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## Factors That Influence Decision-Making In Insanity Cases

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FACTORS THAT INFLUENCE DECISION-MAKING IN INSANITY CASES

by

Destinye Rae Runions

Master of Science, University of North Dakota, 2023

A Thesis

Submitted to the Graduate Faculty

of the

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for the degree of

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This thesis, submitted by Destinye Runions in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

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Dean of the School of Graduate Studies

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Destinye Runions  
July 23, 2023

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## **Abstract**

The insanity defense has been one of the most hotly debated issues in criminal law for centuries. Jurors are generally hostile to the insanity defense and people with psychological disorders and often fail to find defendants insane even when an insanity verdict is warranted. The current study attempted to determine why jurors are hostile to the insanity defense and people with psychological disorders. Participants read one of two case vignettes depicting a defendant suffering from paranoid schizophrenia who committed murder. The vignettes differed in how sympathetic the defendant is in the vignettes, and how dangerous the defendant is to society. The participants rendered a verdict in the case and indicated how confident they were in their verdict. Next, participants were presented with several commonly used insanity tests in the U.S. Lastly, they completed various assessment instruments and provided demographic information to assess whether lack of knowledge about psychological disorders and the insanity defense, attitudes toward psychological disorders and the insanity defense, different views of morality, authoritarianism, Type I thinking, and various demographic variables would affect their verdicts.

## **Factors that Influence Decision-Making in Insanity Cases**

### **Juror Decision-Making**

It is essential that jurors are impartial when deciding cases. In fact, the 6<sup>th</sup> Amendment to the U.S Constitution guarantees defendants' the right to an impartial jury. However, research shows that jurors have strong negative attitudes towards the insanity defense (Hans, 1986; Owen, 2012; Skeem et al., 2004) and frequently do not find defendants insane even when an insanity verdict is warranted. For example, in a study of 7,229 insanity cases from seven states, when a jury trial occurred only 16.1% of the jury trials resulted in a not guilty by reason of insanity ("NGRI") verdict (Cirincione, 1996; Wise & Mavrova, 2022).

Moreover, research shows that different insanity tests do not affect jury verdicts. For instance, one study examined if Congress's enactment of the Insanity Defense Reform Act of 1984 ("IDRA") would clarify the insanity standard for jurors and reduce insanity acquittals. The study gave mock juror one of three insanity tests: the IDRA, the American Law Institute test, or the wild beast/mens rea test. Another group of mock jurors received no insanity test and were told to use their own judgment in deciding the cases. The mock jurors rendered a verdict in four insanity cases and explained the reasons for their verdicts (Finkel, 1989).

The results showed that the different insanity tests did not make a significant difference in the mock jurors' verdicts. Nor did the verdicts of the mock jurors who were not given an insanity test and told to use their own judgment in deciding the cases differ from the mock jurors who were given an insanity test. The different insanity tests also did not affect the mock jurors' reasons for their verdicts (Finkel, 1989). Other research also indicates that different insanity tests do not affect jurors' verdicts (Finkel, 1985; Finkel, 1991; Finkel & Handel, 1988; Finkel & Slobogin, 1995; Ogloff, 1992; Ogloff, 1991; Wise & Mavrova, 2022).

Another study found that the strongest predictors of mock jurors' verdicts were not the insanity test or the facts of the case, but rather how mock jurors construed the evidence in the cases and their attitudes toward the insanity defense (Roberts & Golding, 1991). Extensive research shows that attitudes can bias every aspect of information processing and impact every aspect of cognitive functions from attention to memory (Loudon & Skeem, 2007). Other research also shows that jurors' attitudes toward the insanity defense have a powerful effect on their verdicts and minimize the impact of different tests of insanity and case facts (Krauss, 2018).

Moreover, even when jurors' attitudes about the insanity defense are improved, the improvement may be insufficient to change their verdicts (Maeder et al., 2015; Wise & Mavrova-Heinrich, 2022). For instance, researchers conducted two experiments to determine whether educating mock jurors about the insanity defense would change their attitudes about the defense and, consequently, affect their verdicts.

In the first experiment, 114 undergraduate students were randomly assigned to read either information about the insanity defense or information unrelated to the defense. The information about the insanity defense included the legal definition of insanity, the percentage of defendants who are found insane, and the disposition options for insane defendants. The unrelated information consisted of information about different types of computer storage. Both groups of participants then read a case vignette involving the insanity defense. The information about the insanity defense improved the participants' attitudes toward the defense, but it did not affect their verdicts (Maeder et al., 2015; Wise & Mavrova-Heinrich, 2022).

In the second experiment, the participants consisted of 127 undergraduate students and 131 community members. The materials and procedures were the same as in the first experiment, except the researchers changed the unrelated information the control participants received and

used a different case vignette. In the second experiment, the information about the insanity defense did not change either the participants' attitudes about the defense or their verdicts (Maeder et al., 2015; Wise & Mavrova- Heinrich, 2022).

After examining the results of their two studies, the researchers hypothesized why educating jurors about the insanity defense may not change jurors' attitudes about the insanity defense or affect their verdicts. Their first hypothesis was that the jurors in their studies may have believed that all defendants should be punished for their crimes, even if they were insane at the time of the crime (i.e., "an eye for an eye" morality). Therefore, the jurors in the studies would not render a verdict that did not impose punishment on a defendant even after learning that an insane defendant would not go free. The researchers also hypothesized that education about the insanity defense may fail to alter jurors' attitudes because jurors' attitudes about the insanity defense may affect how they process information about the defense (Maeder et al., 2015). Other research also suggests that jurors' negative attitudes about the insanity defense are deeply ingrained and difficult to change (Maeder & Fenwick, 2011; Wise & Mavrova- Heinrich, 2022).

Moreover, jurors' attitudes about the insanity defense are likely to be difficult to detect. This is likely to occur because of limitations that many courts impose on the scope of *voir dire*, attorneys' frequent failure to detect bias even when they are permitted to conduct *voir dire* (Skeem et al., 2004), and jurors' tendency to overestimate the extent that they can set aside their attitudes during a trial (Louden & Skeem, 2007). In sum, research indicates that jurors are unlikely to find a defendant insane even when an insanity verdict is warranted (Wise & Mavrova- Heinrich, 2022)

## **Myths about the Insanity Defense**

Several explanations have been offered why jurors have negative attitudes about the insanity defense. One explanation is the myths the public believes about the insanity defense. Perlin (2017) identified nine myths about the insanity defense, which are contradicted by scientific evidence, that he asserts influences the public's view of the insanity defense. These myths are: (1) The insanity defense is overused and frequently successful; (2) Use of the insanity defense is limited to murder cases; (3) There is no risk to defendants who plead insanity; (4) NGRI acquittees are quickly released from custody; (5) NGRI acquittees spend much less time in custody than do defendants convicted of the same offenses; (6) Most insanity defense trials feature "battles of the experts"; (7) Criminal defense attorneys overuse the insanity defense as a means of "beating the rap; (8) The insanity defense is a "rich person's" defense; and (9) Criminal defendants who plead insanity are usually faking.

## **Media Portrays of People with Psychological Disorders**

Another possible explanation for the public's negative attitude towards the insanity defense is media portrays of people with psychological disorders. Research shows that most members of the public views people with psychological disorders as dangerous and violent (Corrigan & Watson, 2005). In addition, as is discussed below, the media portrays people with psychological disorders as unable to benefit from treatment and to become productive members of society. These beliefs may help explain the public's negative attitude toward the insanity defense.

