}$, combined) and 10 items to measure JS_{victim} (Schmitt et al., 2005; see Appendix) with response scales ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). Answers were aggregated to form the composite scales JS_{others} ($\alpha = .87$) and JS_{victim} ($\alpha = .81$).

Moral Outrage and Altruistic Punishment A minimum of 3 weeks later, participants were invited to the laboratory where they were seated in front of a computer. They read

instructions and learned the rules of the game as described earlier. Participants were alone in the laboratory, ostensibly interacting with the other parties in a computer network.

Participants' emotions were assessed by means of a quantified qualitative measurement, thus reducing experimenter demand effects as well as socially desirable answer patterns. To assess moral emotions in a subtle way, participants were asked to give an open statement about their thoughts and feelings ("Please describe your current feelings!") after they learned that person A decided to keep the entire €10 and leave person B empty-handed. The statements (letters in the statement: $M = 222$, $SD = 191$, $min = 10$, $max = 1,019$; length was uncorrelated with the variables of interest) were pre-screened, and categories reflecting moral emotions (these were *anger*, *indignation*, and *references to injustice*) were identified. In the next step, three independent raters, who were all blind of participants' behavior, judged the statements. The raters indicated their level of anger ($\alpha = .90$) and indignation ($\alpha = .91$), and references to injustices ($\alpha = .90$) on a scale ranging from 1 (*not at all*) to 5 (*very much*). For each participant, ratings were aggregated across raters and across the three items ($\alpha = .96$) as an indicator for the individual strength of moral outrage experienced in reaction to the unfair proposal of person A.

Only after participants had typed in their statements and pressed the enter key were they informed on the next screen that they would now have an opportunity to punish. It was explained how the punishment mechanism worked. Each investment of €0.50 led to a €1 change in the other person's payoff. For example, assigning €2 for punishment resulted in a consequence of a €4 deduction for person A. The minimal amount that could be invested for intervention was €0.50, and the maximum amount was €5. All money not used for interventions was taken home by the participants. After participants had made their decisions, and finished working through their questionnaire, they were fully debriefed and dismissed from the experiment.

Results and Discussion

Regarding the willingness to engage in altruistic punishment, 28 of 91 participants (30.77%) decided to punish the proposer with some amount of their own money. As our interest lies in who punishes and who does not, we dichotomized the dependent

Table 1
Means, Standard Deviations, and Correlations of Variables in Study 1

	<i>M (SD)</i>	1	2	3
1. Punishment	31%†	–		
2. Moral outrage	2.61 (1.17)	.32***	–	
3. JS_{others}	2.51 (.66)	.24*	.23*	–
4. JS_{victim}	2.59 (.79)	.09	.18	.51***

Note. $N = 91$.

*** $p < .001$; ** $p < .05$; * $p < .10$. †Percentage who punished.

variable into those who did at least punish to a certain degree and those who did not punish at all. Table 1 provides means, standard deviations, and bivariate correlations of all variables in Study 1.

As expected (Hypothesis 1), there was a significant positive correlation between altruistic punishment and JS_{others} , $r = .24$, $p < .01$ (point-biserial), indicating that persons high in JS_{others} were more inclined to punish altruistically than persons low in JS_{others} . Also, as expected (Hypothesis 2), there was a significant positive correlation between altruistic punishment and moral emotions, showing that participants with higher degrees of moral outrage showed a greater tendency to punish altruistically, $r = .32$, $p < .01$ (point-biserial).

Furthermore, there was a significant positive correlation between JS_{others} and moral outrage, $r = .23$, $p < .05$, showing that persons high in JS_{others} expressed stronger moral outrage in their open statements than persons low in JS_{others} . These effects occurred uniquely for JS_{others} . Regarding JS_{victim} , the correlation with altruistic punishment was nonsignificant, $r = .09$, $p = .40$. The correlation with moral outrage was nonsignificant as well, $r = .18$, $p = .23$.

