EMOTIONAL EXPERIENCE AND PROSOCIAL BEHAVIOR IN OBSERVERS OF UNJUST SITUATIONS

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Five studies tested the emotional experience and prosocial motivations in observers (i.e., third parties) of unjust situations. Studies 1 and 2 found that anger was the most dominant emotion experienced in unjust situations, and that prosocial behavior towards a victim decreased when justice had already been restored by compensation of the victim. Study 3 added that the experience of anger also decreases when justice is restored. Study 4 generalized the effects to different types of compensation. Study 5 switches to the perspective of the victim, showing a larger decrease in the most dominant emotion anger when justice was restored by means of compensation than by punishment. The implications of these findings with regard to third-party emotions and behavior in unjust situations are discussed.

Keywords: injustice, emotion, prosocial, compensation, punishment, third party

Events that are perceived as unjust are sometimes described as immoral, obstructive to plans and goals, and as having negative effects on personal relationships (e.g., Mikula, Scherer, & Athenstaedt, 1998). Hence, it might not be surprising that a vast amount of literature has shown that unfair or unjust situations come with strong emotional reactions (e.g., Adams, 1965; Darley & Pittman, 2003; Kuppens, Van Mechelen, Smits, & De Boeck, 2003; Roseman, Wiest, & Swartz, 1994; Van Doorn, Zeelenberg, & Breugelmans, 2014). One of the emotions that often arises in the context of injustice is anger (e.g., Kuppens et al., 2003; Mikula et al., 1998). According to Frijda (1988, p. 351): "Emotions arise in response to events that are important to the individual's goals, motives, or concerns. Every

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The authors declare no conflict of interests.

emotion hides a concern, that is, a more or less enduring disposition to prefer particular states of the world." The central concern in anger is the obstruction of a desired goal or need (e.g., Berkowitz & Harmon-Jones, 2004; Frijda, 1986; Kuppens et al., 2003; Scherer, 1984, 1993). In interpersonal situations, when the goal is blocked by an actor instead of a state of the world (such as a broken car), the general concern of goal blockage takes the form of the more specific concern for just relations (e.g., Adams, 1965; Stillwell, Baumeister, & Del Priore, 2008; Scherer, 1984; Van Doorn et al., 2014; see also Walster, Berscheid, & Walster, 1973). In an analysis of seven emotions among 2,921 participants in 37 countries, Mikula et al. (1998) indeed found that "Anger producing events were most frequently perceived as very unfair" (p. 769).

The experience of an emotion brings forward an associated goal that is linked to this central concern (Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008). Put differently, by understanding its central concern, we can delineate when an emotion should lead to goal-directed behavior and when not. Behavior following from anger can hence be understood as striving to remove the obstruction and attain the desired goal of justice. When people experience anger due to injustice, justice can for example be restored by lowering the outcomes of the perpetrator through punishment or other forms of retaliation (e.g., Berkowitz, 1990; Bougie, Pieters, & Zeelenberg, 2003; Darley & Pittman, 2003; Frijda, Kuipers, & Ter Schure, 1989; Nelissen & Zeelenberg, 2009; Roseman et al., 1994; Van Coillie & Van Mechelen, 2006).

However, recent studies suggest that in third-party situations (situations in which one observes that someone other than oneself is the victim of an unjust situation) people are also motivated to restore justice in a prosocial way. That is, when people observe an unjust situation they can try to restore justice through either punishing the perpetrator (e.g., by correcting the behavior; by striking back; or by taking away money) or compensating the victim (e.g., comforting; helping; giving money). In dyadic situations, where people themselves are treated unfairly, the only viable option to restore justice is to punish the perpetrator (see also Van Doorn et al., 2014). Research even suggests that people prefer compensating victims over punishing perpetrators in third-party situations (e.g., Chavez & Bicchieri, 2013; Leliveld, Van Dijk, & Van Beest, 2012; Lotz, Okimoto, Schlösser, & Fetchenhauer, 2011; Van Doorn, Zeelenberg, & Breugelmans, 2018a; Van Doorn, Zeelenberg, Breugelmans, Berger, & Okimoto, 2018b). Indeed, prosocial consequences such as compensating victims and helping the disadvantaged have been found in third-party situations (Iyer, Schmader, & Lickel, 2007; Montada & Schneider, 1989; Wakslak, Jost, Tyler, & Chen, 2007guilt, and shame responses to perceived harm caused by their countries' occupation of Iraq. In both studies, a manipulation of pervasive threat to the country's image increased participants' shame but not guilt. The emotions predicted political action intentions to advocate distinct opposition strategies. Shame predicted action intentions to advocate withdrawal from Iraq. Anger predicted action intentions to advocate compensation to Iraq, confrontation of agents responsible, and withdrawal from Iraq. Anger directed at different targets (ingroup, ingroup representative, and outgroup representative). However, when observers are inclined to act prosocially towards a victim and when not,

and the emotional experience involved in such situations is yet to be determined. The current paper therefore presents five studies that empirically examine this.

Three predictions follow from taking into account the central concern of anger in interpersonal relations and its related goal-directed behavior: (1) in the context of injustice people will experience anger more dominantly than other emotions; (2) anger should dissipate when justice is restored. As described in the feeling-is-for-doing approach, people try to regulate their emotions by acting in such a way that the emotion attenuates or prolongs (e.g., Zeelenberg & Pieters, 2006); and (3) people will *only* act prosocially when such behavior can serve the goal of restoring justice (Van Doorn et al., 2017). This reasoning resonates with research on other emotions such as guilt – an emotion that is also focused on remaining relationships equitable (Nelissen, Breugelmans, & Zeelenberg, 2013). For example, De Hooge (2012) found that when a third party repairs the damage caused to a victim, the perpetrator's feelings of guilt as well as associated prosocial behaviors decreased. Another example on punishment can be found in Goldberg, Lerner, and Tetlock (1999), who demonstrated that anger primed by injustice led to increasingly punishment judgments of other wrongdoers *only* when the perpetrator of the crime went unpunished. Thus, it seems that when the goal of restoring justice is attained (i.e., the central concern is acted upon) emotional experiences and ensuing behavioral consequences decrease.

