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What influences punitive responses? Examining the interaction between shared identity and crime severity

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Abstract

Objectives The current paper investigates the black sheep effect by testing how crime severity and shared identity with an offender affect retributive and restorative responses (study 1), and whether this relationship is mediated by emotion (study 2).

Methods Across two studies, we employed a 2 (crime severity)×2 (shared identity) between-subjects factorial design. Study 2 served as a conceptual replication of study 1 and included emotions as mediators between our manipulations and justice responses. The studies were fielded to both undergraduate students and CloudResearch participants.

Results The black sheep effect was not supported in either study. Instead, severe crimes alone resulted in more retributive responses and this relationship was mediated by empathic anger.

Conclusions The results lend support to the notion that a violation of expected norms elicits a greater desire for just deserts. This finding was consistent and occurred regardless of shared values or interests with an offender.

Keywords Conceptual replication · Crime severity · Justice response · Restorative justice · Retributive justice

This manuscript has not been published elsewhere and it has not been submitted simultaneously for publication elsewhere.

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Introduction

In the past, Americans were notably more punitive than citizens of other modern countries (Currie, 1998; Kugler et al., 2013). However, in recent years, public support for "get tough" on crime approaches has declined (Brenan, 2021; Enns, 2016) and Americans have increasingly come to support alternatives to punishment and other criminal justice reforms (Brenan, 2021; Paul, 2015; Thielo et al., 2016). This support is fairly evident in public opinion polls, but there is little information about the mechanisms and motivations underlying current public opinion. To address this shortcoming, we conducted cross-sectional survey experiments to evaluate factors that shape responses to wrongdoing.

The basic human need to punish others in response to a wrongdoing is largely driven by an intuitive desire for retribution (Carlsmith et al., 2002; Carlsmith & Darley, 2008; Wenzel & Okimoto, 2016), with much of the existing literature focused on motivations underlying this retributive response (see, for example, Darley & Pittman, 2003; Ellard et al., 2016; Gerber & Jackson, 2013; Gollwitzer & van Prooijen, 2016). One such motivation is "just deserts," which suggests a preference for punishment that is proportional to the crime (Carlsmith et al., 2002; Gerber & Jackson, 2013). Retribution is not necessarily incompatible with other responses to wrongdoing, such as restorative justice (Gromet & Darley, 2006), though those seeking restorative justice are motivated by reaffirming shared values (Wenzel et al., 2010). With restorative justice, the focus shifts from punishment in response to wrongdoing to repairing the harms done to the victim by the perpetrator (Cohen, 2016; Gromet & Darley, 2006, 2009b; Wenzel & Okimoto, 2016).

A variety of factors influence responses to wrongdoing, including shared identity with the offender, crime severity (Gromet & Darley, 2009a), and emotional reactions to the wrongdoing (Carlsmith & Darley, 2008; Unnever & Cullen, 2009). While past research has independently examined the impact of these factors, Gromet and Darley (2009a) posit that it is unlikely these considerations are made independent of one another when responding to wrongdoing. To test this proposition, we evaluated whether different justice responses are shaped by the interaction between shared identity and crime severity and whether emotions mediate these relationships.

Retributive vs. restorative justice

Retributive justice is a subjective punitive reaction to wrongdoing (Wenzel & Okimoto, 2016). To achieve retributive justice, criminal justice authorities may impose a punishment in proportion to the wrongdoing. This "just deserts" response seeks to reestablish a sense of justice through a retrospective approach, by looking backward at the offense and reacting to what happened (Carlsmith et al., 2002). Retributive justice does not consider reparations to the victim, and

solely seeks to punish the offender commensurate with the crime. Retribution is a popular public response to wrongdoing. When given a choice, people generally prefer retribution over other justice alternatives (Carlsmith, 2006; Keller et al., 2010; Vardsveen & Wiener, 2021).

In contrast to retribution's punishment for punishment's sake, restorative justice focuses more on repairing the harm caused by the offender through agreement of shared values and goals for all parties (Cohen, 2016). Restorative justice approaches provide an alternative and complement traditional court processes that typically focus exclusively on punishment (Wenzel et al., 2008). Restorative justice practices require guided interactions among the involved parties. The purpose of these interactions is for the offender to understand the harm they caused the victim and the work that is needed to make amends for the wrongdoing (Gromet, 2012) and, therefore, is a prospective approach to punishment. Restorative justice recognizes that these interactions can perhaps prevent future wrongdoing when the offender is faced with the consequences of their crimes. As such, restorative approaches are aligned with utilitarian philosophies, emphasizing future benefits to society, such as reductions in recidivism rates (see, for example, Andrews & Bonta, 2010; Bergseth & Bouffard, 2007; Bouffard et al., 2017).

