THE EFFECTS OF IMPACT STATEMENTS ON JURORS' DECISIONS AND PERCEPTIONS OF THE VICTIM AND DEFENDANT

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At the penalty phase of capital trials, emotionally charged testimony can be presented about the loss of the victim (Victim Impact Statement; VIS) or the potential loss of the defendant (Execution Impact Statement; EIS). This experiment examined how these impact statements influence mock jurors' decisions while accounting for evidence strength using a 2 (VIS or no VIS) X 2 (EIS or no EIS) X 2 (high aggravator case or high mitigator case) between-subjects design. Overall, results suggest impact statements do not strongly influence jurors' decisions. In contrast, evidence strength and perceptions of the defendant strongly predicted jurors' weighing of aggravators and mitigators and their sentencing decisions. Implications, and future directions are discussed.

Keywords: Impact Statements, Death Penalty, Juror Decision-Making, Aggravating and Mitigating Evidence, Victim and Defendant Perceptions

Death penalty cases are often emotion-laden affairs (cf. Lynch & Haney, 2015). During the capital trial of Dzhokhar Tsarnev (i.e., the "Boston Bomber"), for example, jurors listened to a father describe his child dying on the sidewalk, leading at least one juror to begin crying (Milton, 2015a, 2015b). In another example, capital jurors were seemingly so moved by a case that they purchased a gift for the victim's daughter almost immediately after convicting the defendant (Hernandez v. State, 2002). Instances such as these have led legal scholars and courts to express concern over the potential for emotionally charged trial testimony to interfere with capital jurors' abilities to fairly evaluate trial information, resulting in sentencing decisions based on emotional reactions and perceptions rather than on case facts (e.g., Bandes, 1996; Booth v. Maryland, 1987; Feigenson, 2000; Logan, 1999; South Carolina v. Gathers, 1989; Thomas, 2000; Wilcher v. State, 1997).

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Stemming from the victim's rights movement in the late 20th century, capital trials began to allow Victim Impact Statements (VISs). VISs are given by victims' relatives to express the personal impact and harm caused by the crime and/or to help them reach closure or emotional catharsis (Boppre & Miller, 2014). VISs are given in other types of cases as well. For example, at Larry Nasser's recent sentencing hearing, about 150 victims gave statements concerning their abuse by the former doctor affiliated with U.S.A. Gymnastics and Michigan State University (e.g., see CNN, 2018). In capital cases, courts also allow Execution Impact Statements (EISs), which are testimony given by family members of the defendant to express the negative effects a death sentence would have on the defendant's loved ones and/or why the defendant deserves to live (Wolff & Miller, 2009). VISs are permitted in capital sentencing trials on a case-by-case basis (Payne v. Tennessee, 1991), but the U.S. Supreme Court has yet to rule on the admissibility of EISs (for a full review, see Wolff & Miller, 2009).

Due to the emotional nature of VISs and EISs, scholars are concerned that these statements may inhibit or interfere with jurors' abilities to make impartial decisions (Logan, 1999; Thomas, 2000). Emotional stimuli can activate intuitive and heuristic processing (Epstein, 1990, 2003), which, in turn, increases the influence of extralegal characteristics (e.g., defendant's appearance) in jurors' decisions (e.g., Lieberman, 2002; Miller, 2006). Hence, it is possible impact statements might be more influential in capital jurors' decisions than the aggravating evidence (aggravators) and mitigating evidence (mitigators) that constitutionally constrain death sentences (see Gregg v. Georgia, 1976). The purpose of this study was to assess how VISs and EISs influence mock jurors' perceptions of the victim and defendant, their weighing of aggravators and mitigators, and their sentencing decisions, while accounting for the influence of evidence strength. Prior to describing the study fully, we provide an overview of the modern capital trial process, with specific attention paid to the role of aggravators and mitigators, theory that could explain why VISs and EISs might impact jurors' decisions, and past research on VISs and EISs.

