

The Effects of Detailed Instructions on
Juror Decisions in Criminal Responsibility Cases

by

Morgan Leigh Hight

A Thesis Presented in Partial Fulfilment
of the Requirements for the Degree
Master of Science

Approved April 2018 by the
Graduate Supervisory Committee:
Tess M. Neal, Chair
Nicholas Schweitzer
Jessica Salerno

ARIZONA STATE UNIVERSITY

May 2018

ABSTRACT

The purpose of this study was to examine mock jurors' decision making in insanity cases. Specific instructions (vs. typical) juror instructions were tested to increase jurors' comprehension of verdict options and reduce the effects of preexisting attitudes and reliance on cognitively biased thought processes in their legal decision making.

The specific instructions in this study were inspired by Fuzzy Trace Theory, which holds that simple language and visual aids that convey the 'gist' of complex information can help people make better decisions (Reyna & Brainerd, 1995). Participants (N= 496) were randomly assigned to one of two juror instruction conditions (specific vs. typical). All participants read a 10-page insanity defense case vignette, and were tasked with reaching a verdict. They were provided with 5 verdict options: Not Guilty, Guilty, and three different insanity options (Not Guilty by Reason of Insanity, Guilty but Mentally Ill, Guilty Except Insane). Results supported the hypothesis that jurors who received specific (vs. typical) instructions would comprehend more information about the available verdicts, and would be more likely to choose an insanity defense verdict. As expected, jurors' preexisting attitudes toward the insanity defense influenced their verdicts.

Although it was hypothesized that increasing jurors' understanding would result in them relying less on their attitudes and motivated reasoning processes in reaching their legal judgments, the evidence did not support this. Results suggest more specific instructions that includes information about outcomes is preferred by jurors, and that they are better able to understand and perform their duties when provided with more useful information. However, further research is needed to identify methods for helping jurors rely less on biased reasoning processes in their legal judgments.

TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF FIGURES	v
INTRODUCTION	1
REVIEW OF LITERATURE	2
Attitudes, Bias, and the Jury	2
Misconceptions of the Insanity Defense	4
Standards for the Insanity Defense	6
Verdict Confusion	7
Jury Instructions	9
Why is this Important	12
Fuzzy Trace Theory	13
PILOT STUDY	14
Pilot Study Hypotheses	15
Pilot Study Method	16
Participants	16
Procedure	16
Pilot Study Results	17
CURRENT STUDY	18
HYPOTHESES	19
METHOD	20
Participants	20

	Pages
Measures	21
Interpretation of the Evidence Questions	22
Comprehension Questions	23
Insanity Defense Attitudes Scale	23
Procedure	23
RESULTS	25
Hypothesis 1	25
Hypothesis 2	28
Hypothesis 3	29
Hypothesis 4	31
Hypothesis 5	33
DISCUSSION	34
Limitations	37
Future Directions	38
REFERENCES	40
APPENDIX	
A TRIAL VIGNETTE	44
B TYPICAL INSTRUCTIONS	56
C SPECIFIC INSTRUCTIONS AND VISUAL AIDS	59
D QUESTIONNAIRE	68
E IRB APPROVAL DOCUMENTS	81

LIST OF TABLES

Table	Page
1. Participant Demographics (N=496)	22
2. Percentage Correct on Comprehension Questions	26
3. Verdict Choices between Conditions	29
4. Logistic Regression Model Predicating Verdict Decisions in Instructions Condition.....	29
5. Logistic Regression Model Predicating Verdict Decisions from Insanity Defense Attitudes	30
6. Logistic Regression Model Predicating Verdict Decisions from Interpretation of the Evidence Scores	31
7. Logistic regression model predicting insanity defense verdict decisions from Specific Instructions.....	32

LIST OF FIGURES

Table	Page
1. Study Sequence	25
2. Helpfulness of Instructions	27
3. Amount of Confusion when Deciding a Verdict	28
4. Moderated mediation analysis for Hypothesis 5.....	34

The insanity defense is considered one of the most controversial legal defenses in the U.S criminal law (Daftary-Kapur, Groscup, O'Connor, Coffaro, & Galietta, 2001). The criminal court system and the mentally ill have a long and complicated history of intersections, and this history has affected public perceptions. The insanity defense is plagued with myths and misconceptions (Bloechl, Vitacco, Erickson, & Newmann, 2007). These misconceptions can have a biasing effect on the verdict decisions that jurors make in insanity defense cases.

A fundamental presumption of the criminal justice system is that legal responsibility both entails *actus reas* (the criminal act) and *mens rea* (guilty mind) (Lymburner & Roesch, 1999; Huss, 2013). The insanity defense was created for situations in which the presence of a mental disorder renders a defendant unable to form criminal intent. Individuals would be considered not guilty by reason of insanity, if they engage in a criminal act, but are not judged to be criminally responsible due to lack of *mens rea* (Peters & Lecci, 2012). The underlying rationale of the insanity defense is that those who are mentally ill and cannot fully comprehend their actions should not be held responsible for their actions in the justice realm (Kachulis, 2017). Insanity is a legal defense often resulting in an acquittal based on the defendant's inability to appreciate or control his/her actions because of mental illness or defect. The defendant must admit committing the crime in question to be able to plead the insanity defense (Daftary-Kapur et al., 2001).

Insanity defenses can cause confusion, with people questioning how someone can be called "not guilty" even though it is clear that the defendant committed the crime. The task for jurors is complicated, having to decide in insanity cases whether the defendant

was mentally ill, or not, at the time of the crime- and beyond that whether the mental illness then precluded their ability to know right from wrong or to control their behavior. Jurors can be left with a sense of uneasiness which is then reinforced by the uncertainty of what actually happens after the verdict. Guilty is a verdict that many understand: the defendant goes to prison to serve their sentence, but few know what happens to a defendant that is acquitted by an insanity defense.

