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Criminal Minds Cannot Be Disabled: Intellectual Disability in Capital Cases

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF ARTS

in Social Ecology

by

Emily Victoria Shaw

Thesis Committee:
Associate Professor Nicholas Scurich, Chair
Professor Elizabeth Loftus
Professor Peter Ditto

2017

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ABSTRACT OF THE THESIS

Criminal Minds Cannot Be Disabled: Intellectual Disability in Capital Cases

By

Emily Victoria Shaw

Master of Arts in Social Ecology

University of California, Irvine, 2017

Associate Professor Nicholas Scurich, Chair

The Supreme Court ruled in *Atkins v. Virginia* (2002) that intellectually disabled defendants cannot be sentenced to death. However, little is known about how intellectual disability judgments are made by jurors in capital cases. Our experiment addresses this gap by examining the impact of both clinical expert opinions and crime information on jurors' disability judgments and death sentencing behavior. In a study of 286 venire jurors, we found that expert opinions significantly influenced juror disability decisions and death sentencing – with juror judgments tending to align with expert opinions – and exposure to crime details made jurors significantly more likely to sentence the defendant to death. Our results suggest that to protect the rights of disabled defendants, it may be necessary for courts to have a separate hearing on the issue of intellectual disability specifically – without crime details – to ensure jurors are not unduly influenced.

Keywords: intellectual disability, death penalty, juror decision-making

INTRODUCTION

In 2002, the United States Supreme Court began to identify a couple of new categories of defendants who were exempt from capital punishment under the Eighth Amendment's clause prohibiting "cruel and unusual punishment." The Court started in *Atkins v. Virginia* (2002), in which it held that execution of a defendant with intellectual disability violated the Constitution. In 2005, the Court extended the prohibition to minors in *Roper v. Simmons*, holding that a defendant who had committed the crime before the age of eighteen was exempt from the death penalty. However, unlike the situation in *Roper*, in which the factual predicate triggering constitutional protection is both clear and categorical, the issue of whether particular defendants qualify as "intellectually disabled" immediately became a source of considerable controversy. Because a diagnosis of intellectual disability, in contrast to age, is often a disputed fact, the *Atkins* holding permitted state practices to vary. This variability created the prospect that outcomes would differ in similarly situated cases. Moreover, as examined in this paper, the discretion inherent in assessments of intellectual disability creates the possibility that the circumstances of the crime, rather than the fact-of-the-matter of intellectual disability, would affect the fact-finder's determination of whether a particular defendant was intellectually disabled.

The *Atkins* Court held, among other bases for its decision, that intellectually disabled defendants are both less blameworthy and less deterrable than the depraved, "worst-of-the-worst," murderer who may be put to death. The Court explained that "[i]f the culpability of the average murderer is insufficient to justify the most extreme sanction available to the State, the lesser culpability of the mentally retarded offender surely does not merit that form of retribution." (*Atkins*, at 319).

Although the *Atkins* Court stressed the mitigating effects of intellectual disability, it left the all-important matter of defining that condition to the states. Thus, despite being grounded in the single principle encompassed in the Eighth Amendment, the *Atkins* standard could, and did, vary from state-to-state. For instance, in Florida until 2014, *Atkins* applied only to defendants with an IQ of 70 or below, whereas the cutoff in Arkansas was 65 and in other states 75 (DeMatteo, Marczyk & Pich, 2007). Moreover, evidence of deficiencies in “adaptive functioning,” the second prong of the disability assessment, was not admissible in Florida unless the defendant had already shown that he or she was below the cutoff score; in contrast, other states permitted its introduction in attempts to exempt individuals who were above a designated cutoff score.

The issue of defining “intellectual disability” returned to the Supreme Court in the case of *Hall v. Florida* (2014). The *Hall* Court strongly suggested that states that depart from the American Psychiatric Association’s (APA) definition of intellectual disability in the death penalty context violate the Constitution. The *Hall* Court specifically cited the clinical criteria for diagnosing intellectual disability outlined by the APA in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5). Those clinical criteria consist of three prongs:

1. *Deficits in intellectual functioning.* The individual must have deficits in intellectual functioning that are confirmed by both clinical assessment and standardized intelligence testing. Practically, this requirement can be met if an individual has an IQ score of 70 or below (± 5).
2. *Deficits in adaptive functioning.* The individual must have deficits in adaptive functioning that impair their attainment of socio-cultural standards for personal independence. These deficits may occur in domains such as independent living, self-care,

and communication, and in different environments, such as the individuals' home, school, or place of employment.

3. *Early signs of disability.* The individual must have experienced intellectual and adaptive deficits during childhood.

Although the Court cautioned that “the views of medical experts ... do not dictate the Court’s decision,” (*Hall*, at 2000), the Court stressed that they do “inform[] our determination whether there is a consensus” about the definition (*Hall*, at 1993). The Court held that Florida did not take into account the standard error of measurement in IQ test results and had effectively raised the cutoff to 75 – contrary to the practice endorsed by the APA. Moreover, since Florida limited evidence of adaptive functioning to defendants with an IQ below 71, its standard violated the Eighth Amendment.

Hall, however, did not fully resolve the definitional question and states have continued to use different standards. In other words, while *Hall* held that Florida’s approach to defining intellectual disability was constitutionally inadequate, the Court did not expressly mandate that states follow the DSM-5 test. This question, however, returns to the Court during its 2016-2017 term, in the case of *Moore v. Texas*. Texas courts employ an outmoded test for intellectual disability, one based on an earlier APA published guideline. In *Moore*, the Court will consider whether “it violates the Eighth Amendment ... to prohibit the use of current medical standards on intellectual disability, and require the use of outdated medical standards, in determining whether an individual may be executed.”

