

When School-Shooting Media Fuels a Retributive Public: An Examination of Psychological Mediators

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Abstract

Despite evidence suggesting proactive responses to youth crime are advantageous, juvenile justice relies heavily on punitive practices. This discrepancy is in part affected by public preferences for retribution, which are skewed by sensationalized media portrayals of youth crime. This experiment ($N = 174$) explores how youth crime media exposure translates into retributive attitudes by testing the hypothesis that media portrayals of school shootings increase retributive attitudes indirectly through either dehumanization or mortality salience. Statistical analyses suggest that dehumanization mediates the relationship between school-shooting media portrayals and retributive attitudes toward crime-involved youths. To promote support of less retributive juvenile justice policies, advocates may benefit by focusing emphasis on humanizing elements of young offenders.

Keywords

school shooting, dehumanization, public attitudes, media

From Columbine to headlines today, media attention to school shootings has risen for nearly 20 years (Muschert, 2007). Despite their relative infrequency, school shootings remain a prominent aspect of the media's narrative on youth crime in America. For the many who learn about crime primarily through news sources, this trend creates an illusion of increasing youth crime rates and results in a harshening of attitudes and policies toward juvenile offenders (Birkland & Lawrence, 2009; Goidel, Freeman, & Procopio, 2006; Roberts & Doob, 1990). This is particularly problematic given the plethora of evidence-based, nonretributive responses to juvenile crime that are available yet largely underutilized due in part to a lack of sufficient political support (Slobogin & Fondacaro, 2011).

While a great deal of interdisciplinary research suggests that media sensationalism (such as that of school shootings) increases support for harsh punishment, less is understood about the psychological processes by which these reactions occur (Ferguson, 2013). Two relevant theories may help to

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explain how such attitudes are developed: *dehumanization*, which suggests that we may categorize social out-groups such as young offenders, as less human, and therefore punish them with greater ease, and *mortality salience* (MS), which alternately suggests that we may punish harshly out-group members whom we associate with reminders of human mortality (Bastian, Denson, & Haslam, 2013; Greenberg, Pyszczynski, & Solomon, 1986; Haslam, 2006). By better understanding why and how the public believes that America should be “harsh on youth crime,” policy makers and advocates for evidence-based reforms can better identify points of intervention, areas for reeducation, and elements to include or emphasize in policy initiatives.

This experiment tests the effects of school-shooting media on participants' punishment attitudes toward justice-involved youths. Using actual media coverage of school shootings at Columbine, Sparks, Taft, Chardon, and more, level of sensationalism is manipulated across participants to examine whether the dramatized stories have a stronger—or different—impact than the basic event coverage or unrelated youth entertainment news. Both dehumanization and MS are examined as possible mediators in explaining the relationship between school-shooting media coverage and the formation of punitive attitudes toward youth crime.

Public Attitudes Toward Juvenile Justice

The general public influences justice system functioning through a variety of outlets including jury participation, campaign advocacy, candidate support, protests, and voting (Wood, 2008). Likewise, a well-developed body of literature explores laypeople's attitudes toward appropriate forms of punishment and sentencing. Psychologists contribute to this literature by distinguishing between two primary punishment philosophies: retribution and consequentialism. Retribution is traditionally described as retrospective punishment awarded on the grounds of moral deservedness, whereas consequentialism is described as punishment delivered with the goal of impacting future behavior (Beccaria, 1764; Bentham, 1789; Kant, 1952). In practice, retribution can be observed in sanctions such as juvenile detention following nonviolent offenses, whereas consequentialism can be seen in sanctions aimed at reducing recidivism or providing rehabilitative counseling.

In general, both research and current policies suggest that Americans are overwhelmingly retributive in their views toward criminal punishment (Carlsmith & Darley, 2008). While some literature suggests that people may be slightly less retributive toward juveniles (see, e.g., Piquero, Cullen, Unnever, Piquero, & Gordon, 2010), Carlsmith (2008) suggests such discrepancies in punishment attitudes can be explained by the fact that people abstractly support nonretributive punishment, yet reject concrete policies that lack retributive elements. In fact, in practice, only about 13% of juvenile dispositions result in nonretributive sanctions such as restitution, community service, counseling, or treatment, despite mounting evidence that more proactive responses to juvenile crime are more cost-efficient and effective in reducing crime (Puzzanchera, Adams, & Hockenberry, 2012; Slobogin & Fondacaro, 2011). In effect, America's democracy meets this public demand through the imposition of a largely retributive juvenile justice system that is overwhelmingly punitive and “harsh on crime” (Slobogin & Fondacaro, 2011).

Media Influence on Punishment Attitudes

Media is perhaps the foremost contributor to widespread retributive punishment attitudes (Gray, 2008). Laypeople typically have little direct experience with crime and therefore rely heavily on media portrayals in understanding and forming attitudes relative to criminal populations (Roberts & Doob, 1990). Unfortunately, basic economics force news networks to produce what sells rather than what is reflective of societal norms, meaning that the average viewer is subjected to far more sensationalized reports of extreme offenses (e.g., school shootings) than their less threatening,

commonplace counterparts (Howitt, 1998). Provoking emotional reactions such as fear and outrage increases viewership significantly more than thoroughly contextualizing each crime, which further adds to media misrepresentations. In effect, nearly 75% of Americans closely follow news stories related to mass killings—a percentage that has risen in recent years, despite overall declines in violent crime rates (Kohut, Doherty, Dimock, & Keeter, 2012). Consequently, those who gain their crime knowledge through the news frequently demonstrate limited understanding of actual justice system functioning, disbelieve actual crime data that do not match media portrayals, and suggest that the primary purpose of criminal punishment should be retribution (Pickett, Mancini, Mears, & Gertz, 2014; Rosenberger & Callanan, 2011; Salisbury, 2004).