Predictors of justice responses

Unnever and Cullen (2009) suggested a framework (reproduced in Fig. 1) that combines aspects of social and psychological factors to explain individual variation in punitiveness. The authors argued that individual experiences, social beliefs, and media-generated stereotypes of offenders shape empathic identification with offenders which, in turn, influences punitiveness. This model unites previous research that

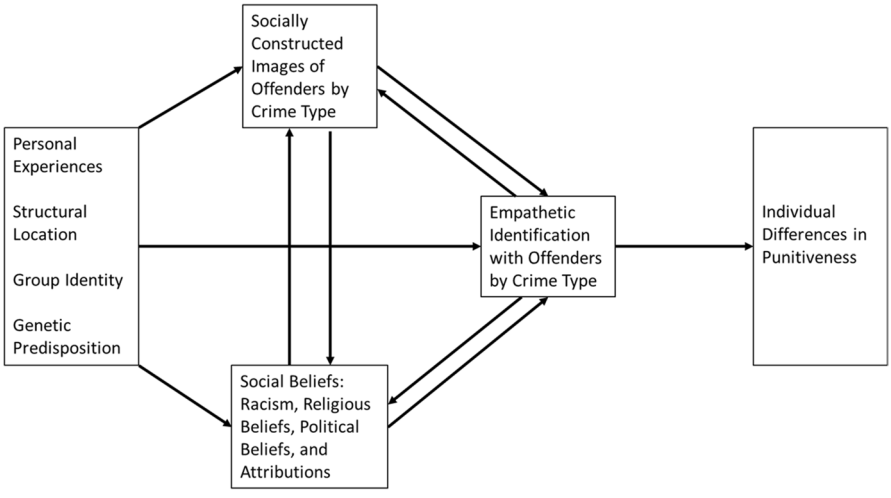

Fig. 1 Reconstruction of Unnever and Cullen's (2009, p. 297) model explaining punitive responses

has separately explored the causes and correlates of punitiveness and has received some support in the literature (for example, Brown & Socia, 2017). However, we argue that this framework is missing four critical components: (1) crime severity (though Unnever and Cullen recognize this as an instrumental perspective, p. 285), (2) shared identity with the offender, (3) other emotional responses to the offense, and (4) alternative responses to wrongdoing.

Figure 1 provides a reconstruction of the non-recursive path model explaining Unnever and Cullen's (2009) theory about differences in punitive responses. We are specifically focusing on the right side of the figure, noting that both crime type and empathic identification with the offender influence one's punitive response. Much of the existing criminological and psychological research has established that responses to wrongdoing are independently influenced by the severity of an offense (Stylianou, 2003), shared identity with an offender (beyond race or gender; e.g., Wenzel et al., 2010), and emotional responses to the offense (e.g., Vitaglione & Barnett, 2003). Yet, the relationship between these factors and how they interact is underexplored (Gromet & Darley, 2009a). We expand on each of these predictors of justice responses below.

Crime severity and shared identity

The public tends to support harsher punishments for offenders who commit serious crimes (Darley & Pittman, 2003; Gromet & Darley, 2009a; Roberts & Stalans, 2004), including those involving intentional harm to a victim (Miller & McCann, 1979). People will also consider restorative responses to serious crimes if there is some retributive component (Gromet & Darley, 2006). For less serious crimes, people prefer restorative justice over retributive responses (Gromet, 2012; Gromet & Darley, 2006). Thus, the public may endorse both justice responses to wrongdoing, but a variety of factors may affect the degree to which this occurs.

Responses to wrongdoing may also depend on shared identity with the offender. Based on social identity theory, sharing an identity with an offender reduces retributive responses (Graham et al., 1997; Kerr et al., 1995; Sommers & Ellsworth, 2000) and increases restorative justice responses (Wenzel et al., 2010). Shared identity can be based on a variety of shared values, goals, or interests, such as in music, religion, or ethical views (see, for example, Launay & Dunbar, 2015) and is related to Unnever and Cullen's (2009) proposal that offender stereotypes affect empathic responses and, ultimately, punishment.

Gromet and Darley (2009a) argue that these factors may not operate independently. Instead, shared identity with an offender may result in more retributive responses when the wrongdoing is particularly egregious (Marques & Paez, 1994; Marques et al., 1992; see also Gollwitzer & van Prooijen, 2016 for review). This wrongdoing may be interpreted by ingroup members as a violation of the group's values, tainting the group's positive social identity (i.e., the black sheep effect). Such ingroup members may therefore be judged more harshly than even their outgroup counterparts (Marques et al., 1992).

Emotional mechanisms

Law violations often evoke strong emotional reactions, such as sadness, disappointment, anger, and/or moral outrage (Carlsmith et al., 2002; Gollwitzer & van Prooijen, 2016; Miller, 2001; Okimoto et al., 2009; Wenzel et al., 2010). In this context, much of the research focuses on integral emotional reactions directed at the injustice itself (e.g., Okimoto et al., 2009) or the victim (e.g., Vitaglione & Barnett, 2003). In the current research, we explicitly examine emotions directed at the offender as such reactions may also dictate the extent to which people endorse different justice responses.

Early research tended to group emotions based on valence (e.g., positive, neutral, or negative), assuming emotions of similar valence had similar effects on judgments and decision making (see Lerner et al., 2015 for review). Yet, subsequent research supports the Appraisal-Tendency Framework, which identifies the differential impact of emotions of the same valence on what people think (i.e., cognitions) and how people think (i.e., depth of processing; Ask & Granhag, 2007; Lerner & Keltner, 2000; Lerner et al., 2015).