Thus, in this article we explore the emotional experiences and prosocial motivations in third-party observers of injustice. Our general hypothesis is that prosocial behavior only follows when it serves the goal of restoring justice. When justice has already been restored by another party, and the justice concern that is associated with anger has been satisfied, both feelings of anger and prosocial behaviors towards the victim are predicted to be lower. This general hypothesis was tested in a series of five studies. In the first two studies we find that third-party prosocial behavior decreases when justice was already restored by compensating the victim. Study 3 adds that the experienced anger decreases as well. Study 4 finds that these effects generalize to different types of compensation. Finally, Study 5 switches to a victim's perspective, revealing a larger decrease in anger when justice was restored via compensation than via punishment.

STUDY 1: JUSTICE RESTORATION BY COMPENSATION

Method *[1]*

One hundred and thirty-two students (99 females; M_{age} = 20.80, SD = 2.60) were randomly assigned to an injustice, compensated injustice or control condition. In both the injustice and compensated injustice condition participants read the following scenario (adopted from Zeelenberg & Breugelmans, 2008):

> A friend of yours, Tim, just bought a new bicycle that took him three years to save for. He goes to the supermarket with his new bicycle to do some shopping, and puts his bicycle in front of the supermarket. When he comes back from the supermarket he sees that his bicycle got stolen. He can see the thief cycling

> away with his bicycle, however, having his hands full with his purchases Tim is unable to get his bicycle back.
>
> In the control condition, participants read:
>
> A friend of yours, Tim, just bought a new bicycle that took him three years to save for. He goes to the supermarket with his new bicycle to do some shopping, and puts his bicycle in front of the supermarket. When he comes back from the supermarket he takes his bicycle and cycles home with his purchases.

Participants then indicated how much anger, shame, regret, pride, and guilt they would feel in the described situation (1 = *not at all*; 5 = *very strongly*). Only participants in the compensated injustice condition subsequently read that Tim insured his bicycle, and that the insurance covers a new bicycle for him. Next, all participants read: "a week after this incident with the bicycle, it is Tim's birthday. You are also invited to his birthday." Then, participants indicated how many euros they would spend on Tim's birthday, as a dependent measure of prosocial behavior. Furthermore, only participants in the injustice and compensated injustice condition answered three questions about punishment of the bicycle thief: "How important is it to you that the thief will be caught?"; "How much would you like the thief to get punished?"; and "How important is it to you that the thief is paying for his deed?" on scales running from 1 (*not at all*) to 7 (*very much*). Finally, participants were thanked, debriefed, and received €8 for their participation.

Results

Emotions. The results are shown in Table 1. Participants in the injustice condition reported more anger than other emotions, all ts(43) > 9.83, ps < .001, as well as participants in the compensated injustice condition, all ts(43) > 8.89, ps < .001. Furthermore, there was a significant effect of Condition on the experience of anger, $F(2, 129) = 419.10$, $p < .001$, $\eta_p^2 = .87$, 90% CI [.83; .89]. Post-hoc comparisons (Tukey's HSD) revealed that participants in the injustice condition ($M = 4.55$, $SD = 0.82$) and the compensated injustice condition ($M = 4.52$, $SD = 0.66$) reported more anger than participants in the control condition ($M = 1.09$, $SD = 0.36$), $p < .001$ and $p < .001$, respectively. There was no difference in reported anger between the injustice condition and the compensated injustice condition, $p = .985$ (at this point, participants read the exact same scenario in these conditions).

Prosocial behavior [2]. An ANOVA on the amount of euros spent on Tim's birthday revealed a significant effect of Condition, $F(2, 129) = 9.07$, $p < .001$, $\eta_p^2 = .12$, 90% CI [.04; .21]. Post-hoc comparisons (Tukey's HSD) revealed that participants in the injustice condition ($M = 14.76$, $SD = 6.27$) spent more euros on Tim's birthday than participants in the compensated injustice condition ($M = 11.67$, $SD = 4.79$), $p = .015$, and than participants in the control condition ($M = 10.19$, $SD = 4.10$), $p < .001$. There was no difference in the amount of euros spent on Tim's birthday between the compensated injustice condition and the control condition, $p = .372$.

Table 1. *Study 1: Means (and Standard Deviations) of Emotions Experienced, Prosocial Behavior and Punishment Thoughts as a Function of Condition*

	Condition					
	Injustice (n = 44) *M (SD)*	Compensated injustice (n = 44) *M (SD)*	Control (n = 44) *M (SD)*	$F(2, 129)$	p	η_p^2
Anger	**4.55 (0.82)**$_a$	**4.52 (0.66)**$_a$	1.09 (0.36)$_b$	419.10	< .001	.87
Guilt	2.14 (1.11)$_a$	2.25 (1.14)$_a$	1.11 (0.32)$_b$	19.53	< .001	.23
Shame	1.55 (0.85)$_{ab}$	1.57 (0.85)$_a$	1.18 (0.50)$_b$	3.69	.028	.05
Regret	2.45 (1.41)$_a$	2.66 (1.33)$_a$	1.16 (0.53)$_b$	21.75	< .001	.25
Pride	1.30 (0.70)$_a$	1.09 (0.36)$_a$	**2.48 (1.27)**$_b$	33.19	< .001	.34
Prosocial behavior (€)	14.76 (6.27)$_a$	11.67 (4.79)$_b$	10.19 (4.10)$_b$	9.07	< .001	.12
Punishment thoughts	6.08 (0.90)$_a$	6.08 (0.88)$_a$				

Note. Emotions could range from 1 (*not at all*) to 5 (*very strongly*). Means with a different subscript differ significantly with all *p*s < .05 (Tukey post hoc). Means in bold represent the dominant emotion experienced within that condition with all *t*s > 5.84, all *p*s < .001. Higher scores on the prosocial behavior measure indicate higher amounts of euros for Tim's birthday present. Means with a different subscript differ significantly from each other with all *p*s < .015 (Tukey post hoc). Punishment thoughts could range from 1 (*not at all*) to 7 (*very).* Higher scores indicate a higher motivation to see the thief punished. Means with a different subscript did not differ significantly from each other with, $t(86) = 0.04$, $p = .968$.