In relation to juvenile justice, news media's heightened focus on extreme events effectively highlights school shooters as the "poster children" for youth crime (Muschert, Bockler, Seeger, Sitzler, & Heitmeyer, 2013). Since the late 1990s, school shootings have regularly attracted national media attention and contributed to the harsh on [youth] crime era, despite the fact that school violence accounts for less than 1% of youth homicides each year (Birkland & Lawrence, 2009; Center for Disease Control, 2012; Muschert et al., 2013). Since then, a flux of national media attention, public fear, and reactive policies (e.g., increased school security and gun restrictions) follow school shootings in a swift and reliable manner that we rarely see following other commonplace crime portrayals.

School-shooting news stories captivate public attention and emotional investment by featuring seemingly innocent and unsuspecting victims terrorized by a menacing and blameworthy perpetrator whose sole motivation is seemingly mass destruction (Lawrence & Mueller, 2003; Muschert & Janssen, 2012). Following such events, the public is frequently left with the question of why they occurred. Yet, when the media speculates a response, viewers often misinterpret these answers as the underlying cause of *all* youth crime (Spencer, 2011). Topics commonly referenced as precursors to such crimes include firearm availability, video game violence, mental disorders, evil spiritedness, and/or bullying (Böckler, Seeger, Sitzler, & Heitmeyer, 2013). By neglecting to include contextual factors that relate to delinquent behavior more reliably (e.g., abuse, conduct disorder, neighborhood environment, and family support), media portrayals of school shootings paint a picture of young offenders as unpredictable, threatening, and an overall "lost cause" (Muschert et al., 2013; Slobogin & Fondacaro, 2011). In this way, the type of details reported skew public perceptions of crime by portraying offenders as unquestionably evil—a trait rarely noted with such certainty in society (Baumeister, 1999). In effect, the public responds to extreme youth crime media coverage with anger, fear, and increased support for retributive juvenile punishment (Burns & Crawford, 1999; Goidel et al., 2006).

Possible Mediators

The media's contribution to ill-informed conceptions of youth crime and its solutions are well documented across several fields (Ferguson, 2013; Goidel et al., 2006; Muschert et al., 2013). Lesser known, however, are the psychological mechanisms responsible for fueling these dogmatic perspectives. The current study aims to bridge this gap by exploring the mediating roles of dehumanization and MS in the relationship between school-shooting media portrayals and retributive punishment attitudes.

Dehumanization. Dehumanization is the social psychological process of denying that members of an out-group possess traits of human uniqueness and nature (Haslam, 2006). Human uniqueness is established through moral sensibility, rationality, and capacity for self-restraint. Denial of these factors leads to comparisons between out-group members and animals. Human nature is comprised of traits such as emotionality, capacity for change, and depth. Somewhat differently, denial of these

factors leads to comparisons between out-group members and machines. Dehumanization is described in the majority of empirical studies as a cohesive combination of these two components; however, criminal justice references to the construct often focus on comparisons between offenders and animals, thus suggesting that human uniqueness might be particularly relevant (Banks, 2001; Goff, Eberhardt, Williams, & Jackson, 2008).

In general, dehumanized out-group members are perceived as being “less human” than in-group members (Haslam, 2006). This process of dehumanization is often motivated by hostility toward an out-group and the related desire to aggress against or exert social control over its members (Kelman, 1973). Once an out-group is removed from the realm of normal human morality, in-group members become indifferent to their suffering (Opotow, 1990). In fact, Bandura, Underwood, and Fromson (1975) note that people are especially likely to treat those displaying fewer humanlike qualities more harshly.

Research draws further connections between dehumanization and criminal punishment. Both mock jury experiments and field research indicate that dehumanized offenders are judged more harshly and punished more retributively than their counterparts (Goff et al., 2008; Myers, Goodwin, Latter, & Winstanley, 2004; Vasquez, Loughnan, Gootjes-Dreesbach, & Weger, 2014). Of particular relevance to this study, researchers identified dehumanization as a mediator between the perceived level of harm perpetrated by an offender and the severity of retributive punishment awarded to him or her (Bastian et al., 2013).

Likewise, we expect that dehumanization is particularly relevant to understanding the psychological mechanism by which often-inflammatory school-shooting media portrayals translate into retributive attitudes toward the out-group of general crime-involved youths. Journalists are trained to report behaviors that they classify as deviant in a prescribed sequence that emphasizes the perpetrator's moral wrongness above conditional factors, which are thought to run the risk of “neutralizing” youth crime (Cerulo, 1998; Sykes & Matza, 1957). Such stories provoke sentiments of blame and a lack of understanding around how any moral being could commit such a senseless act of mass violence (Muschert & Janssen, 2012). Sensationalized portrayals likely exacerbate this response even further by fixating on derogatory causal/motive interpretations associated with these behaviors and intentionally juxtaposing the offender's “evilness” beside the victims' innocence (Muschert et al., 2013; Muschert, 2009). Furthermore, school shootings are portrayed as so offensive and incomprehensible that viewers will likely perceive the perpetrators as beyond hope or worthiness of reform and thus deserving of retributive punishment. Given that extreme youth crimes monopolize media attention and skew public perceptions of actual crime patterns, we anticipate that all crime-involved youths will be affected by this process of out-group dehumanization (Ferguson, 2013; Salisbury, 2004).