The media is likely responsible in part for the public's negative view of people with psychological disorders. The media frequently depicts people with psychological disorders as dangerous and violent, incapable of benefiting from treatment, or becoming productive members

of society. This occurs even though there is a weak relationship between psychological disorders and violence, and treatment can help people with psychological disorders (Batastini, 2018; Large & Ryan, 2012). For example, researchers examined how people with schizophrenia are portrayed in movies and concluded that “[t]he cinematic association of schizophrenia with behavior that is violent, unpredictable, and seemingly without justification potentially fuels an ‘us versus them’ mentality that conveys the message that people with schizophrenia are different and should be feared and avoided.” (Stuart, 2006, p. 101). TV shows also depict people with psychological disorders as violent and dangerous and as lacking the capacity to recover from their disorders and become productive members of society. Even children’s TV programs present a negative stereotype of people with psychological disorders (Stuart, 2006; Wise & Mavrova-Heinric, 2022).

Newspapers also play a role in negative perceptions of psychological disorders. For example, Thornton and Wahl (1996) examined how reading a newspaper article about a person with a psychological disorder who committed a violent crime (target article) affected participants’ attitudes towards people with psychological disorders. They also determined how articles that corrected misconceptions about psychological disorders (prophylactic articles) affected participants’ attitudes about people with psychological disorders. They found that participants who read a prophylactic article before reading the targeted article had a more favorable attitude toward people with psychological disorders than people who just read the targeted article. They concluded that negative newspaper articles contribute to the public’s unfavorable attitude about people with psychological disorders and that prophylactic articles may help mitigate the effects of negative articles about people with psychological disorders.

Additionally, newspapers provide a “factual” basis for the public’s belief that people with psychological disorders are dangerous and violent. For example, a study of all large U.S. newspapers during a six-weeks found 3,353 stories about psychological disorders. Thirty-nine percent of the stories focused on the dangerousness and violence of people with psychological disorders, and few stories discussed the ability of people with psychological disorders to recover from their disorders (Corrigan et al., 2013; Wise & Mavrova-Heinrich, 2022). Social media also helps shape public perceptions that people with psychological disorders are violent and dangerous (Robinson et al., 2019).

In summary, the media portrays people with psychological disorders as violent and dangerous, lacking the ability to benefit from treatment, and to become productive members of society. Consequently, the media may be an important factor why the public has a negative attitude towards the insanity defense.

### **Difficulty Understanding Jury Instructions and Lack of Knowledge About the Insanity Defense**

Jurors have difficulty understanding insanity instructions, and insanity instructions do not appear to affect jury verdicts in insanity cases. For instance, Ogloff (1991) found that whether participants were given the McNaughton insanity test, the ALI insanity test, or no insanity test did not affect their verdict. Participants used their schemas of insanity rather than the insanity test in the jury instructions to decide the cases in the study. Moreover, whether the prosecution or defense had the burden of proof or what standard of proof was used in the insanity case also did not affect participants’ verdicts. These results occurred because the participants had difficulty remembering or understanding who had the burden of proof, and what was the standard of proof in the case. Furthermore, less than one-third of the participants who were given the ALI insanity

test recalled that it has a volitional test of insanity. In sum, the participants in the study had difficulty remembering or understanding insanity jury instructions, and they used their own schema of insanity rather than the legal standard of insanity to decide the cases.

Respondents to a survey estimated that the insanity defense was used in 37% of criminal cases, and it was successful 44% of the time (Hans, 1986). Research shows, however, that the insanity defense is rarely used and rarely successful. For example, a study of one million felony indictments from 49 counties in eight states revealed that defendants used the insanity plea in 0.9% of the cases, and it was successful in 26% of those cases. In short, the respondents in the survey overestimated the number of insanity acquittals by 81 times the actual number (Silver, 1994; Wise & Mavrova-Heinrich, 2022).

Another myth about the insanity defense is that insanity acquittees spend significantly less time in custody than defendants convicted of the same offense. In fact, research shows that insanity acquittees are not likely to spend significantly less time in a psychiatric hospital than they would have spent in prison if they had been convicted of a crime. In fact, insanity acquittees may spend significantly more time in a psychiatric hospital than they would have spent in prison if they had been convicted of a crime. Moreover, because insanity acquittees are not released unless they are no longer dangerous, they may be subject to a lifetime of judicial oversight that can be far longer than the judicial oversight imposed on defendants convicted of a crime (Perlin, 2017; Wise & Mavrova-Heinrich, 2022).

In addition, the recidivism rate is lower for insanity acquittees than for criminal offenders and criminal offenders with psychological disorders. After release from custody, insanity acquittees also do better than the other two groups on other measures of adjustment to release from custody (Perlin, 2017). For instance, Silver et al., (1989) compared 127 insanity acquittees



with a group of 127 convicted felons and a group of 135 offenders with psychological disorders on several factors. After five years, they found that insanity acquittees surpassed the other two groups in employment, functioning, reduced hospitalizations, and fewer rearrests. Specifically, 54.3% of the insanity acquittees were rearrested after five years compared to 73% of the offenders with psychological disorders and 65.4% of the offenders without psychological disorders. Recidivism rates of insanity acquittees (66%) were also lower than the offenders without psychological disorders (75%) and the offenders with psychological disorders (78%).

In sum, the public does not appear to be very knowledgeable about the insanity defense. Juries do not understand or use insanity jury instructions. The public grossly overestimates how frequently the insanity defense is used, how often it is successful, how long insanity acquittees are held in custody, and how frequently they recidivate compared to other offenders. The public's lack of knowledge about the insanity defense and their inability to understand insanity jury instructions may be an important cause of their negative attitudes about the insanity defense.

### **The Impact of Cognition and Thinking Style**

There are several factors that affect how people think about insanity. First, because of motivated reasoning people's attitudes and values may affect how they think about insanity. Motivated reasoning causes people to pay close attention to and heavily weigh evidence and arguments that support their attitudes and beliefs and to ignore or undervalue evidence and arguments that contradicts their attitudes and beliefs (Greene & Heilbrun, 2019). Because motivated reasoning is unconscious, people are generally unaware that it is affecting their thinking (Kahan et al., 2012).

People may frequently use Type 1 thinking in insanity cases. The dual process model of thinking divides thinking into two kinds: Type 1 and Type 2 (Reisberg, 2016). Type 1 thinking is

intuitive, fast, autonomous, and high capacity (Pennycook et al., 2015). However, because Type 1 thinking is unconscious, a person does not know how the information was processed (Evans, 2010). Type 1 thinking is frequently accurate, but it can produce errors when used in the wrong situation (Rachlinski et al., 2013). Errors occur because a person using Type 1 thinking does not know how he or she made a decision, and Type 1 thinking relies heavily on heuristics (Epstein, 1994). In contrast, Type 2 thinking is reflective, slow, and resource-demanding (Pennycook et al., 2015), but is also more accurate and less likely to rely on heuristics. Importantly, people frequently use Type 2 thinking to justify their Type 1 thinking (Reisberg, 2016).

Moral Foundation Theory (“MFT”) is a prominent theory that explains how people decide moral issues like insanity. MFT hypothesizes that moral judgment is generally a “rapid intuitive process” rather than a product of reason (Gerber, 1975; Wise & Mavrova, 2022). People use moral reasoning primarily to rationalize their intuitive or emotional reactions to moral issues (Goldstein & Rotter, 1988; Wise & Mavrova, 2022). Insanity cases tend to arouse strong emotions, including strong moralistic and fear reactions in people. Accordingly, MFT theory may help explain why people have negative attitudes and beliefs about insanity.

