



## FlashReport

## Compassion for one reduces punishment for another

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## ABSTRACT

The ability of compassion felt toward one person to reduce punishment directed at another was examined. The use of a staged interaction in which one individual cheats to earn higher compensation than others resulted in heightened third-party punishment being directed at the cheater. However, among participants who were induced to feel compassion toward a separate individual, punishment of the cheater disappeared even though the cheater clearly intended to cheat and showed no remorse for doing so. Moreover, additional analyses revealed that the reduction in punishment was directly mediated by the amount of compassion participants experienced toward the separate individual.

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## Compassion for one reduces punishment for another

Is compassion a moral force? The answer, according to many spiritual leaders like the Dalai Lama, is a resounding yes. The experience of compassion, they assert, has a radiating effect, extending kindness and forgiveness toward others, even those who have intentionally transgressed (Dalai Lama & Ekman, 2008). As such, compassion has the potential to stand as a counterweight to desires for punishment and revenge. It may function as a moral emotion capable of inhibiting actions that typically result in escalations of violence (cf. Davidson & Harrington, 2002; Goetz, Keltner, & Simon-Thomas, 2010; Singer & Steinbeis, 2009).

The difficulty in evaluating this provocative view, however, is that separating the experience of compassion from other prosocial or forgiveness-relevant factors can be problematic. For example, some people may be more forgiving than others (Berry, Worthington, O'Connor, Parrott, & Wade, 2005), or some transgressors may be more forgivable based on their apologies (McCullough, Worthington, & Rachal, 1997), intentions (Rudolph, Roesch, Greitemeyer, & Weiner, 2004), relationship with the forgiver (Karremans & Aarts, 2007), or physical characteristics (Zebrowitz & McDonald, 1991). Yet, if compassion itself can exert an intuitive motivation to foster another's wellbeing, its experience, holding all extraneous factors constant, should attenuate behaviors meant to punish.

The primary goal of the current study was to examine this view by evoking compassion in real-time in a controlled laboratory setting in order to investigate its subsequent influence on third-party punishment – a fairly ubiquitous phenomenon in which transgressors are penalized by one individual for their actions against others (Henrich et al., 2006). That

is, the punishing individuals themselves have not been wronged, but rather seek to castigate transgressors for violating accepted group norms (e.g., fairness) against third-parties. Consequently, utilization of a third-party punishment scenario allows a stringent test for compassion's proposed role. It not only affords complete control over the nature of the transgression and antagonists, but also provides for a measure of mercy and forgiveness that occurs in the absence of any apology or other display of remorse. Indeed, the foregoing of an opportunity to get revenge or sanction others for transgressions has been taken to constitute an act of forgiveness (McCullough et al., 1998).

## Experimental overview

In the current experiment, we exposed participants to an individual who sometimes cheated to obtain a financial reward and measured the levels of third-party punishment that followed. Some of the individuals who witnessed the cheating were then induced to feel compassion through the suffering of a near-by confederate. We expected that those who witnessed cheating without compassion would punish the transgressor in comparison to those who did not witness any cheating. Of import, however, we also predicted that elevated compassion would attenuate or completely extinguish punishment of the transgressor; thus, levels of punishment doled out by those who witnessed cheating with compassion should approach that of those who did not witness any cheating.

## Method

## Participants

Forty-four undergraduates (27 females, 17 males,  $M_{\text{age}} = 19$  years,  $SD_{\text{age}} = 1.33$  years) at Northeastern University participated in return

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for partial fulfillment of a course requirement. Participants were randomly assigned to one of three conditions: Control, Cheating Without Compassion (CWOC), and Cheating With Compassion (CWC). In addition to course credit, participants received monetary compensation resulting from performance on an experimental task.

### Procedure

Participants arrived at the lab individually, believing they would participate in an experiment assessing the relation between mathematic ability and sensory perception. In each session, the participant was seated in a cubicle between ones occupied by a male (MC) and female (FC) confederate.