MODERN CAPITAL TRIALS

There was a brief death penalty moratorium in the U.S. in the 1970s. This began when the Supreme Court ruled that death penalty trials, as they were conducted at the time, were unconstitutional (Furman v. Georgia, 1972). Justice Stewart, in his opinion, stressed that capital jurors had unbridled discretion, resulting in "wantonly" imposed death sentences (Furman v. Georgia, 1972, p. 309-310). States altered their death penalty schemes in two primary ways to address these concerns and reinstate the death penalty (see Palmer, 2014; Paternoster, Brame, & Bacon, 2008). First, capital trials were bifurcated. In the first phase, jurors determine guilt; in the second phase, jurors determine a sentence. Second, during the latter phase, jurors endorse and weigh aggravators and mitigators to determine a sentence. This new trial format was deemed constitutional in Gregg v. Georgia (1976).

The death penalty was deemed constitutional in Gregg v. Georgia (1976) in large part because aggravators and mitigators constrain jurors' sentencing decisions. In order to render a death sentence, jurors must endorse at least one aggravator and find that miti-

gators do not outweigh aggravators (Gregg v. Georgia, 1976; Zant v. Stephens, 1983). Aggravators make a defendant more deserving of the death penalty (e.g., the murder was heinous, atrocious, or cruel) and are determined by statute. Mitigators make the defendant more deserving of a life sentence (e.g., the defendant was under mental or emotional duress at the time of the crime) and are both statutory and non-statutory (i.e., jurors can endorse virtually any characteristic of a case as a mitigator; Lockett v. Ohio, 1978).

In theory, aggravators are positively associated with death sentences and mitigators are negatively associated with death sentences (see Gregg v. Georgia, 1976). Some studies of death penalty cases have found support for these relationships. For instance, a study of North Carolina cases found that the number of aggravators endorsed was positively related to death sentences and the number of mitigators endorsed was negatively related to death sentences (Richards, Bjerregaard, Cochran, Smith, & Fogel, 2016). Other studies have found only partial support for these theoretical relationships. For example, a study of Nebraska cases found that aggravator endorsement was strongly and positively associated with death sentences, but mitigator endorsement was unrelated to sentencing decisions (Baldus, Woodworth, Grosso, & Christ, 2003).

Simulated jury studies have also examined how aggravators and mitigators relate to sentencing decisions. In contrast to studies of actual capital cases, these studies have focused on how the ratio of aggravators to mitigators present in the case influences sentencing decisions. When mock jurors read a case with more aggravators than mitigators especially mock jurors who have a high comprehension of sentencing instructions or tend to process information deliberately and logically—they are more likely to render a death sentence (e.g., Lieberman, Shoemaker, & Krauss, 2014; Miller & Bornstein, 2006; Patry & Penrod, 2013; West, Wood, Miller, & Bornstein, 2018). Similar to the design of previous simulated jury experiments, we manipulate the ratio of aggravators and mitigators (evidence strength) in the current study to create a high aggravator case condition (4 aggravators and 2 mitigators) and a high mitigator case condition (2 aggravators and 4 mitigators). Because evidence strength should be the primary factor explaining jurors' weighing of aggravator and mitigators and sentencing decisions (cf. Gregg v. Georgia, 1976), it is important to assess if impact statements influence jurors' decisions while accounting for evidence strength.

COGNITIVE PROCESSING AND DECISION-MAKING

Scholars suggest that the emotional content presented in impact statements could impair jurors' ability to render impartial verdicts based upon case facts (Logan, 1999; Thomas, 2000). According to Cognitive-Experiential Self-Theory (CEST; Epstein, 1990, 2003), people have two cognitive processing systems. The rational system involves deliberative and logical processing, whereas the experiential system involves intuitive and heuristic processing (Epstein, 1990, 2003). Emotional stimuli, such as the content of an impact statement, can activate experiential processing (cf. Epstein, 2003). In turn, jurors who process information experientially are more influenced by extralegal characteristics, such as defendant characteristics, in their decision-making (see, e.g., Lieberman, 2002;

Miller, 2006). Furthermore, jurors who process information experientially are more likely to render a death sentence (Miller, Wood, & Chomos, 2014). In contrast to experiential processing, rational processing is associated with following judge's instructions (Sommers & Kassin, 2001), basing sentencing decisions on evidence strength (West et al., 2018), and with rendering a life sentence (Miller et al., 2014). Importantly, CEST posits that people can simultaneously process information rationally and experientially (Epstein, 1990, 2003). Thus, in the context of a capital case, jurors might generally follow sentencing instructions and base their decisions on the aggravators and mitigators in the case, while also basing their decisions to some extent on their emotional reactions to VISs and EISs.