In addition, when people think about insanity, they may believe that NGRI verdicts violate ethical principles that it is always wrong to commit a crime and that people who violate the law should always be punished. People may view NGRI verdicts as depriving victims and their families of “justice” because defendants are not punished for their crimes. Many people may fear NGRI acquittees will be quickly released back into the community even though they are still dangerous (Goldstein & Rotter, 1988). These beliefs can make them hostile to the insanity defense. In sum, motivated cognition, Type 1 thinking, MFT, deontological ethics, perspectives on justice, and fear that NGRI acquittees will quickly be released back into the

community and other beliefs about the insanity defense may help explain people's hostility to the insanity defense (Wise & Mavrova-Heinrich, 2022).

### **Public Attitudes Toward the Insanity Defense**

The public has a negative attitude towards the insanity defense and believes insanity is a way for guilty offenders to escape punishment. This attitude affects how jurors decide insanity cases. For example, Roberts et al., (1987) found that participants were more likely to choose a Guilty But Mentally Ill verdict ("GBMI") than a not guilty by reason of insanity ("NGRI") verdict. This result occurred because the participants in their study wanted to punish a defendant who committed a crime even though they committed the crime because of a psychological disorder. In addition, the participants feared that if they found the defendant NGRI, the defendant would quickly be released back into the community. Another study by Pickel (1998) also found that jurors are biased against the insanity defense. Pickel (1998) found that the frequent bizarre nature of the crimes committed by insanity defendants and their lack of a reasonable motive (i.e., the defendant murdering a relative because they believed he was the devil) puzzles and frightens jurors and may cause them to be reluctant to find a defendant NGRI even when it is warranted.

The public also believes the insanity defense is used almost exclusively in murder cases. Silver et al., (1989) examined insanity cases and grouped them into three categories: murder, other violent offenses (i.e., attempted murder, attempted rape, robbery, etc.), nonviolent offenses (i.e., property and minor crimes). Of the 8,979 defendants who plead insanity in the study, 1,219 were charged with murder. Moreover, only 376 defendants who were found NGRI were charged with murder. Another study conducted in Missouri between July 1, 1979, and June 30, 2007, found that only 13.3% of NGRI defendants were charged with murder (Dirks-Linhorst & Kondrat, 2012; Wise & Mavrova, 2022). In short, the public's belief that the insanity defense is

almost exclusively used in murder cases, like the other beliefs the public has about the insanity defense is inaccurate.

Another myth the public believes about the insanity defense is that pleading insanity carries no risk. Braff et al., (1983) looked at how the median prison time differed between male felons who unsuccessfully plead NGRI and those who did who not plead insanity in Erie County, New York. The median prison time for the male felons was 775 days while the median prison time for male felons who unsuccessfully pled NGRI was 949 days in prison. Another study reported similar findings between defendants who unsuccessful plead insanity and defendants who did not plea NGRI. On average, the defendants who unsuccessful plead insanity spent 372 months in prison, but defendants who did not plead insanity on average spent only 165.5 months in prison for the same crime. Furthermore, some opponents of the insanity defense believe that people with psychological disorders are just as capable of controlling their behavior as people without psychological disorders, and therefore should be found guilty of their crimes (Bonnie, 1983).

In summary, the public is hostile to the insanity defense and fears that NGRI acquittees will be quickly released back into the community. They are also fearful that guilty defendants will malingering insanity to escape punishment. They also tend to believe that people with psychological disorders can control their behavior, and therefore should be held responsible for their crimes (Bonnie, 1983).

### **The Public's Lacks Knowledge about Psychological Disorders**

The public's lack of knowledge about psychological disorders is another factor that likely affects insanity verdicts. For example, Link et al. (1999) presented participants with vignettes that depicted persons with schizophrenia, major depressive disorder, alcohol dependence, drug

(cocaine) dependence, and a “troubled person” with subclinical worries. Participants indicated the likelihood that the person in the vignettes had a psychological disorder. Results showed that the following percentage of participants identified the persons described in the vignettes as having a psychological disorder: 88% for the person with schizophrenia, 69% for the person with major depressive disorder, 49% for the person with alcohol dependence, 44% for the person with drug dependence, and 22% for the troubled person with subclinical worries. Stigma and prejudices towards people with psychological disorders are common and are related to lack of knowledge of psychological disorders. For example, Pierce (2012) examined knowledge of psychological disorders in a sample of undergraduate students. Most results showed that more knowledge about psychological disorders was associated with less stigma and prejudice against people with psychological disorders.

The public’s lack of knowledge about people with psychological disorders is also likely related to their belief that people with psychological disorders are dangerous and violent (Link et al., 1999). Link et al. (1999) measured participant’s views of the dangerousness of people with psychological disorders and their desire for social distance from people with psychological disorders. They found participants had a strong association between psychological disorders and dangerousness. Persons with drug dependence were ranked as most dangerous, followed by people with alcohol dependence, schizophrenia, major depression, and the troubled person. The desire for social distance from people with psychological disorders mimicked participants’ views of which psychological disorders were most dangerous. Participants wanted the most social distance from the drug dependent person and the least social distance from the troubled person. In fact, 90% of the sample reported they were unwilling to interact with the drug dependent

person, 70% with alcohol dependent person, 63% with the person with schizophrenia, 47% with the person with major depressive disorder, and 29% with the troubled person.

Other studies have also linked psychological disorders with public fear and the desire to be socially distanced from people with psychological disorders. In one study, Thornicroft et al., (2007) asked students to imagine meeting an individual with schizophrenia. Three physiological measures of stress were examined during these imaginary meetings. In general, the participants felt anxious during the imaginary meeting, and they also reported negative attitudes towards the person with schizophrenia. The researchers concluded that individuals often avoid people with psychological disorders because they feel uncomfortable with them.

In sum, the public lacks knowledge about psychological disorders and fears people with psychological disorders because they believe they are dangerous and violent. The public also wants to socially distance themselves from people with psychological disorders. These erroneous attitudes and beliefs about people with psychological disorders likely affect insanity verdicts. In addition, research indicates that many members of the public lack an understanding of the insanity defense and its consequences.

For example, Sloat and Frierson (2005) surveyed a highly educated jury pool and found that only 55.3% could identify the correct definition of NGRI from a multiple-choice question. In addition, only 62.5% of the jurors selected the correct dispositional outcome of a NGRI verdict from a multiple-choice question. They also found that 84% of the jury pool believed jurors should be informed of the consequences of an NGRI verdict before deliberations. Moreover, 70.6% of the jury pool said the dispositional outcome of an insanity verdict would influence their verdict even if the judge instructed them not to consider it in deciding the case. Sloat and Frierson (2005) concluded jurors' verdicts in insanity cases are likely be affected by jurors'

erroneous attitudes and beliefs about people with psychological disorders. In sum, people's lack of knowledge about psychological disorders and lack of knowledge about the insanity defense appear to be important factors that affects how they decide insanity cases.

