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Capital Trial Facets: Juror Perceptions Of Expert Testimony, Prior Record, And Mental Health

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CAPITAL TRIAL FACETS: JUROR PERCEPTIONS OF EXPERT TESTIMONY, PRIOR RECORD, AND MENTAL HEALTH

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Madison Elizabeth Adrian
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Abstract

Capital trials introduce several emotional components beyond what occurs within a typical trial. Furthermore, in cases where a defendant's mental state has been called into question, there is additional layer of bias and stereotyping toward the defendant, particularly when diagnosed with schizophrenia or psychopathy. Additionally, expert testimony frequently enters the court as mitigating evidence to persuade jurors against the death penalty, yet prior research has found mixed results regarding which types of experts are most effective. On the other hand, prior criminal record may be utilized as an aggravating factor, yet its scope in differing crime contexts, such as a capital trial, is unknown. In the present study, a jury-eligible sample was provided with a written capital case vignette with twelve differing conditions. The intent was to examine the effects of mental diagnosis, disclosure of prior record, and type of expert testimony on mock jurors' perceptions of the witness and defendant. After reading the case materials, participants completed sentencing decisions and several measures to assess their perceptions and attitudes. Admission of a prior record was found to increase negative perceptions of the defendant. Neuroscientific expert testimony produced greater positive perceptions of the witness. However, neither a diagnosis of schizophrenia nor psychopathy demonstrated a significant effect. Additionally, none of the manipulations were found to influence sentencing decisions regarding the death penalty. Furthermore, this study examined the role of mock juror attitudes, such as need for cognition, need for affect, attitudes toward people with mental illness, and pretrial juror attitudes, on death penalty decisions. Two models were used to identify mock juror attitudes that served as significant predictors of sentencing decisions. Both the implications of the findings and limitations are discussed.

Introduction

On May 14th, 1984, defendant David Leroy Washington pled guilty to three capital murder charges and was sentenced to death in Dade County, Florida (*Strickland v. Washington,* 1984). Due to his lack of prior criminal history, he claimed that his actions were the result of financial and family stress, yet no mitigating argument was made. Following his confession and conviction, Washington applied for relief on the grounds of ineffective assistance from his defense counsel in several respects. One argument was made that the presentation of neuroscientific evidence, such as a psychiatric report, would have changed the outcome of his sentencing. Yet, his relief was denied repeatedly. Washington was executed by electrocution on June 13th, 1984.

Since then, the *Strickland* standard has been used in courts throughout the United States to assess ineffective assistance to counsel from defense attorneys (Gabriel, 1986). For a defendant to prove ineffective counsel, there must be evidence that the attorney provided less than reasonable representation that led to prejudice toward the defendant. It rests on the shoulders of the defendant to prove that the outcome of the capital case would have been different, had the attorney provided adequate counsel (Gabriel, 1986). While deficient counsel may be ruled for a variety of reasons, in cases involving the question of mental health, an attorney may fail to provide critical mitigating evidence, such as documentation of the defendant's mental illness, brain scans depicting a traumatic brain injury, or evaluations of the defendant's family or social background (Perlin et al., 2019). Due to the impact on mitigation in death penalty cases, the cognitive abilities of a defendant must be assessed extensively by attorneys through the appropriate experts. In a large majority of successful *Strickland* claims, an attorney was accused of failing to gather or present neuroscientific evidence in the case (Denno,

2015). This belief falls in line with the assumed persuasive power of neuroscientific evidence, termed "seductive allure" (Weisberg et al., 2008). Neuroscientific evidence, particularly when coupled with neuroimaging, is thought to produce a "visualization effect" that holds the ability to sway jury perceptions of the defendant, as well as trial outcomes (Dumit, 1999; Hanson & Bunzl, 2010; McCabe et al., 2011; Weisberg et al., 2008, 2015). This form of evidence frequently appears in the United States courtrooms ranging from civil to criminal cases (Farahany, 2016). For example, neuroscientific evidence, including MRI results, was used to argue the incompetency of Harold N. Piper during a lawsuit concerning a land purchase (Du, 2020; *Van Middlesworth v. Century Bank & Tr. Co.,* 2000). Similarly, in 2010, John McCluskey faced capital charges for murdering a retired couple within their trailer (Denno, 2015; *U.S. vs. McCluskey*, 2013). During sentencing, brain scans depicting damage to the frontal lobe were used to argue reduced culpability, resulting in a sentence of life imprisonment. Farahany (2016) states that "approximately 5 percent of all murder trials and 25 percent of death penalty trials feature criminal defendants making a bid for lower responsibility or lighter punishment using neurobiological data" (p. 486). Yet, recent research shows that this form of evidence may not be as persuasive as once believed (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011).

Strickland claims have also been made on the basis of an attorney failing to present a mental health defense or an expert to testify about the defendant's mental health (Denno, 2015). Expert testimony on various mental health conditions, such as schizophrenia (Mowle et al., 2016; Saks et al., 2014), psychopathy (Gurley & Marcus, 2008; Mowle et al., 2016; Saks et al., 2014), and traumatic brain injury (Gurley & Marcus, 2008; Mowle et al., 2016) have been examined in relation to mock juror decision-making. The type of lens of the expert testimony also appears to

play a role within these relationships. Expert testimony that provides an environmental-based explanation for defendant mental illness, such as a history of abuse, has been shown to reduce support of the death penalty (Bell Holleran et al., 2016; Lui et al., 2019). Furthermore, genetic-based expert testimony has demonstrated a decrease in culpability and responsibility for committing a capital crime (Lui et al., 2019; Scurich & Appelbaum, 2016). However, genetic explanations have also led to mock jurors having greater levels of fear toward the defendant (Appelbaum & Scurich, 2014), higher ratings of dangerousness (Scurich & Appelbaum, 2016), and more severe sentencing decisions (Gordon & Greene, 2018; Lui et al., 2019).

The current study aimed to examine the role of various forms of expert testimony on mock jurors' perceptions of the defendant and sentencing decisions in capital trials. The expert testimony types were coupled with differing mental diagnoses and prior criminal history. Furthermore, I sought to evaluate mock jurors' perceptions and judgements in relation to their attitudes, such as need for cognition and affect.

Capital Trials

Capital trials are generally reserved for first degree murder charges. Within capital trials, two phases exist, the guilt phase, and the sentencing phase. Within the guilt phase, jurors are tasked with determining if the defendant is guilty of first-degree murder beyond a reasonable doubt. If the defendant is found guilty, the trial moves to the sentencing phase. Within the second phase, the jury is tasked with reviewing the mitigating and aggravating evidence and determining a life or death sentence. Aggravating evidence demonstrates support for a harsher punishment. For example, prior convictions, future dangerousness, use of a weapon, and victim impact statements can serve as aggravating factors (Barnett et al., 2004; Myers & Greene, 2004; Nuñez et al., 2017). Mitigating factors, on the other hand, support leniency in punishment. These factors

can include mental illness, lack of record, or remorse (Barnett et al., 2004; Garvey, 1998). If the aggravating evidence outweighs the mitigating evidence, the death sentence is recommended. However, if the mitigating evidence outweighs, life in prison is recommended by the jury. Currently, twenty-seven states within the United States allow the death penalty, with a moratorium on executions in California, Oregon, and Pennsylvania (Death Penalty Information Center, 2021).

Prior to being placed on a jury, potential jurors are screened regarding their beliefs about the death penalty and ability to fulfill their role as a juror (Butler & Moran, 2007; Haney, 1984). During this time, potential jurors may be dismissed from the case on the basis of failing to meet death-penalty qualifications. This includes individuals who express that they could not assign the death penalty for any reason, within any case. While there have been several updates regarding death qualification standards over the years, only those most relevant to the purpose of this study are discussed.

In 1968, the US Supreme Court ruled that voir dire questioning regarding death penalty opposition could not disqualify potential jurors from serving in a capital case (*Witherspoon v. Illinois*, 1968). A potential juror may only be disqualified through the explicit expression of personal attitudes that would prevent the juror from making an impartial decision, regardless of evidence presented (Allen et al., 1998; *Witherspoon v. Illinois*, 1968). However, in 1985, the *Witherspoon* standard was countered by the *Witt* decision that allowed jurors to be disqualified from the case if they expressed death penalty attitudes during voir dire that would impair decision-making and ability to follow the law (*Wainwright v. Witt*, 1985). According to this standard, capital case trials require jurors to undergo death qualification screening (Allen et al., 1998; *Wainwright v. Witt*, 1985). The implementation of death-qualification screening sought to

clarify and standardize endorsement of the *Witherspoon* rulings (Belt, 1994). Yet, concern arose surrounding jurors that would automatically assign the death penalty, should a guilty verdict be found. Therefore, the *Morgan* standard emerged, allowing inquiry and exclusion of jurors who express decisions to automatically assign the death penalty, also referred to as "life qualification" (Belt, 1994; Blume et al., 2000; Lynch & Haney, 2018; *Morgan v. Illinois*, 1992). These three standards are frequently seen in capital trials and death qualification research (e.g., Ellsworth, 1984; Filkins et al., 2002; Lynch & Haney, 2018).

Through the questioning process, jurors are exposed to death penalty information that may influence preconceptions of the defendant and trial (Allen et al., 1998; Butler & Moran, 2007; Haney, 1984). Haney (1984) explored the biasing effects of the death-qualification process on mock jurors. The researchers provided the participants with two versions of a videotaped criminal trial: one containing death penalty questioning and one without the death penalty segment. After repeated exposure to death penalty related questions, participants demonstrated greater perceptions of defendant guilt than participants that were not given the death qualification content. Additionally, mock jurors who favor the death penalty have been found to be more likely to convict the defendant (Allen et al., 1998; Butler & Moran, 2007; Haney, 1984).

Juror attitudes toward the death penalty are not isolated opinions, but rather are intertwined with religion (Eisenberg et al., 2001; Young, 1992), race (Eisenberg et al., 2001; Peffley & Hurwitz, 2007; Young, 1992), and cognitive processes (Butler & Moran, 2007; Miller et al., 2014). Need for cognition (NFC) is another candidate who appears entangled within jurors' attitudes toward the death penalty. Cacioppo et al. (1984) defines the need for cognition as "individual differences in people's tendency to engage in and enjoy thinking" (p. 130). Butler and Moran (2007) found death qualification, verdict, and sentencing to be significantly

associated with NFC. Participants with lower NFC were more likely to be death qualified, provide a guilty verdict, and sentence the defendant to death. Similarly, NFC was found to be negatively correlated with punitive judgement across three studies of participant attitudes toward punitive responses to crime (Sargent, 2004). Miller et al. (2014) explored NFC in relation to death penalty attitudes, as well as sentencing decisions. While NFC did not demonstrate a relationship with overall attitudes toward capital punishment, there was a negative relationship between NFC scores and sentencing decisions.

Not only has NFC been explored in relation to sentencing decisions, but the NFC literature has also established that individuals with high NFC process court case information with greater cognitive effort and systematic processing (Leippe et al., 2004; McAuliff & Kovera, 2008). Individuals high in NFC are thought to process information more systematically, seeking to analyze the quality of persuasive messages, whereas low NFC individuals rely on simple cues and heuristics (Allison & Brimacombe, 2010; Cacioppo et al., 1983; Petty et al., 2009). McAuliff and Kovera (2008) provided mock jurors with a trial summary of a sexual harassment case, paired with expert testimony of varying quality from the side of the plaintiff. Mock jurors with greater NFC scores were more attuned to quality of expert evidence, such as internal and ecological validity in methodology. Leippe et al. (2004) examined case strength in relation to NFC. The researchers found that individuals with moderate NFC scores more effectively discriminated between strong and weak case evidence than those with high or low NFC scores, as represented through verdict decisions. High NFC scores are thought to result in careful scrutiny of case evidence, which may lead to lower perceptions of guilt, even in a case with strong prosecution evidence. These findings support the notion that NFC appears to influence juror decision-making in several aspects of a court case, such as sentencing decisions (Butler &

Moran, 2007; Sargent, 2004), perceptions of expert testimony (Leippe et al., 2004; McAuliff & Kovera, 2008), and evidence evaluation (Leippe et al., 2004).

Yet another component of juror attitudes is the need for affect (NFA), defined by Maio and Esses (2001) as "the general motivation of people to approach or avoid situations and activities that are emotion inducing for themselves and others" (p. 585). Emotion-inducing situations may refer to both positive and negative emotional experiences. NFA is assessed as two facets of motivation: approach and avoidance, which implies that both components must be assessed (Maio & Esses, 2001). Due to the nature of capital cases, jurors may experience a range of emotion from fear, anger, disgust, or sadness that influence decision-making (Estrada-Reynolds et al., 2016; Nuñez et al., 2015). Corwin et al. (2012) examined the role of defendant remorse on mock jurors' judgements within the context of a capital trial. Additionally, NFA was hypothesized to influence sentencing decisions. High NFA, or motivation to approach emotions, was shown to be a significant predictor of sentencing recommendations, while low NFA, or motivation to avoid, was not shown to be a predictor of sentencing. In other words, participants with higher motivation to approach emotionally charged situations were more likely to choose a life sentence than the death penalty. Furthermore, Cramer et al. (2013) found that higher NFA scores resulted in less victim blame within a hate crime trial. However, NFA was not found to influence sentencing decisions or perpetrator blame. These findings support the assumption that people with high NFA scores are more likely to hold extreme attitudes, which may vary by case context (Cramer et al. 2013; Maio & Esses, 2001). Being that capital trials may elicit strong emotions and complex case factors for jurors, further exploration of NFA and NFC attitudes are needed within the capital case context.