THE EFFECTS OF IMPACT STATEMENTS ON JURORS' DECISIONS

Past research has primarily focused on the impact of VISs on jurors' decisions. Generally, VISs lead to positive sentiments toward the victim and more positive perceptions of the victim, but also lead to negative sentiments toward the defendant and more negative perceptions of the defendant (Boppre & Miller 2014; Butler, 2008; Deise & Paternoster, 2013; Greene, 1999; Greene, Koehring, & Quiat, 1998; Myers, Johnson, & Nuñez, 2018; Paternoster & Deise, 2011). For example, jurors are more likely to feel sympathy and empathy for the victim, perceive the victim more positively, and perceive the defendant more negatively after reading a VIS (Deise & Paternoster, 2013; Paternoster & Deise, 2011). This may be the mechanism explaining why VISs often lead to death sentence decisions (e.g., Luginbuhl & Burkhead, 1995; Myers & Arbuthnot, 1999). Indeed, positive sentiments toward and perceptions of the victim are related to a death sentence (Deise & Paternoster, 2013; Paternoster & Deise, 2011). Furthermore, VISs lead jurors to discount mitigators in determining an appropriate sentence (Nuñez, Wilkowski, & Schweitzer, 2017).

In contrast to the attention paid to the impact of VISs, there is a dearth of research on how EISs impact mock jurors' decisions. Using an online mock jury experiment with a written trial summary, Boppre and Miller (2014) randomly assigned participants to one of four impact statement conditions (VIS, EIS, neither, or both VIS and EIS). Neither the VIS nor EIS had an effect on sentences. However, mock jurors who read the VIS had more positive perceptions of the victim, whereas participants who read the EIS perceived the defendant as more remorseful. Importantly, whereas VISs impact perceptions of both victims and defendants (e.g., Deise & Paternoster, 2013; Paternoster & Deise, 2011), EISs relate only to perceptions of the defendant (Boppre & Miller, 2014).

The current study expands upon Boppre and Miller (2014) and other past research in multiple ways. First, we examine how VISs, EISs, and perceptions of the victim and defendant relate to jurors' weighing of aggravators and mitigators. Past studies have examined some of these relationships (e.g., Nuñez et al., 2017), but the relationships between perceptions of the victim and defendant, EISs, and weighing have not yet been examined. Second, we examine how VISs and EISs indirectly impact sentences and weighing through perceptions of the victim and defendant. Most notably, no past study has examined the indirect effect of EISs on weighing and sentences. Third, we assess whether these relationships vary depending on the standard used to death qualify jurors. No past research has examined this.

THE CURRENT STUDY

In this mock jury experiment, we used a 2 (high aggravator case or high mitigator cases) X 2 (VIS or no VIS) X 2 (EIS or no EIS) between-subjects factorial design. Participants were randomly assigned to one of eight conditions, with approximately 25 participants in each condition. Participants read a trial summary based on a real case (State v. Daniels, 1994), reported their perceptions of the defendant and the victim, reported whether mitigators outweighed aggravators, and rendered a sentence (death penalty or life without parole). Based on theory and past research, we posited the following hypotheses:

Hypothesis 1: Mock jurors who read the VIS will perceive the victim more positively and perceive the defendant more negatively than mock jurors who do not read the VIS (Hypothesis 1a). In turn, more positive perceptions of the victim and more negative perceptions of the defendant will be related to a death sentence (Hypothesis 1b) and to weighing aggravators greater than mitigators (Hypothesis 1c).

Hypothesis 2: Mock jurors who read the EIS will perceive the defendant more positively (Hypothesis 2a). In turn, more positive perceptions of the defendant will be associated with a life sentence (Hypothesis 2b) and with weighing mitigators greater than aggravators (Hypothesis 2c).

Hypothesis 3: Mock jurors in the high aggravator case, as compared to mock jurors in the high mitigator case, will be more likely to weigh aggravators greater than mitigators and to render a death sentence.