Punishment. We computed a single mean score of the punishment items (Cronbach's α = .84). An ANOVA on punishment did not reveal a significant effect of Condition, $F(2, 75) = 0.002$, $p = .968$. Participants in the injustice condition ($M = 6.08$, $SD = 0.90$) were equally likely to punish the thief as participants in the compensated injustice condition ($M = 6.08$, $SD = 0.88$).

Discussion

In short, results show that when justice is restored (i.e., when the insurance company covers a new bike), people are less prosocial (i.e., spend less money on Tim's birthday present) compared to when justice was not yet restored. The willingness to see the thief punished was equal in both injustice conditions.

Next we will investigate whether the restoration of justice via punishment of the perpetrator would also lead to a decrease in third-party prosocial behavior. One could argue that punishment still leaves the victim in a disadvantageous position, holding a prosocial

motivation intact. Hence, Study 2 aimed to replicate the findings from Study 1, and included an additional condition in which the perpetrator got punished to test how this influences the motivation to act prosocially towards the victim.

STUDY 2: JUSTICE RESTORATION BY COMPENSATION VS. PUNISHMENT

Method

One hundred and thirty-five students (113 females; M_{age} = 19.96, *SD* = 3.68) were randomly assigned to an injustice, compensated injustice, punished injustice or control condition. Participants read the same scenarios and completed the same emotion check as in Study 1. Those in the punished injustice condition read that the police punished the thief. Participants then again indicated how much they would spend on Tim's birthday present. Finally, they were thanked, debriefed, and received course credit for their participation.

Results

Emotions. The results are shown in Table 2. Participants in the injustice condition reported more anger than other emotions, all *t*s(33) > 12.23, *p*s < .001, as well as participants in the compensated injustice condition, all *t*s(33) > 8.21, *p*s < .001, and in the punished injustice condition, all *t*s(32) > 7.54, *p*s < .001. Furthermore, there was a significant effect of Condition on the experience of anger, $F(3, 131) = 223.69$, $p < .001$, $\eta_p^2 = .84$, 90% CI [.79; .86]. Post-hoc comparisons (Tukey's HSD) revealed that participants in the injustice condition ($M = 4.41$, $SD = 0.66$), in the compensated injustice condition ($M = 4.44$, $SD = 0.61$), and in the punished injustice condition ($M = 4.30$, $SD = 0.77$) reported more anger than participants in the control condition ($M = 1.12$, $SD = 0.48$), all *p*s < .001. There was no difference in reported anger between the injustice condition, the compensated injustice condition, and the punished injustice condition, *p*s > .811.

Prosocial behavior [3]. An ANOVA on the amount of euros[3] spent on Tim's birthday (our measure of prosocial behavior) revealed a significant effect of Condition, $F(3, 131) = 3.40$, $p = .020$, $\eta_p^2 = .07$, 90% CI [.01; .13]. Post-hoc comparisons (Tukey's HSD) revealed that participants in the injustice condition ($M = 15.59$, $SD = 8.42$) spent more euros on Tim's birthday than participants in the compensated injustice condition ($M = 11.62$, $SD = 3.48$), $p = .037$, and than participants in the control condition ($M = 11.54$, $SD = 4.83$), $t(66) = 2.43$, $p = .032$. The amount of money spend in the punished injustice condition was somewhere in the middle ($M = 13.41$, $SD = 6.24$) and did not differ significantly from other conditions, *p*s > .452.

Table 2. *Study 2: Means (and Standard Deviations) of Emotions Experienced and Prosocial Behavior as a Function of Condition*

	Condition						
	Injustice (n = 34)	Compensated injustice (n = 34)	Punished injustice (n = 33)	Control (n = 34)			
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	$F(3, 131)$	p	η_p^2
Anger	**4.41 (0.66)$_a$**	**4.44 (0.61)$_a$**	**4.30 (0.77)$_a$**	1.12 (0.48)$_b$	223.69	< .001	.84
Guilt	1.76 (1.10)$_a$	1.76 (1.08)$_a$	1.76 (0.94)$_a$	1.15 (0.36)$_b$	3.80	.012	.08
Shame	1.65 (0.95)$_{ab}$	1.76 (1.18)$_b$	1.61 (0.90)$_{ab}$	1.15 (0.36)$_a$	3.09	.029	.07
Regret	1.82 (1.17)$_a$	2.65 (1.41)$_b$	2.36 (1.32)$_{ab}$	1.09 (0.38)$_c$	12.22	< .001	.22
Pride	1.24 (0.70)$_a$	1.09 (0.38)$_a$	1.12 (0.55)$_a$	**2.32 (1.20)$_b$**	19.94	< .001	.31
Prosocial behavior (€)	15.59 (8.42)$_a$	11.62 (3.48)$_b$	13.41 (6.24)$_{ab}$	11.54 (4.83)$_b$	3.40	.020	.07

Note. Emotions could range from 1 (*not at all*) to 5 (*very strongly*). Means with a different subscript differ significantly with all ps < .044 (Tukey post hoc). Means in bold represent the dominant emotion experienced within that condition, with all ts > 5.32, all ps < .001. Higher scores on the prosocial behavior measure indicate higher amounts of euros for Tim's birthday present. Means with a different subscript differ significantly with all ps < .037 (Tukey post hoc).