Anger and sadness are both negatively valanced emotions that can lead to different cognitions and depth of processing. Angry individuals are more likely to blame others for negative events rather than situational factors (Keltner et al., 1993; Lerner & Tiedens, 2006). Furthermore, anger provides a sense of certainty, which reduces depth of processing (Bodenhausen et al., 1994; Lerner & Tiedens, 2006; Tiedens & Linton, 2001). As a result, anger increases the likelihood of intuitive responses to wrongdoing (i.e., retribution; Carlsmith et al., 2002; Carlsmith & Darley, 2008; Ruva et al., 2011; Shi, 2022; Vidmar, 2000; Vitaglione & Barnett, 2003; Wenzel et al., 2010). Sadness shifts focus to situational factors to explain negative events rather than other individuals (Keltner et al. 1993). In addition, those who are sad are less certain and therefore engage in more systematic information processing (Ask & Granhag, 2007; Bodenhausen et al., 1994; Tiedens & Linton, 2001). Thus, those feeling sadness become more nuanced in their decision making and may be open to alternatives to retribution, such as restorative justice (Wenzel et al., 2010).

A complex set of emotions may mediate the influence of crime severity and shared identity on justice responses (Gromet & Darley, 2009a). Respondents may direct both sadness and anger at an offender, particularly an ingroup member who commits a *serious* crime (Gromet & Darley, 2009a). In these cases, sadness may drive the need to reaffirm shared values with the community and offender (i.e., restorative justice), while anger may drive the desire to punish (i.e., retribution; Gromet & Darley, 2009a). Therefore, providing both restorative and retributive justice options may fulfill the desires of those responding to ingroup members who committed serious crimes.

The current studies

In the current studies, we extend the theoretical framework first proposed by Unnever and Cullen (2009), leveraging two emotional responses, anger and sadness, to better understand how shared identity and crime severity may shape individual

justice responses. We first evaluate the main and interactive effects of shared identity and crime severity on retributive and restorative justice responses. Then, in study 2, we conduct a conceptual replication and extension, evaluating the mediating effects of emotional responses.[1]

Much research has empirically supported the independent effects of crime severity and shared identity as predictors of responses to wrongdoing, but their interactive effects have gone untested (Gromet & Darley, 2009a). The "black sheep effect" (Marques & Paez, 1994; Marques et al., 1988, 1992) predicts this interaction for retributive justice—a person will render harsher judgments to ingroup members who have committed high severity offenses with the intent to make an example of them (i.e., not *all of us* behave this way so we punish those who do to maintain a positive group identity; Pinto et al., 2010). With low severity offenses, outgroup members will be judged more harshly. Notably, the harsher punishment directed at ingroup members does not negate the desire to also pursue restorative justice (Gromet & Darley, 2006). Indeed, we suspect that support for restorative justice will be influenced by shared identity, regardless of crime severity (Wenzel et al., 2010).

Given these findings, we propose and test three hypotheses in study 1 and an additional three exploratory hypotheses in study 2:

H1: Shared identity with the offender will result in a less retributive (H1a) and more restorative (H1b) justice response (see Graham et al, 1997; Wenzel et al., 2010).
H2: A more severe crime will result in a more retributive justice response (H2a), while respondents will endorse restorative justice regardless of crime severity (H2b; see Gromet & Darley, 2006).
H3: We anticipate, in line with the black sheep effect, that these main effects will be qualified by an interaction between crime severity and shared identity for retributive justice only. When crime severity is high, participants will be more retributive to ingroup compared to outgroup offenders. In contrast, when crime severity is low, participants will be more retributive to outgroup compared to ingroup offenders (H3). We do not expect an interactive effect for restorative justice.

We follow this initial study with an exploration of the mechanisms through which one responds to ingroup/outgroup offending. Given that less research has evaluated emotional reactions directed specifically at offenders, we explored the following hypotheses in the second study:

Exploratory H4: Participants will feel more empathic anger (H4a) and sadness (H4b) towards an ingroup (versus outgroup) member who commits a more severe crime. With a less severe crime, we do not expect shared identity to predict any differences in emotional response (H4c).
Exploratory H5: We expect that empathic anger toward an offender will mediate the interaction effect of shared identity and crime severity on retribution. For more severe crimes, participants will feel angrier towards an ingroup (compared to an outgroup) offender, which in turn will increase retributive justice responses. For less severe crimes, we do not anticipate an indirect effect. Figure 2 shows this exploratory model.

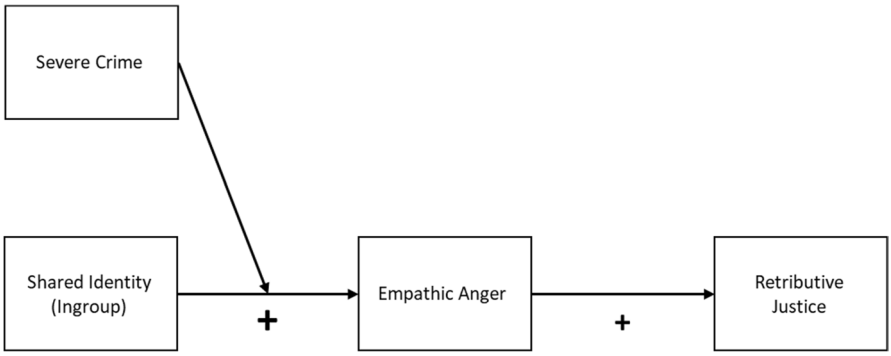

Fig. 2 The proposed interactive effect of shared identity and crime severity on retributive justice through empathic anger. This model represents Exploratory H5

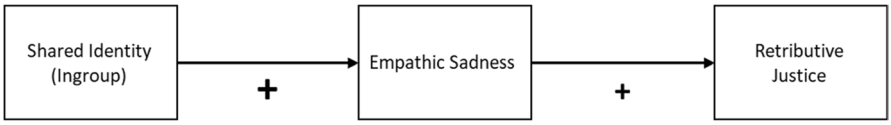

Fig. 3 The proposed mediational effect of shared identity on restorative justice through empathic sadness. This model represents Exploratory H6

Exploratory H6: We expect that empathic sadness toward an offender will mediate the relationship between shared identity and restorative justice responses. Specifically, an ingroup offender will elicit more sadness from participants, which in turn will lead to stronger restorative justice. Figure 3 shows this exploratory model.