METHOD

Participants

Participants were 254 undergraduate university students who received class credit by completing an online survey. For our main analyses, we used a subsample of 185 participants who were death qualified according to the Witt standard (see Appendix for discussion of analyses using other death qualification standards). The majority of death qualified participants were women (67%), and participants' ages ranged from 18 to 61 (M = 22.08, SD = 6.56). The majority of participants (74%) identified as White-American, 8% as Hispanic-American, 7% as Asian-American, 4% as African-American, and 7% as other. Age, gender, and race were included as control variables because past research shows they are related to general death penalty support and to sentencing decisions (see, e.g., Boots & Cochran, 2011; West, Yelderman, & Miller, 2018).

Materials and Procedure

Trial summary. Participants read an approximately 2,000-word online trial summary, including judge's instructions and attorneys' arguments, that was based on a real case (State v. Daniels, 1994) and used in previous studies (see Miller & Bornstein, 2006). The trial scenario involved a defendant who stabbed a family friend to death after she refused to loan the defendant money. Participants were assigned to a high aggravator condition (4 aggravators and 2 mitigators) or a high mitigator condition (4 mitigators and 2 aggravators). In the high aggravator condition, for example, the murder was described as more violent and the defendant did not confess. In contrast, the high mitigator condition included descriptions of the defendant's life circumstances (i.e., emotional issues and financial difficulties) leading to the crime and the defendant's confession. Aggravators and mitigators were based on North Caroline statute.

The VIS, modeled after an actual victim impact statement and used in past research (Boppre & Miller, 2014), was given by the victim's daughter (see Wolff & Miller, 2009). The VIS was 228 words long; the victim's daughter described the traumatic effects of her mother's death and asked that the defendant be sentenced to death instead of life without parole. The EIS, given by the defendant's mother, was 364 words in length. The defendant's mother described him as a good and remorseful person, discussed the impact his death would have on her, and asked the jury to sentence him to life without parole instead of death. The EIS was based on what a typical execution impact statement contains (see Wolff & Miller, 2009). In conditions in which participants did not read a VIS or EIS, there were descriptions of the victim's daughter and her relationship with her mother (i.e., "[The victim] had an adult daughter who spent every day in the hospital with her son, the defendant (i.e., "The defendant's mother visited the defendant regularly in jail while he awaited his trial, supporting her son through a difficult time"). All materials used in this study are available from the authors upon request.

Mediators and Dependent Variables. Participants reported their overall perceptions of the defendant and the victim using 7-point rating scales from 1(Very Negative) to 7(Very Positive). Perceptions of the defendant and victim were examined as mediating variables. Participants also reported whether mitigators outweighed aggravators. This was a dichotomous dependent variable (1 = mitigators DO NOT outweigh aggravators, 0 = mitigators outweigh aggravators). Finally, participants reported their sentencing decision, choosing a death sentence (1) or life without parole sentence (0). See Table 1 for bivariate correlations and descriptive statistics.

Variables	1	2	3	4	5	6	7	8	9	10
(n = 185)										
1. EISa	-									
2. VISb	0.06	-								
3. Evidence	-0.04	0.07	-							
Strengthc										
4. Age	-0.14	0.003	-0.06	-						
5. Genderd	0.04	-0.10	-0.004	0.00	-					
6. Racee	-0.01	-0.10	-0.01	0.03	0.06	-				
7. Defendant	0.07	-0.02	-0.28*	-0.001	0.03	-0.09	-			
Perceptions										
8. Victim	-0.07	0.11	0.10	-0.01	0.07	-0.01	-0.03	-		
Perceptions										
9. Agg/Mit	0.04	-0.12	-0.26*	-0.05	0.12	0.10	0.22*	0.02	-	
Weighingf										
10. Sentenceg	-0.06	0.12	0.36*	-0.05	-0.14	-0.02	-0.38*	-0.06	-0.49*	-
М	0.49	0.52	0.55	21.92	0.67	0.73	2.70	5.07	0.48	0.30
SD	.50	0.50	0.50	5.99	0.47	0.45	1.31	1.17	0.50	0.46

Table 1. Bivariate Correlations and Descriptive Statistics

Note: Jurors death qualified according to Witt. aEIS: 1 = present, 0 = not present; bVIS: 1 = present, 0 = not present; cEvidence Strength: 1 = high aggravators, 0 = high mitigators; dGender: Male = 1, Female = 0; eRace: White = 1, Non-White = 0. fAgg/Mit Weighing: 1 = Mitigators do not outweigh aggravators, 0 = Mitigators outweigh aggravators. gSentence: 1 = Life sentence, 0 = Death sentence. *p<.05.