Dissenting in *Hall*, Justice Alito, joined by three justices, strongly criticized the *Hall* Court’s close alignment of the APA’s standard and the Eighth Amendment’s guarantee against cruel and unusual punishment. He pointed out that the “views of professional associations often

change,” that these changes will now require courts to follow along or “judge the validity of each new change,” that the Court provided no guidance on how to choose “which organization’s views should govern,” and that a clinical diagnosis of intellectual disability has an uncertain fit with the principles of the Eighth Amendment. This last concern is particularly troubling, given that the majority did little to clarify the relationship between the APA’s diagnosis of intellectual disability and the purposes of punishment recognized under the Eighth Amendment. Justice Alito stated:

[T]he Court binds Eighth Amendment law to definitions of intellectual disability that are promulgated for use in making a variety of decisions that are quite different from the decision whether the imposition of a death sentence in a particular case would serve a valid penological end. In a death-penalty case, intellectual functioning is important because of its correlation with the ability to understand the gravity of the crime and the purpose of the penalty, as well as the ability to resist a momentary impulse or the influence of others. By contrast, in determining eligibility for social services, adaptive functioning may be much more important.

Whatever the Court decides regarding the alignment between the Eighth Amendment and the clinical test for intellectual disability, the prospect for variability in application remains. As noted above, unlike the determination of age under *Roper*, short of relying on IQ test scores alone to provide a minimum threshold, the test for intellectual disability, and especially its “adaptive functioning” prong, leaves open the possibility of different outcomes in similar cases. This is particularly so because procedures for handling disability decisions vary by state.

Approximately one third of all death penalty jurisdictions allow or require a jury to decide on intellectual disability status, rather than requiring the decision to be made by a judge in

a pretrial hearing (Blume et al., 2014). In California, defendants in capital cases can choose either a judge or jury to decide their claim of intellectual disability. States are also free to decide when decisions about intellectual disability are made. For example, Oklahoma allows juries to decide the question of intellectual disability prior to trial, while Maryland allows juries to make disability decisions during the sentencing phase.

The impact of these different procedures on legal outcomes for defendants has not yet been adequately studied, but there is some evidence to suggest that such differences would have an impact. For example, between 2002 and 2014, 96% of all jury determinations on this issue found that the defendant did not have intellectual disability, relative to 43% among judges (Blume et al., 2014). This suggests that jurors may be less willing than judges to determine that a defendant has intellectual disability.

There are a number of reasons why jurors could be more hesitant than judges to find that a defendant has intellectual disability. One possibility is that, because judges typically evaluate intellectual disability in a pretrial hearing, they have different levels of exposure to heinous crime details than jurors. Almost all jurisdictions that permit juries to determine disability status have the jury do so between the guilt and sentencing phases of trial. In a pretrial hearing conducted by a judge, evidence of aggravating factors would likely be considered irrelevant for the question of intellectual ability; however, exposure to these aggravating factors is an integral part of the sentencing phase conducted by a jury. Therefore, it is possible that jurors have more salient exposure to aggravating crime details than judges prior to making their decisions, and are therefore more likely to seek retribution by finding that a defendant is not disabled. Another possibility is that jurors have less experience in general with evidence of heinous crimes relative to individual judges, and are therefore more reactive to the crime details (Blume et al. 2014).

In *Akins v. Virginia*, the Supreme Court considered the possibility that jurors would struggle to assess intellectual disability in defendants reliably. The Court asserted that the categorical nature of assessing intellectual disability would help protect disabled defendants from juror misunderstandings. It observed that defendants with intellectual disability may have trouble communicating remorse effectively or testifying persuasively before a jury in their own defense. The Court also noted that jurors may use evidence of intellectual disability as an aggravating factor for future dangerousness, rather than as a mitigating factor for culpability. In its final ruling, the Court asserted that a categorical bar on executing the intellectually disabled was necessary in part because it would prevent jurors from failing to give appropriate weight to mitigating evidence of intellectual disability, and reduce the risk of improper executions.

Although the conclusion that an individual defendant is intellectually disabled is categorical, its determination is imbued with considerable discretion and is highly subjective. IQ scores themselves, an ostensibly objective measure, vary over time. And “adaptive functioning,” though guided by clinical criteria, is ultimately a subjective and qualitative judgment. In light of prior evidence that jurors may be generally unwilling to find capital defendants intellectually disabled, there is reason to doubt that case-by-case application of clinical indicia of intellectual disability provides adequate constitutional protection.

Capital cases are unique

In *Akins* and *Hall*, the Court discusses issues of identifying intellectual disability in defendants in capital cases specifically. Evidence of a defendant’s intellectual disability can be considered a mitigating factor for sentencing in a variety of non-capital crimes, but does not categorically bar any other kind of punishment besides execution.

Capital cases are different from non-capital cases in a variety of ways. One difference is in the degree of attention provided by the Supreme Court historically to such cases. As compared to non-capital cases, there have been more attempts by the courts to make capital punishment consistent and less arbitrary across states (King, 2004). There has also been more concern about prejudice within capital cases compared to non-capital ones, particularly in the areas of victim testimony and cross-race effects.

Another difference between capital and non-capital criminal cases is the sentencing process: defendants in non-capital cases typically receive their sentence from a judge, while those in capital cases are sentenced by a jury. Jurors must decide not only whether or not a defendant is guilty, but also whether the defendant should be sentenced to death or life in prison without the possibility of parole (Blume et al., 2010). Judges who make sentencing decisions for non-capital cases are more familiar with sentencing guidelines than jurors and have more experience making such decisions.