### **The Influence of Moral Beliefs**

Moral beliefs are likely another important factor that affects insanity verdicts. When people think about insanity, they may believe that NGRI verdicts violate deontological ethics that it is always wrong to commit a crime and that people who violate the law should always be punished. People may view NGRI verdicts as depriving victims and their families of "justice" because defendants are not punished for their crimes (Goldstein & Rotter, 1988; Wise & Mavrova, 2022). In addition, as Assistant U.S. Attorney General Stephen Trott said about John Hinckley after he was found NGRI after his attempted assassination of President Reagan in 1981: "The people really don't care if he couldn't help himself. They want to know what do you do to protect me." (Trott, 1985). Accordingly, many people fear NGRI acquittees will be quickly released back into society even though they are still dangerous. Sanism indicates that many people have implicit prejudices against people with major psychological disorders and view them as dangerous and fundamentally different from themselves (Perlin, 1999).

Moral Foundation Theory (MFT) states that moral systems consist of "interlocking sets of values, practices, institutions, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible." (Haidt, 2008, p. 70). Based on a synthesis of evolutionary, neurological, and social-psychological research, MFT posits that moral judgment is generally a "rapid intuitive process" rather than a product of reason. People use moral reasoning primarily to justify their intuitive or emotional reactions to moral issues like insanity or, in those rare instances when multiple intuitions or emotions, about morality conflict.

Insanity cases tend to arouse strong emotions, including strong moralistic and fear reactions in people. Consequently, when people think about insanity, they tend to first decide the outcome intuitively and emotionally and then use Type 2 reasoning to rationalize their intuitive and emotional decision (Haidt & Graham, 2007; Silver & Silver, 2017). Moreover, people who plead insanity sometimes commit crimes that are violent, frightening, and difficult for people to comprehend. For example, one researcher described a criminal case, where a religious delusion caused the defendant to commit murder:

[O]ne young man believed that his family was under attack by the devil and under threat of great peril as the end times had come. He came to believe that the family cat was the "heifer" described in the Book of Revelations, a representative of demonic forces. When he tried to kill the cat, his uncle intervened. The logical extension of the patient's delusional framework was that his uncle was in partnership with the devil and, therefore, must also be killed. During the murder, the delusion was further confirmed by visual hallucinations in which the uncle's face turned into the face of the devil and a snake came out of his mouth like a tongue. The murder was gruesome, involving the patient's frenzied stabbing and ultimate decapitation of the uncle (Kunst, 1999, p. 291)

In sum, people's intuitive moral reaction to defendants asserting an insanity defense is likely to be negative, and this negative moral reaction is likely to affect their verdicts in insanity cases (Wise & Mavrova-Heinrich, 2022).

### **Authoritarianism**

Authoritarianism likely affects insanity verdicts. Characteristics of authoritarianism include being aggressive, prejudiced, and punitive against those who violate conventional values (Epstein, 1965, 1966; Mitchell & Byrne, 1973). Other traits such as "dominance of subordinates," "excessive use of stereotypes," and "adherence to whatever values are



conventional in one's setting" have also been associated with the personality of authoritarians (Perlin, 1997, p. 1393).

Another characteristic of authoritarianism is categorizing people into out-groups and in-groups. Authoritarians view out-group members as socially inept (e.g., defendants, minorities, etc.) and violators of conventional values (Epstein, 1966); whereas in-group members are viewed as socially skilled and individuals who adhere to conventional values. In sum, authoritarians label out-group members as deviant and are likely to punish them for violating conventional values (Perlin, 1997). For example, in a jury simulation study, Mitchell and Byrne (1973) rated 139 participants as either high or low on authoritarianism. They found that dissimilarities between authoritative participants' attitudes and the defendant's attitudes on matters unrelated to the case predicted guilty verdicts. They also found that authoritative participants punished the defendant more severely and were more certain of his guilt if the defendant had dissimilar attitudes from their own. These results did not occur with the participants in the study who were low on authoritarianism.

In addition, authoritarians generally think the insanity defense should not excuse crimes and are prejudiced against individuals with psychological disorders. In fact, Perlin (1997) noted that one study of mock jurors indicated three main reasons why authoritarians tend to reject the insanity defense: "mental illness is no excuse; [the defendant] might have fooled the psychiatrist; [the defendant] should have sought help for his problems" (Perlin, 1997, p. 1398). These findings are unsurprising because authoritarians tend to perceive the insanity defense as a loophole that allows guilty defendants to escape punishment and believe that defendants who assert the insanity defense are not mentally ill and can control their behavior. As a result, authoritarians believe that insane defendants should be punished like other individuals who commit crimes.

## **The Present Study**

### ***Study Design and Hypotheses***

The present study explored a wide array of factors that may help to explain why jurors are not likely to render an insanity verdict even when it is warranted. The factors examined were knowledge about the insanity defense, lack of knowledge about major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, and Type I thinking. Greater understanding of why jurors are hostile to the insanity defense is important to explore because it may help judges and attorneys conduct a more effective voir dire of potential jurors in insanity cases that may produce more just verdicts. The present study might also result in a better understanding of why people in general and many legislators, prosecutors, and judges are hostile to the insanity defense. It may also indicate how to change the public's negative beliefs about the insanity defense and people with psychological disorders.

Additionally, the present study sought to replicate and extend prior work by identifying factors that affect insanity verdicts (Mitchell & Byrne, 1973; Sloat & Frierson, 2005). Based on prior research, the present study tested the following hypotheses:

- a) Knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' verdicts, and their confidence in their verdicts.
- b) Knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' attitudes towards the insanity defense.

- c) Knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' attitudes towards people with psychological disorders.
- d) Gender, education, political perspective, and income will predict participants' knowledge of psychological disorders.
- e) The different insanity case vignettes will predict participants' verdicts.

A binary logistic regression was used to determine if the different insanity case vignettes predicted participant verdicts. Additionally, the following psychological tests and variables were used in the present study: (a) the Cognitive Reflection Test (CRT); (b) the Insanity Defense Attitudes – Revised (IDA-R), the Social Restrictiveness subscale of the Community Attitudes toward the Mentally Ill (CAMI); (c) the Moral Foundations Questionnaire (MFQ); (d) participants' knowledge of psychological disorders; (e) participants' ratings of the defendant's future dangerousness; (f) participants' scores on the Right Wing Authoritarianism Scale (RWA), and (g) demographic variables.

Multiple regressions were conducted to predict jurors' attitudes towards the insanity defense and participants' confidence in their verdicts. The predictors in the multiple regressions included: (a) the Cognitive Reflection Test (CRT); (b) the Social Restrictiveness subscale of the Community Attitudes toward the Mentally Ill (CAMI); (c) the Moral Foundations Questionnaire (MFQ); (d) participants' knowledge of psychological disorders; (e) participants' ratings of the defendant's future dangerousness; (f) the Right-Wing Authoritarianism Scale (RWA); and (g) demographic variables. The criterion variable in the first regression was participants' scores on

the Insanity Defense Attitudes – Revised (IDA-R), the criterion variable in the second regression was participants’ rating of their confidence in their verdicts, the third criterion variable was participants’ scores on the Social Restrictiveness subscale of the CAMI scale, and the fourth criterion variable was participants’ knowledge of psychological disorders. Demographic variables were used to predict participants’ knowledge of psychological disorders.

## **Method**

### **Participants**

Approximately 200 participants took part in this study. However, data cleaning led to the removal of eleven participants because of failed manipulation checks (4) and failure to complete the survey (4). Participants who failed to complete the survey had numerous missing answers to the survey questions. Additionally, at the end of the survey, participants were asked if they believed their data should be used for the present study, and some participants indicated their responses should not be used (3), which led to the removal of these participants. In addition, two participants rendered a not guilty verdict. Participants who selected this verdict were not included in the analyses because both defendants in the scenarios killed the victim and the killings were not done in self-defense. Accordingly, the only valid verdicts in the scenarios were not guilty by reason of insanity (“NGRI”) or guilty.