The first task was described as a test of mathematic ability, but actually provided MC with the opportunity to commit the transgression expected to motivate punishment. To evoke the potential for third-party punishment, we modified a paradigm in which participants witnessed a confederate cheating on a set of math problems in order to receive an undeserved financial reward (Gino, Ayal, & Ariely, 2009). In this task, participants would be paid for each of 20 math problems they solved correctly in the allotted time.<sup>1</sup> After 4 min, the experimenter approached each individual in turn to have him or her report the number of problems finished, starting with FC, followed by the participant, and ending with MC. The instructions provided specified that after checking an individual's work, the experimenter would instruct him or her to dispose of it using a paper shredder and would then hand the corresponding amount of money to the individual.

The situation, however, was rigged such that the experimenter did not have enough to pay all participants. The experimenter carried an envelope containing just enough to pay FC, who always reported completing two matrices. After inquiring how many problems the participant had finished, the experimenter expressed dismay about forgetting to put more money in his envelope and left to retrieve more. At this point, the common script for the remainder of the task diverged for the different conditions. In the two cheating conditions, MC turned to see that the experimenter had left and quickly got up to put his worksheets in the shredder in full view of the other individuals.

After returning with additional money and paying the participant, the experimenter asked MC how many problems he completed. MC responded in a confident manner "I finished all twenty" and quickly added, "I went ahead and shredded the paper for you; I thought I would save you a little time." The experimenter turned his head toward the shredder, then back to MC, and without any seeming recourse paid MC the full amount before moving on to the perceptions tasks. In the control condition, MC did not shred his worksheets and reported finishing one more problem than the participant.

The first perception task was described as a visual one but merely served as a filler designed to uphold the cover story. It purportedly involved subliminal perception, but no stimuli of interest were actually presented; participants only saw flashing gray ovals on their computer screens and were instructed to guess which of two subsequently presented objects was behind the ovals.

After completing this task, participants experienced either a compassion or neutral emotion manipulation. To induce compassion, we developed a novel procedure designed to elicit compassion in real time through a staged, complex interaction of FC and the experimenter. In the compassion condition, after participants completed the visual task, the experimenter returned to the laboratory and began explaining the next task. At this point, FC began to sniffle and cry moments after surreptitiously placing eye drops in each eye, thus giving the impression of real tears streaming down her face. The

experimenter took notice and approached FC to ask if she was okay. Participants watched as FC briefly intensified her crying while saying "No... I found out a few days ago that my brother has cancer." FC began to gain composure, saying "I'm sorry... I'm not going home until this weekend... but it's really bothering me right now." The experimenter offered to let her leave and escorted her out of the laboratory. In the neutral emotion conditions, FC announced that she was late for a medical appointment and the experimenter excused her after she agreed to come back to finish the experiment at a later time.

Thus, in all conditions, FC left the experiment early, leaving the participant and MC to complete the final task. This third task was presented as assessing taste perception, but in actuality served as the punishment measure.

To assess punishment, we used a validated aggression measure in which participants were given the opportunity to punish MC by deciding on the amount of hot sauce that would be placed in his mouth (Lieberman, Solomon, Greenberg, & McGregor, 1999). As part of this task, participants were told that they would be sampling a certain taste and then evaluating it. Following FC's departure, the participant and MC completed a taste preference questionnaire. The experimenter next explained that the participant and MC would sample their respective tastes in different rooms so that the aromas of the different categories would not bias results. MC was then escorted out of the lab. Upon returning to the room, the experimenter explained to the participant that in order to insure the experimenter remained blind to the taste categories being assigned, the participants would put together samples for each other. The participant, therefore, was to put together a sample for MC. FC had been assigned to put together a sample for the true participant, but her departure meant that the participant would not sample anything.

The experimenter then brought in a box containing three condiments and the other items needed to put together a taste sample. The participant would use one of the condiments to prepare a sample and the instructions would indicate which taste category to use. The participant was told that he or she could pour any amount of the condiment into a sample cup and then a different experimenter would place the entirety of the sample into MC's mouth for his evaluation. The participant was then left alone in the room to put together the taste sample.

Upon opening the box, participants found a set of instructions indicating that they were randomly assigned to administer the spicy category. They next found a bottle of hot sauce labeled with spicy warnings along with chocolate syrup, squeezable jam, and an empty condiment cup and lid. The participants also found the taste preference questionnaire belonging to MC that indicated a strong dislike for spicy tastes.<sup>2</sup> Participants assembled a taste sample and then put all items back in the box. The amount of hot sauce was measured in grams using pre-weighed containers on a digital scale with a precision of 0.01 g.