To test whether moral outrage mediated the effect of JS_{others} on altruistic punishment (Hypothesis 3), we employed bootstrapping methodologies, as recommended in the literature (Preacher & Hayes, 2004, 2008). Analysis with 5,000 re-samples revealed a significant indirect effect of JS_{others} on altruistic punishment mediated by moral emotions (estimate of indirect effect: 0.25; bias-corrected accelerated 95% confidence interval: 0.03–0.64). As our results suggest, the individual strength of genuine justice concerns that are reflected by JS_{others} explains individual differences in altruistic punishment. Thus, Study 1 is consistent with our assumption that, among persons high in JS_{others} , the violation of cherished justice principles triggers strong emotional reactions of moral outrage that drive attempts to restore justice by punishing the perpetrator despite personal costs.

Study 2 was designed to replicate these findings and complement Study 1 in important ways. First, whereas the third-party punishment game in Study 1 only allowed for punishment, Study 2 tested whether the effects of JS_{others} on altruistic persist when an opportunity to compensate the disadvantaged person exists. Second, an alternative measurement of moral outrage was employed to exclude potential alternative explanations of our results in Study 1.

Study 2

Research has shown that injustices can trigger multiple types of responses (Lotz, Okimoto, et al., 2011; Tetlock, Kristel, Elson, Green, & Lerner, 2000; Van Prooijen, 2010). It is plausible that people with a strong genuine concern for justice seek restoration irrespective of the actual means. However, it must be tested whether punishment still persists if other potentially more constructive ways of justice restoration exist (Lotz, Okimoto, et al., 2011). With regard to the evolution of cooperation and norms (e.g., Tooby & Cosmides, 1992), this would make much sense. If justice seeking serves as way of making transgressions unprofitable to the perpetrator as suggested by deterrence theory (see Nagin, 1998, for a review), only punishment can be effective as it is directed

at the perpetrator. Thus, to test whether the effect of JS on altruistic punishment is still observable when compensation is possible as an alternative reaction to a witnessed norm violation, we augmented the design of the third-party punishment game by additionally allowing for the compensation of the disadvantaged person *B* (Lotz, Okimoto, et al., 2011).

Because alternatives to punishment were present in Study 2, an important distinction among the other-regarding perspectives of JS must be noted. Schmitt et al. (2005, 2010) suggest that, besides a common genuine concern for justice, JS_{observer} and $JS_{\text{beneficiary}}$ are distinguishable with regard to the behavioral responses that they predict under certain conditions. If punishment and compensation are behavioral options in a situation of observed injustice, JS_{observer} and $JS_{\text{beneficiary}}$ can be expected to shape distinct behavioral patterns.

Specifically, when witnessing a person being unrightfully disadvantaged by another, people high in $JS_{\text{beneficiary}}$ might tend to interpret their own positive outcome as benefiting from the injustice. Accordingly, their attentional focus should be directed toward the disadvantaged person making compensation the most salient behavioral option. Based on this line of argument, we expect $JS_{\text{beneficiary}}$ to specifically predict compensation but not punishment if both options are provided (Hypothesis 4a).

Because JS_{observer} does not involve an attentional focus toward either the disadvantaged person or toward the perpetrator, it should predict both an inclination to punish and an inclination to compensate (Hypothesis 4b). Consistent with Hypothesis 3 (supported in Study 1), we expect that the influence of JS_{observer} on altruistic punishment is mediated by moral outrage (Hypothesis 5).

To test the robustness of the findings of Study 1 with regard to the assessment of moral outrage, we used a rating-based measure in Study 2 rather than the quantification of an open statement. Testing our hypotheses with an alternative measure for moral outrage is important to strengthen our interpretation of the results. Specifically, an alternative explanation could be that writing an open statement in response to the unfair decision of person *A* triggered deliberation about injustice. In turn, this may have caused the punishment response. This alternative explanation would not rely on moral outrage as the activating link between JS and altruistic punishment. Inconsistent with this alternative account, however, Fetschenhauer and Huang (2004) demonstrated an association between JS and altruistic punishment when no measure of emotion was included that may have triggered deliberation about the unfairness. Nevertheless, to refute this alternative explanation and to further confirm the importance of moral outrage as a process mediating the effect of the individual concern for justice on altruistic punishment, in Study 2, we relied on a rating approach, employing several self-report items to assess moral outrage. Thus, we tested the predicted mediation effect with this alternative measure for moral outrage.