Discussion

In this study we have replicated the results from Study 1: the amount of money used for Tim's birthday present in the compensated injustice condition was significantly less than observed in the injustice condition. However, from this study it is somewhat unclear whether people judge punishment as a satisfying way of restoring injustice, as the degree of prosocial behavior does not differ from situations in which injustice is compensated, but also does not differ from situations in which no justice is restored. Cautiously looking at the specific prosocial means, it does signal a trend in that compensation might be judged as somewhat more satisfying than punishment, and that punishment is somewhat more satisfying than no justice restoration at all. This seems to be in line with previous third-party research where compensation is preferred over punishment (e.g., Lotz et al., 2011; Van Doorn et al., 2018a, 2018b).

In the next studies we tested our second proposition and investigated whether, next to prosocial tendencies, experienced anger would decrease after justice is restored. We expected that when justice has already been restored by another party, and hence the justice concern that is associated with anger has been satisfied, this will result in a decrease in both prosocial behavior and feelings of anger.

STUDY 3: JUSTICE RESTORATION AND THE DECREASE IN ANGER

Method

One hundred and forty-nine students (107 females; M_{age} = 20.84, *SD* = 2.92) were randomly assigned to an injustice or compensated injustice condition. They read the same scenarios as in Study 1. As an emotion check, participants subsequently indicated how much anger, shame, regret, pride, and guilt they would feel in the described situation, on a slider scale ranging from 0 (*not at all*) to 10 (*very strongly*) [4]. Next, participants in the injustice condition read: "Tim never got his bicycle back", whereas participants in the compensated injustice condition read: "Tim never got his bicycle back. However, Tim insured his bicycle and the insurance covers a new bicycle for him." Participants then again rated how they would feel using the same questions. Next, all participants read that Tim's birthday was coming up, and were asked how much they would spend. Finally, participants were thanked, debriefed, and received €5 for their participation.

Results

Emotions. The results are shown in Table 3. Directly after reading about the bicycle theft, participants in the injustice condition (*M* = 8.37, *SD* = 1.60) reported more anger than other emotions, all *t*s > 9.87, *p*s < .001, as well as participants in the compensated injustice condition (*M* = 8.37, *SD* = 1.54), all *t*s > 10.79, *p*s < .001. The experience of anger, shame, regret, pride, and guilt after reading about the bicycle theft did not differ between conditions, *t*s < 0.84, *p*s > .401.

After reading about the current status of Tim's bicycle (injustice condition: Tim never got his bicycle back; compensated injustice condition: the insurance covers a new bicycle), participants in the injustice condition (*M* = 8.07, *SD* = 2.43) reported more anger than other emotions, all *t*s > 8.21, *p*s < .001, as well as participants in the compensated injustice condition (*M* = 5.12, *SD* = 3.27), all *t*s > 2.50, *p*s < .015. More importantly, anger feelings decreased significantly in the compensated injustice condition, $t(74) = 8.62$, $p < .001$, but not in the injustice condition, $t(73) = 1.06$, $p = .294$. There were also between condition differences. Interestingly, when comparing the emotions at time 1 and time 2, anger and regret were lower and pride was higher in the compensated injustice condition, all *t*s > 5.18, *p*s < .001.

Table 3. *Study 3: Means (and Standard Deviations) of Emotions Experienced and Prosocial Behavior as a Function of Condition*

	Condition			
	Injustice (n = 74)		Compensated injustice (n = 75)	
	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 1 *M (SD)*	Time 2 *M (SD)*
Anger	**8.37 (1.60)**$_a$	**8.07 (2.43)**$_a$	**8.37 (1.54)**$_a$	**5.12 (3.27)**$_b$
Guilt	2.41 (2.47)$_a$	2.56 (2.82)$_a$	2.62 (2.42)$_a$	1.93 (1.87)$_b$
Shame	3.01 (2.75)$_a$	2.49 (2.51)$_b$	2.64 (2.59)$_a$	1.78 (1.93)$_b$
Regret	4.11 (3.19)$_a$	4.27 (3.42)$_a$	3.91 (3.26)$_a$	1.90 (2.00)$_b$
Pride	1.11 (1.73)$_a$	1.15 (1.93)$_a$	0.92 (1.15)$_a$	3.53 (3.17)$_b$
Prosocial behavior (€)	17.34 (10.39)$_a$		12.27 (7.95)$_b$	

Note. Emotions could range from 0 (*not at all*) to 10 (*very strongly*). Emotion means with a different subscript differ significantly from each other on time 1 and time 2 (within each condition), with all *t*s > 2.56, all *p*s < .013. None of the emotions differed between conditions at time 1, *t*s < 0.48, *p*s > .401, but anger, regret, and pride did differ between conditions at time 2, *t*s > 5.18, *p*s < .001. Means in bold represent the dominant emotion experienced within that condition, all *t*s > 2.50, *p*s < .015. Higher scores on the prosocial behavior measure indicate higher amounts of euros for Tim's birthday present. Prosocial behavior means differ significantly with $t(147) = 3.35$, $p = .001$, $d = 0.55$.

Prosocial behavior [5]**.** An ANOVA on the amount of euros spent on Tim's birthday (prosocial behavior) revealed a significant effect of Condition, $F(1, 147) = 11.21$, $p = .001$, $\eta_p^2 = .07$, 90% CI [.02; .14]. Participants in the compensated injustice condition (M = €12.27, SD = 7.95) spent less euros on Tim's birthday than participants in the injustice condition (M = €17.34, SD = 10.39) [6].

Discussion

From this study it thus appears that when justice is already restored (by the insurance company), both the experienced anger and the motivation to act prosocially decrease. It seems that when anger's concern is acted upon, the experience of anger is no longer 'necessary'.