Insanity cases present complex criteria for the defendant to meet, much of which jurors do not fully understand (Liu, 1993; Piel, 2012). The task of the jurors is to reach a legally appropriate verdict by applying the legal criteria and instruction given to them by the judge to the evidence that is presented during the trial (Skeem, Loudon, & Evans, 2004). The job of the jury is to be a ‘fact-finder’, and they are assumed to come to a verdict based only on the evidence and testimony. The legal system assumes jurors can be blank slates and perform their tasks in a rational fashion, but research suggests otherwise. The U.S. Constitution guarantees all criminal defendants the right of a trial with an impartial jury through the Sixth Amendment (which is then extended to certain civil cases in the Seventh Amendment), and a fair jury trial is contingent upon the selection of jurors who can apply the law with undue bias (Skeem, Loudon, & Evans, 2004). A proposed solution is to add specific juror instructions to educate and help jurors make appropriate decisions in insanity defense cases.

Attitudes, Bias, and the Jury

An attitude is “a person’s disposition to respond favorably or unfavorably to stimuli” (person, object, event, etc.) (Ajzen, 1989, p. 241). Attitudes can have a strong influence on jurors’ decision-making. The stereotypes individuals have pertaining to

criminal offenses and offenders have a substantial influence on verdict decisions, even when jurors are instructed to set aside any biases they have (Skeem et al., 2004).

Attitudes about the insanity defense have a profound influence on mock jurors' verdicts, even overpowering juror instructions (Louden & Skeem, 2007). Rather than relying on any sort of legal instruction given to them, jurors may be relying on their own implicit model of insanity (Lymburner & Roesch, 1999). These biases against the insanity defense make it difficult for mentally ill defendants to receive a fair trial.

Motivation, emotion, and intuition also influence judgements, and play a big factor in how people take in information and make decisions (Kunda, 1990). Based off their beliefs and attitudes, people are motivated to arrive at specific conclusions. This general phenomenon is called motivated reasoning, or motivated cognition. The theory holds that when decision makers have a preference regarding an outcome, they are more likely to arrive at their desired conclusion by engaging in inadvertently biased cognitive processes that are involved in accessing, constructing, and evaluating beliefs (Kunda, 1990; Sood, 2013).

People's desires, hopes, and fears can lead them to perceive a representation of information that they desire. For example, when faced with an ambiguous figure, people interpret the figure in a way that would be more desirable to them when they are motivated to do so (Balcetis & Dunning, 2006), or in the legal context interpret the evidence to fit a specific story that they have created (based off the Story Model, Pennington & Hastie, 1986). The Story Model holds that jurors form a narrative of the evidence to attempt to organize the information into a coherent mental representation. According to the model, jurors gather information and organize it into a comprehensive

narrative with a causal structure. While constructing their story, jurors use the evidence presented at trial and complete the story with their personal knowledge and expectations. Jurors map their accepted story onto the verdicts given to them, and chose the one that best matches their story (Levett, 2008).

Misconceptions of the Insanity Defense

Attitudes about the insanity defense often stem from common misconceptions. Perlin (1995) identified eight common myths that influence people's perceptions of the insanity defense. These myths include perceptions that the insanity defense is frequently used by defendants and defense lawyers as a ploy to get acquitted. It is assumed they will receive a lighter sentence and in all reality the defendant is actually faking mentally illness (Daftery-Kapur et al., 2011; Perlin, 1995). Additionally, the insanity defense is thought to be limited only to murder and other violent crimes, meaning that those that plead insanity are thought to be the most dangerous of criminals, when in all reality that is not the case. Silver and colleagues (1994) examined those pleading insanity and found that only 14% of defendants were charged with murder.

Another myth related to the insanity defense is there is no risk to the defendant to plead insanity. In order to plead an insanity defense, the defendant must admit to committing the crime in question. This is risky for defendants, especially when there is weak evidence linking the defendant to the crime. Additionally, just by raising the defense the defendant is more likely to receive a guilty verdict. A study conducted by Braff, Arvanites, and Steadman (1983) found those that unsuccessfully plead insanity were incarcerated 22% longer than those that did not raise the insanity defense. Furthermore, those that committed a nonviolent crime were committed up to nine times

longer than those that did not try to plead insanity (Steadman, Mulvey, & Monahan, 1998).

There is a perception that people found insane are quickly released. In reality, people that go to a psychiatric mental hospital are typically there indefinitely- until they are considered to be no longer mentally ill. Research on length of confinement of those acquitted from the insanity defense (Not Guilty by Reason of Insanity) found only 1% of the cases where individual was unconditionally released (Sliver et al., 1994). Normally, defendants acquitted by the insanity defense are committed and remain in the psychiatric hospital for treatment until they are able to convince the proper authorities that they are no longer a danger to themselves or society (Wheatman & Shaffer, 2001). In general, the public believes that the insanity defense is a loophole in the justice system for criminals to avoid prosecution and punishment for the crimes that they have committed.

These types of societal misconceptions about the insanity defense lead to beliefs that individuals who are acquitted by the insanity defense are 'getting off easy.' Media has played a large role in solidifying these types of misconceptions. Acquittals like John W. Hinckley Jr.'s have stimulated strong opposition and public mistrust toward the defense (Bloechl et al., 2007).

In 1982, John W. Hinckley Jr. tried to assassinate President Ronald Reagan and was acquitted by the insanity defense- specifically under Not Guilty by Reason of Insanity (NGRI). John Hinckley believed that by assassinating the president, he could win the affection of actress Jodie Foster. The public outcry after cases like this one have caused the legislature to react, for example by creating the Insanity Defense Reform Act of 1984. This Act changed the burden of proof from the prosecution proving the

defendant was not insane to the defense having to prove the defendant was indeed insane at the time of the crime (Huss, 2013). Some states even went as far as completely abolishing the defense, with many calling the defense a ‘legal monstrosity’ (Bloechl et al., 2007; Koshland, 1992).

Standards for the Insanity Defense

Not only is there a misunderstanding about what the insanity defense is and how it works, there is also confusion about the differences between the various insanity *standards* used across jurisdictions (e.g., M’Naughten Standard, Product Test, Brawner Test) and the different insanity *verdict* options (e.g., Not Guilty by Reason of Insanity, Guilty But Mentally Ill, and Guilty Except Insane).

An insanity defense *standard* sets the legal requirements the defendant needs to meet to be considered legally insane. In the courtroom, rather than simply being classified as being mentally ill, the defendant must be deemed “legally insane,” – a legal, not a clinical definition (Huss, 2013). Throughout history, the insanity defense standard changed, and there are multiple standards that are used at the state and federal level (e.g., M’Naughten, Product Test, Brawner Test). For the purposes of this paper, the M’Naughten standard (a common standard used in many states) will be addressed – because we use it in our current study.