Expert Testimony

Expert witnesses appear in a variety of applications throughout the courts, both in civil and criminal cases. These experts are summoned by either party within the case, or directly from the judge, to provide specialized knowledge to the jury (Cutler & Kovera, 2011). The goal of expert testimony is not to influence jurors to create doubts about case evidence, but rather experts should encourage jurors to be both cautious and careful in their evaluations of evidence, highlighting potentially problematic areas (Loftus, 1980). These testimonies may address eyewitness testimony, medical conditions, psychological diagnosis, or forensic evidence (Faigman et al., 2014). Additionally, expert psychologists present testimony from a variety of domains such as social, developmental, and cognitive (Costanzo et al., 2020). For example, clinical psychologists testify on mental evaluations whereas neuropsychologists may testify on traumatic brain injury (Cutler & Kovera, 2011; Garb, 1994; Jones et al., 2013). Social and cognitive psychologists, on the other hand, may testify on eyewitness memory (Monahan & Walker, 1988; Yarmey, 2001), while developmental psychologists may touch on memory and child witnesses (Buck et al., 2011; Cutler & Kovera, 2011). These are only a handful of possible applications of expert testimony in the courts.

Admissibility of expert testimony in the courts stems from several legal standards. Under the Federal Rules of Evidence (FRE; 1975), Rule 702, experts are determined through specialized knowledge, skill, training, or experience that can provide an opinion in effort to aid the jury in understanding evidence (Fed. R. Evid. 702.). In 1923, the *Frye* standard dictated that expert testimony was admissible in court on the basis of evidence being obtained through generally accepted methods within the scientific community (*Frye v. United States*, 1923). However, the federal courts and many state courts now favor the *Daubert* standard, which

expanded the role of the judge in determining admissibility, relevance, and validity of expert testimony (*Daubert v. Merrell Dow Pharmaceuticals, Inc*., 1993). Several criteria, such as peer review and error rates, are considered by judges in the admission of expert testimony. While this criterion allows for greater admission of new research that may not have reached common acceptance in the scientific community, it also faces the issue of unreliable testimony entering the court (Cutler & Kovera, 2011).

One area of expert testimony use appears in cases involving eyewitnesses. Eyewitness testimony continues to be pervasive within the courts despite its unreliability and fallibility (Leippe et al., 2004; Loftus, 1980; Montgomery et al., 2005). Therefore, expert testimony is introduced as a solution to protect against faulty identification (Cutler et al., 1989). Expert testimony regarding eyewitness identification has been shown to increase jury deliberation times, suggesting that participants place more effort on critically evaluating the evidence (Hosch et al., 1980; Loftus, 1980). Additionally, the presence of expert psychological testimony on eyewitness identification has been shown to reduce perceptions of guilty verdicts in violent crimes (Loftus, 1980). Juror perceptions of the reliability and accuracy of the eyewitness account have also been reduced through the use of expert testimony (Hosch et al., 1980; Loftus, 1980; Penrod & Cutler, 1995).

Various types of expert testimony, such as genetic testimony, environmental testimony, and psychological testimony, have also been studied as evidence in the courts (Bell Holleran et al., 2016; Gordon & Greene, 2018; Lui et al., 2019; Marshall et al., 2017; Saks et al., 2014). Gordon and Greene (2018) explored genetic and environmental evidence within capital punishment. Participants were provided different types of expert testimony, such as environmental testimony regarding the defendant suffering childhood abuse and genetic evidence claiming that the

defendant possessed the MAOA genotype. The presentation of genetic evidence served as an aggravating factor, demonstrating an increased likelihood of mock jurors sentencing the defendant to death. However, environmental testimony did not impact sentencing decisions. Additionally, Lui et al. (2019) found that expert testimony of a genetic explanation of psychopathy led mock jurors to view the defendant as less responsible for the crime, but deserving of harsher punishment, when compared to environmental explanations. Genetic evidence has also been shown to increase mock jurors' fear of the defendant, as well as lengthen sentencing recommendations (Appelbaum & Scurich, 2014).

Expert testimony regarding a defendant's history of neglect and abuse has also served a role in reducing death sentences (Appelbaum & Scurich, 2014; Bell Holleran et al., 2016). Bell Holleran et al. (2016) examined death penalty support in a murder case, utilizing both a student sample, as well as a sample of participants who had been summoned for jury duty, then released prior to serving on a trial. In the juror sample, all three forms of expert testimony on defendant history of maltreatment, including physical abuse, neglect, and sexual abuse, reduced juror support for the death penalty, with sexual abuse being the strongest mitigator. However, in the student sample, physical and sexual abuse demonstrated a small effect on death penalty support, but neglect did not influence sentencing. Appelbaum and Scurich (2014) found that childhood abuse, when coupled with a genetic predisposition for criminal behavior, led mock jurors to recommend longer sentences and experience greater fear of the defendant. Due to the application of expert testimony across a variety of contexts, it is imperative to further explore the specific types of expert testimony, such as clinical expert testimony and neuroscientific expert testimony as it appears in psychological research.

Clinical Expert Testimony

Beyond competency assessments, clinical expert testimony appears in the courts in a variety of ways including future violence assessments, defendant responsibility, or other mitigating or aggravating circumstances regarding mental function (Melton et al., 2017; Montgomery et al., 2005). Montgomery et al. (2005) evaluated the dual functionality of expert testimony, presented as either mitigating or aggravating evidence. The researchers examined expert testimony in the sentencing phase, with defendant dangerousness serving as an aggravating factor, while defendant mental state served as a mitigating factor. Prosecution presented expert testimony was not found to influence jurors' perceptions of defendant dangerousness, while expert testimony presented by the defense positively correlated to jurors' perceptions of a defendant's mental abnormality (Montgomery et al., 2005). In prior research, clinical expert testimony has also been found to moderate death penalty judgements when depicting defendant childhood sexual abuse (Platania & Konstantopoulou, 2014) and defendant mental abnormality (Montgomery et al., 2005).

Mental diagnosis by an expert appears to play a role within the discussion, as well. When mental illness is introduced to the courts, the surrounding stigma found in society regarding mental illness is often reflected in jurors' biases and judgements (Hudachek & Quigley-McBride, 2022). Mowle et al. (2016) sought to examine the sentencing outcomes of mock jurors for defendants diagnosed with schizophrenia or psychopathy. This study utilized a mental health expert that provided the diagnosis, as well as a brief description of characteristics associated with the disorder. A diagnosis of schizophrenia produced shorter sentence lengths than a diagnosis of psychopathy (Mowle et al., 2016). These findings are no surprise, as it is established in the literature that jurors perceive psychopathic individuals to be deserving of greater punitiveness

and sentencing (Blais & Forth, 2014; Edens et al., 2013; Mowle et al., 2016). Furthermore, schizophrenia may be perceived as being outside of the defendant's control, deferring an amount of responsibility, which in turn, lessens the prison sentence. Saks et al. (2014) and Gurley and Marcus (2008) found similar outcomes regarding diagnosis. Defendants diagnosed with psychopathy were found to be guilty more often and deserving of harsher punishments than those diagnosed with schizophrenia. However, Saks et al. (2014) found that when mock jurors were convinced that the defendant's psychopathic traits stemmed from brain injury, they were more likely to conclude lesser responsibility for the crime and spare him from the death penalty.

Not only does the content of the testimony influence perceptions of the defendant, but the presentation of the assessment methodology has also demonstrated an influence (Krauss & Sales, 2001; Krauss & Lee, 2003; Krauss et al., 2004). Krauss and Sales (2001) examined mock jurors' evaluations of future dangerousness of clinical expert testimony compared to actuarial expert testimony in the context of a Texas capital trial. Both experts were identical in experience and training. The clinical expert testimony included an evaluation of the defendant based on the opinion of the psychologist. The actuarial expert testimony, on the other hand, was based on the results of an assessment tool, the Violence Risk Appraisal Guide (VRAG). The results demonstrated that clinical testimony provided a stronger influence over mock jurors' decisions than the actuarial testimony. Similar studies have replicated the findings that suggest clinical expert testimony to be more persuasive than actuarial testimony (Krauss & Lee, 2003; Krauss et al., 2004). Clinical expert testimony based on case history and clinical opinion has also been shown to be more influential than testimony based on assessment data within a child abuse case (Kovera et al., 1994) and a sexual predator commitment trial (Krauss et al., 2012).

These findings fall in line with theories suggesting dual-processing of information, such as Cognitive Experiential Self-Theory (CEST; Epstein, 1994), NFC (Cacioppo & Petty, 1982), and NFA (Maio & Esses, 2001). CEST theorizes two systems for processing information: the emotional-based experiential system and the analytic, rational system (Krauss et al., 2004; Epstein, 1994). Krauss et al. (2004) primed mock jurors for either experiential or analytic processing through tasks of rational or emotional thinking, prior to their exposure to actuarial and clinical expert testimonies. As a result, participants who had been primed for analytic processing were more strongly influenced by actuarial testimony when judging future dangerousness of the defendant. Similarly, participants in an experiential processing mode placed a greater value on the clinical testimony (Krauss et al., 2004). Within these studies, the actuarial testimony appeared to be more complex in nature and contained statistical components, which would appeal to individuals with high NFC and rational processing. In contrast, clinical testimony may be seen as more emotion-inducing with the provision of more simple cues, allowing participants with greater NFA and experiential processing to favor such testimony.

Neuroscientific Expert Testimony

The term neuroscientific evidence, also referred to as neurobiological evidence or neuropsychological testimony, spans across several definitions and characteristics. Aono et al. (2019) broadly define it as encompassing all evidence of mental function that surpass expert testimony, including brain imaging and anatomy scans of various kinds. However, the present study will adopt the definition of neuroscientific evidence put forth by Greene and Cahill (2012) which creates a distinction between neuropsychological evidence, including expert testimony, and neuroimaging, which consists solely of brain imaging. Positron emission tomography (PET),

magnetic resonance imaging (MRI), and computerized tomography (CT) scans are examples of neuroimaging that commonly appear in the courtroom.

In the 1940's and 1950's, the electroencephalogram (EEG) was documented as the first use of neuroscientific evidence in the courts. The evidence was utilized in defense of violent behavior, epilepsy, and injury cases (Shen, 2016). Since then, a rapid increase of neuroscientific evidence has appeared in the courtrooms, ranging from civil to capital cases. For example, in 1981, CT scans were used to argue the incompetency of John Hinckley after his attempted assassination of President Ronald Reagan (Aono et al., 2019). This revelation of evidence has since gained popularity in the American courtrooms. Particularly in recent years, the rise of neuroscientific evidence in the courtrooms has become increasingly apparent. In a review of over 10,000 judicial opinions in the United States courts between 2005 and 2012, 1,585 opinions mentioned the use of neurobiological evidence on behalf of the defense (Farahany, 2016). Furthermore, evidence of neuroscientific usage in the courts in 2012 had doubled from 2007 (Farahany, 2016).

As the courts opened the gates to the use of neuroscientific evidence and testimony, an assumption grew that brain images held a persuasive power over laypeople. This "visualization effect" (Weisberg et al., 2008), otherwise referred to as "seductive allure," suggests that neuroimaging and other forms of medical scans are persuasive to the general public (Dumit, 1999; Hanson & Bunzl, 2010; McCabe et al., 2011; Weisberg et al., 2008, 2015). Throughout the recent past, exploration of jury decision-making in cases involving neuroscientific evidence and neuroimaging has entered the psychological field. There appears to be some validation of the neuroscientific influence under certain circumstances (Allen et al., 2019; Greene & Cahill, 2012; Gurley & Marcus, 2008; Saks et al., 2014). Saks et al. (2014) found that neuroimages,

specifically fMRI scans, lent themselves to swaying mock jurors toward whichever side of the argument applied it as evidence. When utilized as mitigating evidence, less death penalty judgements occurred in a first-degree murder charge. Alternatively, if the fMRI was used as aggravating evidence, the mock jurors promoted the death penalty more frequently. Similarly, Greene and Cahill (2012) demonstrated that both neuroscientific testimony and neuroimaging (MRI and PET scans) work as mitigating arguments to reduce death sentencing for defendants with a high risk of future dangerousness. Additionally, both types of evidence produced strong mitigating effects on the mock jurors' perceptions of the defendant, depicting him as more remorseful and sympathetic.

Not only does neuroimaging demonstrate influence in death penalty cases, but it can also promote not guilty by reason of insanity (NGRI) verdicts, shorter prison terms, and involuntary hospitalization (Allen et al., 2019; Gurley & Marcus, 2008). Ordinarily, jurors are tasked with delivering a verdict of guilty beyond a reasonable doubt or not guilty. When mental health becomes a factor, the verdict options expand in certain states to include not guilty by reason insanity (NGRI) and guilty but mentally ill (GBMI). While each state varies in their guidelines, NGRI verdicts are most frequently followed by hospitalization for the defendant (Kutys & Esterman, 2009). GBMI pleas, on the other hand, resemble a guilty verdict and imprisonment while also noting that the defendant is in need of treatment (Callahan et al. 1992; Melville & Naimark, 2002). While these defendant outcomes are possibilities within cases involving mental diagnosis, a full review of the literature on the topic is beyond the scope of the current thesis. According to Gurley and Marcus (2008), neuroimaging serves an additive effect when coupled with neuroscientific testimony detailing brain damage due to a car accident, which leads to more NGRI verdicts for defendants with psychosis. It was suggested that the presentation of the

combined evidence produces a perceived beginning to the brain damage which led directly to the crime, therefore pushing jurors to defer true responsibility for the act (Gurley & Marcus, 2008). Allen et al. (2019) demonstrated similar effects when examining a sexual assault case. The presence of neuroscientific evidence mitigated prison sentences as well as increased involuntary hospitalization decisions. This outcome demonstrates jurors' deontological concerns that the punishment should be equivalent to the responsibility of the offense committed (Allen et al., 2019). Therefore, jurors may interpret mitigating neuro-evidence as a claim of less responsibility, which may lead to a reduced sentence.