One might further argue that reimbursing a bicycle from the insurance company is only partial compensation whereas getting one's own (saved-for) bicycle back is full compensation. Consequently, people might be inclined to act more prosocially in the case of compensation by insurance than in the case of compensation by retrieval. As described by Darley and Pittman (2003), the goal of compensation is to restore the victim's life as closely as possible to its preharm level. In Study 4 we therefore varied the form of compensation to the victim to study whether that influenced the experienced anger and the motivation to act prosocially.

STUDY 4: COMPENSATION BY INSURANCE VS. RETRIEVAL

Method

One hundred and fifty-eight students (78 females; M_{age} = 21.35, *SD* = 2.50) from different universities in the Netherlands were randomly assigned to a no compensation condition, the compensation by insurance, or the compensation by retrieval condition. They read the scenario from Study 1, and indicated how much anger, shame, regret, pride, and guilt they would feel in the described situation, on a slider scale ranging from 0 (*not at all*) to 10 (*very strongly*). Participants in the no compensation condition subsequently read: "Tim never got his bicycle back". Participants in the compensation by insurance condition read: "Tim never got his bicycle back. However, Tim insured his bicycle and the insurance covers a new bicycle for him." Finally, participants in the compensation by retrieval condition read: "Tim's bicycle was found and he now owns his own bike again." Next participants rated their emotions again on the same scales and indicated how much they would spend on Tim's upcoming birthday. Finally, participants were thanked and debriefed.

Results

Emotions. The results are shown in Table 4. Directly after reading about the bicycle theft, participants in the no compensation condition (*M* = 7.34, *SD* = 2.74) reported more anger than other emotions, all *t*s > 10.31, *p*s < .001, as well as participants in the compensation by insurance condition (*M* = 7.24, *SD* = 2.92), all *t*s > 8.15, *p*s < .001, and participants in the compensation by retrieval condition, (*M* = 6.40, *SD* = 2.91), all *t*s > 10.71, *p*s < .001. The experience of emotions after reading about the bicycle theft did not differ between conditions at this point, *F*s < 1.75, *p*s > .178.

After reading about the current status of Tim's bicycle (Tim never got his bicycle back, the insurance covers a new bicycle, or receiving his own bicycle again), participants in the no compensation condition (*M* = 7.01, *SD* = 2.83) reported more anger than other emotions, all *t*s > 10.34, *p*s < .001, as well as participants in the compensation by insurance condition (*M* = 4.27, *SD* = 3.16), all *t*s > 3.95, *p*s < .001. Participants in the compensation by retrieval condition, reported more anger (*M* = 3.28, *SD* = 2.71) than guilt, regret, and shame, all *t*s > 5.45, *p*s < .001, but not more anger than pride, *t*(53) = 0.06, *p* = .956.

Table 4. *Study 4: Means (and Standard Deviations) of Emotions Experienced and Prosocial Behavior as a Function of Condition*

	Condition					
	No compensation (n = 52)		Compensation by insurance (n = 52)		Compensation by retrieval (n = 54)	
	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 1 *M (SD)*	Time 2 *M (SD)*
Anger	**7.33 (2.74)**$_a$	**7.01 (2.83)**$_a$	**7.24 (2.92)**$_a$	**4.27 (3.16)**$_b$	**6.39 (2.91)**$_a$	**3.28 (2.71)**$_b$
Guilt	1.60 (2.28)$_a$	1.61 (2.35)$_a$	1.64 (1.99)$_a$	1.01 (1.18)$_b$	1.61 (2.01)$_a$	0.94 (1.34)$_b$
Shame	2.36 (2.40)$_a$	2.05 (2.22)$_a$	1.93 (2.31)$_a$	1.07 (1.36)$_b$	2.05 (2.72)$_a$	1.21 (1.79)$_b$
Regret	2.41 (2.96)$_a$	2.17 (2.82)$_a$	2.29 (2.58)$_a$	1.35 (1.90)$_b$	2.49 (2.73)$_a$	1.14 (1.64)$_b$
Pride	0.76 (1.33)$_a$	0.86 (1.60)$_a$	0.86 (1.19)$_a$	2.00 (2.29)$_b$	0.96 (1.52)$_a$	**3.25 (3.03)**$_b$
Prosocial behavior (€)	14.61 (6.05)$_a$		11.39 (4.83)$_b$		10.10 (4.24)$_b$	

Note. Emotions could range from 0 (*not at all*) to 10 (*very strongly*). Emotion means with a different subscript differ significantly from each other on time 1 and 2 (within each condition), with all ts > 2.52, all ps < .015. None of the emotions differed between conditions at time 1, Fs < 1.75, ps > .178, but anger, regret, shame, and pride did differ between conditions at time 2, Fs > 3.32, ps < .039. Means in bold represent the dominant emotion experienced within that condition, all ts > 5.22, ps < .001. The decrease in anger in the two compensation conditions did not differ (difference scores: 2.97 vs. 3.11, respectively), $t(104) = 0.28$, $p = .783$. Higher scores on the prosocial behavior measure indicate higher amounts of euros for Tim's birthday present. Prosocial behavior means differ significantly $F(2, 155) = 11.01$, $p < .001$, $\eta_p^2 = .12$, with all ps < .004 (Tukey post hoc).

Interestingly, when comparing the emotions at time 1 and time 2, anger feelings decreased significantly in both the compensation by insurance condition, $t(51) = 8.35$, $p < .001$, and the compensation by retrieval condition, $t(53) = 8.43$, $p < .001$, but not in the no compensation condition, $t(51) = 1.31$, $p = .197$. The decrease in anger did not differ between the compensation by insurance and compensation by retrieval conditions (difference scores: 2.97 vs. 3.11, respectively), $t(104) = 0.27$, $p = .783$.