M’Naughten established the standard for insanity defense cases in 1843 after Daniel M’Naughten tried to assassinate British Prime Minister Sir Edward Peel. Rather than killing the Prime Minister, M’Naughten accidentally shot the Prime Minister’s secretary, Edward Drummond. Daniel M’Nagthen was adjudicated as Not Guilty by Reason of Insanity (NGRI) under the standard in place at the time of his trial, which was

the Wild Beast standard. Under the Wild Beast standard, “the defendant must be totally deprived of his understanding, that he does not know what he is doing; no more than an infant, a brute, or a wild beast” (Huss, 2013). This Wild Beast insanity defense standard was only a one-prong cognitive test, where the defendant must prove that he did not know the nature and quality of the act he was doing.

The public was outraged that M’Naughten was found NGRI, as was Queen Victoria. This outrage led Britain to develop a new insanity standard, which emerged as the M’Naughten standard (Huss, 2013). Ironically, M’Naughten himself thus was not tried under the standard that bears his name. The M’Naughten test adds on to the Wild Beast test by adding an additional cognitive prong, that the defendant must not know the nature and quality of the act he was doing and that the defendant did not know what he was doing was wrong. This insanity standard was quickly adopted in the U.S. and is still the standard used by many of the states (Huss, 2013).

Verdict Confusion

An insanity defense *verdict*, in contrast to the *standard*, is the particular form of the insanity defense that a jurisdiction uses. Traditionally, Not Guilty by Reason of Insanity verdict is used (Huss, 2013). However, a common theme throughout the history of the insanity defense is public outrage about high-profile cases in which people are adjudicated insane. Therefore, alternative insanity defense verdicts were developed by different legislatures that include more retributive elements than the NGRI verdict, including Guilty But Mentally Ill and Guilty Except Insane (Huss, 2013).

The traditional insanity verdict option is Not Guilty by Reason of Insanity (NGRI), where the defendant is not convicted of the crime. Furthermore, they are

hospitalized and receive treatment rather than incarceration (Huss, 2013). They are considered to not be responsible for their crimes and are treated for their mental illness rather than punished. This verdict option was the insanity verdict norm for many years – until the John W. Hinckley Jr.’s trial.

NGRI fell strongly out of public favor following the acquittal of John W. Hinckley Jr in 1982. In response to the public outrage, a new Guilty But Mentally Ill (GBMI) verdict option was developed in a few jurisdictions as a compromise verdict between NGRI and guilty – with more retributive components than NGRI but still with a nod toward rehabilitation by providing an option other than “guilty” (Finkel, 1991). GBMI was created to reduce the number of insanity acquittals and to assure treatment for such individuals within the correctional setting. Rather than being acquitted by the insanity defense, GBMI is a verdict that convicts the defendant as “guilty” and criminally culpable. Furthermore, the convict is subject to criminal sanctions that are imposed on a person found guilty (Sloat & Frierson, 2005). The idea is that they will receive treatment in prison, but this is not guaranteed, and in fact does not always happen. Some have argued against GBMI, calling the verdict ‘guilty but remorseful’ since the verdict does not indicate diminished capacity (Sloat & Frierson, 2005).

Other states created their own unique verdict options. For example, in 1994 Arizona created a unique insanity defense verdict called Guilty Except Insane (GEI). GEI is another “compromise” verdict that includes more retributive elements than traditional NGRI, but that includes rehabilitative elements too (and in fact more rehabilitative elements than GBMI) (Smith, 2008). Specifically, a person found GEI, in Arizona, is convicted of the crime and held criminally culpable. They are sentenced, as they would

be had they been found guilty. However, once a person is found GEI in Arizona, they are committed to a secure state mental health facility for treatment rather than sent to prison. Once released from the mental hospital, they finish out the rest of their sentence incarcerated in prison (similar to GBMI). This definition of GEI is specific to Arizona; GEI in other states with different outcomes. Having elements from both GBMI and NGRI, GEI in Arizona is essentially a compromise between GBMI and NGRI (Smith, 2008).

There are also jurisdictions that provide jurors with both NGRI and GBMI insanity verdict options, which can cause confusion for jurors trying to figure out the difference between the options given to them. States that use both NGRI and GBMI as sentencing options include Alaska, Georgia, Indiana, and Pennsylvania (National Center for State Courts, 2004). The case *State v. Gary Allen Rimart* (S.C. 1994) exemplifies some of these issues. Rimart was found GBMI and charged with murder. In this case, the jurors had the option to also consider NGRI and GBMI, but were not provided instructions about their different consequences for the defendant (e.g., conviction vs. not, sentence vs. treatment). Rimart appealed the decision in part because of the lack of instructions for the jury on the consequences of GBMI and NGRI verdicts. The Supreme Court of South Carolina upheld the trial judge's decision, not requiring instructions to the jury regarding the sentencing consequences of different insanity defense verdicts (*State v. Gary Allen Rimart*, 1994). This issue –whether jurors should be instructed about the consequences of various insanity verdict options – is an unsettled area of the law, with different precedents in different jurisdictions (see e.g., *Shannon vs. U.S.*, 1994).

Jury Instructions

When a trial has reached the point where jurors are asked to deliberate and decide on a verdict, they are given general instructions by the judge about how to apply the law and make their decisions. Instructions can contribute to misunderstanding due to the manner of presentation and the legal terminology that is generally unfamiliar to the lay public (Severance & Loftus, 1984). Lynch and Haney (2000) found that with death penalty instructions a high percentage of participants were unable to correctly identify basic concepts. Studies show mixed results looking at the usage of additional jury instructions that give jurors a better understanding of defendant outcomes and less usage of legal terminology. In insanity cases, the instructions include the definition of what it means to be legally insane and the requirements defendants need to meet for the specific verdict options available. Adding additional information to juror instructions in insanity cases about what will happen to defendants under different verdict options (such as between different insanity defense options) has the potential to help jurors make more informed decisions in these cases.

Prior to the enactment of The Insanity Defense Reform Act of 1984, the Federal Court of Appeals disapproved of the usage of jury instruction about the consequences of an insanity defense verdict (Ogloff, 1991; Huss, 2013). Thus, jurors were typically not given any additional information about consequences to aid in the core fact-finding process. After the passing of The Insanity Defense Reform Act, there was a split amongst court jurisdictions as to whether juries should be instructed on the consequences of an insanity verdict (Piel, 2012).