MS. Terror management theory's (TMT) MS hypothesis presents yet another potential psychological mediator in the relationship between school-shooting media portrayals and retributive attitudes. In general terms, TMT posits that humans' survival instincts, paired with our advanced cognitive capacities, lead us to inherently fear our own deaths (Greenberg et al., 1986). Researchers further suggest that this fear is generally buffered against by a sense of devotion to an in-group's cultural worldviews (i.e., societal belief systems that transcribes meaning and permanence onto everyday events) and high self-esteem (Greenberg et al., 1986; Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). When MS (i.e., the prevalence of death thoughts in any given moment) is heightened, however, cultural worldviews can be challenged, thus leaving people vulnerable to a fear of death and biased against potentially threatening out-group members (Greenberg et al., 1990).

MS-induced out-group biases manifest themselves in a variety of punishment-relevant attitudes and behaviors. Such findings span back to the original MS-hypothesis experiments, which examined

MS-induced judges' out-group biases in the form of bond amounts assigned to prostitutes (Rosenblatt et al., 1989). Results suggested that MS inductions are capable of producing significant out-group biases in the form of punitive criminal sanctions. Research since then has continued to suggest that MS inductions result in harsher judgments of morally relevant transactions, increased out-group-directed aggression, and limited willingness to take risks—all of which are notions that generally relate to the endorsement of retribution (Landau & Greenberg, 2006; McGregor et al., 1998).

Unsurprisingly, a later review of 25 legal decision-making studies concluded that MS inductions consistently increased perceptions of crime seriousness, assignments of harsh sanctions, and support for retributive criminal punishment (Arndt, Lieberman, Cook, & Solomon, 2005). Arndt, Lieberman, Cook, and Solomon's (2005) review contributed to the MS hypothesis's ecological validity by demonstrating that punitive crime responses follow both naturally occurring and experimentally manipulated MS inductions. Of particular relevance to the current study, a recent experiment by Das, Bushman, Bezemer, Kerkhof, and Vermeulen (2009) further demonstrated the capacity of actual terrorism news to induce MS and related increased biases toward a criminal out-group. Cumulatively, this literature suggests that exposure to crime media can induce MS, which is further capable of increasing retributive punishment attitudes.

In line with this research, we additionally expect that MS mediates the relationship between school-shooting media and retributive attitudes toward crime-involved youths. Rampage school shootings, such as those commonly portrayed in the media, will likely induce MS by visualizing for viewers how death can even strike the towns that seem the safest (Muschert, 2007). Media viewers may perceive school shooters, especially those sensationalized as "super predators," as criminal out-group members threatening the stability of America's education system, a common cultural worldview. Again, given that the general public is typically exposed to the most extreme youth crimes, we anticipate that this out-group will encompass all crime-involved youths, thus leading the public to prescribe increased general retributive punishment attitudes toward the entire group of juvenile offenders (Ferguson, 2013).

Study Overview and Hypotheses

Retributive principles underlie the majority of America's juvenile justice system practices (Slobogin & Fondacaro, 2011). Likewise, it is particularly important for researchers to expand the understanding of the psychological mechanisms that may fuel retributive sentiments as well as ways in which they might be decreased so that more fitting responses to youth crime may become more widespread. In pursuit of this goal, the current study aims to explore the mediating roles of both dehumanization and MS in the relationship between school-shooting media portrayals and retributive attitudes toward youth crime. It is hypothesized that retributive attitudes will be significantly greater following exposure to school-shooting media content compared to an entertainment news control, especially when school-shooting portrayals are sensationalized. It is additionally expected that one or both of the psychological mechanisms described above (dehumanization or MS) will mediate this relationship.

Research has not yet explored in depth the relationship between the strength of one's retributive punishment attitudes and his or her relative support for consequentialist goals such as juvenile rehabilitation and recidivism reduction. The present study aims to explore this question, as it is particularly relevant to the issue of public support for juvenile justice reform. It is expected that retributive attitudes, which may be provoked by school-shooting media exposure, will negatively correlate with support for juvenile rehabilitation and interventions aimed at recidivism reduction.

Method

Participants

Participants of this online study included 174 undergraduate students attending a Northeastern urban university who successfully completed a manipulation check. Students who chose to participate in this study received partial extra credit for a psychology course. Participants were randomly assigned to one of the three conditions: (1) entertainment news control video, (2) school-shooting event coverage video, and (3) school-shooting sensationalism video.¹ Forty-two percent ($n = 71$) of respondents identified as Hispanic/Latino, 21% ($n = 36$) identified as Black/African American, 15% ($n = 25$) identified as Caucasian/White, 11% ($n = 18$) identified as Asian American, and 11% ($n = 20$) identified as other.² Sixty-four percent ($n = 109$) of respondents identified as female, 35% ($n = 60$) identified as male, and 1% ($n = 2$) identified as other. Participant ages ranged from 18 to 47 years old with a mean age of 21 ($SD = 3.44$). Thirty-four percent ($n = 57$) of respondents identified as liberal, 8% ($n = 14$) identified as conservative, 36% ($n = 61$) identified as moderate/independent, and 22% ($n = 36$) identified as other. The sample's mean self-esteem score was 2.07 ($SD = 0.55$) on a 4-point Likert-type scale.