Procedure

A unique characteristic of the capital trial process is that jurors are required to be death qualified. Death qualification occurs during voir dire and involves judges and/or attorneys questioning prospective jurors about their death penalty attitudes and the extent to which their sentiments might impair the performance as a juror (Morgan v. Illinois, 1992; Wainwright v. Witt, 1985; Witherspoon v. Illinois, 1968; see Yelderman, Miller, & Peoples, 2017, for review). Thus, before reading the trial summary and starting the survey, participants answered death qualification questions. Participants who reported their sentiments toward the death penalty would not interfere with their duties as a juror (n = 185) were deemed Witt-death qualified (Wainwright v. Witt, 1985) and included in the sample for analysis. However, because death qualification effects can vary by standard (West et al., 2017), we replicated our analysis with samples of jurors death qualified according to the Witherspoon standard (n = 220) and the Morgan standard (n = 235) to check if there were differences (see Appendix). Under the Witherspoon standard, participants were excluded if they reported they would automatically render a life sentence; under the Morgan standard, participants were excluded if they reported they would automatically render a death sentence. After reading the trial summary, participants reported whether mitigators outweighed aggravators, their perceptions of the defendant and victim, and rendered a sentence.

ANALYTICAL STRATEGY

To examine the hypotheses, our analytical strategy had three primary steps. First, the VIS, the EIS, evidence strength, and the control variables (participant age, race, and gender) were regressed onto perceptions of the defendant and perceptions of the victim using ordinary least squares estimation. Second, the independent variables, control variables, and perceptions of the defendant and victim were used as predictors in two logistic regression models, one with aggravator and mitigator weighing as a criterion and the other with sentence as a criterion. Third, we assessed whether perceptions of the victim and defendant mediated the effects of the VIS and EIS. Our mediation analysis was conducted according to procedures suggested by Hayes (2009, 2013) and colleagues (e.g., Preacher & Hayes, 2008), and performed using Hayes's (2013) PROCESS macro (see also Hayes, 2009; Preacher & Hayes, 2008). In line with this approach, indirect effects were calculated by multiplying the coefficient from the first step of our analyses (e.g., the relationship between VIS and victim perceptions) by the coefficient from the second step (e.g., the relationship between victim perceptions and sentence). A 95% confidence interval was constructed around the indirect effect via bootstrapping (5,000 samples). Prior to mediation analysis, assumptions of the OLS and logistic models were checked. Indicators (e.g., Q-Q plot, P-P plot, histograms) suggested residuals were approximately normally distributed and residual variance was homogenous. Other indicators (e.g., VIF, condition index, zeroorder and partial correlations) suggested no multi-collinearity.

RESULTS

Hypothesis 1 and Hypothesis 2

The independent and control variables accounted for nearly 10% of the variance in perceptions of the defendant (R2 = .09, p = .007). Jurors in the high aggravator case perceived the defendant more negatively than jurors in the high mitigator case. No other variable was significantly related to perceptions of the defendant. The overall model for victim perceptions was not significant, though the VIS was positively related to perceptions of the victim at a marginally significant level (B = 0.30, 90% CI [0.002, 0.59]). No other variable was related to victim perceptions. Thus, there was partial support for the prediction of Hypothesis 1a that the VIS would be positively related to perceptions of the victim, but no support for the prediction of Hypothesis 2a that the EIS would be positively related to perceptions of the defendant. See Table 2 for predictors of perceptions of the defendant and victim.