Therefore, there were 189 participants in the present study (86 females, 99 males, three non-binaries, and one other) ranging in age from 18 years to 73 years ( $M = 31.61$  years). Participants were a combination of undergraduate students from the University of North Dakota (87) and non-students recruited from Prolific (102). Educational backgrounds for student participants consisted of freshman (34.5%), sophomores (36.8%), juniors (16.1%), seniors (10.3%), and other (2.3%), and educational backgrounds for non-student participants consisted

of some high school (1.0%), high school graduate (11.8%), some college with no degree (23.5%), 2-year college/associate degree (5.9%), 4-year college/bachelor degree (33.3%), some graduate school (1.0%), master's degree (17.6%), and doctoral degree ("Ph.D." or professional degree (e.g., MD, J.D., DDS) (5.9%).

The race of the combined samples consisted of Asians (4.8%), African Americans (5.8%), Hispanic, Latinx, or Spanish Origin (3.7%), Middle Eastern or North African (.5%), White or European American (75.1%), and biracial individuals (10.1%). Lastly, the political affiliation for the combined samples consisted of Republicans (24.9%), Democrats (40.2%), Independents (23.5), Socialists (2.1%), Libertarians (4.3%), Other (1.1%), and Neutral/No Party (3.2%). Student participants received class credit for their undergraduate psychology courses, and non-student participants received monetary compensation for their participation.

## **Materials**

### *Case Vignettes*

Two case vignettes were created for this study. The vignettes were based on actual insanity cases that depict an individual suffering from symptoms of paranoid schizophrenia and committing murder. Although both defendants were clearly insane at the time of the crime, we intended the first defendant to be a more sympathetic defendant than the second defendant. The first defendant was also intended to pose less of a risk of future violence than the second defendant.

### *Cognitive Reflection Test (CRT)*

The CRT had seven questions, and it assessed participant's tendency to use Type I versus Type II thinking. The CRT appears to participants to be a quantitative reasoning test, and it is structured so that each problem has a quick and superficial solution that is incorrect. Some

examples of CRT questions are “A farmer had 15 sheep and all but 8 died. How many are left?”, and “Emily’s father had three daughters. The first two are named April and May. What is the third daughter’s name?” The intuitive answer for the mathematical problem is 7, but the correct answer is 8. The intuitive answer for the second question is June, but the correct answer is Emily.

However, there are concerns that low scores on the CRT may reflect poor quantitative reasoning ability rather than a tendency to rely on heuristics or Type I thinking (Hertzog et al., 2018). Another potential difficulty with the Cognitive Reflection Test (CRT) is that it is widely used, and therefore participants may be familiar with it and know the correct answers to the questions.

### ***Community Attitudes toward Mental Illness (CAMI)***

The Community Attitudes towards Mental Illness (CAMI) scale contained 40 questions that evaluated participant’s attitudes towards psychological disorders and people with psychological disorders. For the present study, only one of the four subscales of the CAMI was used: social restrictiveness. The social restrictiveness subscale measured the belief that individuals with psychological disorders pose a threat to society and should be supervised. Previous studies have used only some of the subscales of the CAMI rather than the entire scale (Pennington et al., 2016).

Some examples of the questions from the social restrictiveness dimension of the scale were: “The mentally ill should not be given any responsibility,” and “The mentally ill are far less of a danger than most people suppose.” Participants rated each statement on a Likert scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). Prior research indicates that the social restrictiveness subscale has good reliability (*Cronbach’s alpha* = .80); it also has good validity. (Taylor & Dear, 1981).

### ***Insanity Defense Attitudes – Revised (IDA-R)***

The Insanity Defense Attitudes – Revised (IDA-R) contained 20 statements pertaining to beliefs and attitudes about the insanity defense. The scale had two dimensions: strict liability (e.g., “We should punish people who commit criminal acts regardless of their degree of mental disturbance.”) and injustice and danger (e.g., “With slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom.”). These dimensions evaluated people’s views on how psychological disorder should affect criminal responsibility and punishment, and the degree of perceived injustice and danger that results from the insanity defense (Skeem & Golding, 2001; Skeem et al., 2004). Participants rated the 20 statements from the IDA-R on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The IDA-R has good internal reliability, convergent and divergent validity, and predictive validity (Skeem et al., 2004).

### ***Moral Foundations Questionnaire (MFQ)***

The Moral Foundations Questionnaire measured participant’s beliefs about what is right or wrong. It also assesses the degree to which participants prioritize five foundational domains in moral decision-making: Harm/Care, Fairness/Reciprocity, Ingroup/Loyalty, Authority/Respect, and Purity/Sanctity. The MFQ consisted of 33 statements divided into two parts: how relevant different statements about moral factors are for making moral judgments, and whether a person agrees or disagrees with statements about morality. An example of a relevancy statement is: “Whether or not someone suffered emotionally.” Participants rated the statement on a Likert scale ranging from 0 (Not at all relevant (This consideration has nothing to do with my judgments for right and wrong)) to 5 (Extremely relevant (This is one of the most important factors when I judge right and wrong)). An example of an agree or disagree statement is “It is

better to do good than to do bad.” Participants rated the statements on a Likert scale ranging from 0 (Strongly Disagree) to 5 (Strongly Agree). The MFQ has acceptable internal reliability and test-retest reliability and also has good convergent, discriminant, and predictive validity (Graham, et al., 2011).

### ***The Right-Wing Authoritarianism (RWA) Scale – Short Form***

The Right-Wing Authoritarianism Scale – Short Form had 12 questions. It measured three facets of Altemeyer’s right-wing authoritarianism: authoritarian submission, authoritarian aggression, and conventionalism (Feather & Souter, 2002). These facets determined participants’ degree of authoritarianism. An example question from the authoritarian submission facet is “Obedience and respect for authority are the most important values children should learn.” An example from the authoritarian aggression facet is “There is no such crime to justify capital punishment.” An example from the conventionalism facet is “The withdrawal from tradition will turn out to be a fatal fault one day”. Participants rated items on a scale of 1 (Strongly Disagree) to 7 (Strongly Agree).

The RWA Scale – Short Form was found to have adequate internal reliability. Duncan et al. (1997) found the internal reliability to be .84, and another study by Feather and Souter (2002) reported it to be .79. Strong validity for authoritarianism was reported as well (Gray & Durrheim, 2006). Numerous studies have used varying lengths of the RWA Scale (Duncan et al., 2007; Feather & Souter, 2002; Gonzales, 2002; Zakrisson, 2005) and have reported strong internal reliability and validity for all of them. The present study uses the 12-item short form.

### ***Mental Illness Knowledge***

The Mental Illness Knowledge scale was formulated to measure participants knowledge of major psychological disorders. The scale contains eight questions. Internal reliability was



found to be .580, which is low. This scale was formulated by the principle researcher and faculty advisor, and it has not previously been used. Example questions include “Which of the following is the correct definition of a delusion?” and “How accurately does the media portray people with psychological disorders?”

### *Demographic Questions*

The demographic questions asked participants about their education, income, gender, etc.