Procedures

Participants were informed that the study examined public perceptions of youth in the media and that completion of the online survey would take approximately 30 min. After providing consent, students completed a 10-item self-esteem measure (Rosenberg, 1965). They then viewed one of the three randomly assigned news media video clips and responded to three content-related manipulation check questions. Remaining survey sections were uniform, regardless of video viewed, and included an MS measure (Greenberg et al., 1990); a juvenile offender-adapted dehumanization measure (Bastian et al., 2013); a juvenile offender-adapted retributive attitudes measure (Cullen, Cullen, & Wozniak, 1988); two novel consequentialism punishment attitude questions; and a series of demographic questions inquiring about participant age, gender, race, and political affiliation. Upon exiting the survey, participants were debriefed.

Materials

Video conditions. Each of the randomly assigned videos (control, coverage, and sensationalism) was utilized in this experiment. Each one was approximately 10 min in length and featured compilations of NBC, CBS, CNN, and ABC video news clips. To maintain consistency both within and across the three conditions with respect to the type of school shootings commonly portrayed in the media, each video featured White, male teenagers. The control condition featured entertainment news content about noncontroversial, teenage male celebrities, including the Jonas Brothers, Dylan and Cole Sprouse, and Fred Figglehorn. The two school-shooting conditions featured both online and televised video news segments of high-profile school shootings that occurred at Columbine, Chardon, Sparks, Perry, Roswell, Taft, and Delaware Valley schools. These rampage-style school shootings all garnered national attention and involved teenage male perpetrators and multiple, randomly targeted victims. The coverage condition followed newscasters as they released real-time information about school shootings, including updates on whereabouts, suspect status, number of victims injured, and aerial shots of the campus. The sensationalism condition featured journalistic speculations of causal factors and motives of school shootings, such as the offender's upbringing, video game violence, gun access, mental instability, and evil spiritedness.

Rosenberg Self Esteem Scale. Participants completed this validated and commonly employed 10-item measurement as an indicator of their self-esteem (Robins, Hendin, & Trzesniewski, 2001; Rosenberg, 1965). Items inquired about self-satisfaction and confidence and were scored on 4-point Likert-type scales (0 = *strongly agree*, 3 = *strongly disagree*).

Death thoughts accessibility word completion task. Participants completed a death thoughts accessibility word completion task to measure the level of MS induced by viewing the randomly assigned video clip (Greenberg et al., 1990). In this task, participants were prompted to fill in the letter blanks of 25 incomplete words, 6 of which were potentially death relevant (e.g., “S K _ _ L” could be completed as “SKULL,” indicating a death-related thought, or “SKILL,” indicating none). TMT research consistently supports the validity of this measure, demonstrating its ability to measure the evocation of death-related thoughts in a variety of contexts (Burke, Martens, & Faucher, 2010).

Dehumanization measure. Dehumanization was examined in this study through an adaptation of Bastian, Denson, and Haslam’s (2013) measure (see Appendix A). Participants were prompted to respond to eight statements about the tendencies of juvenile offenders on a Likert-type scale (1 = *not at all*, 7 = *extremely so*). Statements addressed characteristics associated with both human nature and human uniqueness.

Retribution Scale. Five items were adapted from Cullen, Cullen, and Wozniak’ (1988) retribution scale to measure participant attitudes toward juvenile punishment (see Appendix B). Participants responded using Likert-type scales (1 = *strongly disagree*, 7 = *strongly agree*).

Consequentialism measures. Two additional questions were created to explore participants’ support for rehabilitation and recidivism reduction as responses to youth crime (see Appendix C). Of particular interest was the preference that participants placed on responding to youth crime in accordance with consequentialist principles, relative to retribution. Likewise, participants responded on Likert-type scales (1 = *much less important*, 7 = *much more important*).

Results

School-Shooting Media Portrayals and Retribution

An initial multivariate analysis of variance revealed an overall significant difference in punishment-relevant outcome variables based on which media condition the participant viewed, $\Theta = .096$, $F(5, 164) = 3.14$, $p < .05$, partial $\eta^2 = .087$ (see Table 1).

As predicted, a univariate analysis of variance revealed that media condition was significantly related to dehumanization, $F(2, 167) = 4.67$, $p < .05$, partial $\eta^2 = .05$. Relative to viewing the entertainment news control, exposure to any school-shooting media significantly increased participants’ dehumanization of crime-involved youths, $t(170) = 2.82$, $p < .001$ (one tailed), $\eta^2 = .05$. Surprisingly, whether the school-shooting media featured basic event coverage or sensationalism did not make a significant difference on dehumanization scores, $t(170) = -1.38$, $p = .128$ (one tailed). Contrary to our expectations, media condition did not significantly affect MS, $F(2, 167) = 1.04$, $p = .357$. Moreover, the type or degree of media coverage was not systematically related to retributive attitudes toward crime-involved youths, $F(2, 167) = 2.02$, $p = .137$; relative support for rehabilitation, $F(2, 167) = 1.85$, $p = .161$; or relative support for recidivism reduction, $F(2, 167) = 0.23$, $p = .878$. However, upon closer inspection of each outcome variable’s conditional means (see Table 1), it became apparent that a similar pattern existed throughout the data set: The lowest mean scores were largely cultivated within the control condition as expected, but the highest mean scores were

Table 1. Punishment-Relevant Outcome Variable Means by Original Media Conditions.