There were also between condition differences in anger, shame, pride, and regret at the second emotion measure, Fs > 3.32, ps < .039, $\eta_p^2 > .04$, 90% CI [.00; .09]. The experience of guilt did not differ between any of the conditions, $F(2, 155) = 2.50$, $p = .085$, post-hoc ps > .106. The experience of anger and shame was higher, and the experience of pride lower in the no compensation condition than the compensation by insurance condition, post-hoc ps < .043. The experience of anger, regret, and shame was higher, and the experience of pride lower in the no compensation condition than the compensation by retrieval condition, post-hoc ps < .048. The compensation conditions did not differ between each other on anger, shame, and regret, post-hoc ps > .106, but participants experienced more pride in the compensation by retrieval than the compensation by insurance condition, $p = .021$.

Prosocial behavior. An ANOVA on the amount of euros spent on Tim's birthday (prosocial behavior) revealed a significant effect of Condition, $F(2, 155) = 11.01$, $p < .001$, $\eta_p^2 = .12$, 90% CI [.05; .20] [7]. Post-hoc comparisons (Tukey's HSD) revealed that participants in the no compensation condition ($M = €14.61$, $SD = 6.05$) spent more euros on Tim's birthday than participants in the compensation by insurance condition ($M = €11.39$, $SD = 4.83$), $p = .004$, and than participants in the compensation by retrieval condition ($M = €10.10$, $SD = 4.24$), $p < .001$. The compensation conditions did not differ from each other, $p = .398$ [8].

Discussion

Although the goal of compensation might be to restore the victim's life as closely as possible to its preharm level, we can conclude from this particular study that it does not matter what type of compensation the victim receives, as long as it can restore justice. The absence of a difference between the two types of compensation might be due to the fact that in general the victim's life has been restored to its preharm level in both restoration examples. That is, a bicycle got stolen and the victim receives one back. Hence, a preliminary conclusion might be that when it concern justice restoration, the restoration itself might be more important than how it took place (e.g., De Hooge, 2012).

From the previous two studies it seems that anger can be regulated, when a secondary appraisal of the situation involves that the goal of justice has been met. However, is anger regulation by compensation and punishment as 'easy' for third parties as for first parties (i.e., people being the victim themselves)? In the next and final study we measured anger before and after justice restoration when one takes the perspective of a victim, as we wanted to investigate whether there might be differences in judgments of compensation and punishment from a *victim's* perspective.

STUDY 5: FIRST-PARTY INJUSTICE

Method

Two hundred and fourteen students (167 females; $M_{age} = 20.01$, $SD = 2.08$) were randomly assigned to an injustice condition, the compensated injustice condition, or punished injustice condition. In all conditions participants read the bicycle theft scenario as used in Study 1 but then from a first-party perspective (i.e., participants had to imagine that their own bicycle got stolen). As an emotion check, participants subsequently indicated how much anger, shame, regret, pride, and guilt they would feel in the described situation, on a slider scale ranging from 0 (*not at all*) to 10 (*very strongly*) [9].

Next, participants in the injustice condition read that they never got their bicycle back, whereas participants in the compensated injustice condition read that they never got their bicycle back, but that the insurance covers a new bicycle, and participants in the punished injustice condition read that they never got their bicycle back, but that the police caught and punished the bicycle thief. As a second emotion check, participants again indicated how much anger, shame, regret, pride, and guilt they would feel in the described situation.

Results

The results are shown in Table 5. Directly after reading about the bicycle theft, participants in the injustice condition ($M = 8.73$, $SD = 1.39$) reported more anger than other emotions, all ts > 10.28, ps < .001, as well as participants in the compensated injustice condition ($M = 9.11$, $SD = 1.25$), all ts > 10.99, ps < .001, and participants in the punished injustice ($M = 9.11$, $SD = 1.28$), all ts > 13.18, ps < .001. The experience of emotions after reading about the bicycle theft did not differ between conditions at this point, Fs < 2.02, ps > .135, with the exception of regret ($F(2, 211) = 3.44$, $p = .034$, $\eta_p^2 = .03$, 90% CI [.00; .07]) [10].

After reading about the current status of the bicycle (stolen, covered by insurance, thief punished), participants in the injustice and punished injustice conditions reported more anger ($M = 7.25$, $SD = 2.47$ and $M = 6.75$, $SD = 2.56$, respectively) than other emotions, ts > 5.27, ps < .001. Participants in the compensated injustice condition reported more anger and pride ($M = 4.32$, $SD = 3.14$ and $M = 3.37$, $SD = 3.11$, respectively) than guilt, regret, and shame, ts < 4.21, ps > 001.

When comparing the emotions at time 1 and time 2, anger feelings decreased significantly in all conditions, ts < 5.32, ps > .001, but the magnitude of this decrease was highest in the compensated injustice condition as compared to the injustice and punished injustice conditions (difference scores: 4.78 vs. 1.48 vs. 2.36, respectively), $F(2, 211) = 31.40$, $p < .001$, $\eta_p^2 = .23$, 90% CI [.14; .30], post-hoc ps < .001. The decrease in anger did not differ between these last two conditions, $p = .103$.