Despite the findings in support of neuroscience's role in jury decision-making, additional research has come against these findings by presenting neuro-evidence to hold no influence over juror decision-making (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011). Rather than utilizing the common case vignette, LaDuke et al. (2018) approached the study with a video recording of an expert testifying on defendant brain abnormalities, as well as an assessment of future dangerousness for participants. The mock jurors were then tasked with determining a sentence for the burglary and aggravated assault charge. No difference in sentence was found between participants who received the neuroscientific testimony and those that were given no testimony. Furthermore, Mowle et al. (2016) found similar outcomes in a robbery and assault case. Neuroscientific evidence, at varying levels of testimony, with and without neuroimaging, did not demonstrate any influence on jurors. Following in line with other studies, Schweitzer and Saks (2011) demonstrated no significant influence of neuroimaging in an insanity plea case. However, neuroscientific testimony was found to be of greater influence than other forms of testimony, including psychological testimony and family history.

Most research on neuroscientific testimony is concerned with felonies, such as first-degree murder (Greene & Cahill, 2012; Gurley & Marcus, 2008; Saks et al., 2014), assault and robbery (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011), and sexual assault (Allen et al., 2019). Throughout these crimes, the influence of neuroscientific evidence has shown to be reliant on crime type. Gurley and Marcus (2008) found that NGRI verdicts increased within a first-degree murder trial when mock jurors were presented with a mental health diagnosis, neuroscientific testimony, or neuroimages. One such explanation may be that expert testimony is strong enough to mitigate extreme punishments, such as the death penalty, but not strong enough to deter responsibility for the crime. In first-degree murder charges, like that of Greene and Cahill's (2012) study, neuroscientific evidence only had a mitigating effect in cases of high future dangerousness. This further supports the suggestion that neuroscientific evidence has a limited effect within mental illness cases facing extreme charges. Higher stakes crimes and punishments may cause jurors to deem mental illness or brain damage as holding some level of responsibility beyond the control of the defendant.

Furthermore, when examining crimes such as robbery and assault or sexual assault, neuroscientific evidence has not been shown to be a mediator. Mowle et al. (2016) found no support of the visualization effect in a study using a robbery and sexual assault case. Other studies utilizing an assault and robbery case have illustrated the same lack of influence of expert psychological and neuroscientific testimony in court case studies (LaDuke et al., 2018; Schweitzer & Saks, 2011). Crimes beyond the scope of murder may not hold the same weight as a first-degree murder. Therefore, these findings fall in line with the assumption of the small mitigating effect of neuroscientific and psychological expert testimony that may only present itself in more extreme cases, such as capital trials.

Criminal History

Prior criminal history appears within the courts for the purpose of distinguishing witness credibility, which can occur if a defendant chooses to testify or if the judge decides it has probative value (Fed. R. Evid. 609(a); Wissler & Saks, 1985). While prior conviction information cannot be used to prove guilt for the crime at hand, it can be utilized in assessment of a defendant's motive, plan, and identity (Fed. R. Evid. 404.). While jury instructions may inform jurors on the limitations of such evidence, the impact of prior convictions on juror decision making has made a limited appearance within the psychological literature. For example, Cowley and Colyer (2010) examined the impact of prior convictions in a case of child abuse. Across three studies, the findings indicated an asymmetrical influence of prior criminal history. While one account of prior criminal history increased jurors' perceptions of defendant guilt, two accounts of priors did not proportionally increase guilty verdicts. Furthermore, disclosure of prior convictions resulted in greater mock juror perceptions of defendant dangerousness and belief that the defendant would reoffend. Similarly, Greene and Dodge (1995) evaluated the role of prior convictions, prior acquittals, and limiting instructions within a robbery case. Prior acquittals were found to have no more influence on guilty verdicts than conditions that did not include prior criminal history. However, the inclusion of a prior conviction did produce higher guilty verdicts. Additionally, instructions detailing the limitations of prior conviction evidence showed little impact on mock juror decision making.

Expanding upon verdict decisions, Allison and Brimacombe (2010) examined prior convictions and NFC scores in relation to mock jurors' perceptions of alibi believability. Prior convictions, particularly a prior conviction of perjury, were shown to affect ratings of both alibi believability and guilt. Additionally, participants with higher NFC were found to attend to alibi

details and judicial instructions with greater attentiveness, yet these scores were not correlated with guilt or credibility ratings. Furthermore, Wissler and Saks (1985) examined whether mock jurors were properly utilizing prior conviction evidence to establish credibility or if the information was being used to support a guilty verdict. A prior history of perjury was hypothesized to be the most influential prior crime type on defendant credibility. However, compared to other prior convictions that were either similar or dissimilar to the crime at hand, perjury did not demonstrate a significant influence on credibility ratings. While prior history did not influence credibility, conviction rates differed significantly as a function of type of prior conviction. Prior convictions, of any kind, were associated with greater guilty verdicts, with similar prior conviction producing the highest rate of guilty verdicts. Additional studies have found similar results suggesting that the influence of prior criminal history varies by crime type and similarity to the crime at hand (Cowley and Colyer, 2010; Tanford & Cox, 1988; Tanford et al., 1985). Further exploration of these effects is needed to evaluate differing context and crime type for a greater understanding of the influence of prior convictions.

The Current Study

The overarching goal of the present study was to investigate the influence of differing types of expert testimony, mental health diagnosis, and presence (or absence) of a prior criminal history, on mock juror judgements in a capital trial. While juror bias is of concern in cases involving a defendant diagnosed with a mental disorder, not all mental health disorders are shown to have the same effect on mock juror perceptions and judgments. The societal image of a psychopath, as well as associated traits, such as lack of remorse, are highly stigmatized (Mowle et al., 2016). The introduction of a diagnosis of psychopathy has been shown to increase punitiveness and harsher verdicts (Blais & Forth, 2014; Edens et al., 2013; Mowle et al., 2016;

Saks et al., 2014). On the other hand, prior research demonstrates that a diagnosis of schizophrenia leads to more leniency in sentencing (Mowle et al., 2016; Sabbagh, 2011). Therefore, I examined the role of mental health diagnosis, specifically schizophrenia and psychopathy, in their relations to mock juror judgements. While disclosure of prior criminal history has been shown to increase mock jurors' judgements of guilt (Cowley & Colyer, 2010; Greene & Dodge, 1995), there is little known of its effect across different contexts and crime types. However, it is suggested that the effect of prior criminal history may diverge based on differing severities of crime and congruence with the present crime (Cowley and Colyer, 2010; Tanford & Cox, 1988; Tanford et al., 1985). As such, the present study incorporated prior criminal history to explore its effects within a capital trial.

The type of expert testimony was also manipulated to assess the influence on sentencing judgements, as well as mock jurors' perceptions of the defendant and expert witness. Clinical expert testimony has been shown to be more influential in mitigation efforts than actuarial-based or data-based testimony (Kovera et al., 1994; Krauss & Sales, 2001; Krauss & Lee, 2003; Krauss et al., 2004; Krauss et al., 2012). While influence of neuroscientific expert testimony, on the other hand, has gained some support in the literature (Allen et al., 2019; Greene & Cahill, 2012; Gurley & Marcus, 2008; Saks et al., 2014;), other research studies have not found the same effect (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011). This discrepancy may be contributed to a small effect of neuroscientific testimony that appears within extreme cases, such as that of a capital trial. Capital trials are often greater in emotional nature (Estrada-Reynolds et al., 2016; Nuñez et al., 2015) and prone to the influence of death qualification exposure (Allen et al., 1998; Butler & Moran, 2007; Haney, 1984), which may impact mock juror decision making. Furthermore, the evaluation of clinical and neuroscientific expert testimony compared to general

expert testimony within a capital case is not well-established within the literature. Therefore, this study sought to further the literature through investigating the influence clinical, neuroscientific, and general expert testimony within a first-degree murder sentencing phase.

Additionally, Krauss et al. (2004) demonstrated the influence of rational and emotional processing on perceptions of clinical and actuarial testimony. Actuarial testimony was found to be more influential to those in a rational processing state, while clinical testimony was of more value to those in an emotional processing state (Krauss et al., 2004). Due to the seemingly scientific complexity of neuroscientific expert testimony, individuals with high NFC scores may be more influenced by this form of testimony, while individuals with higher NFA scores may find greater appeal in the clinical testimony. In light of this theory, NFC and NFA were evaluated as moderators within mock juror judgements and perceptions. In this study, I examined the main and interactive effects of expert testimony type, diagnosis, and prior criminal history on juror perceptions and sentencing judgements.

Hypotheses.

Main Effects: I hypothesized main effects of mental illness, prior criminal history, and expert testimony. Defendants diagnosed with psychopathy would receive harsher judgements and more punitive sentencing than defendants diagnosed with schizophrenia. Similarly, defendants with a prior record would also receive harsher judgements and more punitive sentencing than defendants with no prior record. Lastly, clinical and neuroscientific expert testimony would result in more lenient sentencing and judgements of the defendant, as well as greater witness credibility than the general expert testimony.

Two-Way Interactions*:* I hypothesized an interaction between mental illness and expert testimony. Participants would be more punitive towards the defendant diagnosed with

psychopathy regardless of expert testimony condition. However, participants exposed to the defendant diagnosed with schizophrenia and presented with either neuroscientific expert testimony or clinical expert testimony would receive less death sentences and would be viewed more favorably on the witness perceptions scale.

Moderation: Participant NFA and NFC scores were hypothesized to moderate the relationship between expert testimony and case judgements. Individuals high in NFC would perceive the neuroscientific expert testimony to be higher in credibility and more influential in sentencing decisions. On the other hand, clinical expert testimony would appeal more to individuals high in NFA in their sentencing decisions and ratings of witness credibility. Furthermore, pretrial juror attitudes, particularly the subscale of conviction proneness, were expected to moderate the relationship between case conditions and participants' perceptions and sentencing judgements.

Method

Participants

This study utilized participants recruited from Amazon's Mechanical Turk. The sample size was determined by a G*Power analysis in order to detect a moderate effect size with power of .95 (including accounting for attrition due to death qualification standards). It was determined that approximately 350 participants would be needed for analyses. Each participant was compensated $1.00 for their time, which averaged 23.86 minutes. In total, our sample size began with 421 participants. Of our total sample, 56 participants were removed due to missing data, failure to complete attention checks, or completion of the survey in less than 8 minutes. An additional 52 were excluded for failure to meet jury eligibility standards. The final sample size included 313 participants (age range 19 – 85, M_{age} = 44.29, *SD* = 13.56). The demographic

breakdown of our participant pool was as follows: 75.6% White, 11.8% Black or African American, 8.5% Asian or Pacific Islander, 3.0% indicated mixed race, and 1.1% indicated other.

Additionally, our sample was fairly even in gender composition: 51% female, 48% male, 1% queer or non-binary. Of the 313 jury eligible participants, only 185 participants (59.11%) met the standards for death qualification, composed in accordance with the current capital trial eligibility standards set forth by *Wainwright v. Witt* (1985) and *Morgan v. Illinois* (1992). Therefore, this subset of death qualified participants ($N = 185$) was considered for analyses pertaining to sentencing decisions (i.e., life in prison or the death penalty). However, the total sample ($N = 313$) was utilized for all additional analyses pertaining to juror attitudes, as well as perceptions of the witness and defendant. Each participant was randomly assigned to one of twelve conditions within a 3 (expert testimony: general vs. clinical vs. neuroscientific) x 2 (mental illness: schizophrenia vs. psychopathy) x 2 (criminal history: prior conviction vs. no prior conviction) between-participants factorial design.

Independent Variables

This study utilized a modified case vignette of a fictional trial (Appendix A) put forth by Myers et al. (2013). This vignette featured a criminal case summary that depicted the defendant committing murder in the first-degree, while robbing a house. Subsequent evidence, such as DNA and forensic evidence, were detailed in the case, convicting the defendant of first-degree murder. The remainder of the study focused on the punishment phase of trial. Jury instructions were provided for participant consideration. Within the interest of the study, a capital trial case vignette fulfilled the extremity of crime associated with observed differences in jurors' perceptions of mental health disorders (Greene & Cahill, 2012; Gurley & Marcus, 2008). Similar effects have not been demonstrated within studies of lesser crimes, such as robbery or sexual

assault (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011). The surrounding evidence of the murder, as well as prosecution and defense arguments were presented, as would be within the penalty phase of a capital trial. Furthermore, judicial sentencing instructions were provided (Appendix B).

Mental Diagnosis

To manipulate mental diagnosis, participants were randomly assigned to cases containing either a defendant diagnosis of schizophrenia or psychopathy. Within each expert testimony condition, the expert provided a diagnostic label (i.e., schizophrenia, psychopathy) in addition to a description of the common characteristics associated with the diagnosis (see Appendix A for detailed case materials and description of each condition). These descriptions, adapted from Mowle et al. (2016), have a greater focus on interpersonal and behavioral characteristics of each disorder, as to minimize the perception of criminality and antisocial tendencies often associated with psychopathy. Prior research in this area has utilized the diagnoses of schizophrenia and psychopathy due to the surrounding stigma and bias (Gurley & Marcus, 2008; Mowle et al., 2016; Saks et al., 2014).

Expert Testimony

In order to manipulate expert testimony, participants were randomly assigned to varying case vignettes, containing three different types of expert witnesses (i.e., general, clinical, neuroscientific). All experts were equally matched in experience and credibility. The general expert testimony provided the mental health diagnosis and subsequent characteristics of the diagnosis. The clinical expert condition included clinical assessment techniques and measures used in the determination of the diagnosis. This distinction falls in line with prior research that has shown that clinical testimony is perceived to be more persuasive than other forms of expert

testimony, such as actuarial testimony (Krauss and Sales, 2001; Krauss & Lee, 2003; Krauss et al., 2004). Additionally, concrete forms of expert testimony that link testimony information to case details has been shown to sensitize mock jurors to behavioral correlates (Kovera et al., 1997). The neuroscientific expert condition presented the diagnosis based on a neuroscientific evaluation including an MRI and noted brain abnormalities. These manipulations align with prior research that has examined the seemingly persuasive nature of neuroscientific testimony on juror decision making (e.g., Allen et al., 2019; Greene & Cahill, 2012; Gurley & Marcus, 2008; Saks et al., 2014). These manipulations sought to extend the previous literature by examining the influence of both types of expert testimony in relation to a general testimony that does not provide assessment details.