There is vigorous debate among state courts about the usage of instructions in insanity cases. Some state courts require judges to give instructions to jurors about the

consequences of insanity verdicts (i.e., California, Colorado, Florida, Louisiana, Massachusetts, Maryland, Pennsylvania, and Utah) (Sloat & Frierson, 2005). This additional instruction about consequences of insanity verdicts is provided to reduce juror confusion, based on the assumption that the jurors do not have a full comprehension of what happens to the defendant after such verdict (Liu, 1993). Other state courts believe that jurors should provide the sole function of being a fact finder and that instruction about verdict consequences would distract them from their primary fact-finding purpose (Wheatman et al, 2001). Therefore, these jurisdictions do not provide the additional instructions to jurors about consequences of insanity verdicts (i.e., what will happen to a defendant adjudicated as “insane”).

The case of *Shannon vs. U.S.* (1994) set the precedent for federal courts on juror instructions. Shannon, a convicted felon, was stopped by a police officer and he then told the officer that he did not want to live anymore. Shannon then walked across the street, pulled a pistol from his coat, and shot himself in the chest. Surviving his suicide attempt, Shannon was indicted for possession of a firearm by a felon. At trial, Shannon raised the insanity defense, and motioned the court to instruct the jury about the consequences of an NGRI verdict. The trial court denied Shannon his request, and the jury returned with a guilty verdict. Shannon appealed to the Fifth Circuit, where the circuit held that the Insanity Defense Reform Act did not change the previously established law in the circuit that no juror instruction would be given. He appealed again to the U.S. Supreme Court to consider whether federal district courts are required to instruct juries with regard to the consequences of an insanity defense verdict. The Supreme Court established that when a jury has no sentencing function that judges should not instruct the jury in federal courts.

Why is this important?

Historically, juries decided on the matter of guilt of a defendant without the knowledge of the consequences. Generally speaking, jurors have an understanding of the sentencing outcomes for a person found guilty of a crime. Jurors have a basic understanding about the range of criminal punishments afforded to a defendant found guilty of a crime and know that most guilty defendants serve prison or jail time (Piel, 2012).

In the case *State vs. Becker* (2009), Mark Becker was charged with first-degree murder for shooting and killing his former football coach. At his trial, experts testified that he had paranoid schizophrenia and motioned that the jury be instructed about the outcome if Mark Becker was found NGRI. The court refused the motion and gave basic instructions (Piel, 2012). The issue surrounding this case was that while deliberating, the jury submitted several questions to the district court including one asking about what would happen to Mark Becker if the jury found him insane. This request for more information was denied, with the court instructing the deliberating jurors not to concern themselves with potential consequences of the potential verdicts. The Supreme Court of Iowa emphasized the difference between the role of the jury and the judge- that juries are finders of fact and the judge is responsible for applying the law and imposing sentences.

More than 20 jurisdictions have held that the jury should be instructed as to the consequences of an insanity verdict, or that an instruction is permitted upon request under various circumstances to prevent jury confusion (Piel, 2012). Research on the usage of juror instructions in insanity cases shows that they do give jurors a better understanding of the insanity defense and the laws that surround it (Elwork et al, 1991). Sloat and

Frierson (2005) examined the knowledge and understanding that jurors have about NGRI and GBMI, and 84% of participants believed that jurors should be informed of the outcome of insanity defense verdicts (i.e. NGRI and GBMI). Few of the participants were able to correctly identify the meanings and outcomes for both NGRI and GBMI (4.2%). This suggests there is a need for jurors to have more information about the outcomes because jurors may decide verdicts partly on what they believe the dispositional outcome of the verdict will be. Thus, there are ripe empirical questions to be answered, including whether providing specially designed juror instructions in insanity cases can help jurors comprehend their charge (i.e., better understand the legal language and consequences associated with different verdict options), and whether better understanding might translate into a reduction of the influence of personal biases in jurors' legal decisions in insanity cases.

Fuzzy Trace Theory

Fuzzy Trace Theory theorizes that when individuals are exposed to meaningful stimuli it is encoded two different types of representations; a verbatim representation which captures the exact information presented (words, numbers or images), and gist representation which captures the essential, bottom-line meaning of the stimulus (Reyna & Brainerd, 1995). The gist representation involves distinguishing details from the main points, for example what is central information for making the specific decision (Blalock & Reyna, 2016). People tend to rely on gist rather than verbatim representation and research shows that compared to using verbatim reasoning, gist reasoning is associated with improved judgement and decision making, and increased adoption of available information (Reyna & Brainerd, 1995). These types of decision aids have been used in

medicine to help patients make better decisions (e.g., Fagerlin et al., 2011), but they have been less commonly translated for or studied in the context of legal decision making. The current study proposes the usage of juror instructions that facilitate gist-representations as a way to assist in juror decision making and reduce reliance on preexisting attitudes.

Pilot Study

A pilot study was done to examine insanity verdict options, juror instructions, and attitudes toward the insanity defense on juror decision making in an insanity case.

Previous research has compared mock jurors' decisions in Not Guilty by Reason of Insanity (NGRI) and Guilty but Mentally Ill (GBMI) verdict option conditions. Both of these insanity verdict options (depending on the jurisdiction) are available to triers of fact (National Center for State Courts, 2004). No studies could be located that examined mock juror decisions with the verdict option Guilty Except Insane (GEI). GEI was created as a harsher version of the NGRI for the State of Arizona, and has emerged as what could be considered a compromise verdict between NGRI and GBMI (Smith, 2008).

For this pilot study, we used all three of these insanity defense verdict options, but each juror was only shown one of the three verdict options (Not Guilty + Guilty + one of the three insanity verdict options [NGRI, GBMI, GEI]). The M'Naughten standard was held as the standard constant for all conditions. We compared how jurors would decide between the different insanity verdict options.

Participants were also randomly assigned to either receive basic juror instructions (Typical Condition) modeled from actual instructions that are given to jurors in a trial or more specific instructions (Specific Condition) that included information about the outcomes of the verdicts that were presented to them. Additionally, the specific

instructions included simple visual depictions of the information designed as decision aids, which portray easy-to-interpret, bottom-line “gist” of the information consistent with Fuzzy Trace Theory (Reyna & Brainerd, 1995) which states that when an individual is exposed to meaningful stimuli both a verbatim representation and gist representation is encoded in memory.