### **Procedure**

After giving consent, participants completed a questionnaire on Qualtrics. They first answered demographic questions. Then, they were randomly assigned to one of two scenarios based on actual insanity cases about a defendant who suffered from paranoid schizophrenia, committed murder, and pled insanity. Although both defendants were clearly insane at the time of the crime, participants rated the first defendant ( $M = 2.74$ ,  $SD = 1.11$ ) as less sympathetic defendant than the second defendant ( $M = 3.09$ ,  $SD = 1.18$ ) even though we hypothesized the participants would rate the first defendant as more sympathetic than the second defendant ( $t(180) = -2.026$ ,  $p < .05$ ). However, the participants rated the first defendant ( $M = 4.23$ ,  $SD = .85$ ) as posing less of a risk of future violence than the second defendant ( $M = 4.51$ ,  $SD = .71$ ) as we hypothesized they would ( $t(182) = -2.439$ ,  $p < .05$ ).

After reading the insanity defense scenario, participants answered yes or no to various questions about the defendant that constituted components of an insanity test or an insanity test that were written in plain English rather than using legal terminology. Each insanity test or component of an insanity test was sufficient by itself to find the defendant insane. For example:

“Did he know what he was doing at the time of the crime? (i.e., did he know he was stabbing his son with a knife)?” (i.e., the nature component of the Wild Beast Test of McNaughton)

The components of an insanity tests and the insanity tests that were included in the questionnaire included: (a) The nature component of the wild beast test of insanity, which is part of the McNaughton test of insanity; (b) The quality component of the wild beast test of insanity, which is part of the McNaughton test of insanity; (c) The wrongfulness test of insanity, which is part of the McNaughton test of insanity, including the three ways courts have interpreted it (i.e., the illegality standard, the objective moral standard, and the subjective moral standard; (d) A common sense test of insanity; and the irresistible impulse test of insanity. The McNaughton test of insanity was included in the questionnaire because it is the most commonly used test of insanity in the U.S. (Dressler, 2020). The commonsense notion of insanity was included because research indicates that jurors use it to decide insanity cases rather than the legal test of insanity in the jury instructions (Finkel, 2000). The irresistible impulse test was included because it is a volitional test of insanity (i.e., because of a psychological disorder could the defendant not control their behavior at the time of the crime?) (Fahey, 2020). In contrast, McNaughton is a cognitive test of insanity (i.e., because of a psychological disorder was there something wrong with the defendant’s thinking at the time of the crime that caused the crime?) (Garvey, 2018). Consequently, the questionnaire included both types of insanity tests used in the U.S.

Next, participants indicate how they felt about the defendant (e.g., they were angry at the defendant, they felt sympathy for the defendant, etc.). Participants also read the actual jury instructions for the Insanity Defense Reform Act of 1984, which is used in all insanity cases in federal courts. They then rendered a verdict in the case and rate their confidence in the verdict. In addition, participants answered questions to test their knowledge and attitudes about the insanity

defense and psychological disorders, their views on morality (i.e., Moral Foundation Questionnaire), their views of authority (i.e., RWA scale), and their mode of thinking (i.e., CRT). Lastly, they again provided demographic information.

## **Results**

### **Preliminary Data Screening**

Preliminary data analysis led to the transformation of outliers for some of the subsequent analyses. Outliers were detected for scores on the CAMI scale and Mental Illness Knowledge scale. For these cases, log transformations were performed (Field, 2009). In addition, missing cases were identified for responses on perceived dangerousness of people with psychological disorders. For the missing responses on perceived dangerousness of people with psychological disorders, a mean substitution was used (Mertler & Vannatta, 2016).

### **Verdict and Verdict Confidence**

There were 797 NGRI verdicts and 713 guilty verdicts for the 8 insanity tests. A binary logistic regression analysis was performed to create a model of the relationship between knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender to predict participants' verdicts. Regression results indicated that the overall model of the nine predictors was not statistically significant in predicting verdicts ( $-2 \text{ Log Likelihood} = 95.114$ ),  $\chi^2(9) = 16.419$ ,  $p > .05$ . Although the overall model was not statistically significant, one factor in the model, knowledge of psychological disorders was significant. The factors that did not improve the model were removed (e.g., knowledge about the insanity defense, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and

demographic factors such as education, income, and gender). Therefore, a simpler model of the relationship between knowledge of psychological disorders and verdicts was created (Field, 2009). Regression results indicated that this simpler model was statistically significant in predicting participants' verdicts ( $-2 \text{ Log Likelihood} = 219.891$ ),  $\chi^2(1) = 14.799$ ,  $p < .05$ ). Participants who had a greater knowledge of psychological disorders were significantly more likely to render a verdict of NGRI than participants with less knowledge of psychological disorders. Therefore, the hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' verdicts was partially supported.

Multiple regression analysis was used to test if knowledge of the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' confidence in their verdicts. Significant differences between the student ( $M = 66.78$ ,  $SD = 18.20$ ) and non-student ( $M = 76.30$ ,  $SD = 19.47$ ) sample were detected, so each sample was analyzed independently ( $t(185) = -3.437$ ,  $p < .05$ ).

For students, regression results indicated that the overall model did not significantly predict confidence in verdicts ( $R^2 = .111$ ,  $R^2_{\text{adj}} = .004$ ,  $F(9, 75) = 1.040$ ,  $p > .05$ ). The hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict participants' confidence in their verdicts was not supported.

For non-students, regression results indicated that the overall model did not significantly predict confidence in verdicts ( $R^2 = .165$ ,  $R^2_{adj} = .082$ ,  $F(9, 90) = 1.978$ ,  $p > .05$ ). The hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict participants' confidence in their verdicts was not supported.

### **Attitudes about Psychological Disorders**

Multiple regression analysis was used to test if knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict participants' attitudes towards people with psychological disorders. Significant differences between the student ( $M = 30.69$ ,  $SD = 2.24$ ) and non-student ( $M = 29.22$ ,  $SD = 2.67$ ) sample were detected, so each sample was analyzed independently ( $t(185) = 4.042$ ,  $p < .05$ ).

For students, regression results indicate that the overall model did not significantly predicts attitudes towards people with psychological disorders ( $R^2 = .111$ ,  $R^2_{adj} = -.004$ ,  $F(9, 75) = 1.039$ ,  $p > .05$ ). The hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict participants' attitudes towards people with psychological disorders was not supported.

For non-students, regression results indicate that the overall model did not significantly predicts attitudes towards people with psychological disorders ( $R^2 = .093$ ,  $R^2_{adj} = .003$ ,  $F(9, 90)$

= 1.029,  $p > .05$ ). The hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict participants' attitudes towards people with psychological disorders was not supported.

### **Knowledge of Psychological Disorders**

Multiple regression analysis was used to test if gender, political perspective, income, and education will predict participant's knowledge of psychological disorders. Significant differences between the student ( $M = 14.00$ ,  $SD = 3.04$ ) and non-student ( $M = 15.25$ ,  $SD = 3.88$ ) sample were detected, so each sample was analyzed separately ( $t(185) = -2.427$ ,  $p < .05$ ).

For students, regression results indicated that the overall model significantly predicted knowledge of major psychological disorders ( $R^2 = .161$ ,  $R^2_{adj} = .118$ ,  $F(4, 82) = 3.746$ ,  $p < .05$ ). Political perspective ( $\beta = -.465$ ,  $p < .05$ ) and income ( $\beta = .408$ ,  $p < .05$ ) significantly predicted knowledge of major psychological disorders. As political perspective became more liberal, knowledge of major psychological disorders increased. Additionally, as income increased in amount, so did knowledge of psychological disorders. Therefore the hypothesis that gender, political perspective, income, and education will predict participant's knowledge of major psychological disorders was partially supported.