Prior Criminal History

To manipulate prior criminal history, the prosecution evidence mentioned the defendant's prior criminal conviction. In the no prior criminal history condition, the defense noted that the defendant had no prior criminal history at the time of the crime. In the prior criminal history condition, the defendant had previously pleaded guilty of assault during a barroom brawl. Five years of probation was sentenced for the defendant in this condition. Prior research in this area has shown that the influence of prior criminal history varies as a function of crime type, as well as crime similarity to secondary or additional crimes (Cowley and Colyer, 2010; Tanford & Cox, 1988; Tanford et al., 1985). By providing a crime of violent nature, yet differing from first-degree murder, the crime at hand, I sought to contribute to the gaps in the existing literature regarding the influence of prior criminal history.

Dependent Variables

Sentencing Questionnaire (Appendix C).

The sentencing questionnaire, adapted from Myers et al. (2013), included a dichotomous measure of sentencing decisions for the defendant including life in prison or the death sentence. Additional questions assessed participant confidence in verdict, beliefs about the death penalty, and emotions toward the defendant and victim's wife. Participants were also asked to rate their agreement on a 7-point scale with the statement, "Mr. Batts should be sentenced to death."

Perceptions of Criminal Defendants Scale (PCDS; Appendix D).

The PCDS (Crawley et al., 2017) was designed to examine an individual's character perceptions of a criminal defendant (α = .845, M = 37.18, SD = 8.11). The 10-item scale assesses judgements of a criminal defendant, such as their cruelty and likelihood to commit a future crime. For each statement, a 6-point Likert-type scale was used, ranging from "strongly disagree" to "strongly agree." Items 5 and 8 were reverse scored. Higher mean scores across all statements indicate harsher judgements of the defendant. An example item is "This individual appears to be cruel." Within the current study, question 10 was omitted as a separate sentencing questionnaire was provided to fit the sentencing associated with a capital case.

The Witness Credibility Scale (WCS; Appendix E).

The WCS (Brodsky et al., 2010) sought to evaluate an individual's perceived credibility of an expert witness (α = .972, M = 158.91, SD = 29.30). The scale utilized twenty paired adjectives (e.g., unfriendly vs. friendly), which illicit responses along a 10-point Likert scale. Higher scores indicated greater perceptions of credibility. The overall measure of credibility is attributable to four factors: likeability (items 1, 2, 3, 4, and 5), trustworthiness (items 6, 7, 8, 9, and 10), confidence (items 11, 12, 13, 14, and 15), and knowledge (items 16, 17, 18, 19, and 20).

Other Measured Variables

Need for Cognition Scale, Short Form (NFC; Appendix F)

The NFC (Cacioppo et al., 1984) is an 18-item questionnaire devised to assess the extent to which an individual participates in extensive cognitive processing (α = .946, M = 61.88, SD = 15.76). For each provided statement, participants were asked to respond on a 5-point Likert scale, ranging from 1, "extremely uncharacteristic," to 5, "extremely characteristic." Items 3, 4, 5, 7, 8, 9, 12, 16, and 17 were reverse scored. Each statement rating was summed, contributing to a composite NFC score. Some example statements include the following: "I would prefer complex to simple problems" and "I prefer to think about small, daily projects to long-term ones" (reverse scored).

Need for Affect Scale (NFA; Appendix G)

The NFA (Maio & Esses, 2001) is a 26-item questionnaire that is designed to gauge an individual's tendency to approach or avoid emotional stimuli (α = .824, M = 102.80, SD = 18.64). Each item required participants to respond on a 7-point Likert scale. Utilizing a two-factor subscale approach, 13 items (3, 4, 5, 6, 7, 13, 15, 17, 18, 19, 20, 24, and 26) were summed for an approach score, while the remaining 13 items (1, 2, 8, 9, 10, 11, 12, 16, 21, 22, 23, and 25) made up the avoidance score. Furthermore, all 26 items were also summed for a composite NFA score. Within the avoidance subscale, an example item is "I would prefer not to experience either the lows or highs of emotion." Additionally, the following statement, "Strong emotions are generally beneficial," serves as an example of an item in the approach subscale.

Pretrial Juror Attitude Questionnaire (PJAQ; Appendix H)

The PJAQ (Lecci & Myers, 2008) is composed of 29-items designed to thoroughly evaluate a variety of pre-trial attitudes from jurors (α = .890, M = 83.98, SD = 16.43). Within the measure, there are six subscales: system confidence (items 1, 5, 8, 18, 22, and 27), conviction proneness (items 2, 3, 6, 11, and 17), cynicism toward the defense (items 4, 7, 9, 13, 14, 16, and

28), racial bias (items 10, 21, 24, and 26), social justice (items 12, 19, 25, and 29), and innate criminality (items 15, 18, 20, and 23). Item 18 serves both as a system confidence and innate criminality statement. Each statement required a response along a 5-point Likert scale ranging from strongly disagree to strongly agree. Items 10 and 12 were reversed scored.

Attitudes Toward Persons with Mental Illness Scale (APWMI; Appendix K)

The APWMI (Kobau et al., 2010) is an 11-question scale that assesses negative attitudes toward individuals dealing with mental illness diagnoses (α = .571, M = 28.78, SD = 5.01). Items are rated on a 5-point Likert scale, with higher scores representing greater negative attitudes. Additionally, it includes items that represent negative mental illness stereotypes, as well as beliefs about potential recovery. Items 4, 7, 8, 10, and 11 were reverse scored. An example item on the scale is "I believe a person with mental illness is a danger to others."

Participant Characteristics & Manipulation Checks.

The participants were given a simple demographics questionnaire (Appendix I) to gather information such as age, gender, ethnicity, and jury-eligibility. Participants were also given three questions to respond to, each requiring a yes or no response, to determine death qualification (DQ; Appendix J). The questions are composed in accordance with the current capital trial eligibility standards set forth by *Wainwright v. Witt* (1985) and *Morgan v. Illinois* (1992). In addition, participants were required to partake in attention check items to ensure proper attention to the stimuli and materials.

Procedure

The current study was conducted online, via Amazon's Mechanical Turk. After participants consented to taking part in the study, they were prompted to complete death qualification (DQ) questions. Participants were eligible to complete the study, regardless of their

DQ status, to preserve the integrity of the data. Then, participants were instructed to read and consider the provided case vignette and arguments, as if they were truly involved in a capital case. Following the transcript and appropriate manipulations per condition, the participants were then asked to provide sentencing judgements, as well as complete the remainder of the questionnaires, including demographic information. Participants completed the PCDS, WCS, NFA, NFC, and PJAQ in a randomized order. Throughout the process, participants also completed attention checks, including two open-ended response questions prompting participants to describe the study and repeated demographics questions, both at the beginning and end of study, to assess consistency across responses. Following participation, each participant was thanked and compensated for their time.

Results

Preliminary Analyses

For this project, the IBM Statistical Package for the Social Sciences (SPSS; Version 28) was used for all analyses. Following data collection, data was screened for missing information and failed attention checks, which resulted in the removal of 56 participants. Additionally, participants who did not meet jury eligibility standards were omitted from analysis. Fifty-two participants were removed on this account. Multivariate diagnostics, such as a search for outliers and violations of homogeneity and normality, were also performed[1]. Additionally, descriptive statistics were conducted for demographics, sentencing judgements, and mock juror questionnaires. Necessary composite scores and subscale scores for each questionnaire were calculated with the appropriate reverse-scoring, when needed.

[1] It is important to note that during our initial diagnostics, Levene's Test of Equality indicated a violation of homogeneity due to the skewed bimodal distribution of our dichotomous sentencing variable (life in prison vs. death penalty). Appropriate adjustments were made when able. However, caution should be used when interpreting the results.

Initial analyses revealed a relatively even participant distribution across all conditions. Within the diagnosis conditions, 154 (49.2%) participants received the schizophrenia testimony, while 159 (50.8%) received the psychopathy testimony. One hundred-sixty (51.1%) participants were in the no prior record condition, compared to 153 (48.9%) participants in the prior record condition. Finally, the division among the expert testimony conditions were as follows: general (103; 32.9%), clinical (106; 33.9%), and neuroscientific (104; 33.2%) (Table 1).

Case Conditions & Perceptions

Per the hypotheses, I was interested in examining how the case conditions (expert testimony, mental diagnosis, and prior record) would influence perceptions of both the defendant and witness, and sentencing decisions. As an alternative measure to address the issues with bimodal distribution in a dichotomous sentencing situation, I utilized a continuous measure of sentencing decisions in the sentencing questionnaire. Participants provided an agreement score on a 7-point scale to the statement, "Mr. Batts should be sentenced to death." Since only 59.1% of our sample ($N = 185$) met death qualification standards, all participants ($N = 313$) were included in the following analysis, utilizing death qualification as a covariate, rather than as exclusion criteria. A factorial multivariate analysis of covariance (MANCOVA) was run to assess the effect of the case conditions on mock jurors' perceptions of the defendant (PCDS) and witness credibility (WCS). The Box M test was not significant ($p = .25$), indicating fairly equal group sizes and homogeneity of variance-covariance. Therefore, Wilk's Lambda was used to evaluate the test statistic.

The factorial MANCOVA revealed main effects for prior record, $F(3, 300) = 11.51$, $p < .001$, $\eta^2 = .10$, as well as type of expert testimony, $F(6, 600) = 2.24$, $p = .04$, $\eta^2 = .02$. However, no main effects were found for defendant diagnosis nor death qualification. Furthermore, no

significant interactions were obtained between any of the case variables. Follow-up ANOVAs examined the simple effects for both prior record and expert testimony. Participants provided significantly harsher perceptions of defendants with a prior criminal record, compared to those without a prior record, $F(1, 302) = 27.59$, $p < .001$, $\eta^2 = .08$. Additionally, type of expert testimony significantly influenced perceptions of the witness, $F(2, 302) = 3.23$, $p = .04$, $\eta^2 = .02$. Follow-up post hoc analyses revealed that neuropsychologists were viewed as more credible compared to general psychologists ($p = .03$). However, clinical testimony did not differ significantly from the other types of testimony. Furthermore, the case conditions did not appear to significantly influence the alternative measure of sentencing (see Figures 1 and 2).

To further examine the dimensions of witness credibility as influenced by expert testimony, a one-way analysis of variance was conducted to examine the facets of witness credibility including perceived trustworthiness, confidence, knowledge, and likeability. In the results, homogeneity of variance was violated as indicated by the Levene's Test of Homogeneity of Variances, on the subscales of confidence, $F(2, 310) = 7.17$, $p < .001$, and knowledge $F(2, 310) = 5.09$, $p = .007$. Therefore, the *Welch* adjusted F ratio was used for evaluating significance for those subscales. The results indicated that expert testimony type had a significant effect on the subscales of confidence $F(2, 202.70) = 3.31$, $p = .04$, $\omega^2 = .016$, and likeability $F(2, 310) = 2.97$, $p = .05$, $\eta^2 = .02$. As to be expected, post hoc analyses revealed these differences to exist between neuroscientific experts compared to general experts. Neuroscientific experts were viewed as both more confident ($p = .03$) and likeable ($p = .05$) than general experts. Clinical experts did not significantly differ from the other expert conditions.

NFA & NFC Moderation

In order to evaluate the moderation hypotheses, I conducted a moderation analysis utilizing Hayes PROCESS model 2 (Hayes, 2017). NFA and NFC were entered into the model as moderators, with expert testimony as an independent variable and witness credibility as the dependent variable. None of the relationships between the variables were found to be significant. NFA and NFC were not found to serve as moderators within this relationship (See Figure 3).

Case Conditions & Sentencing

Binary logistic regression was utilized to assess if the conditions of expert testimony, mental diagnosis, and prior record were predictors in the dichotomous sentencing decisions of life in prison versus the death penalty. The initial analyses utilized the 185 participants who met death qualification standards. Within the 185 (59.1%) death qualified participants, 32 (17.3%) participants made the decision to sentence the defendant to death, while the remaining 153 (82.7%) participants favored a sentence of life in prison. Ultimately, the model was not significant, ($\chi^2(8) = 5.25$, $p = .160$, Nagelkerke $R^2 = .058$). None of the variables were found to be significant predictors of sentencing. Regression coefficients are presented in Table 2.

Due to the low number of death qualified participants and death sentences, an additional analysis was run that included the total sample of 313 participants, utilizing DQ as a covariate, rather than exclusion criteria. Binary logistic regression was conducted in order to assess if the independent variables and covariate (diagnosis; expert; prior; DQ) were significant predictors of sentencing decisions, either life in prison or the death penalty. Regression results indicated that the overall model was reliable in distinguishing between sentencing decisions ($\chi^2(5) = 15.48$, $p = .009$, Nagelkerke $R^2 = .075$). The model correctly classified 78.6% of cases. Additionally, three significant predictors were identified: prior record, $\beta = .67$ ($SE = .29$); $Wald = 5.49$, $p = .019$,

death qualification, β = - .60 (*SE* = .283)*; Wald* = 4.55, *p* = .033, and neuroscientific testimony , β= .82 (*SE* = .363)*; Wald* = 5.10, *p* = .024. General expert testimony, clinical expert testimony, and mental diagnosis were not found to be significant predictors. The results indicated that defendants with a prior record are 1.96 times more likely to receive the death penalty than those without a prior record. Furthermore, death qualification inversely influences sentencing judgements, such that death qualification decreases the likelihood of death sentences. Additionally, compared to general expert testimony, neuroscientific testimony was found to increase the likelihood of death penalty decisions, such that those who were exposed to neuroscientific testimony were 2.27 times more likely to provide the death penalty than those in the general expert condition. However, the odds ratios for prior record, death qualification, and neuroscientific expert testimony indicated little change in the likelihood of selecting the death penalty overall. Regression coefficients and odds ratios are presented in Table 3.