Conceptual replication

We developed study 1 as a pilot test of the direct effects of shared identity and crime severity on retribution and restorative justice. Study 2 provides a more robust test of all hypotheses outlined in Figs. 2 and 3. Conceptual replication provides a way to increase the reliability and validity of the findings from research, while simultaneously addressing the issues that have arisen from a lack of replication work (Hudson, 2021). We followed the replication methodology of a similar study that explored causes for the endorsement of retributive and restorative justice (see Wenzel et al., 2010).

The two studies below represent nearly identical methodologies; both utilize a factorial design, surveys containing vignettes, and measurement of similar constructs. However, study 1 solely recruited a student sample, while study 2 recruited a different group of students from those in study 1 as well as participants from CloudResearch, an online research recruitment platform that is superior to mTurk (Chandler et al., 2019; Peer et al., 2022). Additionally, study 2 includes a stronger shared

identity manipulation and measurements of emotional mechanisms. The inclusion of CloudResearch participants, a stronger manipulation, and emotional mechanisms in study 2 result in a more robust test of the hypotheses listed above and provide the opportunity for replication and extension.

Study 1 method

The first study employed a 2 (crime severity: low vs. high)×2 (shared identity: ingroup vs. outgroup) between-subjects factorial design. Participants were randomly assigned to read one vignette from four possible conditions that provided a description of the offender followed by the severity of a crime. Appendix contains the language for the vignettes in study 1 and study 2. After reading one vignette, respondents completed a six-item scale measuring retributive and restorative justice responses (Wenzel et al., 2010).

Participants

Study 1 participants were recruited from undergraduate criminal justice and psychology courses at a large, southwestern American public university[2] in the Spring of 2018 ($n=408$; see Table 1 for demographic information). The sample is largely Hispanic (47.0%), in line with the university's status as a federally recognized Hispanic Serving Institution. The average age of these respondents was approximately 21 years old and 64.3% of respondents identified as female.

Independent variables

The independent variables were shared identity and crime severity. Shared identification with the offender was manipulated by creating two different descriptions of the offender, Robert. Each respondent first received a description of Robert that identified him as an ingroup (similar upbringing, hang out with the same group of friends) or outgroup member (different upbringing, hang out with a different group of friends than Robert). We determined the crime severity manipulation by an examination of past literature exploring variation in rankings of offenses (Ip et al., 2007; Sellin & Wolfgang, 1964; Stylianou, 2003; Wolfgang et al., 1985). We chose two similar events that differed only in what happened to the victim. In the vignette, Robert grew increasingly intoxicated and started an altercation with a fan of his favorite team's rival. The victim either received a concussion or died because of the injuries sustained during this altercation.

We confirmed the success of the shared identification manipulation by asking respondents to indicate their level of agreement with the statement "Robert and I have much in common." using a seven-point Likert scale (1=*strongly disagree*, 7=*strongly agree*). To avoid crime severity influencing perceptions of shared identity and following Wenzel and colleagues (Wenzel et al. 2010), we asked

Table 1 Descriptive statistics for study 1 and 2 participants

Variables	Study 1 sample ($n=408$)		Study 2 sample ($n=467$)	
	Mean or %	*SD*	Mean or %	*SD*
Age	21.41	4.26	34.63	13.47
Male	35.7	–	48.7	–
Hispanic*	47.0	–	19.7	–
White	34.0	–	77.1	–
Black	11.1	–	10.0	–
Asian	1.8	–	5.6	–
Other race	6.1	–	4.7	–
Retributive justice	4.61	1.07	5.17	1.22
Restorative justice	5.12	1.05	4.78	1.34
Empathic sadness	–	–	1.56	0.83
Empathic anger	–	–	3.17	1.16

Empathic sadness and anger were measured on a five-point Likert scale with higher values indicating more sadness and anger. Retributive and restorative justice were measured on a seven-point Likert scale with higher values indicating a stronger retributive and restorative justice endorsement. *Hispanic was measured as part of race in study 1. However, in study 2, we measured ethnicity (Hispanic or not) separate from race, which explains why the total exceeds 100%

respondents this question after the shared identity manipulation, but prior to the crime severity manipulation. Respondents indicated that they had more in common with the ingroup member ($M=5.26$, $SD=1.19$) than the outgroup member ($M=3.66$, $SD=1.23$), $t(408)=13.37$, $p<0.001$.

At the end of the study, we confirmed the success of the crime severity manipulation by asking respondents to indicate the seriousness of the offense using a five-point Likert scale (1 = *not at all serious*, 5 = *extremely serious*). Respondents rated the high severity offense ($M=4.31$, $SD=0.85$) as more serious than the low severity offense ($M=3.18$, $SD=1.01$), $t(406)=-12.24$, $p<0.001$.