Method

Participants

Eighty-three undergraduates (28 men, one unreported) from the University of Cologne participated in exchange for monetary compensation that depended on their decision in the experiment. Ages ranged from 19 to 29 years ($M = 22.89$; $SD = 2.60$).

Procedure and Measurements The procedure was largely identical to Study 1. Unlike in Study 1, the third-party intervention game was presented in a paper-and-pencil format rather than on the computer screen. Below, we report the changes applied in comparison with Study 1.

Justice Sensitivity As in Study 1, the justice sensitivity items (Schmitt et al., 2005, 2010) as given in the Appendix were employed with response scales ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). Unlike Study 1, the 10 items measuring JS_{observer} ($\alpha = .85$) and the 10 items measuring $JS_{\text{beneficiary}}$ ($\alpha = .89$) were aggregated separately. Again, 10 items measuring JS_{victim} ($\alpha = .84$) were aggregated.

Moral Emotions and Altruistic Punishment After person A's decision to keep the money for themselves and leave person B empty-handed, participants were asked to indicate how well several adjectives described their emotional state on a scale from 1 (*not at all*) to 5 (*very much*). Among several filler items (e.g., *happy, calm, excited*), the list of adjectives included 5 items reflecting moral outrage (*angry, shocked, hostile, distressed, and aggravated*). These were aggregated to form a composite scale of moral outrage ($\alpha = .85$).

After these ratings, participants were informed that they would have the opportunity to react to person A's decision. They learned that their initial endowment of 5€ could be used to subtract money from person A (punishment) or to add money for person B (compensation) or both. As in Study 1, any investment of 0.50€ yielded a change of €1 in the endowment of the other person. Thus, participants could augment the money of person B by €1 by investing 0.50€. This paradigm was used as one condition in a study focusing on emotional antecedents of punishment and compensation as distinctive justice responses (Lotz, Okimoto, et al., 2011) and has been introduced by other researchers as well (Leliveld, Van Dijk, & Van Beest, 2008). Finally, participants were fully debriefed, paid their remuneration, and dismissed from the experiment.

Results and Discussion

Table 2 provides means, standard deviations, and bivariate correlations of all variables in Study 2. Sixty-eight participants used some amount of the money to change the outcomes of person A and person B, whereas 15 participants remained inactive. Among those who intervened, 35 participants used money for both, to compensate and to punish. Four persons only punished and 29 only compensated. As in Study 1, the decisions to punish and to compensate were dichotomized.

In Hypothesis 4a, we suggested that $JS_{\text{beneficiary}}$ uniquely relates to compensation. Our results supported this assertion. We found a significant positive correlation between compensation and $JS_{\text{beneficiary}}$, $r = .23$, $p < .05$ (point-biserial), but not between altruistic punishment and $JS_{\text{beneficiary}}$, $r = .02$, $p = .83$ (point-biserial).

Hypothesis 4b addressed the correlation of JS_{observer} with altruistic punishment and compensation. We found a significant positive correlation between altruistic punishment

Table 2
Means, Standard Deviations, and Correlations of Variables in Study 2

	M (SD)	1	2	3	4	5
1. Punishment	47.0%†	–				
2. Compensation	77.1%†	.28**	–			
3. Moral outrage	2.35 (.97)	.36***	.27**	–		
4. JS _{observer}	2.55 (.81)	.24**	.23**	.26**	–	
5. JS _{beneficiary}	2.48 (.98)	.02	.23**	.13	.57***	–
6. JS _{victim}	2.73 (.84)	.21*	.04	.05	.35***	.10

Note. N = 83.

***p < .001; **p < .05; *p < .10. †Percentage who punished/compensated.

and JS_{observer}, $r = .24, p < .05$ (point-biserial). Additionally, JS_{observer} was correlated with compensation, $r = .23, p < .05$ (point-biserial).