Pilot Study Hypotheses

1. A main effect of juror instructions was hypothesized, such that more specific juror instructions would increase insanity verdict decisions, compared to typical juror instructions.
2. We hypothesized a main effect of verdict condition such that participants who saw the GEI option would be more likely to render an insanity verdict than participants in the NGRI and GBMI conditions. Specifically, GEI would be proportionally picked the most, GBMI would be the second most popular (proportionally), and NGRI would be proportionally least picked out of the third verdict options. Our reasoning was that GEI holds both retributive and rehabilitative aspects -a compromise between NGRI and GBMI (Smith, 2008), and that participants would see the verdict as one that punishes the defendant for the crime that they committed and also gives the defendant needed treatment.
3. We hypothesized an interaction between instructions and verdict condition, such that there would be no differences between the insanity defense verdict option between conditions in the typical instructions condition, but in the specific instructions condition the insanity defense option in the GEI condition

will be chosen more compared to the insanity verdict option in the two other conditions. GEI will be picked more because it has aspects of both retribution and rehabilitation.

4. Finally, we hypothesized that participants with higher support for the insanity defense would be more likely to decide the insanity verdict option than guilty, whereas participants with more negative attitudes toward the insanity defense would be more likely to decide guilty than the insanity defense verdict option.

Pilot Study Method

Participants. For this study, 188 participants were recruited nationwide using Amazon's Mechanical Turk. Of these 188, 6 participants were removed after failing manipulation check questions ($n=182$). The gender of the sample was 51.4% male, ranging in age from 21-61 ($M=34$, $SD=9$). The sample was diverse, with ethnic background of the participants varying as followed: 62% White, 9.5% African-American, 8.4% Asian, 7.3% Hispanic (White), 2.8% Hispanic (non-white), 1.1% Native American, 8.9% other. About a fifth of the sample (19.1%) had previously served on a jury.

Procedure. Participants were randomly assigned to condition in a 2 (instructions condition: typical vs. specific) by 3 (insanity verdict option: NGRI, GBMI, or GEI) between-subjects design. Participants were asked to read a trial vignette of a second-degree murder case in which there was evidence that the defendant was mentally ill at the time of a violent offense, and that he had trouble understanding that his actions were wrong at the time due to the mental illness (i.e., he thought the victim was an alien). This vignette has been used in previous research in Canada (Maeder, McLaughlin, Yamamoto, & Zannella, 2016). The vignette was modified to fit the U.S. context (e.g., changing

“Crown” to “Prosecution”), and the language for the insanity verdicts and juror instructions was modeled after actual U.S. jurisdictions. The jury instructions in the vignette were largely based on the 10th circuit jury model instructions (Committee of the United States Court of Appeals for the Tenth Circuit, 2011), and all of the additional jury instructions for the verdicts are based largely on Georgia Code 17-7-131 with additional material for GEI from Arizona 13-3994.

After reading the case, participants were then asked to render a verdict decision based on the information they had received. In each condition, they had the choice between Not Guilty, Guilty, or an Insanity Verdict (either NGRI, GBMI, or GEI). In this pilot study, participants did not have the option of more than one insanity verdict option – they only saw one. Afterwards, participants also completed the Insanity Defense Attitude Scale-Revised (Skeem, Louden, & Evans, 2004), and a basic demographic information form after reading through the vignette. Participants were compensated \$3.50 for the 30-minute study.

Pilot Study Results

Examining the main effect of juror instructions on mock juror verdicts, the hypothesis that those in the specific instruction condition would choose an insanity defense verdict more compared to typical instructions was not supported. We found that there was not a significant difference between the two conditions, $X^2(1, 187) = .10, p = .76$.

We posited a main effect of verdict option condition, such that a higher proportion of mock jurors in the GEI than in the NGRI condition would select the “insanity” verdict option, with GBMI in the middle between GEI and NGRI. Results did not support this

hypothesis. In the NGRI condition, 40.32% chose the NGRI verdict (the rest chose either guilty or not guilty), 49.18% of mock jurors in the GBMI condition rendered a GBMI verdict, and 45.76% in the GEI condition found the defendant GEI. Proportions and z-tests were calculated; no significant differences across the three conditions.

We also hypothesized an interaction between verdict and instruction conditions, but neither emerged as significantly related to verdict decisions. As predicted, insanity defense attitudes were significantly related to jurors choosing the third verdict option (NGRI, GBMI, GEI) rather than a verdict of guilty ($b = 0.51$, $SE = 0.01$, Wald $X^2(1) = 24.51$, $p < .001$, Exp (B)=1.053 [logistic regression model chi-square (1) = 31.67, $p < .001$]). This pilot study replicated what Louden and Skeem (2001; 2004; 2007) have found: that mock jurors' verdicts in insanity cases are systematically related to their attitudes about the mentally ill. The current study further examines this idea. Specific juror instructions will be reexamined, but rather than only seeing one insanity defense verdict, participants will have the opportunity to compare all three.

Current Study

This study extends on the pilot study. It is a 2x1 between-subjects design, with the independent variable as type of instructions (specific or typical) and verdict decision as the dependent variable. This time, participants were present with all 5 verdict options rather than just one of the insanity defense options (Guilty, Not Guilty, NGRI, GBMI, and GEI).

The focus of the current study is to better understand the effect of specific instructions in insanity cases. We set out to examine if people who receive specific instructions better understand their decision options in these complex cases. Furthermore,

we aim to determine whether better understanding (by virtue of the improved gist-based instructions with information about consequences) will reduce the effect of jurors' existing attitudes and motivated reasoning on their legal decisions in insanity cases.