Variable	Control		Coverage		Sensationalism	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mortality salience	0.30	0.17	0.33	0.18	0.34	0.17
Dehumanization*	3.88	0.82	4.34	0.84	4.16	0.81
Retribution	4.50	1.04	4.90	1.10	4.73	1.05
Rehabilitation	5.38	1.29	4.90	1.39	5.20	1.31
Recidivism reduction	5.40	1.34	5.33	1.45	5.46	1.19

Note. *N* = 170.

**p* < .05.

Table 2. Punishment-Relevant Outcome Variable Means by Combined Media Conditions.

Variable	Entertainment News		School Shooting	
	Control		Media	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mortality salience	0.30	0.17	0.34	0.02
Dehumanization*	3.88	0.82	4.25	0.83
Retribution	4.50	1.04	4.81	1.07
Rehabilitation	5.38	1.29	5.06	1.35
Recidivism reduction	5.40	1.34	5.40	1.32

Note. *N* = 170.

**p* < .05.

unsystematically present in both the school-shooting event coverage and sensationalism conditions. Given this unexpected trend, in conjunction with the fact that the one significant media condition-based finding (dehumanization) demonstrated no differences between coverage and sensationalism conditions, analyses were rerun as *t*-tests to instead examine differences between those who viewed the control and those who viewed either type of school-shooting media combined.

t-Tests revealed similar results. Exposure to school-shooting media again demonstrated no significant differences in MS, $t(168) = -1.44$, $p = .153$; relative support for rehabilitation, $t(168) = 1.54$, $p = .125$; or relative support for recidivism reduction, $t(168) = -0.02$, $p = .981$, compared to a control. Further disconfirming the hypothesis that school-shooting media portrayals induce MS, analysis of covariance tests controlling for differences in self-esteem revealed similar patterns of MS's insignificance across both the original and the combined media condition groupings. Dehumanization of crime-involved youths, however, was significantly greater following exposure to school-shooting media compared to an entertainment news control, $t(168) = -2.84$, $p < .05$, $d = .45$ (see Table 2). Retributive attitudes toward crime-involved youths also approached significance, $t(168) = 2.84$, $p = .068$, $d = .29$, suggesting that scores are slightly higher following the school-shooting media condition than in the control condition.

Correlations Among Punishment Attitudes

Consistent with our hypothesis that dehumanization would serve as a mediator between school-shooting media portrayals and retributive attitudes toward crime-involved youths, Table 3 reveals that the association between school-shooting media exposure and dehumanization was significant,

Table 3. Correlations Between Punishment-Relevant Outcome Variable.

Variable	1	2	3	4	5	6
1. Media exposure	—					
2. Mortality salience	.11	—				
3. Dehumanization	.21**	-.10	—			
4. Retribution	.15*	-.05	.31**	—		
5. Rehabilitation	-.12	.01	-.12	-.26**	—	
6. Recidivism reduction	.01	.08	-.01	-.09	.53**	—

Note. Media exposure correlations reported in r_{pb} .
One-tailed * $p < .05$. ** $p < .01$.

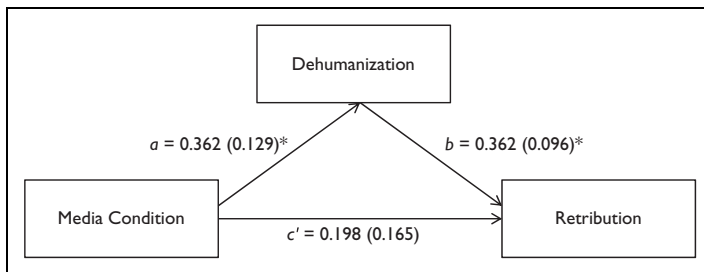


Figure 1. Indirect effect of school-shooting media on retributive attitudes through dehumanization. Unstandardized regression coefficients and standard errors in parentheses. * $p < .05$. $N = 171$.

$r_{pb}(169) = .21$, $p < .05$, as was the association between dehumanization and retributive attitudes, $r_{pb}(171) = .31$, $p < .01$ (see Table 3). Correlational analyses also highlighted partial support for the hypothesis that strong retributive attitudes negatively correlate with relative support for alternative responses to youth crime. As participants reported increasingly strong retributive attitudes toward crime-involved youths, they also reported significantly lower levels of relative support for rehabilitation, $r(170) = -.26$, $p < .01$. Retributive attitudes did not significantly correlate with relative support for recidivism-reduction-focused responses to youth crime, $r(168) = -.09$, $p = .122$, but support for rehabilitation did demonstrate a moderately positive, significant correlation with support for recidivism reduction, $r(168) = .53$, $p < .01$.

Dehumanization Mediation Model

An ordinary least squares simple mediation path analysis revealed that school-shooting media indirectly influenced retributive attitudes toward crime-involved youths through its effect on dehumanization (Hayes & Preacher, 2014). As seen in Figure 1, those who viewed school-shooting media as opposed to an entertainment news control reported on average significantly more dehumanized views of crime-involved youths ($a = 0.362$, $p < .05$), and those who dehumanized crime-involved youths expressed significantly stronger retributive attitudes toward this population ($b = 0.362$, $p < .05$). A bias-corrected confidence interval based on 10,000 bootstrap samples for this indirect effect ($ab = 0.131$) was entirely above zero (0.058–0.032), suggesting model significance. Those who viewed school-shooting media coverage reported, on average, 0.362 units more dehumanization toward justice-involved youths than those who watched an entertainment news control. Considering just those who viewed school-shooting media coverage, a 1-unit increase in dehumanization, on average, increased retributive attitudes by 0.362 units. Relative to those who viewed