Capital cases are also different from non-capital cases in their degree of heinousness. To be sentenced to death, a defendant must be found guilty of first degree murder with additional circumstances known as “aggravating factors” that raise the severity of the offense beyond what is typical for other first degree murders (*Godfrey v. Georgia*, 1980; Rosen, 1985). Potential aggravating factors could be the sexual assault, degradation or torture of a victim, as well as the selection of a particularly vulnerable victim such as a child or elderly person. These aggravating circumstances might bias fact-finders’ determinations of intellectual disability, with them being more likely to find defendants culpable – and thereby not-disabled – the more heinous the crime. Such behavior would be consistent with literature on blame attribution and moral coherence, suggesting that exposure to heinous behavior induces a desire to punish, which in turn drives increased belief in free will (see Clark et al., 2014).

The requirement that death sentences be made by jurors also introduces a unique issue into judgments of capital cases. Jurors who are ultimately selected to serve on juries for capital cases must satisfy the court that they are “death qualified,” meaning that they are willing to consider applying the death penalty. However, there is evidence to suggest that death qualified jurors are different from jurors in non-capital cases. For example, past studies have found that people who are low income, female or liberal are more likely to be excluded than other groups (Summers et al., 2010). It can also result in juries that have fewer black individuals or people of color (Fitzgerald & Ellsworth, 1984; Swafford, 2011). Such changes in the racial composition of a jury can influence interpretation of case facts (Lynch & Haney, 2011).

Aside from being demographically different from the average juror, death qualified jurors appear to have different attitudes and behaviors. Importantly, death qualified jurors have been shown to be more conviction-prone (Cowan et al., 1984). There is some evidence to suggest that death qualified jurors are more likely to interpret conflicting evidence in favor of the prosecution, and they are less likely to find reasonable doubt (Thompson et al., 1984). Death qualified jurors appear to give more weight to aggravating factors and less weight to mitigating factors (Butler & Moran, 2002; Haney et al., 1994). A meta-analysis conducted by Allen et al. (1998) found that favorable attitudes toward the death penalty predicted individual likelihoods of convicting in a capital case. Taken as a whole, this body of work suggests that death qualified jurors think and behave differently from other jurors. Thus, scientific research on capital cases must take these differences into account.

Crime information in disability hearings

Courts have grappled with the question of when it is appropriate to consider crime information (i.e. factual details about the defendant’s crime) when assessing a defendant’s

intellectual disability status. To date, state courts are divided on the relevance of crime information in disability hearings (for review, see Blume, 2009). Some state courts, such as Texas (see *Neal v. State*, 2008) and Tennessee, have asserted that crime information may be relevant to considering a defendant's disability status. In the case of *Van Tran v. State* (2006), for example, the Tennessee Court of Criminal Appeals explicitly relied on details of the defendant's crime when concluding that the defendant did not show deficits in adaptive functioning, citing the defendant's "active participation and planning in the offense" as evidence that he was not intellectually disabled.

Other state courts have disagreed with such uses of crime information as irrelevant and detached from specific areas of adaptive behavior. For example, the Oklahoma Court of Criminal Appeals ruled that crime information is relevant only in so far as it relates to an area of behavior where the defendant has asserted having a deficit. In the case of *Lambert v. State* (2005), the court reasoned that evidence showing a defendant is able to acquire a weapon or drive a car is not relevant if the defense is not asserting limitations tied to those domains.

Among the courts that have explicitly linked crime information to disability judgments as relevant, some have cited *Ex Parte Briseno* (2004), the response of the Court of Criminal Appeals of Texas to a writ of habeas corpus application (see *Van Tran v. State*, 2006). In its ruling in *Briseno*, the Texas court outlined a number of "other evidentiary factors" which factfinders in criminal trials could use to evaluate a defendant's intellectual disability. These factors include a defendant's ability to formulate plans, respond appropriately to stimuli, hide facts or lie effectively – and include consideration of the defendant's crime. Specifically, the court suggests considering whether "the commission of [the defendant's] offense require[d] forethought, planning, and complex execution of purpose." However, over a decade after the court's ruling in *Briseno*, the Supreme Court ruled against the Texas Court of Criminal Appeals

in the case of *Moore v. Texas* (2017), and held that the court had erred when it followed the *Briseno* standard and its nonclinical factors. The Supreme Court concluded that “because *Briseno* pervasively infected the CCA’s analysis, the decision of that court cannot stand.”

The current study

Based on the standards for judging intellectual disability set by the Supreme Court, features of a defendant’s crime should be irrelevant in making assessments of the defendant’s intellectual abilities (*Hall v. Florida*, 2014). A defendant can successfully carry out a heinous capital crime while still meeting the clinical criteria under the DSM-5.

In the current study, we explore whether crime information affects juror judgments about disability. We also examine how expert opinions influence how jurors assess ambiguous clinical evidence about disability. Finally, we explore the possibility of order effects – seeing whether the timing of crime information exposure influences interpretation of clinical evidence.

METHOD

Participants

Three-hundred and one jury-eligible U.S citizens participated as mock jurors in this experiment. Participants were drawn from a pool of venire jurors who reported for jury duty in Orange County, California during July, 2016. Before releasing those potential jurors who were not called for duty, a court employee announced that researchers were conducting a study that would take approximately 20 minutes to complete and that participants would be compensated \$10.00 for their time. Data were collected on five different days.