Dependent variables

Respondents answered a subset of questions from Wenzel et al. (2010) regarding the extent to which justice can be served through retributive and restorative means. Responses were based on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Exploratory factor analysis suggested a two-factor model explaining 64.19% of the variance (see Table 2 for all factor loadings). The first factor indicated that retributive justice was comprised of three items (Cronbach's $\alpha=0.68$), while the second factor, restorative justice, was comprised of the remaining three items (Cronbach's $\alpha=0.75$). These two factors were weakly correlated ($r=0.12$, $p=0.02$).[3]

Study 1 results

Main effects of shared identity and crime severity on retributive and restorative justice

We conducted separate analyses of variance (ANOVAs) to test for the main and interactive effects of shared identity and crime severity on retributive justice and restorative justice. In contrast to H1a, we did not observe a relationship between shared identity and retributive justice, $F(1, 404) = 0.48$, $p = 0.49$, $\eta_p^2 = 0.001$. We also did not observe a relationship between shared identity and restorative justice (H1b: $F(1, 404) = 0.001$, $p = 0.97$, $\eta_p^2 < 0.001$) nor between crime severity and restorative justice (as expected; $F(1, 404) = 0.06$, $p = 0.80$, $\eta_p^2 < 0.001$). However, supporting H2a, participants endorsed a stronger retributive justice response when the crime was more severe, $F(1, 404) = 7.90$, $p = 0.01$, $\eta_p^2 = 0.02$, $d = 0.26$, 95% *CI* [0.07, 0.46].

Interactive effects of shared identity and crime severity on retributive and restorative justice

The third hypothesis focused on the notion of the "black sheep effect." However, the hypothesized interactive effect of shared identity and crime severity on retributive justice was not supported, $F(1, 404) = 0.21$, $p = 0.65$, $\eta_p^2 = 0.001$.

Study 1 discussion

Of all the hypotheses we posited in this first study, we only found support for one. Direct effects were not supported between shared identity and either justice response, and we found no effect between crime severity and restorative justice. However, as expected, more severe crimes resulted in more retributive responses (Gromet & Darley, 2009a; Roberts & Stalans, 2004).

In contrast to the black sheep effect (Gromet & Darley, 2009a; Marques et al., 1992), shared identity and crime severity also did not interact to affect endorsements of retributive justice. Thus, shared identity did not have any main or interactive effects on either justice response. While the manipulation check for shared identity confirmed that the manipulation was successful, we sought to strengthen this manipulation in study 2. We created a more realistic scenario describing ingroup and outgroup member status. This strengthened manipulation improves upon the previous manipulation by detailing that ingroup members know Robert well from work compared to outgroup members that have just met Robert. In addition to the improved shared identity manipulation, we also examined the mediating role of emotional responses. Thus, study 2 provides a conceptual replication of study 1, while also expanding the model to include the two exploratory hypotheses described above.

Table 2 Factor loadings for study 2 participants

Variables	Study 1	Study 2
Empathic sadness		**α = 0.94**
Tender		0.95
Softhearted		0.92
Warm		0.89
Compassionate		0.89
Moved		0.85
Sympathetic		0.79
Empathic anger		**α = 0.94**
Enraged		0.91
Angry		0.90
Furious		0.90
Mad		0.87
Outraged		0.86
Aggravated		0.83
Resentful		0.78
Irritated		0.71
Retributive justice	**α = 0.68**	**α = 0.84**
The only way to restore justice is to punish Robert	0.84	0.922
Only a punishment restores the justice disrupted by the incident	0.77	0.85
Robert deserves to be penalized	0.73	0.85
Restorative justice	**α = 0.75**	**α = 0.84**
To restore justice, Robert and the victim/victim's family need to reaffirm consensus on the values and rules in their community	0.86	0.88
A sense of justice requires that Robert and the victim/victim's family develop a shared understanding of the hard done by the incident	0.84	0.87
For justice to be served, the affected parties need to achieve agreement about the values violated by the incident	0.76	0.86

Study 2 method

We conducted a second study that served as a conceptual replication (Murayama et al., 2014) and extension to evaluate emotional mechanisms. We employed the same design, procedures, and measures as study 1, but also include 14 additional items measuring respondents' empathic anger and empathic sadness toward "Robert," the fictional offender. Participants were again randomly assigned to one condition in a 2 (crime severity: low vs. high) × 2 (shared identity: ingroup vs. outgroup) between-subjects factorial design. After reading one vignette, respondents completed a 14-item scale measuring empathic sadness and empathic anger (Batson, 1987; Vitaglione & Barnett, 2003) and the same six items measuring retributive and restorative justice responses from study 1 (Wenzel et al., 2010). We chose to measure emphatic sadness and anger because Unnever and Cullen (2009) proposed that empathically identifying with an offender affects punitiveness. By providing more nuanced forms of emotions, we can better understand potential mechanisms that shape both retribution and restorative justice responses.

Participants

Study 2 participants were recruited from CloudResearch (Litman et al., 2017; $n = 334$) and supplemented with students from undergraduate criminal justice courses at a large, southwestern American public university in the Spring of 2021 ($n = 137$; Table 1 provides demographic information). This combined sample was significantly older than the sample from study 1 ($t = 19.01$, $p < 0.05$). However, the distribution of the demographics better reflected national, Census-based estimates. Nearly half of the sample identified as male (48.7%), approximately 77% of the sample identified as White, and nearly 20% identified as Hispanic.