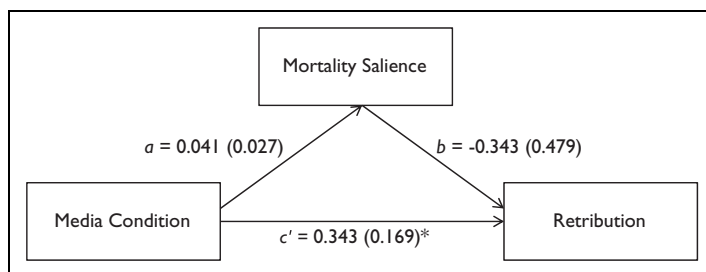


Figure 2. Indirect effect of school-shooting media on retributive attitudes through mortality salience. Unstandardized regression coefficients and standard errors in parentheses. * $p < .05$. $N = 171$.

an entertainment news control, those who viewed school-shooting media coverage reported, on average, 0.131 units stronger retributive attitudes toward justice-involved youths, as a function of the media's effect on participant dehumanization of this group. Analyses further suggested that school-shooting media has no effect on the strength of retributive attitudes, independent of its influence on dehumanization ($c' = 0.198$, $p = .232$). Consistent patterns of model significance were revealed by additional analyses that control for the effects of MS and include all three original media conditions (sensationalism, coverage, and control).³

MS Mediation Model

An ordinary least squares simple mediation path analysis revealed no support for MS as a mediator in the relationship between school-shooting media and retributive attitudes toward crime-involved youths. As can be seen in Figure 2, the type of media viewed (school shooting vs. entertainment news) did not significantly affect participants' MS levels ($a = 0.041$, $p = .130$) nor did varying MS levels influence retributive attitudes toward crime-involved youths ($b = -0.343$, $p = .475$). A bias-corrected confidence interval based on 10,000 bootstrap samples for this indirect effect ($ab = -0.014$) crosses zero (0.026 to -0.076), further confirming model insignificance. Analyses suggested that in this sample, school-shooting media had a positive direct effect on the strength of retributive attitudes, independent of its influence on MS ($c' = 0.343$, $p < .05$). Consistent patterns of model insignificance are revealed by additional analyses that controlled for the effects of dehumanization and included all three original media conditions.

Discussion

Summary of Findings

This study provides a novel framework for understanding the psychological processes that transform public viewership of school shootings into generalized retributive attitudes. Its most robust contribution is the finding that dehumanization mediates this reaction. As one of the first studies to explore the psychological mechanisms responsible for fueling these punitive sentiments, this study highlights a potential pathway through which future interventions might be able to lessen widespread public retributivism.

School-Shooting Media, Dehumanization, and Retribution

Analyses further suggest that strengthened retributive attitudes occur only when the school-shooting media effectively induces participant dehumanization of general crime-involved youths. The

presence of this indirect effect in the absence of a direct one further supports the hypothesis that dehumanization is causally located between school-shooting media exposure and increasingly retributive attitudes toward crime-involved youths. In instances where dehumanization is not induced, consequently, neither is retribution (hence, the lack of significant differences in retribution when examined alone across media conditions). In general, however, school-shooting media is fairly effective in inducing these dehumanizing attitudes. It presents a one-dimensional perspective on juvenile crime that does little to contextualize criminal behaviors while seamlessly lending itself to a subhuman portrayal of young offenders as individuals who act on self-interest and limited logic—both of which are central elements of dehumanization (Haslam, 2006). Once general crime-involved youths are perceived as being less human, public trust in this group tends to decrease, as does concern for treating them fairly and faith that they possess enough depth to be reformed; thus, support for retributive punishment increases (Bastian et al., 2013).

Unexpectedly, sensationalized school-shooting media portrayals have no stronger of an effect on dehumanization or punishment attitudes than basic event coverage. It is possible that watching unexplainable mass violence at the expense of a seemingly senseless perpetrator has a stronger psychological impact on viewers than anticipated (Birkland & Lawrence, 2009). While sensationalism deliberately perpetuates the image of school shooters as illogical, malicious, and self-involved, perhaps event coverage initiates a relatively stronger in-group–out-group dynamic by enabling viewers to identify with victim suffering and limiting understanding of how another human could cause such harm. Additionally, the inclusion of several causal interpretations within a single sensationalism video may have resulted in confounding issues. While all of the included sensationalized news clips share a theme of oversimplification of complex crime problems, they differ in factors proposed being responsible for criminal behavior; likewise, the various clips included within the one condition might elicit varying—or even contradictory—levels of dehumanization and retribution. A mental illness perspective, for example, may humanize offenders, whereas an evildoer perspective may induce quite an opposite reaction, both of which may oppositely affect retributive attitudes.

Regardless, school-shooting media appears to elicit participant perspectives of young offenders as unemotional and calculated—among other dehumanized attributes—which psychologically mediates strengthened retributive attitudes toward all crime-involved youths. This study is among the first to empirically extend dehumanization theory into criminal justice applications, where it continues to demonstrate real implications including enhanced retribution, and general biases against offenders (Bastian et al., 2013; Eberhardt, Davies, Purdie-Vaughns, & Johnson, 2006; Goff et al., 2008). School-shooting media may fuel otherwise relatively static retributive attitudes through dehumanization, due in part to its dynamic nature, which appears to be particularly responsive to the types of media presented in this study (Haslam, 2006). This mounting evidence of dehumanization's relevance to attitudes about crime and punishment suggests that advocates may benefit from developing interventions intended to increase compassionate, forward-looking responses to criminal behavior among youth.