Of the 301 participants in the study, fifteen individuals failed an attention check question embedded in the materials and were removed from the analyses reported (see Oppenheimer, Meyvis, & Davidenko, 2009). The resulting sample consisted of 286 jury-eligible adults. The demographics of the sample are reported in Table 1, which reports the overall demographic characteristics as well as the demographics decomposed by participants who were and were not death qualified according to the Witherspoon death qualification question (i.e., “Is your attitude toward the death penalty such that as a juror, you would never be willing to impose it in any case, no matter what the evidence was, or would you consider voting to impose it in at least some cases?”).

Table 1

Characteristics of Respondents

Characteristic	Overall (<i>n</i> = 286)	Death Qualified (<i>n</i> = 225)	Not Death-Qualified (<i>n</i> = 59)
Sex			
Female	52%	48%	65%
Male	48%	52%	35%
Race or ethnicity			
Asian	22%	21%	28%
Black	2%	3%	0%
Hispanic (non-white)	11%	12%	5%
Hispanic (white)	14%	13%	17%
Pacific Islander	2%	1%	5%
Native American	1%	0%	2%
White	39%	42%	26%
Other	5%	3%	10%
Multiracial	6%	5%	7%

Religion			
Catholic	30%	29%	32%
Protestant	13%	14%	7%
Other Christian	25%	24%	31%
Muslim	0%	0%	0%
Jewish	2%	2%	3%
None/Atheist/Agnostic	20%	21%	20%
Other	10%	10%	7%
Education			
Less than high school	1%	1%	0%
High School graduate	8%	7%	12%
Some College	28%	27%	31%
2 year degree	12%	11%	14%
4 year degree	28%	29%	24%
Master's degree	19%	21%	14%
Doctorate	4%	4%	5%
Political affiliation			
Democrat	44%	45%	39%
Republican	25%	25%	24%
Independent	20%	19%	24%
Libertarian	3%	3%	3%
Green Party	1%	1%	0%
Other	7%	7%	10%
Family income			
\$0-24K	11%	8%	20%
\$25-49K	13%	13%	12%
\$50K-74K	21%	21%	24%
\$75K -99K	17%	19%	10%
\$100K-124K	20%	20%	19%
\$125K+	18%	19%	15%
Marital status			

Never Married	40%	37%	53%
Married	50%	52%	42%
Divorced	8%	8%	5%
Widowed	2%	3%	0%
<hr/>			
Served on a jury			
Yes	26%	27%	20%
No	74%	73%	80%
<hr/>			
Personally knows someone who is intellectually disabled			
Yes	46%	47%	41%
No	54%	53%	59%
<hr/>			
Mean age in years	40	41	36
Median age in years	39	40	31
<hr/>			

Procedure and design

Participants completed a survey that included a summary of an intellectual disability hearing in California. The experiment employed a 2 (Expert Diagnosis: defendant is disabled or defendant is not disabled) x 3 (Crime Content: presented before expert diagnosis, presented after expert diagnosis, or not presented at all) between-subjects, fully crossed factorial design. In all conditions, participants were told that the defendant had already been convicted of a capital offense and that their task was to determine whether the defendant was intellectually disabled, which could preclude the death penalty. Participants were told that if they determined that the defendant was not intellectually disabled, then they would consider whether the death penalty or life in prison without the possibility of parole was the appropriate imposition. Participants were provided with jury instructions that are used in intellectual disability hearings in California. These instructions explained the role of a juror, the appropriate use of evidence provided by

expert witnesses, the elements of the intellectual disability statute, and the standard of proof (preponderance of the evidence).

All participants read a synopsis (~500 words) of a clinical assessment of the defendant conducted by a court-appointed forensic psychologist. The details of this assessment were adapted from materials used in a prior study on intellectual disability hearings (Hedge, 2015) and consistent with the diagnostic criteria for intellectual disability outlined in the DSM-5 (American Psychiatric Association, 2013). Participants read that the defendant had an IQ score of 69 two years prior to his arrest and had IQ of 74 when re-tested by the court-appointed expert. The defendant was never gainfully employed for a long-term period and did not complete high school. He avoids eye contact and can be aggressive without provocation, but he can also speak with other people without difficulty. When tested at the age of 12, the defendant had an IQ score of 67 and displayed behavioral problems in class. The factual evidence in the clinical assessment was identical across conditions. At the end of the clinical assessment, participants read the opinion of the court-appointed expert, who concluded that the defendant's symptoms were either consistent or inconsistent with the presence of intellectual disability.

In addition to the clinical assessment, participants in crime-present conditions were provided with details of the defendant's crime. This crime synopsis was adapted from the details of an actual capital case in which intellectual disability was a central issue (*Atkins v. Virginia*, 2002). In the crime synopsis provided to participants, the defendant confirmed that no witnesses were present before abducting a woman at gunpoint from the parking lot of a local mall. After forcing her into his vehicle and driving her to an alley, the defendant obtained money from the victim before beating her, shooting her six times, and leaving her body behind a dumpster. The details of the crime provided in the synopsis (i.e., abduction with a vehicle, robbery at gunpoint, murder) are also details present in other federal capital crimes in which the intellectual

functioning of the defendant has been at issue (i.e., *Hall v. Florida*, 2014). The presentation order of the crime synopsis in relation to the clinical assessment varied by condition, with participants in crime-present conditions reading the crime synopsis either *before* or *after* the clinical assessment.

After reading the provided case materials on the clinical assessment and crime information (if present), participants were asked to indicate whether or not they found the defendant intellectually disabled under California law and whether or not they would sentence the defendant to death (i.e. “If you were a juror in this case, would you sentence James Smitt to death? Yes/No.”). Participants also responded to several opinion questions about the defendant and the clinical expert, as well as measures of death penalty attitudes and demographic information.

RESULTS

Intellectual disability decisions

Note that the results reported hereinafter include the entire sample, not just death qualified participants. The results do not materially change whether the sample includes participants that are death qualified jurors only or whether all participants are included in the analyses. Including all participants increases statistical power.