Predictor	Perceptions	s of Defendant	Perceptions of Victim			
Predictor	В	95% CI	В	95% CI		
EISa	0.15	[-0.23, 0.52]	-0.17	[-0.52, 0.18]		
VISb	-0.01	[-0.39, 0.37]	0.30†	[-0.06, 0.65]		
Evidence Strengthc	-0.75***	[-1.33, -0.36]	0.20	[-0.16, 0.55]		
Age	-0.002	[-0.03, 0.03]	-0.003	[-0.03, 0.02]		
Genderd	0.09	[-0.03, 0.03]	0.21	[-0.17, 0.59]		
Racee	-0.27	[-0.70, 0.17]	0.01	[-0.17, 0.59]		
R^2	.0)9**	.03			

Table 2. Predictors of Perceptions of the Defendant and Perceptions of the Victim

Note. aEIS: 1 = present, 0 = not present; bVIS: 0 = 1 = present, not present; cEvidence Strength: 1 = high aggravators, 0 = high mitigators; dGender: Male = 1, Female = 0; eRace: White = 1, Non-White = 0. p < .10, p < .05, p < .01, p < .05, p < .01, p < .01.

Perceptions of the defendant were significantly related to aggravator and mitigator weighing. Mock jurors who perceived the defendant more positively were less likely to report that mitigators did not outweigh aggravators. The effects of the VIS on aggravator and mitigator weighing mediated by perceptions of the victim and defendant were not significant. This did not support Hypothesis 1b. The effect of the EIS on aggravator and mitigator weighing mediated by perceptions of the defendant was also not significant, which did not support Hypothesis 2b. See Table 3 for predictors of aggravator and mitigator weighing.

Perceptions of the defendant were significantly related to sentencing decisions. Jurors who perceived the defendant more positively were less likely to render a death sentence. Perceptions of the victim were related to sentencing decisions, but at a marginally significant level (B = -0.27, 90% CI [-0.54, -0.01]). The effects of the VIS on sentencing decisions mediated by perceptions of the victim and defendant were not significant. The indirect effect of the EIS through defendant perceptions was also not significant. See Table 3 for predictors of sentencing decisions. In sum, we did not find support for the hypotheses predicting that the effects of the VIS and EIS on weighing and sentencing decisions would be mediated by perceptions of the victim and defendant (Hypothesis 1c and Hypothesis 2c).

	Mitigat	tors Do Not Out	weigh	Death Sentence			
Predictor		Aggravators					
	В	95% CI	OR	В	95% CI	OR	
EISa	-0.09	[-0.72, 0.54]	0.91	-0.16	[-0.91, 0.60]	0.85	
VISb	0.39	[-0.24, 1.03]	1.48	0.47	[-0.28, 1.22]	1.60	
Evidence	0.93**	[0.23, 1.57]	2.53	1.61***	[0.77, 2.45]	5.00	
Strengthc							
Age	0.02	[-0.03, 0.08]	1.02	-0.02	[-0.08, 0.04]	0.98	
Genderd	-0.45	[-1.12, 0.21]	0.64	-0.63	[-1.39, 0.13]	0.53	
Racee	-0.50	[-1.21, 0.21]	0.61	-0.20	[-1.04, 0.65]	0.82	
Defendant	-0.29*	[-0.53, -0.04]	0.75	0.75***	[-1.11, -0.39]	0.47	
Perceptions							
Victim	-0.09	[-0.36, 0.09]	0.91	-0.27†	[-0.59, 0.04]	0.76	
Perceptions							
Negelkerke's R2	.17**			.36***			
-2*LL	230.14			174.10			

Table 3. Predictors of Aggravator and Mitigator Weighing and Sentence

Note. aEIS: 1 = present, 0 = not present; bVIS: 0 = 1 = present, not present; cEvidence Strength: 1 = high aggravators, 0 = high mitigators; dGender: Male = 1, Female = 0; eRace: White = 1, Non-White = 0. †p<.10, *p<.05, **p<.01, ***p<.001.

Hypothesis 3

Evidence strength was strongly related to aggravator and mitigator weighing as well as sentencing decisions. Mock jurors in the high aggravator case were more likely to report that mitigators did not outweigh aggravators and were more likely to render a death sentence than jurors in the high mitigator case. These findings support Hypothesis 3.