School-Shooting Media, MS, and Retribution

Less support is found for the role of MS as a mediator in the relationship between school-shooting media portrayals and retributive attitudes. At a basic level, MS is not evoked at rates that vary significantly by media condition nor do varying levels of MS elicit related retributive responses. In fact, floor effects in MS occur across all conditions, suggesting that school-shooting media portrayals are largely ineffective in eliciting MS.

It is possible that MS is not a prominent reaction to school-shooting media portrayals because participants' worldviews were not threatened as a function of viewing them. This urban, college-aged sample may find the context of suburban, grade school shootings largely irrelevant to their own

lives, given that few likely have school-aged children or grew up in the suburbs themselves. Furthermore, while school shooters may terrorize media viewers in the traditional sense, they may not induce MS because they fail to present a *predictable* threat against worldviews. Mediatized school shooters are often portrayed as relatively well integrated within American cultural institutions (e.g., educational system, nuclear family, and suburban lifestyle) up until their crimes: They often do fairly well in school, have some friends, come from good families, and have minimal criminal records (Muschert et al., 2013). Likewise, participants' may be uncertain about the degree of threat that this generalized out-group reliably poses against their own mortality, thus leaving MS levels relatively slow.

From a theoretical perspective, this finding suggests that perhaps TMT requires a less transient and/or more distinct out-group for MS-induced retribution to ensue. Similarly, MS inductions likely require exposure to a threat that one can more easily envision affecting his or her own life, which suburban-grade school shootings may not presently provide for the majority of urban young adults. Effectively, school-shooting media may cause participants to fear crime's general occurrence in society without directly leading them to fear for their own lives, as is essential for MS-induced retributive attitudes (Arndt et al., 2005).

Retribution and Relative Support for Alternative to Youth Crime Responses

Findings also highlight a negative correlation between retribution and rehabilitation, suggesting that as public support for just deserts-based punishment increases, relative support for the inclusion of rehabilitative initiatives in juvenile crime responses decreases. In many ways, retribution and rehabilitation represent polar opposites in the punishment spectrum, leaving this finding somewhat unsurprising: Retribution is entirely retrospective and concerned with inflicting harms morally deserved, whereas rehabilitation is proactive, and focused on giving offenders a second chance at bettering the offender's lifestyle and social skillset (Beccaria, 1764; Kant, 1952).

Unexpectedly, retribution and recidivism reduction do not correlate significantly, while rehabilitation and recidivism reduction maintain a significant positive correlation. There may not have been enough uniform differences between retribution- and recidivism reduction-oriented attitudes to unveil opposing associations. One can seemingly care about "getting back at" an offender for his or her wrongdoing, while also hoping to address his or her risk of reoffense. Nothing about the latter punishment approach suggests that the tactics used to reduce recidivism are necessarily constructive and positive ones as opposed to the infliction of scare tactics, for example (Cullen, Fisher, & Applegate, 2000). However, recidivism-reduction approaches typically apply a version of rehabilitative approaches specifically aimed at addressing criminogenic factors associated with risk for reoffense (Slobogin & Fondacaro, 2011). In this light, recidivism reduction is simply a more refined adaptation of rehabilitation, thus explaining the significant correlation between these two punishment attitudes.

Limitations and Future Directions

As referenced above, the two primary limitations of this study include its urban, college-aged sample, and the possible confounds present within the sensationalism condition. Ideally, this study would observe average American voters' (i.e., middle-aged, middle-class, White adults) reactions to school-shooting media portrayals, particularly because their attitudes are most likely to influence criminal justice policies (Roberts & Doob, 1990; U.S. Census Bureau, 2013). Yet, the significant patterns revealed among college-aged urbanites (whom research would expect to demonstrate dampened reactions due to more direct crime experience and less concern with school-shooting media) suggest that even stronger results should occur in the former population (Ferguson, 2013; Gray,

2008). Future researchers may wish to confirm this expectation by replicating this study with various sample populations.

Researchers may further benefit from parsing out the sensationalism condition into its various subcomponents. For example, one condition might again focus on school-shooting event coverage, while others focus individually on sensationalism of gun access, mental illness, video game violence, and so on. This may enable researchers to explore which specific media portrayals of extreme youth crime are the most influential. Additionally, it may be beneficial to further explore how viewing a combination of basic school-shooting event coverage and sensationalism impacts dehumanization and retribution as compared to viewing event coverage alone. Actual school-shooting media narratives change over a period of months, as new information is unveiled, public intrigue peaks, and implications are discussed (Burns & Crawford, 1999; Lawrence & Mueller, 2003). Likewise, sensationalized portrayals of school shootings are unlikely to be viewed in isolation but as more of an extension from basic event coverage (Muschert et al., 2013). In this context, sensationalism coupled with the initial event coverage may still fuel an increase in dehumanization and retribution, as compared to event coverage alone.

Relatedly, another potential limitation of this research design pertains to the immediacy with which attitudes were observed following media exposure. Although it is noteworthy that a relatively small dose of exposure was capable of eliciting significant response patterns, results from this study cannot predict how long—or strong—these effects might last. Given that day-to-day media exposure is almost unavoidable today, it may prove difficult to conduct a controlled experiment on the prolonged effects of school-shooting media exposure. However, research suggests that school-shooting media coverage is often drawn out and presented over a period of weeks to months (Muschert, 2009). It is possible, then, that these results may actually be enhanced in naturalistic settings, where exposure to violent youth crime media is likely a frequent occurrence.