Independent variables

We sought to strengthen the shared identity manipulation given the lack of effects in the first study. Participants were asked to imagine that they went out for drinks with coworkers that they are friends with as well as employees from another branch that they had never met before. The offender, "Robert," was described as one of their friends and coworkers (an ingroup member) or as an employee from another branch of the participant's company that they had never met before (an outgroup member). Crime severity was the same as study 1: Robert drank to excess and punched a person in the bar who harassed him. This person either suffered a concussion (low severity) or died as a result of the punch (high severity). Both manipulations were successful. Respondents indicated that they had more in common with the ingroup ($M = 4.38$, $SD = 1.42$) than outgroup member ($M = 3.68$, $SD = 1.56$), $t(465) = 5.11$, $p < 0.001$ and rated the high severity offense ($M = 4.67$, $SD = 0.69$) as more serious than the low severity offense ($M = 3.53$, $SD = 0.96$), $t(465) = -14.78$, $p < 0.001$.

Mediating variables

Items measuring empathic sadness and empathic anger in response to Robert's transgression were adopted from previous studies (Batson, 1987; Vitaglione & Barnett, 2003). Respondents indicated how strongly they felt 14 emotions toward Robert after reading the vignette on a five-point Likert scale (1 = *not at all*, 5 = *extremely*). A confirmatory factor analysis for the 14 items composing empathic sadness and anger suggested a two-factor model explaining 74.94% of the variance (see Table 2 for all factor loadings). The first factor, composed of six items, was empathic sadness (Cronbach's $\alpha = 0.94$), and the second factor, composed of the remaining eight items, was empathic anger (Cronbach's $\alpha = 0.94$). These two factors were negatively and moderately correlated ($r = -0.25$, $p < 0.001$).

Dependent variables

Exploratory factor analysis on the same retributive and restorative justice responses suggested a two-factor model explaining 75.96% of the variance (see Table 2 for all factor loadings). The breakdown of items in each factor was the same as study 1. The first factor was retributive justice (Cronbach's $\alpha = 0.84$), and the second factor was restorative justice (Cronbach's $\alpha = 0.84$). Unlike study 1, these two factors were unrelated ($r = 0.003$, $p = 0.94$).

Study 2 results

Main and interactive effects of shared identity and crime severity on retributive and restorative justice

We again conducted separate ANOVAs to test for the main and interactive effects of shared identity and crime severity on retributive justice and restorative justice, and in addition, empathic anger and empathic sadness toward Robert. The findings for retributive and restorative justice replicated study 1. Shared identity did not predict retributive (H1a), $F(1, 463) = 0.94$, $p = 0.33$, $\eta_p^2 = 0.002$, or restorative justice (H1b), $F(1, 463) = 1.38$, $p = 0.24$, $\eta_p^2 = 0.003$. In addition, crime severity predicted retributive (H2a), $F(1, 463) = 30.16$, $p < 0.001$, $\eta_p^2 = 0.06$, but not restorative justice, $F(1, 463) = 0.06$, $p = 0.81$, $\eta_p^2 < 0.001$. Participants endorsed a stronger retributive justice response when the crime was more severe, $d = 0.51$, 95% *CI* [0.32, 0.69]. In contrast to H3, no interaction was observed for retributive, $F(1, 463) = 0.18$, $p = 0.67$, $\eta_p^2 < 0.001$.

Main and interactive effects of shared identity and crime severity on empathic anger and sadness

Shared identity did not predict empathic anger, $F(1, 464) = 0.96$, $p = 0.33$, $\eta_p^2 = 0.002$, or sadness, $F(1, 464) = 0.58$, $p = 0.45$, $\eta_p^2 = 0.002$. Crime severity predicted empathic anger, $F(1, 464) = 12.05$, $p = 0.001$, $\eta_p^2 = 0.03$, but not sadness, $F(1, 464) = 0.94$, $p = 0.33$, $\eta_p^2 = 0.002$. Participants were angrier when the crime was more versus less severe, $d = 0.32$, 95% *CI* [0.14, 0.50]. In contrast to Exploratory H4, there was no interaction between shared identity and crime severity on empathic anger, $F(1, 464) = 0.68$, $p = 0.41$, $\eta_p^2 = 0.001$, or sadness, $F(1, 464) = 0.41$, $p = 0.52$, $\eta_p^2 = 0.001$.

Emotional responses as mediators

Because we did not observe an interaction between crime severity and shared identity for retribution justice, we were unable to test the moderated mediational model

proposed in Exploratory H5. Instead, we examined whether the effect of crime severity on retributive justice perceptions was mediated by empathic anger using PROCESS Model 4 (Hayes, 2022; see Fig. 4). First, as previously observed, crime severity was positively related to anger, $b = 0.36$, 95% *CI* [0.15, 0.57]. Anger was positive related to retribution, $b = 0.47$, 95% *CI* [0.38, 0.55]. Finally, crime severity had both a direct ($b = 0.43$, 95% *CI* [0.24, 0.63]) and indirect effect ($b = 0.17$, 95% *CI* [0.07, 0.28]) on retributive justice through empathic anger. The more severe crime elicited more empathic anger in response to Robert's actions, and in turn a stronger retributive justice response.