We first examined participants’ binary intellectual disability decisions. Fifty-two percent ($n = 146$) of participants decided that the defendant was not intellectually disabled. We chose to highlight participants who said the defendant is “not disabled” because such a verdict allows the defendant to be eligible for the death penalty. Asserting the defendant is “not disabled” is a necessary step toward sentencing a defendant to death. Table 2 contains the percent deciding that the defendant was not disabled in each experimental condition.

Table 2

Percent Support for “Not Disabled” Decision by Condition (N = 282)

<u>Expert Diagnosis</u>	<u>Crime Details First</u>	<u>Crime Details Last</u>	<u>No Crime Details</u>
Defendant is disabled	39.1%	45.8%	22.9%
Defendant is not disabled	75.5%	71.1%	56.5%

We used a binary logistic regression analysis, with intellectual disability decision as the dependent variable and expert diagnosis and crime exposure as the independent variables, to analyze our data. The model was significant, $\chi^2(5, N = 282) = 39.48, p < .001$. We found a significant main effect for expert diagnosis, with participants being 4.37 times more likely, 95% confidence interval (CI) [1.80, 10.65], $B = 1.48, Wald = 10.55, p = .001$, to decide the defendant was *not* disabled when the expert said the defendant was *not* disabled compared to when the expert said the defendant *was* disabled. In other words, participant disability decisions tended to align with the expert’s diagnosis.

The effect of information order was not significant; there was no detectable difference between participants who read crime information first compared to those who read crime information last ($p = .512$). There were also no significant interactions between crime information and expert diagnosis (all $ps > .05$).

Collapsing across crime order conditions to examine the effect of crime information present versus absent, the model continued to be significant, $\chi^2(3, N = 282) = 38.81, p < .001$. We found participants were over twice as likely to find the defendant was not intellectually disabled (and hence potentially eligible for the death penalty) when they were shown crime content compared to when they were not given crime content, $Exp(B) = 2.49, 95\%$ confidence interval (CI) [1.13, 5.48], $B = 0.91, Wald = 5.16, p = .023$. Again, there was a main effect for expert diagnosis, $Exp(B) = 4.37, 95\%$ confidence interval (CI) [1.80, 10.65], $B = 1.48, Wald =$

10.55, $p = .001$, and there was no significant interaction between crime information and expert diagnosis ($p = .772$).

Death sentencing

We examined participants' binary death sentencing preferences. Forty-one percent ($n = 115$) of participants said they would be willing to sentence the defendant to death. Table 3 displays the percent of participants in each experimental condition who were willing to sentence the defendant to death.

As with our analysis of intellectual disability decisions, we used a binary logistic regression analysis to examine the impact of expert diagnosis and crime exposure on participant's willingness to sentence the defendant to death. The model was significant, $\chi^2(5, N = 278) = 40.48, p < .001$, and we found that the expert's diagnosis significantly influenced jurors' willingness to sentence the defendant to death; participants were 4.30 times more likely, 95% CI [1.41, 13.11], $B = 1.46$, Wald = 6.58, $p = .010$, to say they would be willing to sentence the defendant to death when the expert said the defendant was *not* disabled compared to when the expert said the defendant *was* disabled. The effect of information order was not significant; there was no detectable difference between participants who read crime information first compared to those who read crime information last ($p = .449$).

Table 3

Percent Support for Death Sentence by Condition (N = 278)

<u>Expert Diagnosis</u>	<u>Crime Details First</u>	<u>Crime Details Last</u>	<u>No Crime Details</u>
Defendant is disabled	37.0%	44.7%	10.4%
Defendant is not disabled	59.6%	64.4%	33.3%

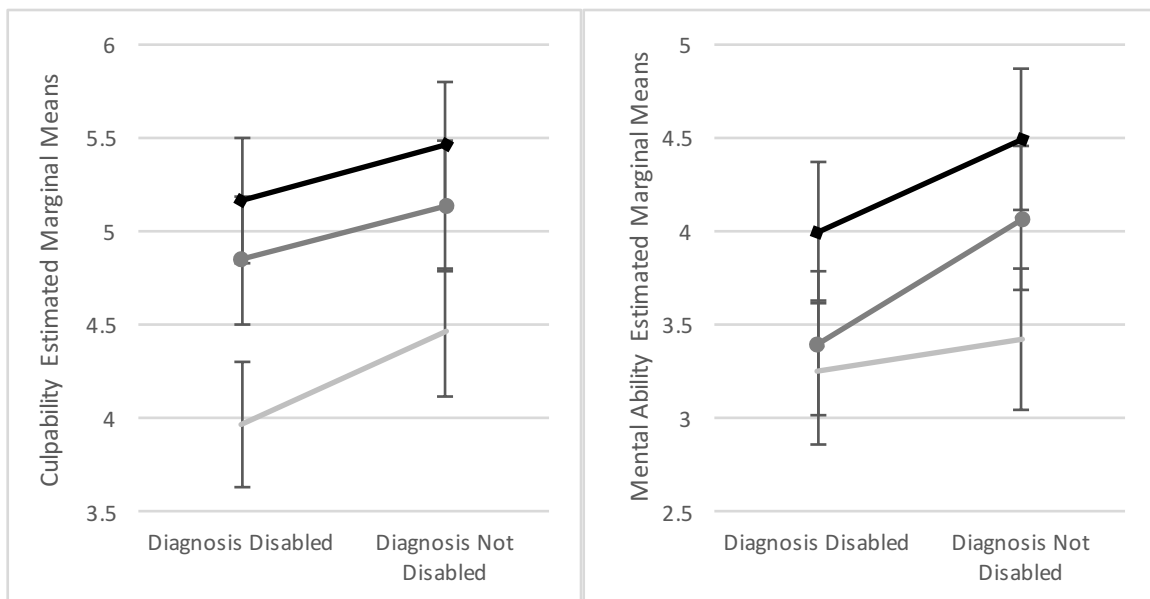
Again, we collapsed across crime order conditions to examine the effect of crime present versus absent, and our model continued to be significant, $\chi^2(3, N = 278) = 39.67, p < .001$. We found a significant effect of crime exposure on participants' willingness to sentence the defendant to death; participants were 5.94 times more likely, 95% CI [2.16, 16.38], $B = 1.78$, $Wald = 11.86, p = .001$, to sentence the defendant to death when exposed to crime details compared to when no crime details were provided. Again, there was a main effect for expert diagnosis, $Exp(B) = 4.30$, 95% CI [1.41, 13.11], $B = 1.46$, $Wald = 6.58, p = .010$, and there was still no significant interaction between crime information and expert diagnosis ($p = .350$).