Lastly, future research should seek to examine in more detail how various media portrayals of crime influence public willingness to support alternative, evidence-based responses to juvenile crime. Researchers may wish to explore how providing more contextual information about youthful offenders and the crimes that they more routinely commit (e.g., drug offenses and minor assaults) might be capable of increasing public support for alternative responses to youth crime. While this study explored in part the relationship between increasing support for retribution, rehabilitation, and recidivism reduction, it was limited by novel measures of support for alternatives to retribution. Social scientists should aim to develop more valid measures of these later constructs to ensure that future research can highlight not only the pitfalls of crime media but also the ways in which it can educate and positively influence public attitudes.

Societal Impact and Conclusion

The general public has minimal personal experience with juvenile crime (Ferguson, 2013). Given that their opinions on solutions to crime still play a large role in sentencing policies, it is important to understand where their strong, retributive sentiments originate from as well as the mechanisms through which they are realized (Wood, 2008). In general, results from this study suggest that by focusing on context-limited, extreme instances of youth crime such as school shootings, the media depicts young offenders as subhuman, which in turn enhances retributive stances toward how the entire group should be addressed within the juvenile justice system.

Ideally, by highlighting the causal links between school-shooting media portrayals and narrow views of juvenile punishment, this study will begin to inspire responsible news coverage of youth crime as well as educated viewer evaluations. While it is unlikely that coverage of such events will disappear completely, journalists are now beginning to engage in conversations about their contribution to American crime culture and potential methods of decreasing their negative impact

(Muschert & Janssen, 2012; Plaisance, 2013). This study may contribute to such conversations by specifically highlighting the need for increased awareness around the contextual, humanizing factors associated with youth crime, so as to prevent ill-informed retributive attitudes from forming and subsequently influencing punishment decisions. At the very least, it may be beneficial for journalists to attempt to minimize the extent to which their reports obviously dehumanize crime-involved youth. Where extreme stories must be told, perhaps a better approach would be to focus on community circumstance and impact rather than perpetrator condemnation or speculation of any kind.

Additionally, it may be beneficial for politicians to understand that public attitudes toward juvenile offenders as a whole are highly impacted by dehumanizing media portrayals of a select and extreme few. It is quite possible that viewers may have a harder time dehumanizing (and thus, retributively punishing) juvenile offenders if presented with images more representative of typical youth crimes (e.g., drug offenses, petty theft, and minor assault) and the humanity of those who commit them. Yet in reality, we know that the media currently presents more regularly these exceptional, fear-inducing cases. While public support is important in a democracy, perhaps evidence-based responses to youth crime should not be ignored for the purpose of appeasing a retributively biased public that is largely informed by unrepresentative media portrayals.

Overall, this study highlights the first empirical support for dehumanization as a mediator in the relationship between school-shooting media portrayals and retributive attitudes. Future research and social applications should build upon this finding to explore potential ways of promoting less punitive and more constructive public attitudes toward juvenile crime.

Appendix A

Dehumanization Measurement

- (1) I feel like juveniles in the justice system are open minded, like they can think clearly about things (reverse scored).
- (2) I feel like juveniles in the justice system are emotional, like they can be responsive and warm (reverse scored).
- (3) I feel like juveniles in the justice system are superficial, like they have no depth.
- (4) I feel like juveniles in the justice system are mechanical and cold, like robots.
- (5) I feel like juveniles in the justice system are refined and cultured (reverse scored).
- (6) I feel like juveniles in the justice system are rational and logical, like they are intelligent (reverse scored).
- (7) I feel like juveniles in the justice system are lack self-restraint, like animals.
- (8) I feel like juveniles in the justice system are unsophisticated.

Dehumanization measurement is adapted from Bastian et al. (2013). Questions 1–4 examine denial of human nature, and Questions 5–8 measure denial of human uniqueness.

Appendix B

Retribution Measurement

- (1) Juveniles in the justice system deserve to be punished because they have harmed society with their crime.
- (2) The amount of punishment that juveniles in the justice system receive should be equal to the harm that the victims were forced to suffer.
- (3) The more serious the offense is, the more a juvenile in the justice system deserves to be punished.

- (4) How much harm a crime caused—and not the juvenile offender's background or why they committed the crime—should be the major factor that determines how long of a sentence they receive.
- (5) The primary purpose of our juvenile justice system is to pay young offenders back for their offenses.

Retribution measurement is adapted from Cullen et al. (1988).

Appendix C

Consequentialist Measurement

- (1) Relative to giving a young offender what he deserves, how important is it to you that the juvenile justice system improve the young offender's psychological well-being?
- (2) Relative to giving a young offender what he deserves, how important is it to you that the juvenile justice system reduce a young offender's risk for reoffense?

Item 1 examines relative support for consequentialist principle of rehabilitation, and Item 2 measures support for recidivism reduction.

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Notes

1. Subjects were randomly assigned to one of the three conditions prior to answering any questions. Groups did not differ significantly in any of the observed demographic variables.
2. Sample demographic percentages omit the small number of individuals who unsystematically chose not to provide the relevant information.
3. Separate path analyses and mean comparisons for human uniqueness and nature revealed no significant differences from the patterns highlighted by the combined dehumanization measure, and were thus excluded.

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