Furthermore, there was a significant positive correlation between moral outrage and punishment, $r = .36, p < .01$ (point-biserial), and moral outrage and compensation, $r = .27, p < .05$ (point-biserial). Participants who reported stronger moral outrage were more inclined to intervene. As was shown earlier, many engaged in both compensation and punishment.

There was a significant positive correlation of JS_{observer} and moral outrage, $r = .26, p < .05$. Consistent with our findings in Study 1, JS_{victim} was not significantly correlated with moral outrage, $r = .05, p = .51$. However, there was a marginally significant correlation of JS_{victim} with altruistic punishment, $r = .21, p < .10$ (point-biserial), but not with compensation, $r = .04, p = .64$ (point-biserial).

To test for an indirect effect of moral outrage on altruistic punishment (Hypothesis 5), we again employed bootstrapping (Preacher & Hayes, 2004, 2008). Analysis with 5,000 re-samples showed a significant indirect effect of JS_{observer} on altruistic punishment via moral outrage (estimate of the indirect effect: 0.23; bias-corrected accelerated 95% confidence interval: 0.03–0.60).¹

Regarding JS_{victim} and JS_{beneficiary}, there were no significant mediation effects on altruistic punishment through moral emotions as there were no significant bivariate correlations between JS_{victim}, JS_{beneficiary}, and moral emotions.

Together with the results of Study 1, our findings show that other-regarding justice sensitivity is an important and robust predictor of individual differences in altruistic punishment. Effects of JS_{observer} on altruistic punishment persist even when there is an opportunity to compensate the victim as an alternative response to witnessed injustice. These findings are consistent with our argument that individual differences in JS are important to explain why some people engage in altruistic interventions against norm

¹Besides the indirect effect of moral outrage in the relationship of JS_{observer} and altruistic punishment, the data show such a mediation also occurred in case of compensation (estimate of the indirect effect: 0.12; bias-corrected accelerated 95% confidence interval: 0.01–0.26). Similarly to altruistic punishment, moral outrage seems a critical process involved in compensation.

transgressions whereas others do not. Moreover, our results in Studies 1 and 2 consistently demonstrate that moral outrage mediates the relationship of other-regarding JS and altruistic punishment. This effect persisted independent of the way of assessing moral outrage. Thus, our results suggest that moral outrage is an important psychological process that links justice concerns with altruistic punishment. Moral outrage seems to be the activating mechanism that translates strong genuine concerns for justice into an inclination to punish a transgressor even at one's own expense. Together with the findings of Fetchenhauer and Huang (2004), our pattern of results refutes the alternative explanation that JS may only affect altruistic punishment if participants are induced to deliberate about the witnessed injustice.

General Discussion

The main goal of the present research was to explain systematic inter-individual differences in altruistic punishment. Our studies provide evidence that individual justice concerns as reflected by justice sensitivity are connected to the sacrifice of own resources in the pursuit of altruistic punishment of violators of basic justice principles. Moreover, complementing and extending prior research, we investigated moral outrage as a potential mediator of the effects of justice sensitivity.

Consistent with prior findings, our study revealed substantial inter-individual variance in the willingness to engage in costly social sanctioning. While some people sacrifice money for the sake of justice, other people stop short of supporting moral norms if their self-interest is at stake. The personality disposition justice sensitivity helps to explain the puzzle of these systematic differences in altruistic punishment. Even if interventions allow for alternatives to punishment, the relationship persists. This has important implications.

On the theoretical side, the results are of particular interest regarding the evolution of cooperation and social norms (e.g., Bowles & Gintis, 2004). Punishment can only serve as an effective deterrence tool if (at least) a subpopulation exists (people high in JS_{observer}), which punishes transgressors despite other options such as compensation of a victim. As results of Studies 1 and 2 consistently suggest, persons high in other-regarding JS and specifically JS_{observer} fulfill this function in a society. The psychological mechanism that drives this robust tendency toward altruistic punishment is the experience of strong moral outrage in the face of violations of justice principles. This result fits to Frank's (2004) idea that moral emotions may have evolved as a "commitment-device" that triggers short-term irrational (i.e., not self-interested) behavior to secure long-term gains.