For the final model testing whether empathic sadness toward an offender mediates the relationship between shared identity and restorative justice responses, we again used PROCESS Model 4 (Hayes, 2022). First, as previously observed, shared identity was unrelated to sadness, $b = -0.06$, 95% *CI* [−0.21, 0.09]. Sadness was also unrelated to restorative justice, $b = 0.13$, 95% *CI* [−0.02, 0.28]. Finally, shared identity did not have a direct ($b = -0.14$, 95% *CI* [−0.39, 0.10]) nor an indirect effect ($b = -0.01$, 95% *CI* [−0.04, 0.01]) on restorative justice through empathic sadness, in contrast to Exploratory H6.

Study 2 discussion

Similar to study 1, we did not find support for the black sheep effect. Shared identity and crime severity did not interact to affect emotional responses nor retributive justice responses. Instead, we observed that more (versus less) severe crimes led to more anger toward the offender and stronger retributive justice responses. Regardless of shared identity and crime severity, the more empathic anger participants felt, the more they endorsed retributive justice responses (see also Vitaglione & Barnett, 2003). Because we did not observe the black sheep effect, we were unable to fully test the moderated mediation model proposed in Exploratory H5. A simple mediational analysis, however, revealed that participants were angrier at an offender who committed a more (versus less) severe crime, and this anger drove retributive responses. Restorative justice was not predicted by shared identity, crime severity, or sadness toward the offender.

General discussion

We conducted two studies with the parallel goals of testing our hypotheses, as well as to address concerns about the lack of replications. Regarding the later, we have provided results from multiple studies, which is not currently a common practice in criminology and criminal justice research (Lösel, 2018; Pridemore et al., 2018; Simmons et al., 2011). Such practices increase the reliability of social science findings and reduce false positives. Additionally, we have

provided access to our materials and data, which are open science practices that increase transparency (Pridemore et al., 2018).

The model proposed by Unnever and Cullen (2009) was an attempt to unify three distinct fields of research to explain why punitiveness varies from person to person. Researchers from social psychology, criminology, and sociology have all examined factors that influence punishment decisions. We attempted to tie together these different disciplines by testing social psychological factors under an elaborated theoretical model proposed by criminologists. Specifically, the current studies evaluated the main and interactive effects of shared identity and crime severity on two different justice responses (studies 1 and 2), and whether this was mediated by emotions towards the offender (study 2). Past research suggested harsher responses for ingroup members who commit more severe crimes (i.e., the black sheep effect; Gromet & Darley, 2009a; Marques et al., 1992). But the type and degree of justice response may also depend on the emotions participants felt toward the offender (Vitaglione & Barnett, 2003). Specifically, we anticipated that empathic anger would increase retributive justice responses, while empathic sadness would increase restorative justice responses.

Across both studies, shared identity and crime severity did not influence restorative justice responses nor did sadness predict restorative justice (in study 2). These findings conflict with past research (Wenzel et al., 2010) and suggest that further attention is needed to understand what may influence the extent to which the public endorses restorative justice approaches. The only consistent finding was that crime severity drives retributive responses (Gromet & Darley, 2009a; Roberts & Stalans, 2004). This finding replicated with two different samples of participants. Regardless of what caused an emotional response in participants, empathic anger increased retributive justice (see also Carlsmith et al., 2002; Carlsmith & Darley, 2008; Vitaglione & Barnett, 2003; Wenzel et al., 2010). Illuminating the underlying mechanism of this relationship, study 2 revealed that severe crimes induced anger in participants that resulted in more retributive responses.

Notably, participants highly endorsed both retributive and restorative justice responses in both studies. Means in each of the four cells ranged from 4.41 to 5.49 for retribution and 4.64–5.14 for restorative justice on a seven-point Likert scale (see Table 1). This finding suggests that the public is open to a variety of approaches to address wrongdoing, even for serious crimes (see also Gromet & Darley, 2006).

Implications

The results of this study have potentially timely ramifications. With record high incarceration rates relative to those of other modern countries and considering the Supreme Court decision that overcrowding in California prisons is an Eighth Amendment violation (see *Brown v. Plata*, 2011, and the subsequent passing of California Proposition

47), exploring the causes of retribution and alternative justice responses may shed light on the very American characteristic of high rates of incarceration. Thus, this study may improve understanding of current penal policies, our apparent addiction to incarceration (see Pratt, 2009), and jury and judicial decision making.

The fact that crime severity alone drove justice decisions suggests a consensus on what constitutes a serious crime and how to respond to it (Stylianou, 2003). This relationship occurred regardless of shared identity, which suggests that participants were not influenced by whether an offender was an ingroup or outgroup member. In the context of jury trials, such findings suggest an ability to equally apply the law, a fundamental requirement for fairness. Yet, at the same time, crime severity increased anger toward the offender which contributed to retributive justice responses. While we expect both jurors and judges to remain impartial, much research suggests that emotions influence legal decisions (Bright & Goodman-Delahunty, 2006; see Holloway & Wiener, 2018 for review). This is problematic given implications for individual rights in the criminal justice system as well as prison overcrowding.