Before departing, participants completed a final measure on the computer in their cubicle. These measures assessed their emotional states by having them rate the degree to which each of the 16 items described their current feelings. Compassion was calculated as the mean of responses to the items *compassion*, *sympathy*, and *pity* (cf. Valdesolo & DeSteno, in press). Sadness, calculated as the mean response to the items *sad* and *gloomy*, was also assessed in order to ensure its distinction from compassion.

### Results

A planned contrast confirmed the success of the compassion induction; participants in the CWC condition experienced elevated compassion ( $M = 3.10$ ,  $SD = 0.73$ ) compared to those in the control

<sup>1</sup> See online supplementary materials for task specifics and participants' performance.

<sup>2</sup> See online supplementary materials.

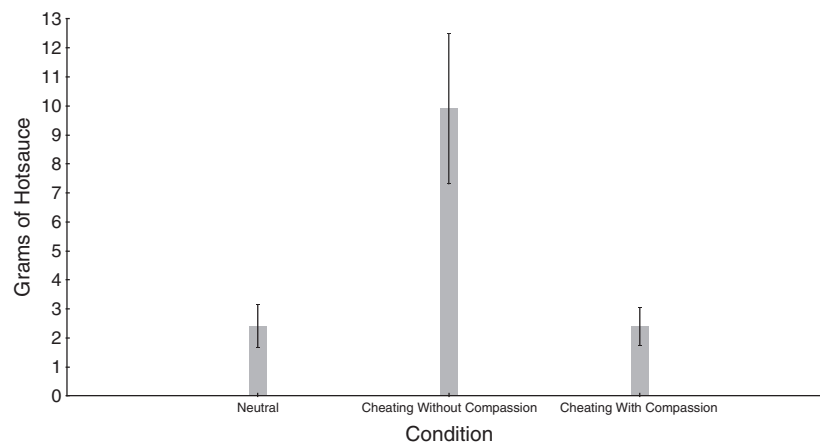


Fig. 1. Mean punishment levels as a function of condition. Error bars signify  $\pm$  one SE.

( $M = 2.47$ ,  $SD = 0.70$ ) and the CWOC ( $M = 2.52$ ,  $SD = 0.84$ ) conditions,  $F(1, 41) = 5.84$ ,  $p = .02$ ,  $d = 0.52$ .<sup>3</sup> Of most import, however, contrasts also confirmed that while punishment was elevated in the CWOC condition, it was virtually non-existent in the CWC condition, where hot sauce levels matched those given in the control condition (see Fig. 1),  $F(1, 41) = 13.13$ ,  $p = .001$ ,  $d = 0.77$ .<sup>4</sup>

To ensure that reduced punishment was a direct function of compassion as opposed to stemming from an alternative factor associated with the manipulation (e.g., witnessing the experimenter console FC), we conducted a mediational analysis using participants in the CWOC and CWC conditions. As shown in Fig. 2, the presence of a distressed confederate was associated with both elevated compassion and decreased punishment in terms of zero-order correlations. However, regressing punishment on both variables revealed that only compassion remained a viable predictor, supporting its candidacy as the sole mediator of reduced punishment. Use of the bootstrapping procedure recommended by Preacher and Hayes (2004) confirmed the significance of the mediational path (95% CI's:  $-0.06$  to  $-2.65$ ), thereby demonstrating that the ability of the manipulation to reduce punishment stemmed from the participants' feelings of compassion. Sadness, although marginally correlated with compassion ( $r = .31$ ,  $p = .11$ ), evidenced no relation to punishment ( $r = .02$ ), suggesting that compassion constitutes a distinct construct.

## Discussion

Although cheating for financial gain did engender significant levels of third-party punishment, extant feelings of compassion mitigated punitive action for the same transgression. These findings are all the more striking in that compassion, irrespective of its source, appears able to reduce punishment even of individuals who both clearly intended to transgress and sought no forgiveness for their actions. The exact mechanism(s) underlying this effect, however, remain to be explored. Compassion may reduce desires for punishment by enhancing cognitive control (cf. Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010; Wilkowski, Robinson, & Troop-Gordon, 2010), situational attributions for a transgression (cf. Rudolph et al., 2004) or intuitions of perceived similarity with the transgressor (cf. Oveis, Horberg, & Keltner, 2010; Valdesolo & DeSteno, in press).