Factors driving death sentences

We next sought to examine the possible reasons that undergirded participants' decisions to impose the death penalty. We hypothesized that perceptions of blameworthiness or culpability would be related to death sentences. We also tested the possibility that participants were inferring from the nature of the crime that the defendant was not intellectually disabled and thus deserving of the death penalty. After reading the case summary and offering opinions on the defendant's intellectual disability and death sentencing, participants evaluated the defendant's culpability and mental abilities by responding to six different items. For each item, participants read a statement and rated their agreement with that statement on a 7-point Likert scale that ranges from 1 = *strongly disagree* to 7 = *strongly agree*, with 4 indicating a neutral position. Three items conceptually measured culpability, and the other three items conceptually measured the mental ability of the defendant. Responses to the six items were entered into a principle components analysis with a varimax rotation. It yielded a two factor solution with Eigenvalues of 2.60 for culpability and 1.09 for mental ability (all other values less than 1), and the model explained 61.42% of the cumulative variance, indicating that the six items tap two distinct latent

constructs. Cronbach’s α s were calculated to determine each scale’s reliability; the findings reveal a modest level of reliability for both the culpability scale ($\alpha = .653$) and the mental ability scale ($\alpha = .652$).

We first tested whether perceptions of the defendant’s culpability and mental ability differed as a function of whether crime information was provided or not or whether the expert opined that the defendant was intellectually disabled or not. The findings are depicted in Figure 1 below. A two-way analysis of variance (ANOVA) revealed that participants perceived the defendant as more culpable, $F(1, 280) = 11.45, p < .001, \eta^2 = .040$, and as having greater mental ability, $F(1, 282) = 8.38, p = .004, \eta^2 = .029$, when the expert opined that the defendant was “not disabled” compared to the expert opined that the defendant was “disabled.” There was also a significant main effect for exposure to crime information for both culpability, $F(2, 280) = 24.55, p < .001, \eta^2 = .151$, and mental ability, $F(2, 282) = 11.69, p < .001, \eta^2 = .078$. There were no significant interactions between expert diagnosis and crime content condition in predicting the defendant’s culpability ($p = .471$) or mental ability ($p = .424$).



— No Crime ◆ Crime First ● Crime Last

Figure 1. *Defendant Culpability (left) and Mental Ability Scores (right) Decomposed by Experimental Condition. Note that error bars reflect 95% confidence intervals.*

We next examined whether culpability and mental ability were related to death sentences. We conducted a logistic regression with expert diagnosis (disabled or not) and crime information (presented or not) as the independent variables, a death sentence (yes/no) as the dependent variable, and the ratings of the defendant's culpability and mental ability as covariates. The overall model was significant, $\chi^2(5, N = 274) = 115.61, p < .001$. The ratings of the defendant's culpability and mental ability were both significant predictors of whether participants imposed a death sentence; for each unit increase in the ratings, participants were about two times more likely to impose the death sentence for both culpability (Exp(B) = 2.66 (95% CI [1.91, 3.70], B = 0.98, Wald = 33.56, $p < .001$) and for mental ability (Exp(B) = 1.54 (95% CI [1.19, 1.98], B = 0.43, Wald = 10.94, $p = .001$). The main effects for presence of crime information (yes/no) and expert diagnosis (disabled / not disabled) were not significantly related to death sentences ($p = .085$ and $p = .056$ respectively), nor was the interaction between crime information and expert diagnosis significant ($p = .265$). In sum, the results suggest that the facts presented to participants influenced their perceptions of the defendant's culpability and mental ability, and it was these perceptions that drove death sentences.

Jurors' intuitive judgment standard: moral awareness

Participants in our study were instructed on the legal standards for judging intellectual disability in defendants, and were told to apply this standard in making their decisions. However, our participant free response data suggest that some jurors may apply their own intuitive standard for judging intellectual disability – a standard defined by the defendant's moral awareness.

Recall that legal standard for assessing disability makes no reference to features of the crime, nor to the defendant's understanding of the morality of his or her actions; however, numerous jurors spontaneously asserted that the defendant clearly "knew right from wrong" in explaining their disability verdict. For example, one participant wrote: "*The defendant may be slow, but he is not disabled, think 'Forrest Gump.' He knows right from wrong and generally wouldn't be aggressive and violent if he was disabled.*" Another participant wrote: "*He clearly knows right from wrong. Just because he may not be as smart as the next guy – that doesn't matter in this case.*" Yet another stated "*He knew what he was doing. That's why he made sure no one was around when he committed his crime.*" These responses suggest that jurors may be using details of the crime to make inferences about the defendant's moral awareness of his actions, and judging his disability based on that assessment rather than the criteria specified by the law.