For non-students, regression results indicated that the overall model significantly predicted knowledge of major psychological disorders ( $R^2 = .189$ ,  $R^2_{adj} = .155$ ,  $F(4, 94) = 5.489$ ,  $p < .05$ ). Political perspective ( $\beta = -.383$ ,  $p < .05$ ) and gender ( $\beta = -1.608$ ,  $p < .05$ ) significantly predicted knowledge of major psychological disorders. As political perspective became more liberal, knowledge of major psychological disorders increased. Additionally, participants who

identified as female reported having more knowledge about major psychological disorders. The hypothesis that gender, political perspective, income, and education will predict participant's knowledge of major psychological disorders was partially supported.

### **Attitudes Toward Insanity**

Multiple regression was used to test if knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality, authoritarianism, Type I thinking, and demographic factors such as education, income, and gender will predict participants' attitudes towards the insanity defense.

Regression results indicate that the overall model significantly predicted attitudes towards the insanity defense ( $R^2 = .379$ ,  $R^2_{\text{adj}} = .347$ ,  $F(9,175) = 11.873$ ,  $p < .05$ ). Scores on the Moral Foundations Questionnaire ( $\beta = .269$ ,  $p < .05$ ), scores on the Right-Wing Authoritarianism scale ( $\beta = .439$ ,  $p < .05$ ), knowledge of the insanity defense ( $\beta = -5.451$ ,  $p < .05$ ), perceived dangerousness ( $\beta = 2.319$ ,  $p < .05$ ), gross family income ( $\beta = .920$ ,  $p < .05$ ), and gender ( $\beta = 3.634$ ,  $p < .05$ ) significantly predicted insanity defense attitudes. Participants who had more conservative moral values had more negative attitudes toward the insanity defense. Participants who were more authoritarian also had increased negative attitudes toward the insanity defense. Participants who had less knowledge of the insanity defense had more negative attitudes toward the insanity defense. Participants who rated the defendant as dangerous also had increased negative attitudes toward the insanity defense. Participants who had a higher gross family income also had increased negative attitudes toward the insanity defense. Lastly, participants who identified as male reported having more negative attitudes toward the insanity defense. The hypothesis that knowledge about the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality,

authoritarianism, Type I thinking, and demographic factors such as education, income, and gender would predict student participants' attitudes towards the insanity defense was partially supported.

### **Different Insanity Cases Effect on Verdicts**

A binary logistic regression was performed to determine the relationship between the different insanity case vignettes and participants' verdicts. The vignettes differed in terms of how sympathetic and dangerous the defendants were in the vignettes. Regression results indicated that the overall model of the predictor (sympathetic/ less dangerous or unsympathetic/ more dangerous vignette) was not statistically significant in predicting verdicts (-2 Log Likelihood = 231.911),  $\chi^2(1) = 2.779, p > .05$ ). The hypothesis that there would be more NGRI verdicts in the sympathetic/ less dangerous case than the unsympathetic/ more dangerous case was not supported.

### **Discussion**

The current study sought to replicate and extend current research on factors that influence juror decision-making in insanity cases. The current study also sought to evaluate knowledge and attitudes about the insanity defense and major psychological disorders by using two insanity case vignettes, which differed in how sympathetic and dangerous the defendant was.

Overall, the hypotheses in the current study were partially supported. The present study examined several factors' relationship to participants' verdicts to determine if the present study would replicate prior research findings on these factors (Haidt & Graham, 2007; Mitchell & Byrne, 1973; Silver & Silver, 2017; Sloat & Frierson, 2005). Research indicates that jurors are reluctant to render NGRI verdicts even when they are warranted. In the present study, however, NGRI verdicts outnumbered guilty verdicts for the eight insanity tests (797 to 713). Prior



research also indicates that highly authoritative individuals render more punitive verdicts than less authoritative individuals (Mitchell and Byrne, 1973). It also indicates that morally conservative individuals are more punitive than morally liberal individuals (Haidt & Graham, 2007; Silver & Silver, 2017). Additionally, prior research shows that individuals with less knowledge about psychological disorders render fewer NGRI verdicts than individuals with greater knowledge of psychological disorders (Sloat and Frierson, 2005).

Surprisingly, the only factor that predicted juror verdicts was their knowledge of major psychological disorders. Participants with greater knowledge of psychological disorders were more likely to render a NGRI verdict than less knowledgeable participants. The other factors did not predict insanity verdicts in the present study despite the extensive prior research showing that these factors affect mock jurors' verdicts in criminal cases. This outcome may have occurred because of the samples in the present study. The present study used samples of convenience, which may not have been representative of jurors in insanity cases. For example, both samples were more liberal and better educated than the general population. Additionally, in the insanity cases, the defendant was clearly insane at the time of the crime and because there were no transcript or video of a trial, no evidence was presented to indicate the defendants were sane at the time of the crime. Nor did the present study include emotionally arousing evidence such as graphic crime scene photographs or many other factors that affect jurors' verdicts in real insanity cases. Lastly, the large number of NGRI verdicts may have been due in part to socially desirable responses and because the participants' verdicts had no real-world consequences.

The present study also examined several factors' relationship to participants' confidence in their verdicts (i.e., knowledge of the insanity defense, knowledge of major psychological disorders, the belief that people with psychological disorders are dangerous, morality,

authoritarianism, Type I thinking, and demographic factors). Because the student and non-student samples differed significantly in their confidence in their verdicts, separate analyses were performed on their confidence in their verdicts. The examined factors did not predict confidence in verdicts for either participant type. As mentioned previously, this result may have occurred because the study used convenience samples that may not have been representative of jurors in insanity cases. In the insanity vignettes used in the present study, the defendants were clearly insane at the time of the crime, and no evidence was included that contradicted this conclusion. Accordingly, participants' may have been more confident in their verdicts because it was clear the defendants were insane at the time of the crime.

Several factors' relationship to participants' attitudes toward people with psychological disorders were examined. Because the student and non-student samples differed significantly in their attitudes towards psychological disorders, separate analyses were performed for this variable for each sample. None of the factors predicted participants' attitudes towards people with psychological disorders for either participant type, which contradicts past research. Past research indicates individuals with more education have more positive attitudes toward people with psychological disorders compared to individuals with less education (Pierce, 2012; Thornicraft et al., 2017). It also indicates that individuals who lack knowledge about psychological disorders often believe that people with psychological disorders are dangerous (Corrigan & Watson, 2005; Link et al., 1999). Accordingly, lack of knowledge of psychological disorders will also likely cause more negative attitudes towards people with psychological disorders. In addition, research shows that lack of knowledge about the insanity defense predicts that individuals will have a negative attitude toward people with psychological disorders (Perlin, 2017; Pickel, 1998).

This outcome too may have occurred because as stated previously the samples may not have been representative of jurors in insanity case. The samples were better educated and more liberal than the general population. The participants in both samples were also quite knowledgeable about psychological disorders and the insanity defense. Another possibility is that the tests used to assess participants' knowledge of psychological disorders and insanity were not valid. The tests used to measure these factors were created for the present study. Furthermore, participants may have given socially desirable responses to the survey, the defendants in the vignettes were clearly insane at the time of the crime, and participants' responses to the survey had no real-world consequences. Therefore the participants may had little reason to indicate a negative attitude towards people with psychological disorders.