DISCUSSION

The primary purpose of this study was to examine the relationships between impact statements (VIS and EIS), perceptions of the victim and defendant, aggravator and mitigator weighing, and sentencing decisions while accounting for evidence strength. We hypothesized that jurors who read the VIS would perceive the victim more positively and perceive the defendant more negatively. In turn, perceptions of the victim would be related to weighing aggravators over mitigators and to rendering a death sentence, whereas perceptions of the defendant would be related to weighing mitigators over aggravators and rendering a life sentence. We found weak support for these hypothesized relationships. Furthermore, the EIS did not impact jurors' perceptions of the defendant or jurors' weighing or sentencing decisions. In contrast, we found strong support for our hypothesis that evidence strength would impact jurors' aggravator and mitigator weighing and sentencing decisions. Overall, perceptions of the defendant and evidence strength were the primary variables that explained aggravator and mitigator weighing and sentencing decisions.

Although there is some concern over the emotional influence of VISs and EISs (e.g., South Carolina v. Gathers, 1989; Thomas, 2000), our results indicate that VISs and EISs do not strongly influence capital sentencing decisions. Therefore, our findings imply that impact statements do not pose a substantial threat to the requirement for capital jurors to rely on aggravating and mitigating evidence – rather than extralegal factors – in their sentencing decisions (Gregg v. Georgia, 1976). The lack of robust relationships between impact statements and aggravator and mitigator weighing and death sentences coalesces with previous research (e.g., Boppre & Miller, 2014; Deise & Paternoster, 2013; Forsterlee et al., 2004; Myers et al., 2018; Nadler & Rose, 2003; Nuñez et al., 2017; Paternoster & Deise, 2011). This suggests that VISs can continue to serve a role in increasing victim relative's satisfaction with the trial process (e.g., Hillenbrand & Smith, 1989; Kelly, 1982) without biasing jurors' decisions. Similarly, EISs might serve to increase a defendant's and his/her relative's satisfaction with the trial process and, in turn, the trial outcome (cf. Tyler, 2006; Tyler, 1989; Tyler & Blader, 2000). However, future research is needed to establish these potential benefits, particularly in light of skepticism concerning the benefits of impact statements. For example, victim relatives might be less satisfied if they feel they are used as a means to a prosecutor's end (see Bandes, 2009; Burr, 2003).

Where our findings depart somewhat from previous research is that perceptions of the defendant were more strongly related to jurors' decisions than perceptions of the victim. Past research has demonstrated that positive perceptions of the victim are related to death sentences (e.g., Paternoster & Deise, 2011), but we found stronger evidence that mock jurors who perceived the defendant negatively were more likely to weigh aggravators over mitigators and render a death sentence. We also found mock jurors in the high aggravator case perceived the defendant more negatively than mock jurors in the high mitigator case. Consequently, evidence strength seemed to influence sentencing decisions directly and indirectly. In other words, jurors weigh aggravators over mitigators and render death sentences because 1) there are more aggravators and mitigators in the case and 2) this ratio of aggravators to mitigators leads them to perceive the defendant more negatively. These results are particularly notable because they run counter to a longstanding criticism of VISs-that VISs direct jurors' attention away from the defendant and trial evidence and lead to sentencing decisions driven by characteristics of the victim, rather than characteristics of the defendant and trial evidence (see Bandes, 1996; Booth v. Maryland, 1987; Feigenson, 2000; Greene, 1999; Logan, 1999; Myers et al., 2018; South Carolina v. Gathers, 1989; Thomas, 2000; Wilcher v. State, 1997).

This study has multiple limitations that might explain the null findings and provide directions for future research. First, the trial materials used in this study were text-based. It is possible that reading impact statements is less emotionally arousing than viewing a witness read an impact statement in court. Future research could use audio/visual stimuli such as a videotaped impact statement to address this limitation and be similar to real-world trials.

Second, our measures of perceptions of the defendant and victim were perhaps too general. Measures of jurors' empathy or sympathy toward the victim, rather than how

positive or negative they perceived the victim, might be more appropriate, given that past research has found these variables are related to jurors' decisions (Deise & Paternoster, 2013; Paternoster & Diese, 2011). Future research should examine what specific attitudes or sentiments concerning the defendant and victim explain sentencing decisions.