Recent evidence has shown that moral outrage experienced by a neutral observer translates into punishment regardless of the victim's knowledge about a transgression (Lotz, Okimoto, et al., 2011). Even if third parties knew that a disadvantaged person *B* was left thinking that his or her outcome was dependent on a lottery rather than on an interaction partner, they experienced outward-focused moral emotions (e.g., moral outrage) which translated into altruistic punishment. By contrast, the possibility that inward-focused emotions (e.g., shame, guilt) translated into compensation depended on the victim's knowledge about the transgression (Lotz, Okimoto, et al., 2011). Future

research could investigate the role that inward-focused emotions play in the relationship between justice concerns as reflected in other-regarding JS and third-party justice responses besides punishment.

The present results showing the robustness of punishment indicate that deterrence is a critical function of punishment compared to other goals of punishment such as revalidation of social consensus (e.g., Bies, 1987; Okimoto & Wenzel, 2008) or confirmation of the victim's group status (Okimoto & Wenzel, 2011). Further studies could more directly address the specific functions of punishment that form part of the motivation to engage in this kind of costly behavior.

As an overall summary, our studies provide important evidence that systematic individual differences in genuine justice concerns determine the strength of moral outrage experienced in the face of violations of justice principles. Moreover, this emotional process explains a substantial share of variance in the willingness to punish others altruistically. The results show that for people high in JS, justice does not stop at one's doorstep. These people feel emotionally aroused and morally obliged to sacrifice own resources to re-establish justice. It seems they implicitly followed an argumentation once made by Martin Luther King Jr. and acted accordingly: "Injustice anywhere is a threat to justice everywhere."

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Appendix: Justice Sensitivity Measures

People react quite differently in unfair situations. How about you? First, we will look at situations to the advantage of others and to your own disadvantage.

- (1) It bothers me when others receive something that ought to be mine.
- (2) It makes me angry when others receive a reward that I have earned.
- (3) I cannot easily bear it when others profit unilaterally from me.
- (4) It takes me a long time to forget when I have to fix others' carelessness.
- (5) It gets me down when I get fewer opportunities than others to develop my skills.
- (6) It makes me angry when others are undeservingly better off than me.
- (7) It worries me when I have to work hard for things that come easily to others.
- (8) I ruminate for a long time when other people are treated better than me.
- (9) It burdens me to be criticized for things that are overlooked with others.
- (10) It makes me angry when I am treated worse than others.

Now, we will look at situations in which you notice or learn that someone else is being treated unfairly, put at a disadvantage, or used.

- (11) It bothers me when someone gets something they don't deserve.
- (12) I am upset when someone does not get a reward he/she has earned.
- (13) I cannot easily bear it when someone unilaterally profits from others.
- (14) It takes me a long time to forget when someone else has to fix others' carelessness.
- (15) It disturbs me when someone receives fewer opportunities to develop his/her skills than others.

- (16) I am upset when someone is undeservingly worse off than others.
- (17) It worries me when someone has to work hard for things that come easily to others.
- (18) I ruminate for a long time when someone is treated nicer than others for no reason.
- (19) It gets me down to see someone criticized for things that are overlooked with others.
- (20) I am upset when someone is treated worse than others.
Now, we will look at situations that turn out to your advantage and to the disadvantage of others.
- (21) It disturbs me when I receive what others ought to have.
- (22) I have a bad conscience when I receive a reward that someone else has earned.
- (23) I cannot easily bear it to unilaterally profit from others.
- (24) It takes me a long time to forget when others have to fix my carelessness.
- (25) It disturbs me when I receive more opportunities than others to develop my skills.
- (26) I feel guilty when I am better off than others for no reason.
- (27) It bothers me when things come easily to me that others have to work hard for.
- (28) I ruminate for a long time about being treated nicer than others for no reason.
- (29) It bothers me when someone tolerates things with me that other people are being criticized for.
- (30) I feel guilty when I receive better treatment than others.

Note: Items 1 through 10 measure victim sensitivity, 11 through 20 measure observer sensitivity, 21 through 30 measure beneficiary sensitivity, based on Schmitt et al. (2005).

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