Juror Attitudes & Sentencing

Additionally, I sought to evaluate juror attitudes and characteristics as potential predictors of sentencing decisions. Table 4 contains the correlations among the variables used to predict sentencing decision (0 = life in prison, 1 = death penalty)[2]. Binary logistic regression using the enter method was utilized to examine if individual perceptions (i.e., WCS, PCDS) and attitudes (i.e., NFA, NFC, PJAQ) were predictive of sentencing judgements of either life in prison or the death penalty. Per my hypotheses, I had a particular interest in the pretrial juror attitude subscale of conviction proneness, as well as NFA and NFC. Only the 185 participants who met death

[2] Based on the correlations, it is important to note that several variables were found to be correlated with one or more additional predictor variables. However, the diagnostics indicated that were no issues of multicollinearity, as the tolerance and VIF values were within normal limits.

qualification requirements were included in the analyses.[3] Model 1 evaluated mock jurors' individual perceptions of the witness and defendant (i.e., WCS, PCDS) as predictors of sentencing (i.e., life in prison or death penalty). Regression results indicated that the overall model was reliable in distinguishing between sentencing decisions ($\chi^2(2) = 48.84$, $p < .001$, Nagelkerke $R^2 = .385$). The model correctly classified 82.7% of cases. Perceptions of the criminal defendant was found to be a significant predictor, $\beta = 2.24$ (*SE* = .41); *Wald* = 29.68, $p < .001$, while witness credibility was not identified as such. Participants with greater negative perceptions of the defendant were more likely to sentence the defendant to death, such that as participants' negative perceptions increased by one unit, participants were 9.41 times more likely to sentence the defendant to death. Regression coefficients and odds ratios are presented in Table 5.

In Model 2, mock juror attitudes (i.e., NFA, NFC, PJAQ subscales) were added to the model to assess their function as predictors of sentencing decisions. While the results indicated an overall, significant model that was able to decipher between life and death sentences ($\chi^2(10) = 64.019$, $p < .001$, Nagelkerke $R^2 = .486$), the addition of the mock juror attitudes did not significantly enhance the results from Model 1 ($\chi^2(8) = 15.179$, $p = .056$). Yet, when including jurors' perceptions and attitudes, the model correctly classified 88.6% of cases. Within the pretrial juror attitudes, two additional significant predictors emerged, conviction proneness, $\beta = .33$ (*SE* = .11); *Wald* = 8.22, $p = .004$, and cynicism toward the defense, $\beta = -.17$ (*SE* = .07); *Wald* = 5.84, $p = .016$. Neither NFA nor NFC were found to be significant predictors of sentencing decisions. As to be expected, participants with higher conviction proneness scores

[3] An additional analysis was run utilizing all 313 participants and DQ as a covariate. However, the results were similar to the analysis that utilized the 185 death qualified participants.

were more likely to sentence the defendant to death. However, interestingly, as cynicism toward the defense increased, the likelihood of death sentence decreased. Despite these findings, the odds ratios for cynicism and conviction proneness indicated little change in the likelihood of selecting the death penalty overall. Regression coefficients and odds ratios are presented in Table 6.

Exploratory Analyses.

While I had no formulated hypotheses regarding attitudes toward individuals with mental illness, the attitudes were assessed as an exploratory measure to explore their relationship with the diagnosis presented, perceptions of the defendant, sentencing judgements, and other juror attitudes including NFA and NFC. An independent measures t-test was run to assess potential differences between the mock jurors in the psychopathy and schizophrenia conditions. The results indicated a significant effect of diagnosis on attitudes toward individuals with mental illness, $t(311) = -2.14$, $p = .033$. The effect size, as measured by Cohen's d, indicated a small effect, $d = .24$. Participants who received the psychopathy condition held more negative perceptions of individuals diagnosed with mental illness, compared to those exposed to the schizophrenia condition. However, the APWMI scores were not found to have significant relationships with any of the other juror attitudes or sentencing judgements.

Discussion

The present study contributes to the ongoing body of literature regarding the influence of "scientific allure" by evaluating mock juror perceptions of differing types of expert witnesses. While all experts were matched in experience and credibility, the diagnostic criteria utilized differed between the expert conditions, with the neuroscientific expert leaning more so into the perceived "scientific" method, compared to the general and clinical experts. Furthermore, it

sought to expand upon prior research by looking at differing mental health conditions, as well as defendant criminal history. Utilizing a capital trial set the scene to highlight the relevance of high stakes environments on the detection of these effects.

The initial hypotheses were partially supported as main effects were detected for expert testimony, as well as prior record. However, no main effect of mental health diagnosis was detected. Additionally, no significant interactions were detected between expert testimony and diagnosis. Traditionally, prior research has found greater stigma and punitiveness to be associated with psychopathy compared to schizophrenia, frequently resulting in greater numbers of death penalties (Blais & Forth, 2014; Edens et al., 2013; Mowle et al., 2016; Saks et al., 2014). Yet, these findings were not replicated in the results. However, it is plausible that the mitigating factors presented by the case materials served their purpose too well, to the point where there was a lack of support for the death penalty, regardless of diagnostic condition. Ultimately, less than twenty percent of the death qualified sample chose the death penalty on the dichotomous measure. The continuous sentencing measure produced similar results, with nearly twenty percent of participants providing a strong agreement response to the belief that the defendant should receive the death penalty. In the future, this would be accounted for by providing a vignette that has a greater balance between aggravating and mitigating factors.

Additionally, there were no significant differences in how mock jurors perceived either the schizophrenic or psychopathic defendant. Truong, Kelley, and Edens (2021) found comparable results when examining psychopathy compared to schizophrenia. In their findings, both diagnoses were rated similarly in perceived traits associated with psychopathy, which suggests that participants may be less swayed by diagnostic labels alone, instead focusing on perceived traits and described behaviors. Additionally, the presentation of a violent crime, such

as murder, may in fact invoke judgements of psychopathic behavior, regardless of the diagnostic information presented. In the present study, the descriptions and expert diagnostics provided may have demonstrated a similar effect, such that participants viewed both types of defendants as equally negative and psychopathic. Similarly, Kelley et al. (2019) devised a meta-analysis of prior research comparing psychopathic defendants to defendants with other diagnoses. It was theorized that studies producing null effects for mental diagnosis may have not sufficiently induced differing perceptions of the defendant. Therefore, it was suggested that such studies include a more thorough manipulation check process, to assess participants' direct evaluations of psychopathic tendencies among the case conditions (Kelley et al., 2019). As such, this suggestion should be considered in future studies. Furthermore, Truong, Kelley, and Edens (2021) compared the schizophrenic and psychopathic defendant to a "normal" defendant, without a mental diagnosis. While a comparison to a healthy condition was not evaluated in the present study, it could serve as a productive avenue for future research as well as the implementation of further diagnoses, such as other personality disorders.

The findings related to expert testimony and prior record, however, do provide some insight into the workings of these capital case factors. Amongst the expert testimony conditions, neuroscientific expert testimony was distinguished from general expert testimony across all relevant analyses. It was viewed as more credible, confident, and likeable than the general expert condition. While these conditions differed from each other, it is important to note that the neuroscientific expert was not viewed as having greater knowledge or trustworthiness compared to the general expert. Additionally, neuroscientific testimony was found to increase the likelihood of choosing the death penalty compared to general testimony, however this increase was relatively small. Furthermore, as previously elaborated on, the low amount of death qualified

participants and death sentences limit the interpretation of the results. As such, these findings fall in line with more recent efforts that lacked support for claims of the overly influential "scientific allure" (LaDuke et al., 2018; Mowle et al., 2016; Schweitzer & Saks, 2011). While there may be some distinguishing features of neuroscientific testimony, it does not appear that mock jurors are prone to be overtly influenced by it when it comes to legal decision-making and sentencing outcomes. These findings are beneficial as the results support the notion that legal professionals do not need to be fearful of the presentation of neuroscientific evidence in high stakes environments, such as capital cases.

Admission of a prior record was found to increase both the negative perceptions of the defendant, as well as likelihood of providing a death sentence. Prior research has been rather limited on jurors' perceptions of prior record, particularly within a capital trial context. As seen in other research, the influence of admission of a prior record seems to be reliant on crime type as well as likeness to current charges (Cowley and Colyer, 2010; Tanford & Cox, 1988; Tanford et al., 1985). In the present study, the prior record consisted of an assault charge during a barroom brawl, which is a lesser crime than the current charges, yet still violent in nature. This finding may hold legal implications for protection or admission of prior history when facing capital case charges, particularly if the record includes crimes violent in nature. Theoretically, information regarding a prior record is to be used for establishing credibility or motive; it is not intended to contribute to guilt judgements (Fed. R. Evid. 609(a); Fed. R. Evid. 404). In the current case, the assault charge was independent and did not infer motive for the present crime. Therefore, by legal standards, this information should not have influenced sentencing decisions. These findings may suggest that mock jurors are using information about a prior charge as evidence in guilt or sentencing evaluations, rather than for establishing credibility or motive.

Future research should continue pursuit of these effects to evaluate how mock jurors are applying this knowledge and how their perceptions relate to determinations of guilt or punitiveness.

The final portion of this study sought to evaluate mock juror characteristics and attitudes on perceptions and judgement decisions. As to be expected, participants with higher conviction proneness scores were more likely to sentence the defendant to death. However, interestingly, as cynicism toward the defense increased, the likelihood of a death sentence decreased. The proposed model for NFC and NFA moderation between expert testimony and case judgements was not supported. It appears that these processing styles did not play a significant role in mock jurors' perceptions of the witness or defendant, nor did they influence their sentencing decisions. McAuliff and Kovera (2008) found that mock jurors who were high in NFC were better able to distinguish between evidence that was either high or low in validity, whereas jurors low in NFC were not able to detect such differences. As such, the transcript used in the present study did not address issues of validity in the testimony or diagnostic criteria, therefore the function of NFC may be limited in evaluation of testimony. Utilizing capital trial simulation videos, Corwin, et al. (2012) found an effect of NFA in mock jurors' perceptions of remorse and leniency in sentencing. However, the current study relied on a case vignette, rather than videotaped trial segments, which may have encouraged emotional distance from the materials. While the neurological psychologist was viewed as overall more credible than the general psychologist, this difference does not appear to be a function of need for cognition or affect. As such, future research should further evaluate mock juror attitudes in relation to perceptions of witness credibility.

An additional interesting finding was that death-qualified individuals are less likely to sentence the defendant to death. This is likely due to the current standards set in place by

Wainwright v. Witt (1985) and *Morgan v. Illinois* (1992). These standards protect both against those who would never recommend the death penalty, and those who would always provide the death penalty. Some participants within the sample may have been prone to giving the death sentence, therefore death qualification standards reduced the likelihood of the death penalty. This finding supports the ongoing implementation of death qualification procedures that protect against both extremes of the pendulum.

Limitations

The present study was prone to some limitations. First, the nature of completing an online survey and utilizing a written case vignette may have limited the emotional salience of the stimulus materials. Additionally, it was difficult to decipher which participants were attentive to the materials or engaged with the content. While the present study utilized open-ended attention check questions to assess attentiveness to overall case materials, there was a lack of a manipulation check regarding the diagnosis provided by the expert, which may contribute to the lack of significant findings for mental diagnosis. Further manipulation check questions would also be beneficial to gauge participants' interpretation of the diagnostic evidence, to assess if the conditions were being perceived as equally psychopathic. Furthermore, adding a control condition, one that did not include a diagnosis, could further investigate the perceptions of the defendant and case materials compared to exposure of any kind of diagnosis. While schizophrenia and psychopathy have been shown to elicit differing responses from mock jurors, they each hold a level of emotional salience that could be experienced similarly by jurors. Additionally, the Attitudes Toward Persons with Mental Illness Scale (APWMI) demonstrated overall low internal consistency and reliability (α = .571), which should be taken into account when interpreting the results.

The proportion of death-qualified individuals within the sample also resulted in a lack of power in analyses, therefore limiting the interpretation of results. Therefore, the findings of the present study could be extended through recruitment of more death qualified individuals. Yet, the inclusion of DQ status as a covariate allowed for greater evaluation of how death qualification exposure influences sentencing decisions within a capital trial. In future research, it may be advantageous to continue to examine such effects.

Furthermore, as previously mentioned, it appeared that the mitigation arguments may have been too powerful, therefore hindering the ability to elicit enough death sentences to produce meaningful analyses. In future studies, pilot testing would be beneficial to find a more stable balance between mitigating and aggravating factors, as to elicit a larger number of death sentences. However, the lack of death penalty support from participants aligns with more recent trends in support of capital punishment, which has shown a decrease in recent years (Death Penalty Information Center, 2021).

Finally, the sample was somewhat homogenous in demographic information. While Amazon's Mechanical Turk surveys adults across the nation, it is unknown how region or political affiliation may have influenced beliefs about the death penalty. Furthermore, it is unknown how many individuals originate from states in which the death penalty is not allowed. Ecological validity is also limited for the current study, as participants were not provided the opportunity to deliberate with other mock jurors. Furthermore, materials were presented as a case transcript rather than a reenactment, which may limit engagement with the content.

Despite these limitations, the present study produced several contributions to this body of literature, in addition to paving an avenue for future research. As capital trials continue to occur throughout the United States and questions of competency arise, it is crucial to further examine

the surrounding influences of differing case evidence. Furthermore, as society shifts toward destigmatizing mental health, bias toward individuals with mental illness should be examined over time. Disparities exist in societies' understanding of how jurors interpret and apply defendant information, such as a history of conviction. Therefore, it is imperative to continue pursuing an understanding of such factors.