Table 5. *Study 5: Means (and Standard Deviations) of Emotions Experienced as a Function of Condition*

	Condition					
	Injustice ($n = 72$)		Compensated injustice ($n = 71$)		Punished injustice ($n = 71$)	
	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 1 *M (SD)*	Time 2 *M (SD)*	Time 1 *M (SD)*	Time 2 *M (SD)*
Anger	**8.73 (1.39)**$_a$	**7.25 (2.47)**$_b$	**9.11 (1.25)**$_a$	**4.32 (3.14)**$_b$	**9.11 (1.28)**$_a$	**6.75 (2.56)**$_b$
Guilt	2.69 (2.81)$_a$	3.14 (3.06)$_a$	2.45 (2.52)$_a$	1.34 (2.09)$_b$	2.02 (2.30)$_a$	1.12 (1.67)$_b$
Shame	3.49 (3.15)$_a$	3.08 (3.19)$_b$	3.14 (2.94)$_a$	1.24 (1.75)$_b$	2.84 (2.67)$_a$	1.41 (2.09)$_b$
Regret	4.65 (3.25)$_a$	4.97 (3.23)$_a$	4.81 (3.26)$_a$	1.40 (2.04)$_b$	3.51 (3.13)$_a$	2.03 (2.60)$_b$
Pride	0.35 (0.80)$_a$	0.36 (0.87)$_a$	0.52 (1.39)$_a$	**3.37 (3.11)**$_b$	0.34 (1.02)$_a$	1.14 (1.76)$_b$

Note. Emotions could range from 0 (*not at all*) to 10 (*very strongly*). Emotion means with a different subscript differ significantly from each other on time 1 and time 2 (within each condition), with all ts > 2.33, all ps < .023. Except for regret ($F(2, 211) = 3.45$, $p = .034$, $\eta_p^2 = .03$) none of the emotions differed between conditions at time 1, Fs < 2.02, ps > .135, but all emotions did differ between conditions at time 2, Fs > 12.57, ps < .001. Means in bold represent the dominant emotion experienced within that condition, all ts > 4.21, ps < .001.The decrease in anger differed between conditions, $F(2, 211) = 31.40$, $p < .001$, η_p^2

= .23. The decrease in anger was highest in the compensated injustice condition, *p*s < .001. The decrease in anger did not differ between the injustice condition and the punished injustice condition, $p = .103$.

The experience of emotions after reading about the current status of the bicycle also differed between conditions. Anger, guilt, regret, and shame were lowest in the compensated injustice condition, as compared to the other two conditions (which did not differ from each other), *F*s > 15.98, *p*s < .001, $\eta_p^2 > .13$, 90% CI [.06; .20], and pride was highest in the compensation injustice condition as compared to the other conditions, $F(2, 211) = 38.69$, $p < .001$, $\eta_p^2 = .27$, 90% CI [.18; .34].

GENERAL DISCUSSION

We conducted five studies to investigate emotional experiences and prosocial motivations in observers of unjust situations. Studies 1 and 2 found that anger was the most dominant emotion experiences in situations of injustice, and found that when justice was already restored, either by compensation of the victim (Study 1) or by punishment of the perpetrator (Study 2), the motivation to act prosocially towards a victim decreased. Study 3 found that – next to prosocial behavior – experiences of anger also decreased after justice restoration. Study 4 generalized these findings to different types of compensation. Finally, Study 5 switched to a victim's (i.e., first party) perspective and found a larger decrease in anger when justice was restored via compensation than via punishment.

These results empirically confirm that anger is an emotion with a justice-restoring goal (cf. Van Doorn et al., 2014, 2017); when to goal of justice restoration has been satisfied, feelings of anger decreased. The present findings therefore constitute an important contribution to the anger literature. Emotions lead to behavior when the situation allows for dealing with the central concern of that emotion. In the case of interpersonal anger this entails a justice concern and, as appears from our results, is accompanied by a justice-restoring goal. When the goal of anger is satisfied (i.e., justice is restored), one's anger and behavior that deal with the concern are no longer necessary and thus decrease.

Although we have focused on anger in the current paper, as this was the most dominant emotion experienced in our studies, we do see some interesting shifts in the experience of pride. For example, after justice had been restored via compensation the experience of pride increased (Studies 3, 4, and 5). Sometimes pride was even the most dominant emotion experienced after compensation (Study 5). Pride has been defined as an emotion that involves positive feelings that arise as the result of one's own achievements or the achievements close others (e.g., Lazarus, 1991). An increase in pride might therefore be surprising, as our participants did not accomplish the compensation or punishment themselves. However, as our studies only included pride as a positive emotion, participants' increases in positive feelings that might have stemmed from the notion that justice has been restored could only be reflected in this emotion. Hence, this does not mean that pride is *the* emotion experienced in cases of justice restoration, but that participants felt a general positive feeling that they became apparent via our pride measure. Another possibility is that

participants might have interpreted pride as being proud of someone else. Future research might benefit from including other positive emotions such as happiness and gratitude to draw more specific conclusions about the experience of positive emotions in (un)just third-party situations.

Interestingly, in Study 3 we observed a non-significant trend that punishment is less effective in restoring justice than compensation. From a first-party perspective (Study 5) it might make sense for a victim to prefer compensation over punishment because compensation has clear benefits for the victim whereas punishment does not. Compensation, but not punishment of the perpetrator, objectively improves the situation of the victim. Still, from a third-party perspective one could argue that punishment still leaves the victim in a disadvantageous position. Punishing the perpetrator may also restore justice, but this only puts the perpetrator in a disadvantageous position and does not take away the harm done to the victim. Future research might reveal the exact motivation behind third-party compensation and punishment.

Our studies may also have implications for prosocial behavior in practical settings, such as insurance, charity, and criminal justice. First, in our scenarios we often use insurance as a compensation tool. It appears that angry people act less prosocially when a victim receives compensation from an insurance company. Therefore, people might not feel the need to act prosocially towards insured victims in cases where victims do need help. Some evidence for this idea can already be found in the research by Van de Calseyde, Keren, and Zeelenberg (2013). They found that that people recommend milder punishments for perpetrators when the victim was insured. Second, it might be beneficial for charities to signal that people's contribution help to right wrongs: If people have the idea that there is no opportunity to restore justice with their behavior, they might not feel inclined to donate at all (see Van Doorn et al., 2017). Finally, these results also have implications for theories of justice and law. From our results it seems that both first parties and third parties judge compensation of a victim as more satisfying than punishment of a perpetrator, while punishment is the dominant justice-restoring device in tort cases.