Hypotheses

- 1) I hypothesize a main effect of juror instructions, such that participants who receive the specific instructions (vs. typical) will better understand the insanity defense verdict options.
- 2) I hypothesize that type of instructions will affect verdict decisions, such that participants in the specific instruction condition will be more likely to choose an insanity verdict than the typical instructions condition.
- 3) I propose attitudes about the insanity defense and motivated reasoning will bias verdict decisions. People with negative attitudes toward the insanity defense will be more likely to interpret the case evidence in ways that point to guilt and will be more likely to decide guilty, and those with positive attitudes toward the insanity defense will be more likely to interpret the case evidence in ways that point to insanity and will be more likely to reach an insanity defense verdict.
- 4) I propose that among participants who reach an insanity verdict, those in the specific (vs. typical) instruction condition will be systematically more likely to choose GEI because the additional instructions will give help them understanding GEI has both retributive and rehabilitative aspects.
- 5) I hypothesize that mock jurors' preexisting attitudes about the insanity defense will influence verdict decisions through the way they interpret the evidence, and that this relationship will be moderated by the type of instruction given to them

(specific vs. typical). Mock jurors' attitudes will bias how they interpret the evidence through the process of motivated reasoning. Specifically, people with negative attitudes about the insanity defense will show more anti-defense bias in their interpretation of the evidence, leading to guilty verdicts. This relationship will be stronger for people who receive the typical juror instructions, whereas it will be weaker (or nonexistent) for people who receive specific juror instructions. Mock jurors in the specific instruction condition will rely less on their preexisting attitudes and biased cognitive processing of evidence when deciding the verdict than mock jurors in the typical instruction condition.

Methods

Participants. Participants were college undergraduate students recruited from Arizona State University-West Campus through SONA and also in courses where instructors gave extra credit for participating in the study. SONA is a participant pool management software system used by many universities. It provides a system for students to sign up for and be compensated with "credits" for their courses for participating in research studies.

An *a priori* power analysis was conducted to determine the number of participants needed for the proposed study. To generate effect sizes to be used in the power analysis calculation, three separate analyses were ran from the pilot study data. In the pilot study the variables were examined slightly differently then they will be in this study, but they were relevant enough to inform this power analysis. All three analyses showed a small effect of instruction condition on verdict decision. Using an effect size calculator with a

desired power level of .08, probability level of .05, and a small effect size, with two predictors (instructions: typical versus specific), 487 participants were required. Five hundred eighty-four participants were recruited for the study. Eighty-eight were removed through the attention and manipulation check questions: participants who answered two out of the three questions correctly were retained for the analyses ($n=496$). The attention check question gauged participants' attention. It read, "I am paying attention. As such I am picking the second option below." Manipulation check questions asked participants whether or not they received any additional information in their juror instructions and what were the verdict options given to them. Demographic variables are summarized in Table 1. The majority of participants were White (51.2%; 5.4% African American, 4.8% Non-White Hispanic, 8.3% White Hispanic) and female (77.2%). Participants' average age was 26.8 ($SD= 7.1$; range 18-56). A little over 10% (10.1%; $n=50$) of participants had previous experience serving on a jury.

Measures (Appendix D). Most of the questions that were in the questionnaire for the pilot study were used in this study. The questionnaire consisted of a verdict decision questionnaire where participants rendered a verdict decision out of the five choices (Guilty, Not Guilty, NGRI, GBMI, GEI), evidence interpretation questions, comprehension questions, the IDA-R scale measuring attitudes toward the insanity defense, manipulation and attention check questions, and demographics.

Table 1
Participant Demographics (N= 496)

Variables	<i>n</i>	%
Sex		
Male	108	21.8
Female	382	77.2
Other	5	1
Race/Ethnicity		
African American	27	5.4
Asian	11	2.2
Hispanic (Non-White)	24	4.8
Hispanic (White)	41	8.3
Native American	6	1.2
Pacific Islander	1	.2
White	254	51.2
Other	13	2.6

Evidence Interpretation Questions. Questions were created to examine the weight participants assigned to different pieces of evidence provided in the vignette in reaching their verdict decision. Participants were prompted to rate pieces of evidence on how important they were in their verdict decision. There were 14 questions about pieces of evidence from the vignette: 7 pieces that were against the defense and 7 pieces that were for the defense. Jurors were asked to rate how strongly of each piece of information influenced their verdict decision. The questions were on a 1-7 scale, 1 being “Strongly Disagree” and 7 “Strongly Agree.” The 7 questions that were against the defendant were negatively coded, the 7 pro-defense questions were positively coded, and all questions were combined into one Evidence Interpretation Score. The questions were combined

into a total score ranging from -42 to 32. Higher positive total scores represented more pro-defense reasoning and more negative scores represented more anti-defense reasoning.

Comprehension Questions. To examine mock jurors understanding of the verdicts and the instructions, five multiple questions with only one correct option out of five were created about the outcomes of each verdict. Questions were also created to examine mock jurors' perceptions of the process of the deciding the verdict (e.g., ratings of helpfulness of the instructions and how confusing the verdict decision making process was on Likert scales ranging from 1 to 9).

Insanity Defense Attitude Scale (IDA-R; Skeem & Goldings, 2001; Skeem, Louden, & Evans, 2004). The scale consists of 19 core items rated on a Likert scale, and 3 supplemental items (that are more general opinion questions). The scale assesses individuals' positive and negative views on the insanity defense and attitudes toward people with mental illness. The items on the scale assess two factors: 1) strict liability (e.g. 'I believe that people should be held responsible for their actions no matter what their mental condition') and 2) injustice and danger (e.g. 'As a last resort, defense attorneys will encourage their clients to act strangely and lie through their teeth to appear "insane"'). Higher scores on the IDA-R indicate more negative views about the insanity defense and towards people with mental illness. The IDA-R has been shown to be internally consistent, with coefficient alphas of .88 and .86 for injustice and danger and strict liability (Louden & Skeem, 2007). In the pilot study, the coefficient alpha was .94.

Procedure. Participants completed the study through Qualtrics, an online platform for data collection. Participants were randomly assigned to one of the two conditions (typical or specific instructions). All participants were asked to read through

the trial vignette depicting a second-degree murder trial where the defendant pleads insanity (Appendix A). The instructions were presented at the end of the vignette. Participants in the typical instructions condition were provided with typical instructions (Appendix B), whereas participants in the specific instructions condition were provided with additional “consequence” information regarding the different insanity verdict options, accompanied by the visual aids to convey the gist of the information (Appendix C).

The insanity defense verdicts in the vignette were randomly ordered for each participant to control for order effects. The order in which participants saw the vignette and measures was carefully sequenced to control for order effects (see Figure 1). Participants were randomly assigned to one of four orders, in which the materials were counterbalanced. Once they completed the study, they were credited with participation credit through the SONA system for their courses.