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Appendix A
MAT1: Case Vignette
Myers et al. (2013)

Please read the following case summary of a capital murder trial. Later in today's research session you will be asked to make decisions based on this case summary, so please read it carefully. When you have finished reading the case summary please continue.

According to the prosecution on the night of August 25, 2018, at approximately 2300 hours (11:00 o'clock at night) Joe Batts entered the home of Steven and Sally Hall with the intent of committing robbery. Batts broke into the home through the back patio door.

Upon entering the home, Joe Batts searched the home for money and jewelry, which he found in the master bedroom. Steven Hall, who came home from a city council meeting where he works as the city treasurer, surprised Joe Batts during the robbery. Not knowing what to do, Joe Batts panicked and discharged one shot from a .45 caliber Smith & Wesson semi-automatic handgun. The bullet entered Mr. Hall's back and penetrated his heart, which resulted in his instant death.

Joe Batts left the scene via the back patio doors. A concerned neighbor who heard the gun shot phoned 911. The neighbor's husband saw a tall male running across his backyard. He described the subject as wearing a baseball cap and a baggy Panther's sweatshirt.

When the police arrived at the scene, they found Steven Hall lying on the floor in front of the couch face down. Emergency responders verified that Mr. Hall was dead.

Police apprehended Joe Batts in a vehicle ten blocks from the crime scene. Mr. Hall's wallet, several pieces of Sally Hall's jewelry, and a .45 caliber Smith & Wesson handgun were found under the driver's seat during a search of the vehicle. When questioned by the police Joe Batts spontaneously yelled, "I needed the money."

Evidence presented during the trial included Joe Batts' DNA on a crushed cigarette butt found on the concrete patio step at the victim's residence. Fingerprints on the glass sliding door and on the .45 caliber handgun matched the fingerprints of the defendant. Ballistics tests confirmed the bullet extracted from Mr. Hall's body during the autopsy was fired from the .45 caliber handgun found under the driver's seat in Joe Batts' vehicle. Gunshot residue analysis of the defendant's hands also confirmed that he had fired a weapon during the time period of the murder. In a lineup at the police station the neighbor was able to identify Joe Batts based on the clothes he was wearing. The medical examiner testified that Steven Hall died instantly.

According to the defense team, several circumstances contributed to this crime. At the time of the crime, Mr. Batts was suffering from a mental and emotional disturbance and was not thinking clearly. He was taking prescription psychotropic medication for his problems. Confounding the defendant's mental state is a history of an abusive relationship with his stepfather who has always belittled him.

When the trial was complete, a jury unanimously voted that Mr. Batts was guilty of first-degree murder. I would like you to now assume that the defendant was found guilty. It is your job, as a juror, to read the following summary of the testimony and closing arguments presented during the penalty phase. Later you will be asked to make sentencing recommendations.

Penalty Phase

Prosecution Arguments:

The prosecution has offered evidence for you to consider when deciding the penalty for Mr. Batts. All of the issues the prosecutor presents are official "aggravating circumstances" in the State of Wyoming. While the Prosecution believes that all of these circumstances are reason enough to consider the death penalty, you, the jury, must agree that one of these circumstances exists beyond a reasonable doubt to choose death.

The prosecution argues that the charge of first-degree murder is a capital felony and should be punishable by death. If Mr. Batts was willing to kill another human being, he should not get to continue living himself. This murder was committed during the commission of another felony: armed robbery.

[The prosecution would like to point out that Mr. Batts not only has a prior history of violence, but that he was on probation for another violent crime in the past. In 2010, Joe Batts had plead guilty of assaulting a person during a barroom brawl. He was sentenced to five years' probation.]

[OMIT FOR NO PRIOR CRIMINAL HISTORY CONDITION]

Further, Steven Hall, the man who was killed, was a public official and the treasurer for the city. Through his work, Steven Hall helped the city council allocate monies for city improvements and this important position will have to be filled by another individual.

In addition, the prosecution would like to point out that while Mr. Batts only killed Steven Hall, Sally Hall could have just as easily been a victim had she walked into the house at the time of the crime.

Finally, the Prosecution feels that the brutal murder of Mr. Steven Hall shows that this defendant cares nothing for human life. The Prosecution believes that this harshness and lack of care for the feelings and lives of others is surely deserving of the harshest punishment, death.

Defense Arguments:

The defense has offered evidence for you to consider when deciding the penalty for Mr. Batts. All of the issues the defense presents are official "mitigating circumstances" in the State of Wyoming. While the defense believes that all of these circumstances are reason enough to consider a life sentence, you, the jury may use any of these or other circumstances to choose life in prison.

The defense attorney argues that Mr. Batts was a brother and friend. His entire family considered him to be a "good person at heart," who had lived a tough life. As a child he was abused by his stepfather, which led to a rather problematic childhood. Although he had proudly served in the Iraq War, he came back to find his life in shambles.

[He suffered from mental and emotional disturbances, which caused him to lose his temper one night and engage in a barroom fight for which he plead guilty of assault. While on probation, Mr. Batts tried to turn his life around but could not get past his emotional problems. Not thinking clearly and not knowing what to do, he decided to rob Steven Hall's home. Mr. Batts had no intention of killing Steven Hall, but did not know what to do when Steven Hall surprised Mr. Batts during the robbery.] – ONLY SHOW IN THE PRIOR HISTORY CONDITION

[He suffered from mental and emotional disturbances. Not thinking clearly and not knowing what to do, he decided to rob Steven Hall's home. Mr. Batts had no intention of killing Steven Hall, but did not know what to do when Steven Hall surprised Mr. Batts during the robbery. Mr. Batts has never been in conflict with the law before and although this was a terrible act, Mr. Batts has no prior criminal record or history of violence.] – ONLY SHOW IN THE NO PRIOR HISTORY CONDITION.

The defense would like to remind you, the jury, that a man's life hangs in the balance. It is agreed that this was a terrible and senseless act. But killing Mr. Batts will not bring back the life of Steven Hall. He must now live the rest of his life knowing the harm he has caused. The defense asks that you show mercy to Mr. Batts.

Expert testimony

The Defendant's Expert Witness, Testimony Provided by Dr. Brooks:

The defendant calls to the stand Dr. Brooks.

Defendant's attorney: Dr. Brooks, will you inform the court of your credentials?

Dr. Brooks: I have a Doctorate Degree (Ph.D.) in [Clinical Psychology/Cognitive Neuroscience].

Defendant's attorney: Can you tell us more about your educational background?

Dr. Brooks: Yes. I earned my undergraduate degree from Tufts University in Psychology. I then went on to earn a doctorate's degree in [Clinical Psychology/Cognitive Neuroscience] from the University of Massachusetts.

Defendant's attorney: When did you receive your Ph.D.?

Dr. Brooks: I earned my doctorate in 2012.

Defendant's attorney: Where are you currently employed?

Dr. Brooks: I work as a [Clinical Psychologist/Cognitive Neuroscientist] at the Wyoming State Hospital.

Defendant's attorney: What is your area of specialization?

Dr. Brooks: My main work is with patients experiencing mood and psychotic disorders.

Defendant's attorney: Would you consider yourself an expert in this field and if so, why?

Dr. Brooks: I would say so. I have worked with patients in the field for ten years now.

Defendant's attorney: Thank you. Given your level of expertise, your opinion is greatly appreciated on this case. What is your conclusion about this case based on the documentation and evidence you have reviewed?

Dr. Brooks: Based on my experience with the defendant, conditions exist for a diagnosis of [schizophrenia/psychopathy].

Defendant's attorney: Will you inform the court of the characteristics of [schizophrenia/psychopathy]?

Dr. Brooks:

[Psychopathy/General]

Someone who is diagnosed with psychopathy would be characterized as: superficially charming but self-centered and egotistical, callous and remorseless about his bad actions, a compulsive liar and manipulator, and blames others for his bad actions.

[Psychopathy/Neuroscientific]

Someone who is diagnosed with psychopathy would be characterized as: superficially charming but self-centered and egotistical, callous and remorseless about his bad actions, a compulsive liar and manipulator, and blames others for his bad actions. Additionally, psychopathy is characterized by emotional disfunction, which can appear as reduced emotional responses to stimuli and diminished responses to reinforcement learning. Behaviors, such as impulsivity and risk taking are frequently observed in patients. Reduced activation in the brain is often seen in areas such as the amygdala and other limbic system structures.

[Psychopathy/Clinical]

Someone who is diagnosed with psychopathy would be characterized as: superficially charming but self-centered and egotistical, callous and remorseless about his bad actions, a compulsive liar and manipulator, and blames others for his bad actions. Additionally, psychopathy is characterized by emotional disfunction, which can appear as impairment in emotional learning and difficulty in social situations. Attitudes, such as those of grandeur and apathy, are frequently seen in patients.

[Schizophrenia/General]

Someone who is diagnosed with schizophrenia would be characterized as: having delusions, having hallucinations, having very disorganized thought and speech, engaging in bizarre behaviors and mannerisms, and displaying “inappropriate emotions.”

[Schizophrenia/Neuroscientific]

Someone who is diagnosed with schizophrenia would be characterized as: having delusions, having hallucinations, having very disorganized thought and speech, engaging in bizarre behaviors and mannerisms, and displaying “inappropriate emotions.” Additionally, schizophrenia is characterized by prominent neurological and cognitive deficits, which appear as disturbances in attention and working memory. Changes in motor ability, such as abnormal sequencing of movements and disruptions to movement are frequently observed in patients. Structural abnormalities in the brain are often present in areas such as the prefrontal cortex and temporal lobe structures.

[Schizophrenia/Clinical]

Someone who is diagnosed with schizophrenia would be characterized as: having delusions, having hallucinations, having very disorganized thought and speech, engaging in bizarre behaviors and mannerisms, and displaying “inappropriate emotions.” Additionally, schizophrenia is characterized by emotional symptoms, such as withdrawal from society and impaired motivation. Attitudes, such as suspicion, are frequently observed in patients.

Defendant's attorney: I see. What specific aspects of your assessment led you to believe that the defendant should be diagnosed with [schizophrenia/psychopathy]? / OMIT FOR GENERAL CONDITION

Dr. Brooks:

OMIT FOR GENERAL CONDITION

[Clinical/Schizophrenia]

During my time with the defendant, I noticed his abnormal gestures when speaking, as well as his disorganized speech and thoughts. When recounting a seemingly insignificant event encounter with a neighbor, the defendant repeatedly provided much speculation as to what the “true” intentions of the neighbor were. Additionally, the defendant appeared to be continually suspicious of my presence and discussion. As part of the assessment, a personality test, the Minnesota Multiphasic Personality Inventory (MMPI-2), was utilized to evaluate mental function. Upon review, the results indicated high scores on several measures, which are often associated with mental disfunction. In addition, the defendant’s clinical interviews, history, and observed behavior were all indicative of a diagnosis of schizophrenia.

[Clinical/Psychopathy]

During my time with the defendant, I noticed his difficulty in maintaining discussion, as well as his callousness. When recounting a seemingly tragic story, the defendant appeared apathetic. Additionally, the defendant appeared to be continually attempting to manipulate the discussion. As part of the assessment, a personality test, the Minnesota Multiphasic Personality Inventory (MMPI-2), was utilized to evaluate mental function. Upon review, the results indicated high scores on several measures, which are often associated with mental disfunction. In addition, the defendant's clinical interviews, history, and observed behavior were all indicative of a diagnosis of psychopathy.

[Neuroscientific/Schizophrenia]

During my time with the defendant, several measures were conducted to assess cognitive function. The defendant demonstrated low performance on measures of attention and working memory. Additionally, the defendant scored poorly on further executive function tasks, indicating poor planning and reasoning skills. As part of the assessment, an MRI was also utilized to evaluate brain structure and function. Upon review, it was noted that there appeared several brain abnormalities which are often associated with mental disfunction. In addition, neurological tests within the assessment battery administered and scored by a neurologist were all indicative of a diagnosis of schizophrenia.

[Neuroscientific/Psychopathy]

During my time with the defendant, several measures were conducted to assess emotional learning. The defendant demonstrated low performance on measures of emotional recognition. Additionally, the defendant scored poorly on a gambling task, indicating high risk-taking and impulsivity. As part of the assessment, an MRI was also utilized to evaluate brain structure and function. Upon review, it was noted that there appeared several brain abnormalities which are often associated with mental disfunction. In addition, neurological tests within the assessment battery administered and scored by a neurologist were all indicative of a diagnosis of psychopathy.

Defendant's attorney: Based on what you know, do you believe the defendant was experiencing an impaired mental state during the time of crime?

Dr. Brooks: Yes.

Defendant's attorney: No further questions.

Appendix B
Judicial Sentencing Instructions

The defendant has entered a plea of not guilty to the allegations of this Bill of Particulars, which casts on the State the burden of proving beyond a reasonable doubt the existence of one or more aggravating circumstance. This Bill of Particulars simply states the grounds upon which the State seeks imposition of the death penalty. It sets forth in a formal way the aggravating circumstances of which the defendant is accused. The Bill of Particulars is NOT evidence that any aggravating circumstance exist. You must not be influenced against the defendant by reason of the filing of this Bill of Particulars.

The defendant is presumed to be innocent of the allegations made against him in the Bill of Particulars. This presumption of innocence continues unless one or more of the aggravating circumstances is proven beyond a reasonable doubt. If, upon consideration of all of the evidence, facts, and circumstances in the case, you have a reasonable doubt of the existence of each and every aggravating circumstance alleged in the Bill of Particulars, you must give him the benefit of that doubt and return a sentence of life imprisonment without the possibility of parole.

1. Overall, your decision is to be based on one of the following:
   A. Whether one or more aggravating circumstance exist beyond a reasonable doubt.
   B. Whether, by a preponderance of the evidence, mitigating circumstances exist, and
   C. The mere number of aggravating and mitigating circumstances found shall have no independent significance.