Some limitations of the present research need to be highlighted. First, in our studies the victim always received full compensation. That is, either the insurance company covers a new bicycle for Tim or the original bike that got stolen is found back again. In real life full compensation is less likely. For example, an insurance company typically reimburses the current value of what is stolen or damaged, and not the original costs. It would be interesting to investigate whether full compensation is needed, or whether partial compensation (i.e., an insurance company could choose to only cover half of the expenses of the stolen bicycle) would also lead to a decrease in anger and prosocial behavior. If a victim receives partial compensation, the position of the victim is still somewhat disadvantageous and might therefore not be judged as reaching the goal of restoring justice. The concept of compensation is that it should restore the concrete condition of the victim to what it was prior to the accident (Darley & Pittman, 2003). Second, we realize that our studies do not comprise actual behavior but hypothetical situations, and that our studies comprise student samples. Still, we believe these studies are important, as they are an initial test in explaining

third parties' prosocial consequences in unjust situations. Furthermore, other emotion research has convincingly shown that the effects in hypothetical situations generalize to actual behavior and to non-student samples (e.g., Bougie et al., 2003; De Hooge, Nelissen, Breugelmans, & Zeelenberg, 2011; Feinberg, Willer, Stellar, & Keltner, 2012; Seip, Van Dijk, & Rotteveel, 2014). Third, the current studies have only tested theft situations and only measured prosocial behavior via money spent on a birthday present. Although this might limit conclusions with regard to injustice and prosocial behavior in general, being consistent in the use of our design has allowed us to draw firm conclusions on the influence and consequences of justice restoration in third parties. That is, these studies demonstrate that the motivation to restore justice influences emotional experiences and drives prosocial behavior in third parties, not differences with regard to the methods or design used.

To summarize, the current research is the first to show when third parties display prosocial behavior in unjust situations and the emotional experience that is involved in this process. Five studies suggest that third parties experience anger most dominantly in unjust situations, and that these feelings of anger can be regulated by the restoration of justice. Furthermore, third parties only display prosocial tendencies when justice still needs to be restored. When justice has already been restored by another party (i.e., the concern of anger has been satisfied), feelings of anger, and prosocial behavior towards the victim, may diminish. These results have therefore brought us one step closer in predicting how people deal with injustice.

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ENDNOTES

[1] We report all data exclusions (if any), all manipulations, and all measures in the studies. Studies 1 and 2 were part of a larger testing session. When there was an inequality of variances when testing differences between means using t-tests, corrected degrees of freedom are reported throughout the article.

[2] There were four extreme outliers (data points that are more extreme than Q1 – 3 * IQR or Q3 + 3 * IQR) on the prosocial behavior measure, which were all in the control condition. We chose not to delete these outliers, as we judged these responses as likely and valid, especially because these cases appeared in the same condition. Deleting these cases did not alter the effect: $F(2, 125) = 13.66$, $p < .001$, $\eta_p^2 = .18$.

[3] There was one extreme outlier in the punished injustice condition on the prosocial behavior measure. We chose not to delete this outlier, for the same reason as stated in footnote 2. Deleting this case did not alter the effect: $F(3, 130) = 3.70$, $p = .014$, $\eta_p^2 = .08$.

[4] We chose to use a different scale here as compared to Study 1, because a slider scale can provide respondents a more granular level of rating.

[5] There were two extreme outliers in the compensated injustice condition on the prosocial behavior measure. We chose not to delete these outliers, for the reason stated in footnote 2. Deleting these cases did not alter the effect: $t(104.55) = 4.56$, $p < .001$, $d = 0.75$.

[6] We were not able to test for mediation (using the mean difference scores of anger on time 1 and time 2; injustice condition: 0.30, $SD = 2.41$ vs. the compensated injustice condition: 3.24, $SD = 3.26$) via the bootstrapping method (Preacher & Hayes, 2004, 2008). Condition predicted the decrease in anger, $\beta = .46$, $p < .001$, and prosocial behavior, $\beta = -.27$, $p = .001$, but when entered together, Condition, $\beta = -.29$, $p = .001$, but not the difference in anger, $\beta = .06$, $p = .515$, predicted prosocial behavior (cf. Baron & Kenny, 1986). It is important to note here that the variance of the anger difference scores differed substantially between participants in the injustice condition (5.81) and in the compensated injustice condition (10.43) (see Spencer, Zanna, & Fong [2005] and Zhao, Lynch, & Chen [2010], for problems associated with demonstrating statistical mediation of experimental manipulations).

[7] There were three extreme outliers in the compensation by retrieval condition on the prosocial behavior measure. We chose not to delete these outliers, for the reason in footnote 2. Deleting these cases did not alter the effect: $F(2, 152) = 15.11$, $p < .001$, $\eta_p^2 = .17$).

[8] We were unable to demonstrate that the difference score of anger (no compensation: 0.32, *SD* = 1.80, variance = 3.25 vs. compensation (two conditions combined): 3.02, *SD* = 2.66, variance = 7.09) mediated the effect of Condition on prosocial behavior (see footnote 6).

[9] For reasons of clarity we recoded the original slider scales. The original slider scales scores ranged from 0 to 100, which we divided by ten.

[10] We do not have a clear reason for why participants have a lower score on regret in the punished injustice condition, as participants from all conditions started with the exact same scenario before completing the first emotion measure. Because we judge this to be a coincidental result, we will not further discuss this.

Date Received: 09/2018
Date Accepted: 05/2019

Suggested citation: van Doorn, J., Zeelenberg, M., & Breugelmans, S.M. (2019). Emotional Experience and Prosocial Behavior in Observers of Unjust Situations. [Electronic Version]. *Applied Psychology in Criminal Justice, 15*(1), 41-59.