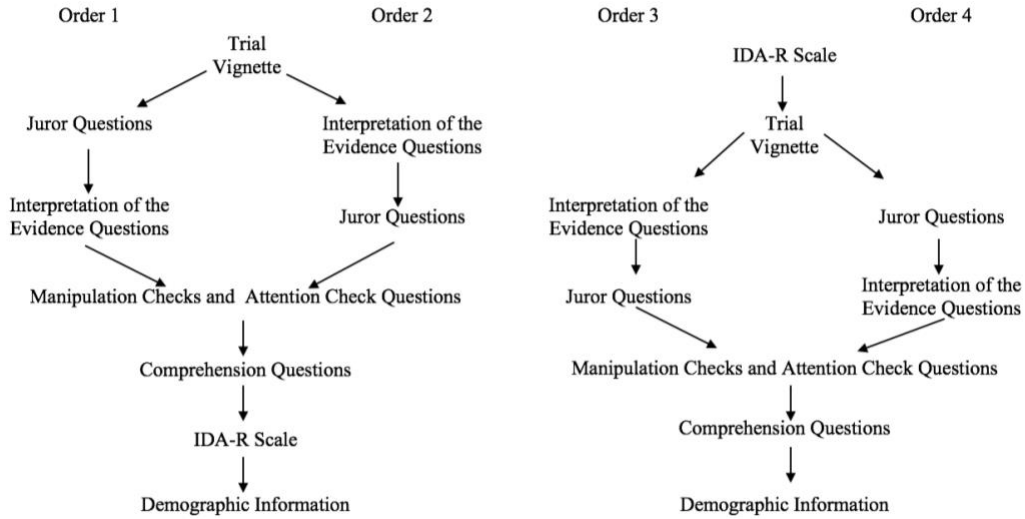


Figure 1. Study Sequence

Results

First, to examine if there were order effects from the order in which participant were exposed to the survey elements, analyses compared participants' results on the IDA-R, Interpretation of the Evidence questions, and verdicts.

No significant order effects emerged. Specifically, ANOVAs revealed no effect of survey order on IDA-R total scores, $F(3,491) = 1.79, p=.15$, Interpretation of the Evidence scores, $F(3,491) = 1.3, p=.27$, or verdict decisions, $X^2(3, N = 492) = 3.0, p=.4$.

Hypothesis 1. To examine the effects of instructions on mock jurors' comprehension of the insanity defense verdict options, three independent t-tests were conducted (on the comprehension items, on ratings of the helpfulness of the instructions, and on ratings of confusion).

To examine participants' understanding of the verdicts and the outcomes, the five questions pertaining to their knowledge of the definitions and legal outcomes for each

verdict were dummy coded, 1 being correct and 0 being incorrect. These were then combined to create a total comprehension score, from 0 (not answering any of the questions correctly) to 5 (answering all of them correctly). Results supported the hypothesis: jurors in the specific instructions conditions correctly answered more verdict comprehension questions ($M=4.1$, $SD= 1.1$) compared to those in the typical instructions condition ($M=3.4$, $SD= 1.2$); $t(494)= -6.7$, $p<.001$. Table 2 summarizes the percentage of correctness for each verdict question for each instruction condition.

Table 2
Percentage Correct on Comprehension Questions

Verdicts	Typical Instructions	Specific Instructions
Not Guilty	83.2% (242)	81.5% (238)
Guilty	69.2% (200)	93.2% (272)
NGRI	77.5% (226)	88.4% (259)
GBMI	35.4% (103)	63.7% (186)
GEI	17% (39)	76.8% (129)

Jurors rated the helpfulness of the instructions from 1 (not at all helpful) to 9 (very helpful). An independent t-test revealed a significant difference between the two conditions: those in the specific instructions condition rated the instructions as more helpful ($M=7.51$, $SD= 1.74$) than jurors in the typical instructions condition ($M= 6.44$, $SD= 1.86$); $t(494)= -6.64$, $p<.001$, Figure 2.

Jurors rated how confusing it was to decide a verdict from 1 (not at all confusing) to 9 (very confusing). An independent t-test revealed a significant difference between the two conditions: jurors in the typical instructions condition found deciding on a verdict more confusing ($M= 5.8, SD= 2.6$) than those in the specific condition ($M= 4.6, SD= 2.8$); $t(494)= 4.62, p<.001$, Figure 3.