To examine this tendency systematically, two coders independently evaluated each participant's essay response to the prompt: "In your own words, why do you feel the defendant, James Smitt, is or is not intellectually disabled?" The coders indicated whether or not each participant explicitly referenced the understanding of wrongfulness (i.e. "he knew right from wrong") and whether or not the participant included indirect references to moral awareness (i.e. "he knew what he was doing"). Assertions that the defendant "knew what he was doing" are ambiguous, because while such statements could be intended to convey that the defendant was aware his actions were morally wrong, the statements could also describe the defendant's cognitive abilities and capacity to function effectively in completing the crime. Cohen's kappa was assessed to evaluate inter-rater reliability. There was almost perfect agreement between the coders on the wrongfulness measure, $\kappa = 0.974$ (95% CI , 0.923, 1.024) and strong agreement between the coders on the more inclusive moral awareness measure (explicit + indirect

statements of awareness), $\kappa = 0.902$ (95% CI, 0.826, 0.978). All points of dispute were resolved through discussion.

Out of the 261 participants who met our initial inclusion criteria and responded to the essay portion, 21 participants (8.0%) explicitly commented on knowledge of wrongfulness in explaining their verdict reasoning. An additional 16 participants (6.1%) made only indirect references to moral awareness (i.e. “he knew what he was doing”). Both of these measures are likely to be conservative counts of the number of jurors who are judging the defendant’s moral awareness when making disability decisions, because the prompt for these responses was open and did not ask jurors to comment on the defendant’s moral understanding; the fact that this reasoning appeared in over 10% of all essay responses spontaneously and explicitly suggests that it may be playing a meaningful role in juror assessments in a way that our data cannot precisely capture. Unfortunately, we did not have sufficient responses to allow for an appropriately powered analysis to check for differences across conditions.

Although these results are post-hoc and correlational, this analysis suggests that participant’s willingness to apply their own intuitive moral awareness rule may have impacted their disability assessments. Out of the 21 participants who explicitly brought up a moral wrongfulness standard in their essays, 15 of them (71.4%) used it to justify their verdict that the defendant was not disabled. Participants who mentioned moral wrongfulness explicitly also may show greater support for the death penalty, with 57.1% (12 out of the 21) endorsing the death penalty for the defendant, compared to 40.2% in the full sample (115 out of 278). Additional research is needed to explore whether jurors are in fact applying this standard systematically in a way that *drives* changes to their judgments, as opposed to being an intuitive tool for justifying their preferred judgments after the fact.

DISCUSSION

This study is the first to systematically test how jurors' perceptions of intellectual disability are influenced by expert testimony and by case-specific information. Some important findings emerged. First, participants tended to defer to the expert diagnosis, which is consistent with other research finding that expert witnesses exert a powerful influence on jurors' decisions, especially when the expert is a non-adversarial, court appointed expert (see Scurich et al., 2015). Second, the provision of crime information influenced whether participants believed the defendant was intellectually disabled over and above the expert's diagnosis. Participants apparently used the nature of the crime to infer that the defendant was not intellectually disabled. Indeed, in response to an open-ended question, numerous participants noted that an "[intellectually] disabled person wouldn't check to make sure all the witnesses are gone before committing a crime." Although courts are not bound by official nosology for intellectual disability at this time, it is unclear that this sort of reasoning is appropriate since it effectively renders the definition of intellectual disability a subjective lay judgment.

The study also examined how the expert's diagnosis of intellectual disability and the provision of crime information affected the decision to impose the death penalty. Recall that 41% of the sample would impose the death penalty in this case. Participants were considerably more likely to impose the death penalty when the expert opined that the defendant was not intellectually disabled and when information about the crime was provided. Both of these findings are expected. Somewhat surprisingly, some participants were willing to occasion the death penalty even though the defendant was deemed intellectually disabled. Indeed, 10% of participants who were given no information about the crime and were told that the expert believes the defendant is intellectually disabled voted to impose the death sentence. These participants either disagreed with the expert for some unknown reason or simply did not follow

the law which clearly stated that intellectually-disabled individuals cannot be sentenced to death. To the extent the latter explanation is correct, it supports separating the decision regarding intellectual disability from the guilt and sentencing (if needed) phases, with intellectual disability decided first, uncontaminated by the circumstances of the crime.

To better understand how crime information and expert diagnosis influenced jurors' willingness to sentence the defendant to death, we conducted a logistic regression mediation analysis in which we included participant's' perceptions of the defendant's culpability and his mental ability. This analysis allowed us to assess what effect, if any, details of the crime had on perceptions of the defendant; specifically, whether the nature of the crime increased their perception of the defendant's blameworthiness/culpability and/or whether it increased their beliefs regarding his mental ability, and how these beliefs impacted their decisions. The data revealed that the nature of the crime influenced both the perception of the defendant's culpability as well as his mental ability. Importantly, the data also revealed that it was these perceptions of the defendant – his increased blameworthiness and his mental ability – that affected death sentences, not the nature of the crime nor the expert's diagnosis, per se.

Moral awareness standard

According to the Supreme Court, a defendant's moral awareness (i.e. ability to understand "the difference between right and wrong") is distinct from his or her intellectually disability status. The *Akins* court asserted that:

Mentally retarded persons frequently know the difference between right and wrong and are competent to stand trial. Because of their impairments, however, by definition they have diminished capacities to understand and process information, [...] to control impulses and to understand the reactions of others.