Limitations and future directions

The current studies have a few limitations. First, both studies included samples of convenience, collected from those willing to complete the survey, either for course credit or for a monetary incentive. This could lead to systematic bias. However, in both studies, we recruited students from a minority majority university, increasing our understanding of voices from this often underrepresented population. In addition, we recruited participants from CloudResearch in study 2, a platform with better data quality compared to the commonly used mTurk platform (Chandler et al., 2019; Peer et al., 2022). To ensure these findings are representative of the broader American public, we encourage future researchers to recruit a probability-based sample of American adults.

Second, the use of hypothetical written vignettes may not represent real world decisions, limiting the generalizability of our manipulations (Exum & Bouffard, 2010). While our manipulation check for shared identity was successful, it is possible that participants may have identified (or not) with Robert for other reasons. This may account for the lack of effects, even after using stronger manipulations, on justice responses. Participants may have felt less like Robert after reading the vignettes, even if they were assigned the ingroup version (e.g., they may not have approved drinking in response to a sports team's loss). Emotional reactions that would occur in real life may also be muted with the use of hypothetical vignettes. Thus, we caution that our findings are likely conservative and more studies are needed that employ alternative methodologies.

A third and final limitation involves the specific emotions that were selected as potential mediators for the relationship between crime severity and shared identity and justice outcomes. In this paper, we only examined empathic anger and sadness, but emotional responses to offending can vary wildly, depending on

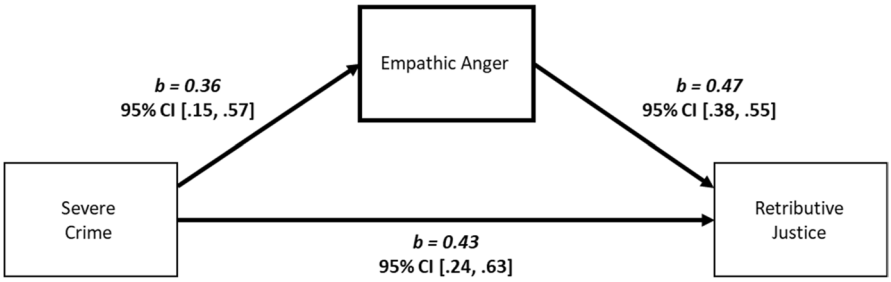

Fig. 4 Mediation model estimating the relationship between crime severity and retributive justice. The bolded lines represent significant relationships

personal factors that define the observer's interpretation of events. Furthermore, we also only asked respondents to indicate their emotional response to *Robert*, without consideration for how respondents may feel about the event itself or how they may feel toward the *victim*. Given that the concepts used in this paper are multidimensional (e.g., shared identity can be with the offender or the victim), future research should examine these nuanced differences to explore their effects on respondents' responses to wrongdoing.

Conclusion

The use of an experimental design allows for causal conclusions about what drives responses to wrongdoing. Across both studies, participants responded to severe crimes with more retribution, notably through anger in study 2. This finding was consistent and occurred regardless of shared values or interests with an offender. The results lend support to the notion that a violation of expected norms elicits a greater desire for "just deserts."

Appendix. Vignettes

Study 1 vignettes

Shared identity manipulation: outgroup

Imagine you know Robert. You hang out with a different group of friends than Robert. While you and Robert grew up in the same town, he had a different upbringing and attended a different school and church than you. You and Robert have little in common.

Shared identity manipulation: ingroup

Imagine you know Robert. You and Robert hang out with the same group of friends. You and Robert had a similar upbringing, grew up in the same town, and attended the same school and church. You and Robert have much in common.

Crime severity: low

After watching his favorite football team lose at a local bar, Robert stays longer and continues to drink with friends. Robert is subjected to some mild harassment from a fan of the rival team. Robert gets angry and punches the other fan. The victim falls backwards, hitting his head on the bar, and receives a concussion as a result.

Crime severity: high

After watching his favorite football team play at a local sports bar, Robert stays longer and continues to drink with friends. Robert is subjected to some mild harassment from a fan of the rival team. Robert gets angry and punches the other fan. The victim falls backwards, hitting his head on the bar, and dies as a result.

Study 2 vignettes

Imagine that you and a group of your coworkers are attending a conference out of town. After the first day's events, you decide to go out with some of your coworkers who you have become good friends with since starting your job. You also invite some people from another branch of your company that you just met that day to come along.

At a sports bar, [***Shared Identity Manipulation (ingroup/outgroup): you witness one of your friends/you witness one of the new people***], Robert, drink to excess after his favorite football team lost. Robert is subjected to some mild harassment from a fan of the rival team. He gets angry and punches this person. The victim falls backwards, hitting his head on the bar, and [***Crime Severity Manipulation (high/low): dies as a result/receives a concussion as a result***].

Possible vignette combinations in study 1 and study 2:

1. Ingroup/low severity
2. Ingroup/high severity
3. Outgroup/low severity
4. Outgroup/high severity

Data availability The datasets generated during and/or analyzed during the current studies are available here: https://osf.io/23ncy/?view_only=f3e7b65c26de4b0a80c1a1c2068cbd2a.

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Endnotes 1. Students were required to complete research-related activities for class credit. Participation in these activities amounts to 5% of the final grade in participating courses.

2. Wenzel et al. (2010) observed that retributive and restorative justice were uncorrelated. In both studies, we used a subset of items from Wenzel et al. (2010) and found that these items were either weakly correlated or (in study 2) uncorrelated.

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