<sup>3</sup> Contrast weights: (2)CWC, (-1)Control, (-1)CWOC. Residuals for this and all other contrasts were not significant.

<sup>4</sup> Contrast weights: (2)CWOC, (-1)CWC, (-1)Control. Evaluation of the contrast assuming heterogeneity of variance due to low variances of punishment in the control and CWC conditions also proved significant,  $t(16.07) = 2.85$ ,  $p = .01$ .

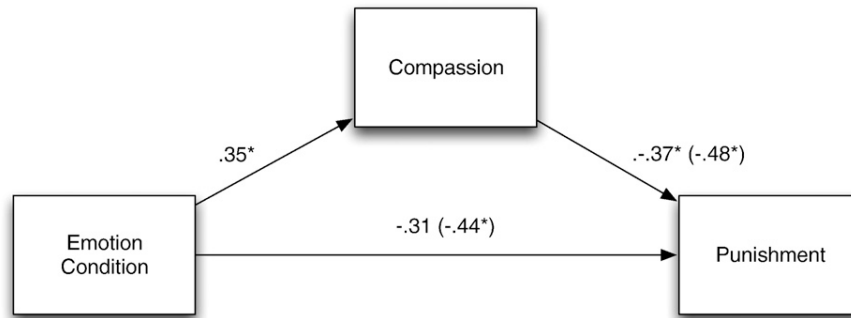
Consequently, identification of the mechanism(s) involved stands as a priority for future work.

It is also worthy of note that although we have demonstrated compassion's ability to reduce punishment when the distress of a victim is causally dissociated from the act of a transgressor, whether the same relation would hold true when a victim's suffering is due to the actions of a transgressor remains an open question. In such cases, the level of distress observed, and therefore the level of compassion felt, might covary tightly with the level of animosity directed at the cause of the suffering (i.e., the transgressor). In such cases, it is possible that the influence of elevated compassion might be offset by desires to punish the source of the distress (cf. Meyers, Lynn, & Arbuthnot, 2002). However, depending upon which mechanisms underlie compassion's influence, the exact nature of the interplay of these forces is difficult to predict.

Given the theorized benefits and relative ubiquity associated with third-party punishment (cf. Henrich et al., 2006), the question of whether the "radiating" influence of compassion can serve adaptive goals necessarily emerges. Indeed, third-party punishment has been shown to be an effective mechanism for upholding adherence to group norms. However, emerging research also suggests that it may not represent the optimal strategy for stabilizing social behavior and exchange. Individuals who abstain from administering punishment within exchange relationships actually reap the most benefits in terms of cooperation and resource accumulation (Dreber, Rand, Fudenberg, & Nowak, 2008). Moreover, avoiding punishment of transgressors as opposed to acting in revenge results in less psychological stress and greater hedonic wellbeing in the long-run (Bushman, 2002; Carlsmith, Wilson, & Gilbert, 2008).

Given these findings, the ability of compassion to act not only as a break on dangerous escalations of aggression, but also as a force to enhance individual success by reducing the likelihood of engaging in punishment may offer advantages. Although the capacity for compassion likely evolved within the context of caregiving relationships (Goetz et al., 2010), its generalizability to other targets, once evoked, may represent a spandrel with benefits aimed at countervailing the negatives associated with increasing punishment. As such, it may function to balance social systems so as to prevent escalating tit-for-tat aggression and downward spirals of prosocial behavior. Indeed, in opposition to other processes underlying forgiveness that normally unfold over weeks and months (McCullough, Luna, Berry, Taba, & Bono, 2010), compassion appears able to remove drives for punishment rapidly.

Supplementary materials related to this article can be found online at [doi:10.1016/j.jesp.2010.11.016](https://doi.org/10.1016/j.jesp.2010.11.016).



**Fig. 2.** Path model for mediating the role of compassion. Condition is dummy-coded: CWOC = 0, CWC = 1. Parameters in parentheses indicate zero-order correlations. Asterisks indicate  $p \leq .06$ .

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