Lastly, mock jurors in this study were undergraduate students. Undergraduates differ from real capital jurors in certain ways. Specifically, undergraduates are generally younger, more educated, less punitive, have increased cognitive abilities, and are better at understanding the judge's instructions (see McCabe & Krauss, 2011; Wiener, Krauss, & Lieberman, 2011). Although undergraduates are not ideal mock jurors, research suggests undergraduates, as well as mock jurors more generally, are not radically different in their decision-making than real jurors (e.g., Bornstein, 1999; Bornstein et al., 2017; Miller, Wood, & Chomos, 2014). Of course, the real-world experience of capital jurors is substantively different than the experience of mock capital jurors (e.g., seclusion from usual social settings; Bornstein & McCabe, 2005). To increase validity, future research on impact statements can recruit participants more comparable to real jurors (cf., Chomos & Miller, 2014; Diamond, 1997; Wiener et al., 2011), as well as examine the effects of impact statements in actual death penalty cases (e.g., using archival case data and/or post-trial interviews; see Aguirre, Davin, Baker, & Lee, 2010; Eisenberg, Garvey, & Wells, 2003).

CONCLUSION

Capital jurors are generally required to base their decisions on the aggravators and mitigators in the case (Gregg v. Georgia, 1976), yet they are often exposed to emotional stimuli such as impact statements during the penalty phase of capital trials (cf. Lynch & Haney, 2015). In this study, mock jurors were randomly assigned to conditions in which the impact statements and evidence strength varied. Results showed that jurors in the high aggravator case and jurors who perceived the defendant more negatively were more likely to weigh aggravators over mitigators and render a death sentence. Contrary to our hypotheses, we did not find evidence that the VIS or EIS had direct or indirect effects on jurors' decisions sentencing. In sum, impact statements do not seem to strongly impact sentencing decisions. Generally in line with the majority opinion in Gregg, mock jurors appeared to base their sentencing decisions primarily on the ratio of aggravators to mitigators.

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Date Received: 01/2019 Date Accepted: 10/2019

Suggested citation: West, M.P., Boppre, B., & Miller, M.K. (2019). The effects of Impact Statements on Jurors' Decisions and Perceptions of the Victim and Defendant. [Electronic Version]. Applied Psychology in Criminal Justice, 15(2), 185-200.

APPENDIX: DIFFERENCES BY DEATH QUALIFICATION STANDARD

Because death qualification effects can vary by standard (West et al., 2017), we replicated our analysis—conducted with the sample of Witt-death qualified jurors—with a sample of Witherspoon-death qualified jurors and a sample of Morgan-death qualified jurors and compared results. There were some notable differences in the results, depending on death qualification standard. First, for jurors death qualified according to the Witherspoon standard, there was some evidence that the VIS was directly related to a death sentence (B = 0.60, 95% CI [-0.07, 1.27], 90% CI [0.04, 1.16]) and indirectly related to a death sentence through perceptions of the victim (B = -0.07, 95% CIBC [-0.26, 0.01], 90% CIBC [-0.23, -0.001]). This supports the prediction of Hypothesis 1 that the effect of the VIS on sentencing decisions would be mediated by perceptions of the victim, although this effect did not hold for jurors death qualified according to the Witt standard or the Morgan standard.

The disparate findings offer some support for the idea that VISs are less influential for jurors who report that their sentiments will not affect their juror performance (Witt standard), whereas VISs might influence sentencing decisions when jurors who report they would always render a life sentence are excluded (Witherspoon standard). Although Witt-death qualified jurors might have had an emotional response to the impact statements, they might have avoided relying on their emotions because they previously affirmed they would not rely on their sentiments. Some of the previous studies that failed to find a strong relationship between impact statements and sentencing decisions also used the Witt standard (e.g., Boppre & Miller, 2014) and some scholars argue that the Witt standard should be the sole death qualification standard applied (Rozelle, 2002).

Second, we included gender as a control variable because women tend to be less supportive of the death penalty than men (Boots & Cochran, 2011; West, Yelderman, & Miller, 2018). Consistent with previous findings, gender was significantly related to sentencing decisions (B = -0.80, 95% CI [-1.52, -0.07]), but only for jurors death qualified according to the Morgan standard—the standard that removes jurors who would always vote for a death sentence—and not for jurors death qualified according to the Witt standard. Under the Morgan standard, women were 55% less likely to render a death sentence than men; seventy percent of the excludable women rendered a death sentence. These findings suggest that gender differences in sentencing decisions might primarily occur when women are excluded according to the Morgan standard.