2. The juror shall consider aggravating and mitigating circumstances unanimously found to exist. In addition, each individual may consider any mitigating circumstance that they alone have found to exist.

3. Aggravating circumstances are those, which increase the guilt or enormity of the offense. In determining which sentence you may impose in this case, you may consider only those aggravating circumstances set forth in these instructions.

   A. The death penalty shall not be imposed unless at least one of the aggravating circumstances listed below are found:
      a. The murder was committed by a person on parole or on probation for a felony.
      b. The defendant knowingly created a great risk of death to two or more persons.
      c. The murder was especially atrocious or cruel, being unnecessarily tortuous to the victim.
      d. The defendant poses a substantial and continuing threat of future dangerousness or is likely to commit continued acts of criminal violence.
      e. The defendant killed another human being purposely and with premeditated malice and while engaged in, or an attempt to commit any robbery or burglary.

4. Mitigating circumstances are those which, in fairness, sympathy and mercy, may extenuate or reduce the degree or moral culpability of blame.

A. Mitigating circumstances shall include the following

a. The defendant has no significant history of prior criminal activity.
b. The murder was committed while the defendant was under the influence of extreme mental or emotional disturbance.
c. Any other fact or circumstance of the defendant's character or prior record or matter, which serves to mitigate his culpability.

B. While you as a juror must agree that the State has established beyond a reasonable doubt the existence of at least one aggravating circumstance prior to consideration of the death penalty. In addition, mitigating circumstances do not have to be proven beyond a reasonable doubt in order for you to consider them. Even if you find that the aggravating circumstances outweigh the mitigating circumstances, you may impose a sentence of imprisonment for life without the possibility of parole.

5. If you the juror report to impose the sentence of death, the court shall discharge the juror and shall impose the sentence of death. If you the juror are unable to reach a verdict imposing the sentence of death within a reasonable time, the court shall discharge the juror and impose the sentence of life imprisonment.

You determine the facts. The importance and worth of the evidence is for you to decide. You must not use any kind of chance in reaching a verdict, but you must rest it on the belief of each of you who agrees with it.

Appendix C
Sentencing Questionnaire
Myers, et al. (2013)

1. Which punishment would you vote to impose upon Mr. Batts? (select one)

_____Life in prison with no possibility of parole
_____Death penalty

2. Mr. Batts should receive the death penalty.

1	2	3	4	5	6	7
strongly disagree						strongly agree

3. Compared to other families that have lost a loved one due to murder, how much do you believe Mr. Hall's wife is <u>suffering</u> right now?

1	2	3	4	5	6	7
much less						much more

4. Using the scale below, how confident are you in your sentence?

1	2	3	4	5	6	7
Not confident At all						Very confident

5. Please check the response that represents your true belief about the death penalty. Regarding the death penalty, do you believe that as a juror you would never be willing to impose the death penalty in any case, no matter what the evidence was, **<u>or</u>**
would you be willing to consider voting to impose the death penalty in some cases? (check <u>one</u> statement only)

_____I would <u>not</u> be willing to impose the death penalty in any case.
_____I would consider voting to impose the death penalty in some cases.

6. How much sympathy do you have for Sally Hall, who has lost her husband?

1	2	3	4	5	6	7
not sympathetic					extremely sympathetic	

7. How angered do you feel toward the defendant, Mr. Batts, right now?

1	2	3	4	5	6	7
I do not feel angry						I feel extremely angry

Appendix D
Perceptions of Criminal Defendants Scale (PCDS)
Crawley et al. (2017)

Please answer the next questions about the defendant in the current case. Please indicate how much you agree or disagree with each of the first nine statements using the following scale:

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Slightly agree
5 = Agree
6 = Strongly agree

1. I am fearful of this individual.
2. This individual appears to be cruel.
3. This individual is an evil person.
4. This individual is emotionally cold.
5. This individual deserves mercy.
6. I think this individual would be likely to commit a crime in the future.
7. I believe this individual probably has a prior criminal record.
8. This individual seems trustworthy.
9. I would set the bail very high for this individual.
10. If guilty, what type of sentence would you recommend?*
    a. No Sentence/No Punishment at all
    b. No Jail Time; Probation and/or Community Service
    c. Minimum Jail or Prison Sentence With Possible Parole d. Moderate Prison Sentence With Possible Parole
    e. Maximum Prison Sentence With Possible Parole
    f. Maximum Prison Sentence With No Possibility of Parole

To score: Reverse the scoring on items Number 5 and 8. Then, calculate the mean score across all 10 items. Higher scores indicate harsher judgments of the defendant.

*Question 10 was removed due to the inclusion of a separate sentencing measure

Appendix E
Witness Credibility Scale (WCS)
Brodsky et al., 2010

Instructions: Please rate the expert witness for the following items on the scale provided.
If you are unsure, please take your BEST GUESS.

Unfriendly	1	2	3	4	5	6	7	8	9	10 Friendly
Disrespectful	1	2	3	4	5	6	7	8	9	10 Respectful
Unkind	1	2	3	4	5	6	7	8	9	10 Kind
Ill-Mannered	1	2	3	4	5	6	7	8	9	10 Well-Mannered
Unpleasant	1	2	3	4	5	6	7	8	9	10 Pleasant
Untrustworthy	1	2	3	4	5	6	7	8	9	10 Trustworthy
Untruthful	1	2	3	4	5	6	7	8	9	10 Truthful
Undependable	1	2	3	4	5	6	7	8	9	10 Dependable
Dishonest	1	2	3	4	5	6	7	8	9	10 Honest
Unreliable	1	2	3	4	5	6	7	8	9	10 Reliable
Not confident	1	2	3	4	5	6	7	8	9	10 Confident
Inarticulate	1	2	3	4	5	6	7	8	9	10 Well-Spoken
Tense	1	2	3	4	5	6	7	8	9	10 Relaxed
Shaken	1	2	3	4	5	6	7	8	9	10 Poised
Not Self-Assured	1	2	3	4	5	6	7	8	9	10 Self-Assured
Uninformed	1	2	3	4	5	6	7	8	9	10 Informed
Illogical	1	2	3	4	5	6	7	8	9	10 Logical
Uneducated	1	2	3	4	5	6	7	8	9	10 Educated
Unwise	1	2	3	4	5	6	7	8	9	10 Wise
Unscientific	1	2	3	4	5	6	7	8	9	10 Scientific

Appendix F
Need for Cognition Scale (NFC)
Cacioppo, Petty, Kao (1984)

For each of the statements below, please indicate to what extent the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) select "1" ; if the statement is extremely characteristic of you (very much like you) select a "5" for the question. Of course, a statement may be neither extremely uncharacteristic nor extremely characteristic of you; if so, please use the number in the middle of the scale that describes the best fit.

1. I would prefer complex to simple problems.
2. I like to have the responsibility of handling a situation that requires a lot of thinking.
3. Thinking is not my idea of fun.*
4. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.*
5. I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something.*
6. I find satisfaction in deliberating hard and for long hours.
7. I only think as hard as I have to.*
8. I prefer to think about small, daily projects to long-term ones.*
9. I like tasks that require little thought once I've learned them.*
10. The idea of relying on thought to make my way to the top appeals to me.
11. I really enjoy a task that involves coming up with new solutions to problems.
12. Learning new ways to think doesn't excite me very much.*
13. I prefer my life to be filled with puzzles that I must solve.
14. The notion of thinking abstractly is appealing to me.
15. I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
16. I feel relief rather than satisfaction after completing a task that required a lot of mental effort.*
17. It's enough for me that something gets the job done; I don't care how or why it works.*
18. I usually end up deliberating about issues even when they do not affect me personally

*reverse-scored

Scale:

1	2	3	4	5
Extremely uncharacteristic	*Somewhat uncharacteristic*	*Uncertain*	*Somewhat characteristic*	*Extremely characteristic*

Appendix G
Need For Affect Scale (NFA)
Maio & Esses (2001)

1. If I reflect on my past, I see that I tend to be afraid of feeling emotions.
2. I have trouble telling the people close to me that I love them.
3. I feel that I need to experience strong emotions regularly.
4. Emotions help people get along in life.
5. I am a very emotional person.
6. I think that it is important to explore my feelings.
7. I approach situations in which I expect to experience strong emotions.
8. I find strong emotions overwhelming and therefore try to avoid them.
9. I would prefer not to experience either the lows or highs of emotion.
10. I do not know how to handle my emotions, so I avoid them.
11. Emotions are dangerous—they tend to get me into situations that I would rather avoid.
12. Acting on one's emotions is always a mistake.
13. We should indulge our emotions.
14. Displays of emotions are embarrassing.
15. Strong emotions are generally beneficial.
16. People can function most effectively when they are not experiencing strong emotions.
17. The experience of emotions promotes human survival.
18. It is important for me to be in touch with my feelings.
19. It is important for me to know how others are feeling.
20. I like to dwell on my emotions.
21. I wish I could feel less emotion.
22. Avoiding emotional events helps me sleep better at night.
23. I am sometimes afraid of how I might act if I become too emotional.
24. I feel like I need a good cry every now and then.
25. I would love to be like "Mr. Spock," who is totally logical and experiences little emotion.
26. I like decorating my bedroom with a lot of pictures and posters of things emotionally significant to me.

Approach: 3, 4, 5, 6, 7, 13, 15, 17, 18, 19, 20, 24, and 26
Avoid: 1, 2, 8, 9, 10, 11, 12, 16, 21, 22, 23, and 25

Scale:

-3 = Strongly disagree to 3 = Strongly agree

Appendix H
Pretrial Juror Attitude Questionnaire (PJAQ)
Lecci & Myers, 2008

Directions: Please rate your agreement with the following items according to the 5-point scale below. Please try to make a clear choice for each item (that is, only pick the middle option if you have absolutely no opinion one way or the other). Pick only one option for each item. Please read each item carefully and be as honest as possible.

1. If a suspect runs from police, then he probably committed the crime. (CON)
2. A defendant should be found guilty if 11 out of 12 jurors vote guilty. (CP)
3. Too often jurors hesitate to convict someone who is guilty out of pure sympathy. (CP)
4. In most cases where the accused presents a strong defense, it is only because of a good lawyer. (CYN)
5. Out of every 100 people brought to trial, at least 75 are guilty of the crime with which they are charged. (CON)
6. For serious crimes like murder, a defendant should be found guilty so long as there is a 90% chance that he committed the crime. (CP)
7. Defense lawyers don't really care about guilt or innocence; they are just in business to make money. (CYN)
8. Generally, the police make an arrest only when they are sure about who committed the crime. (CON)
9. Many accident claims filed against insurance companies are phony. (CYN)
10. The defendant is often a victim of his own bad reputation. (RB)*
11. Extenuating circumstances should not be considered; if a person commits a crime, then that person should be punished. (CP)
12. If the defendant committed a victimless crime, like gambling or possession of marijuana, he should never be convicted. (SJ)*
13. Defense lawyers are too willing to defend individuals they know are guilty. (CYN)
14. Police routinely lie to protect other police officers. (CYN)
15. Once a criminal, always a criminal. (INNCR)
16. Lawyers will do whatever it takes, even lie, to win a case. (CYN)
17. Criminals should be caught and convicted by “any means necessary.” (CP)
18. A prior record of conviction is the best indicator of a person's guilt in the present case. (CON; INNCR)
19. Rich individuals are almost never convicted of their crimes. (SJ)
20. If a defendant is a member of a gang, he/she is definitely guilty of the crime. (INNCR)
21. Minorities use the “race issue” only when they are guilty. (RB)
22. When it is the suspect's word against the police officer's, I believe the police. (CON)
23. Men are more likely to be guilty of crimes than women. (INNCR)
24. The large number of African Americans currently in prison is an example of the innate criminality of that subgroup. (RB)
25. A Black man on trial with a predominantly White jury will always be found guilty. (SJ)
26. Minority suspects are likely to be guilty, more often than not. (RB)
27. If a witness refuses to take a lie detector test, it is because he/she is hiding something. (CON)

28. Defendants who change their story are almost always guilty. (CYN)
29. Famous people are often considered to be “above the law.” (SJ)

CP = conviction proneness
CON = system confidence
CYN = cynicism towards defense
R = racial bias
SJ = social justice
INNCR – innate criminality
*Reverse Scored

Scale:

1	2	3	4	5
Strongly disagree	*Disagree*	*Neither Agree/Disagree*	*Agree*	*Strongly agree*

Appendix I
Participant Characteristics

Please provide the following information. All information collected will be kept anonymous and confidential.

1. What is your age in years? _____

2. Gender (check all that apply): ____ Man ____ Woman ____
____Queer ____ Nonbinary ____Other (please specify)_____

3. Do you identify as trans (your gender does not correspond to the sex you were assigned at birth):
__Yes __No

4. Race (check the best response for you): ____American Indian/Alaskan Native
____Asian/Pacific Islander ____Black/African American ____White ___North African/Middle Eastern ____ Mixed race) ____Other (please specify)_____

5. Ethnicity (check one): ____Hispanic/Latinx ____White/non-Hispanic
____Other (please specify)_____

6. Sexual identity (check all that apply): ____Gay ____Lesbian ____Straight ____Bisexual
____Queer ____Questioning ____Pansexual ____Asexual ____Prefer no label
____Other (please specify)_____

7. What is your highest educational level? (check one):
____Informal Education ____Trade School or Other Education (specify)
____Less than high school ____Some high school ____High school diploma/GED
____Associates degree ____Bachelor's degree ____Master's degree ____Doctoral degree (including MD, JD)

8. With which, if any, political party or affiliation do you identify? (check one):
____Republican ____Democratic ____Libertarian ____Independent ____Green Party
____None ____Other (please specify): _____

9. With what, if any, religious or spiritual affiliation do you most identify (check all that apply):
____Jewish ____Catholic ____Protestant ____Methodist ____Baptist ____Christian (other) ____Muslim ____Buddhist ____Atheist ____Agnostic ____Polytheist
____Other (please specify):_____

10. Are you currently, or have you ever been, a member of the US military? (check one):
____Yes, current service member ____Yes, veteran ____No

11. Are you a U.S. Citizen? (check one): Yes No

12. If you are not a U.S. citizen, how long have you lived in the U.S.? (in years)

13. Have you ever been convicted of a felony? ____ Yes _____ No

Appendix J
Death Qualification

Is your attitude toward the death penalty so strong that it would seriously affect you as a juror and interfere with your ability to perform your duties?