Despite the Court's understanding of intellectual disability as distinct from moral awareness, a sizable portion of participants in our study spontaneously suggested that these factors are related in their judgments of disability. In responding to an essay prompt asking them to explain their disability verdict, 8% of participants explicitly justified their decision based on the defendant's knowledge of "right from wrong." While this finding is correlational and cannot indicate a causal relationship, it suggests that some participants may be applying their own standard, distinct from the clinical criteria outlined by the Court, in making or justifying their disability judgments.

Death-qualification

In conducting our analyses, we did not find any detectable impact of death-qualification on our two major variables of interest – disability judgments and death sentencing. We attribute the absence of a detectable impact on our results as a product of insufficient power, given that our non-death-qualified participants were spread out over six conditions. The persistence of our main effects regardless of the inclusion of non-death-qualified individuals are not should not be taken as evidence that there are no differences between death-qualified and non-death-qualified individuals in this area. On the contrary, we found evidence to suggest the groups did perceive disability differently. For example, of the 59 individuals who were non-death-qualified, 36 (61%) said the defendant was disabled, while 22 (37%) said he was not disabled. In contrast, among the 225 death-qualified individuals, 99 (44%) said the defendant is disabled, while 123 (55%) said the defendant is not disabled. Despite these differences, when non-death-qualified jurors were excluded from our analyses, our key results by condition remained the same. Therefore, while we believe there likely is some impact of death-qualification on perceptions of

disability, we did not have a sufficiently large population of non-death-qualified participants to explore that possibility.

Another possibility is that death-qualification did not have an impact in our study because we are looking exclusively at individual-level decision-making. Perhaps we would detect a difference in behavior if we were to examine the impact of death-qualification at the group level with deliberations. Indeed, past studies have on death qualification have found an impact at the group-level via the deliberation process, with subjects in exclusively death-qualified juries less critical of witnesses and worse at recalling trial evidence than subjects in mixed juries (Cowan et al., 1984). Future research should explore the impact of deliberations on the relationship between death-qualification and disability judgments.

Limitations and future directions

This is a first experimental attempt to investigate a complex issue. Naturally, the endeavor has its limitations. Participants read a short written synopsis of a criminal case and clinical assessment, and were asked to render a legal decision about a hypothetical individual without deliberation. We conducted only one experiment in this study with a single set of case facts. Additional research is needed to understand precisely how variations in the criminal and clinical evidence presented shape perceptions of disability and willingness to sentence a defendant to death. The findings of this study must be replicated and extended before strong policy pronouncements are made.

It is unclear how verisimilitude would affect the results, but it seems safe to assume that the principal effect would either increase or decrease but likely not change direction (see Bornstein & McCabe, 2005). Hence, the findings should not be dismissed outright because of concerns about ecological validity. Importantly, the participants used in this study – venire jurors

– are more externally valid than samples typically used in juror research (e.g., online samples or college students), and are considered some of the best-possible participants for conducting mock juror research (Koehler & Meixner, in press).

Our study did not examine the specific aspects of crime that shaped juror perceptions of culpability and mental ability. In a free response item included in the survey, jurors were asked to explain their verdict, and many jurors suggested that the defendant's attempt to avoid being seen during his crime was evidence of the absence of intellectual disability; other jurors asserted that the mere fact the defendant could drive a car or acquire a gun reflected substantial mental ability and culpability. It may be, therefore, that jurors considered the circumstances of the crime as information relevant to the intellectual capacities of the defendant, or these might simply be post hoc rationalizations to explain their conclusions. Future research should consider how the circumstances of the crime shape juror perceptions, both of intellectual disability and deservingness of the death penalty.

In the interest of simplicity, we chose to present our participants with information from a single court-appointed clinician. However, in actual disability hearings, it is likely that jurors would be presented with opposing experts from the prosecution and the defense who would present conflicting evidence of disability. Also, the court-appointed clinician in our study did not explicitly comment on details of the crime in relation to disability (i.e. explaining why a defendant's ability to check for witnesses does not prove the absence of disability). Additional research is needed to explore how exposure to conflicting expert opinions could shape juror perceptions of disability, and how expert commentary on specific aspects of a crime could influence how crime evidence is used by jurors.

Our study suggests that crime information is biasing to jurors, but additional work is needed to understand how potential remedies such as jury instructions could be used to address

this problem. Based on prior research, it seems unlikely that a limiting instruction from the court to jurors not to consider crime information in making their disability judgments would meaningfully reduce the biasing impact of that information. Numerous studies have found that limiting instructions to avoid considering particular facts are ineffective at reducing targeted behavior (i.e. Tanford & Penrod, 1984; Kramer, Kerr, & Carroll, 1990). However, other studies suggest that limiting instructions may be useful in some specific contexts, such as prompting jurors to consider aspects of the evidence they may not otherwise have evaluated. For example, one study of limiting instructions found that mock jurors were more likely to draw inferences about the absence of a significant witness when instructed that it was appropriate to do so (Webster, King & Kassin, 1991). Further study is needed to explore whether jurors could benefit from additional instructions on how to consider crime evidence in evaluating intellectual disability.

Conclusion

Our research speaks directly to the extent to which jurors conform to the standards for judging disability set by SCOTUS. The results indicate that jurors intuitively use crime information to make inferences about individual abilities and culpability in ways that do not conform to the Court's standards. Our findings also suggest that bifurcation of the trial into separate intellectual disability proceedings from guilt or sentencing phases would reduce the risk of juror bias. Participants in our study who were not exposed to crime information were significantly more likely to determine that the defendant was disabled, and were significantly less likely to sentence the defendant to death across conditions. These results support procedural approaches that separate proceedings for evaluating a defendant's intellectual disability from the guilt and sentencing phases of trial.

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