Participants knowledge of psychological disorders was assessed. Because the student and non-student samples differed significantly in their knowledge of psychological disorders, separate analyses were performed for this variable. For students and non-students, political perspective predicted knowledge of psychological disorders. More conservative participants were significantly less knowledgeable about psychological disorders than more liberal participants. Conservatives tend to be more punitive towards defendants in criminal cases than liberals (Silver & Silver, 2017). In accordance with this finding, the present study showed that conservatives are more likely than liberals to find defendants guilty rather than NGRI. The present study suggests that this may occur in part because conservatives know less about psychological disorders than liberals. Therefore, they may be more likely to believe that all individuals with psychological disorders are dangerous. They may also believe that all individuals who violate the law should be punished even if they were insane at the time of the crime.

Gender also predicted knowledge of psychological disorders for non-students. Female participants were more knowledgeable about psychological disorders than male participants. The current study did not hypothesize which gender would have greater knowledge of psychological disorders. In retrospect, this result may have occurred because females as a whole are better educated than males and are much more likely than males to major in psychology and go to graduate school in psychology. Additionally, gross family income predicted knowledge of psychological disorders for students. Gross family income predicted knowledge in the expected direction – as income increased, so did knowledge about psychological disorders. Individuals with higher gross family income may know more about psychological disorders than less affluent individuals because they are likely to be better educated and more likely to have been in therapy or had a family member in therapy than less affluent individuals.

This study also determined participants' attitudes toward the insanity defense. Participants' scores on the Moral Foundations Questionnaire (MFQ), Right-Wing Authoritarianism (RWA) scale, knowledge of the insanity defense, perceived dangerousness, gross family income, and gender predicted their attitudes toward the insanity defense. As conservative moral value scores on the Moral Foundations questionnaire increased, negative attitudes on the Insanity Defense Attitudes – Revised (IDAR) scale increased. In line with previous research, individuals with conservative moral values may believe that it is always wrong to commit a crime no matter the circumstances. Therefore, they are more likely to have a negative attitude towards the insanity defense (Louden & Skeem, 2007).

In addition, in the present study, participants' scores on the RWA scale had a positive relationship with their attitudes toward the insanity defense. This finding was expected because authoritarianism is commonly associated with the beliefs that the insanity defense is a loophole

that allows guilty defendants to go free (Perlin, 1997) and that people who violate the law should be punished no matter their psychological state at the time of the crime (Mitchell & Byrne, 1973). Additionally, as knowledge of the insanity defense decreased, negative attitudes toward the insanity defense increased. This finding was also expected since the public overestimates the insanity defenses' use and success (Hans, 1986). For example, as mentioned previously, in one study the public overestimated the number of insanity acquittals by 81 times the actual number (Silver, 1994). Some people also believe insanity defendants should be punished for their crimes no matter the circumstance (Roberts et al., 1987).

Gender also predicted attitudes toward the insanity defense. Male participants had more negative attitudes toward the insanity defense than female participants. The current study did not hypothesize which gender would have more negative views of insanity. Thus, this result likely occurred since males may be less educated about the insanity defense or psychological disorders than females. Additionally, gross family income predicted attitudes toward the insanity defense. Gross family income predicted insanity defense attitudes in an unexpected direction – as income increased, so did negative attitudes toward insanity. This finding was unexpected since it is believed that individuals with higher gross family income may know more about the insanity defense than less affluent individuals because they are likely to be better educated. This outcome too may have occurred because as stated previously the samples may not have been representative of jurors in insanity case. The samples were better educated and more liberal than the general population.

Lastly, how dangerous they viewed individuals with psychological disorders predicted their attitudes toward the insanity defense. As participants' ratings of the dangerousness of the defendant increased, their scores on the IDAR also increased. These findings suggest that

individuals who believe that people with psychological disorders are dangerous are more likely to have a negative attitude towards the insanity defense than people who do not have this belief (Perlin, 2017). They may also be more likely to believe insanity myths, such as there is no risk to defendants who plead insanity, NGRI acquittees are quickly released from custody, or NGRI acquittees spend much less time in custody than do defendants convicted of the same offenses (Perlin, 2017). In addition, they may believe defendants should be punished for their crimes no matter the circumstance (Roberts et al., 1987).

The media plays an important role in shaping people's belief that people with psychological disorders are dangerous. The media generally depicts people with psychological disorders as dangerous and violent, incapable of benefiting from treatment, or becoming productive members of society (Batastini, 2018; Corrigan & Watson, 2005; Large & Ryan, 2012). Consequently, individuals who believe that people with psychological disorders are dangerous may watch more media or be less skeptical of media's portrayal of people with psychological disorders than people who do not have this belief.

Lastly, the present study sought to determine if the different insanity case vignettes would predict participant verdicts because the defendants in the vignettes differed in how sympathetic and dangerous they were. The different vignettes did not significantly predict participants' verdicts. This result may have occurred because both samples were better educated and more liberal than the general population, defendants in both vignettes were clearly insane at the time of the crime, participants' verdicts had no real-world consequences, and participants gave socially desirable responses. In addition, contrary to our expectations the participants rated the defendant in the second vignette as more sympathetic than the defendant in the first vignette. Consequently, though the first defendant was rated as less dangerous than the second defendant, he was also

rated as less sympathetic than the first defendant. The unexpected sympathy ratings of the two defendants may help explain why the differences in how sympathetic and dangerous the defendants were in the vignettes did not affect participants' verdicts (i.e., they cancelled each other out).

In conclusion, findings from the current study offer support that there are several factors that influence decision-making in insanity cases. Taken together, these findings may help judges and attorneys conduct a more effective voir dire of potential jurors in insanity cases to produce more just verdicts. Additionally, results of the current study may lead to a better understanding of why the public, legislators, prosecutors, and judges are hostile toward the insanity defense. This study may also indicate how to change the public's negative perceptions of individuals with psychological disorders.

### **Limitations and Future Directions**

The present study has some limitations. First, both samples were samples of convenience and, therefore, may not be representative of jurors in insanity cases. Furthermore, the student participants, because of their age and limited life experiences, may have had little or no exposure to the insanity defense and thought little about it before the present study. Accordingly, they may be less likely than the non-students to have formed beliefs about the insanity defense prior to this study, which may have affected their responses to the survey. Although the student participants would be eligible for jury service, they are less likely to have served on a jury than the non-student participants in the study. Therefore, they are likely to be less representative of actual jurors in an insanity trial than the non-student sample. However, this does mean that the non-student sample was representative of jurors in insanity cases even if it was more similar to jurors in insanity trials than the students. The non-student sample was more liberal and better educated

than the general population. Accordingly, even their responses to the survey may have differed from typical jurors in insanity cases.

Second, this study was administered online and though safeguards were implemented to lessen the probability that bots completed the survey or that human participants did not take the survey seriously, these safeguards were not foolproof. An in-person survey where participants can be closely monitored may have produced some different results. Third, participants were given a brief scenario of the crime in the vignette. The elements of an actual trial such as opening statements, direct and cross-examination of witnesses, the use of exhibits including graphic crime scene photos, closing arguments, and jury deliberations were not included in the present study. Moreover, no trial simulation can produce the strong emotions that a real insanity trial would produce or create all the complex factors that determine a jury's verdict in an actual insanity case. These factors may account in part for why there were so many NGRI verdicts in the present case. Future research should consider using a video of an insanity trial that is as realistic as possible. In addition, field and archival studies of actual insanity trials are needed.



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