Yes_____ No_____

If you would vote for the death penalty in at least some cases, is your attitude toward the death penalty such that as a juror you would ALWAYS vote for the death penalty in every case in which you were sure beyond a reasonable doubt that the defendant was guilty of first degree murder?

Yes_____ No_____

I would not vote for the death penalty in any case_____

Is it possible, that even if you thought that the defendant was guilty of capital murder, that you would find them not guilty in order to avoid the possibility of them being sentenced to death?

Yes_____ No_____

Appendix K
Attitudes Towards Persons with Mental Illness Scale (APWMI)
Kobau et al., 2010

In this section, there are a number of statements with which you may or may not agree. For each statement listed, please indicate whether you personally agree or disagree with it. If you don't understand a statement or it is not applicable to you, please leave that row blank.

1. I believe a person with mental illness is a danger to others
2. I believe a PWMI is unpredictable
3. I believe a PWMI is hard to talk with
4. I believe a PWMI would improve if given treatment and support*
5. I believe a PWMI feels the way we all do at times
6. I believe a PWMI could pull himself or herself together if he or she wanted
7. I believe a PWMI can eventually recover*
8. I believe a PWMI can be as successful at work as others*
9. I believe a PWMI has only himself/herself to blame for his/her condition
10. Treatment can help people with mental illness lead normal lives*
11. People are generally caring and sympathetic to people with mental illness*

Scale:

1	2	3	4	5
Strongly disagree	*Disagree*	*Neither Agree/Disagree*	*Agree*	*Strongly agree*

*Reverse scored

Table 1

Distribution of Participants Across Conditions

	N	%
Diagnosis		
Schizophrenia	154	49.2%
Psychopathy	159	50.8%
Expert		
General	103	32.9%
Clinical	106	33.9%
Neuroscientific	104	33.2%
Record		
No Prior	160	51.1%
Prior	153	48.9%

Note. $N = 313$

Table 2

Case Conditions Predicting Sentencing (DQ participants only)

Variable	*b*	SE	Wald	*df*	*p*	Exp(*B*)
Prior Record	.548	.402	1.859	1	.173	1.729
Diagnosis	-.264	.403	.429	1	.512	.768
Expert			3.508	2	.173	
Expert (X_1)	.781	.545	2.056	1	.152	2.184
Expert(X_2)	.978	.530	3.411	1	.065	2.660
Constant	-1.785	.353	25.621	1	<.001	.168

Note. $N = 185$

X_1: Clinical Expert vs. General Expert

X_2: Neuroscientific Expert vs. General Expert

Table 3

Case Conditions Predicting Sentencing (DQ as a Covariate)

Variable	*b*	SE	Wald	*df*	*p*	Exp(*B*)
DQ	-.604	.283	4.548	1	.033*	.546
Prior Record	.673	.287	5.493	1	.019*	1.959
Diagnosis	-.187	.283	.435	1	.509	.803
Expert			5.168	2	.075	
Expert (X_1)	.582	.370	2.473	1	.116	1.789
Expert(X_2)	.820	.363	5.098	1	.024*	2.270
Constant	-1.269	.297	18.264	1	<.001	.281

Note. $N = 313$

*$p < .05$

X_1: Clinical Expert vs. General Expert

X_2: Neuroscientific Expert vs. General Expert

Table 4

Correlations Between Juror Attitudes and Perceptions with Sentencing Decisions

	1	2	3	4	5	6	7	8	9	10	11
1. Sentence[a]	-										
2. PCDS	.445**	-									
3. WCS	-.072	-.077	-								
4. NFA	.055	-.002	-.102	-							
5. NFC	-.116*	-.104	.113*	-.228**	-						
6. SC[b]	.300**	.297**	-.044	.305**	-.241**	-					
7. CP[b]	.372**	.325**	-.154**	.429**	.309**	.749**	-				
8. CTD[b]	.178**	.188**	-.196**	.332**	-.230**	.411**	.585**	-			
9. RB[b]	.263**	.204**	-.213**	.245**	-.261**	.571**	.552**	.384**	-		
10. SJ[b]	.035	-.044	-.010	.185**	-.159**	-.094	.038	.283**	-.104	-	
11. IC[b]	.280**	.212**	-.217**	.396**	-.350**	.714**	.712**	.515**	.617**	.038	-

Note. $N = 185$

*$p < .05$; **$p < .01$

[a] 0 = life in prison, 1 = death penalty

[b] Subscale of PJAQ (SC: System Confidence; CP: Conviction Proneness; CTD: Cynicism Toward the Defense; RB: Racial Bias; SJ: Social Justice; IC: Innate Criminality)

Table 5

Model 1: Juror Perceptions Predicting Sentencing (DQ only)

	b	SE	Wald	*df*	*p*	Exp(*B*)
Model 1						
PCDS	2.242	.411	29.681	1	< .001**	9.408
WCS	-.015	.008	3.417	1	.065	.985
Constant	-9.207	2.038	20.420	1	<.001	.000

Note. $N = 185$

** $p < .01$

Table 6

Model 2: Attitudes Predicting Sentencing (DQ only)

	b	SE	Wald	*df*	*p*	Exp(*B*)
Model 2						
PCDS	2.272	.479	22.505	1	< .001**	9.694
WCS	-.017	.010	3.155	1	.076	.983
NFC	.001	.017	.005	1	.942	1.001
NFA	-.019	.019	1.058	1	.304	.981
System Confidence	-.105	.096	1.189	1	.275	.900
Conviction Proneness	.327	.114	8.219	1	.004**	1.387
Cynicism Toward Defense	-.172	.071	5.843	1	.016*	.842
Racial Bias	-.028	.121	.054	1	.816	.972
Social Justice	-.010	.118	.007	1	.932	.990
Innate Criminality	.128	.146	.766	1	.382	1.136
Constant	-7.12	3.57	3.978	1	.046	.001

Note. $N = 185$

*$p < .05$

** $p < .01$

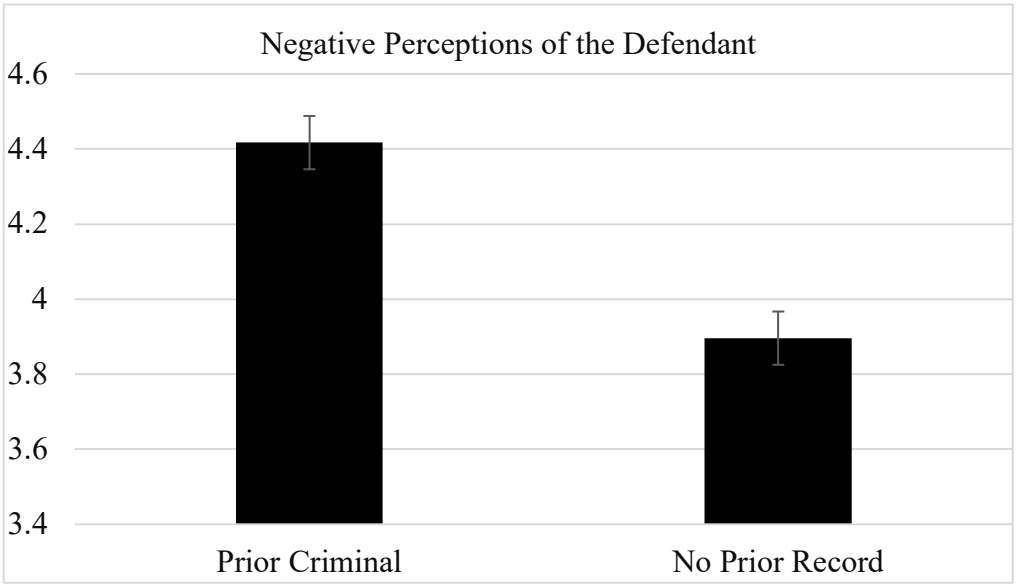

Figure 1. Prior record and defendant perceptions. Disclosure of a prior record, compared to not having a prior record on negative perceptions of the defendant. The error bars represent standard error.

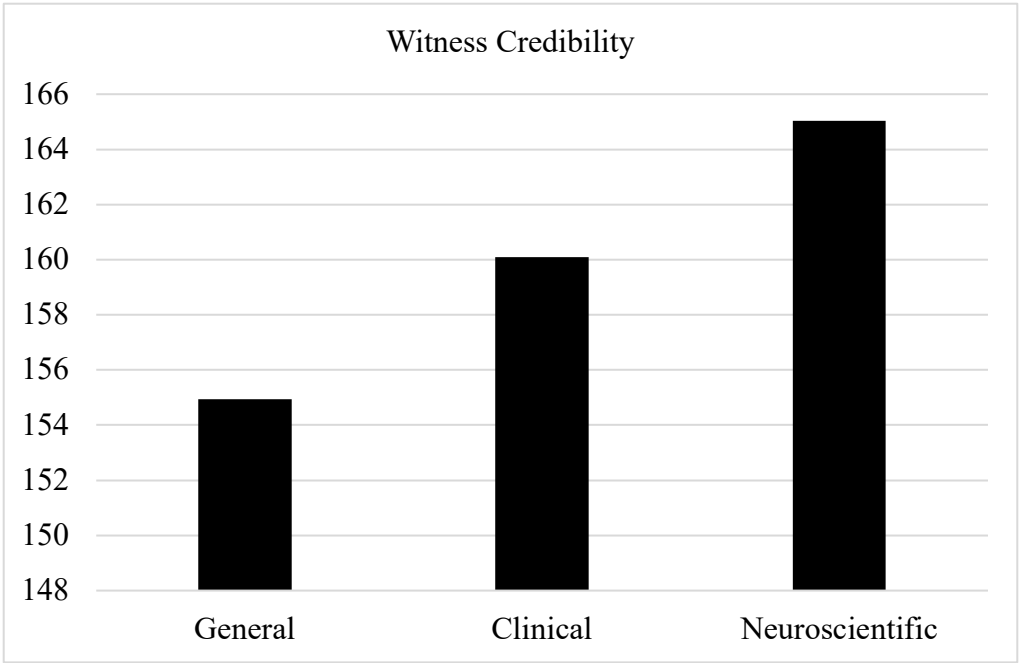

Figure 2. Types of expert testimony on perceived witness credibility. Only the neuroscientific and general experts were significantly different from one another.

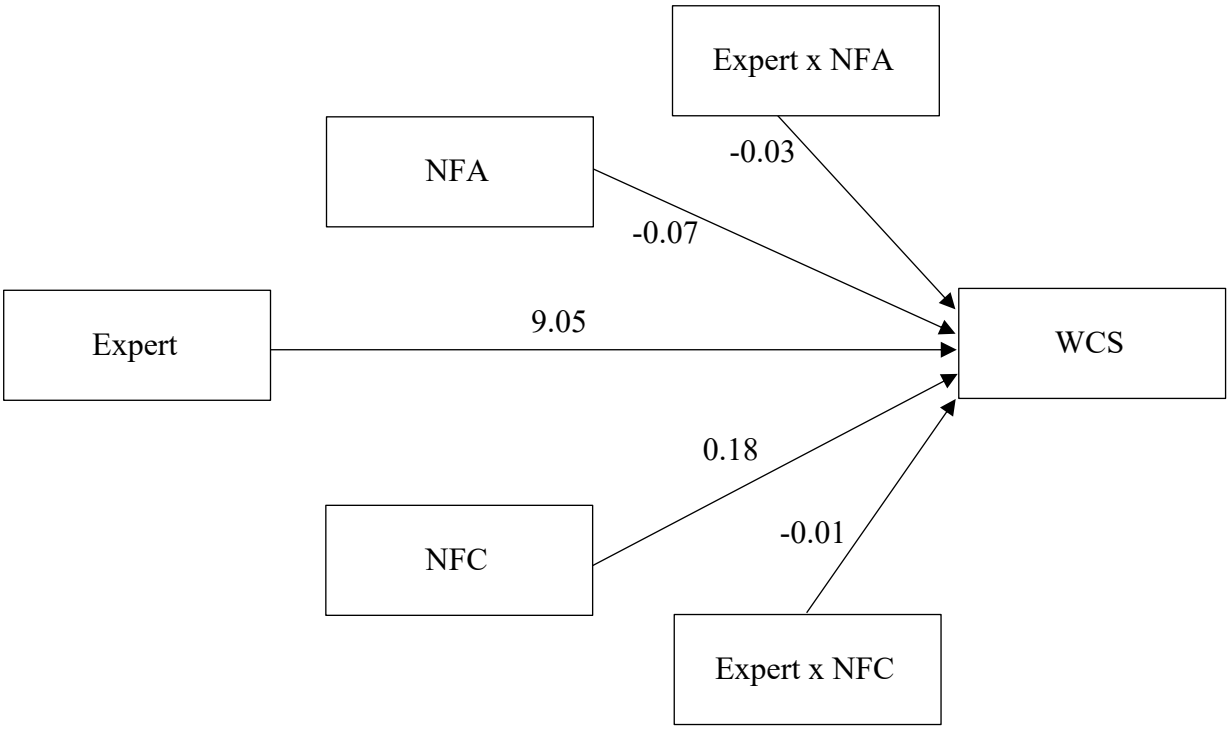

Figure 3. NFA and NFC Moderation Model. None of the pathways were significant at the .05 level.
Note. Coefficients are unstandardized.