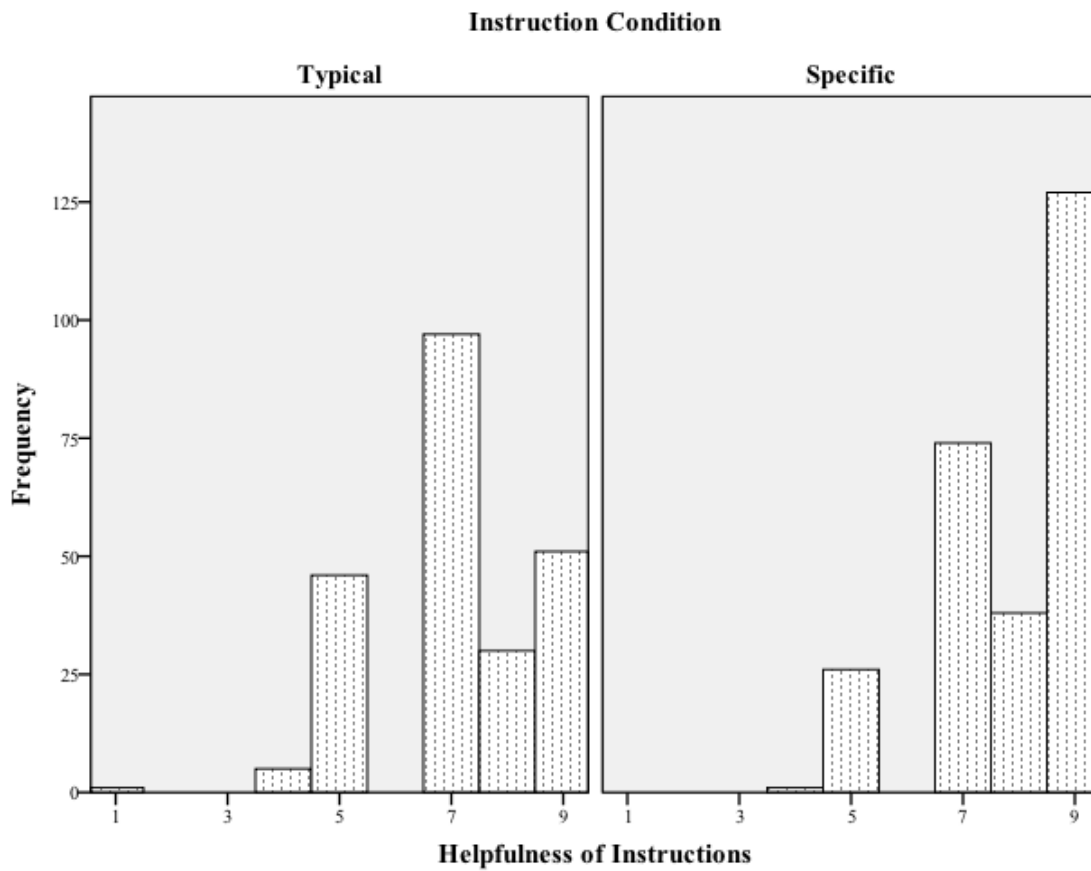


Figure 2. Perceived helpfulness of the instructions between conditions

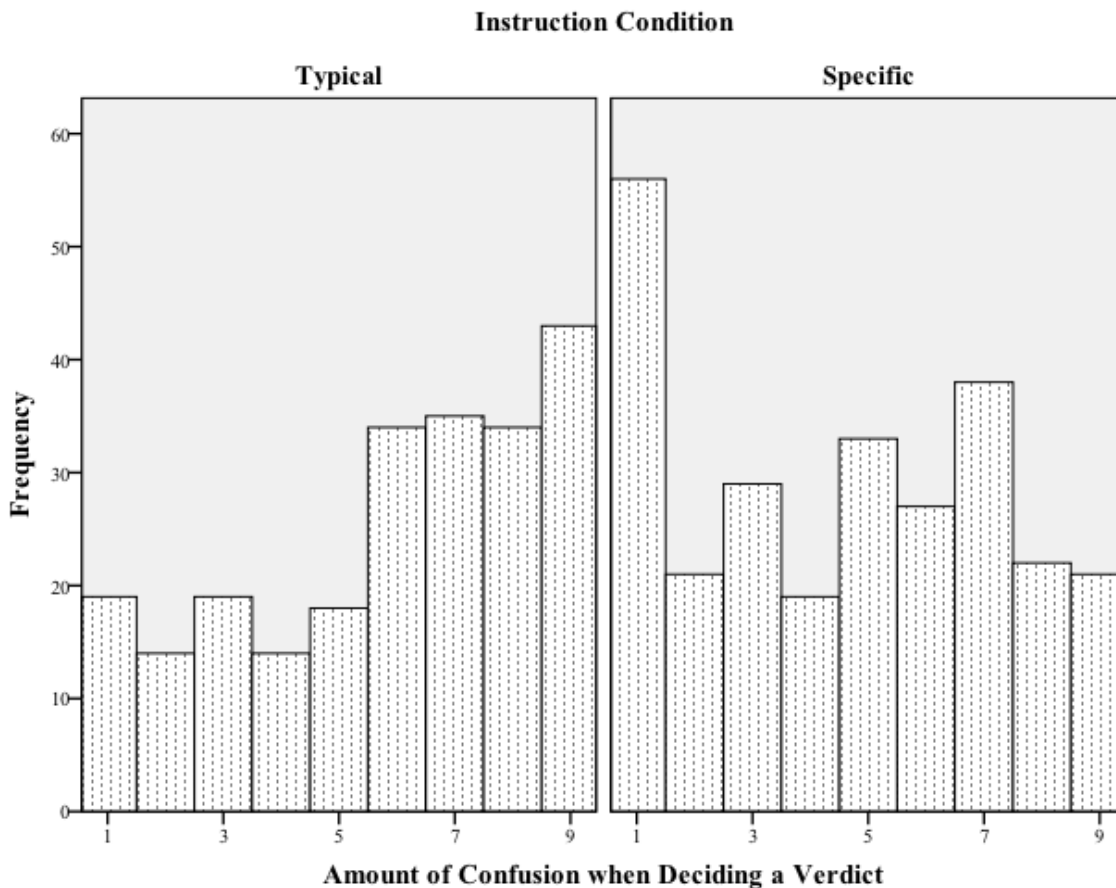


Figure 3. Jurors' ratings of confusion in each condition.

Hypothesis 2. To examine the effect of instructions on verdict decisions, a binary logistic regression was conducted. To directly test the hypothesis that participants in the specific instruction condition (coded as “1”) would be more likely to choose an insanity verdict option than participants in the typical instruction condition (coded “0”), verdict decisions were collapsed into a two-category variable consisting of any insanity defense verdict (NGRI, GBMI, GEI combined- coded as “1”) and any non-insanity verdict (Guilty and Not Guilty combined- coded as “0”). Results supported the hypothesis: specific instructions significantly increased mock jurors' likelihood of reaching an insanity verdict, $b = 0.56$, Wald $X^2(1) = 5.21$, $p = .023$. There was a significant difference between the verdicts chosen between the two conditions, $x^2(1) = 5.28$, $p = .02$, Nagelkerke

$R^2 = .02$. Table 3 shows verdict choices between conditions, see Table 4 for more information regarding the logistic regression output.

Table 3
Verdict Choices between Conditions

Verdict	All Participants	Specific Instruction	Typical Instruction
Any insanity verdict (NGRI, GBMI, GEI combined)	83.7% (415)	87.2% (232)	79.6% (183)
Any non-insanity verdict (Guilty and Not Guilty combined)	16.3% (81)	12.8%(34)	20.4% (47)

Table 4
Logistic regression model predicting verdict decision in Instruction Condition

Predictor	β	SE β	Wald	<i>df</i>	<i>p</i>	Odds ratio
Constant	1.36	.16	69.1	1	<.001	-
Instruction Condition	.56	.25	5.21	1	.023	1.75

Hypothesis 3. To examine if attitudes towards the insanity defense and evidence interpretation affects verdict decisions, two analyses were conducted.

First, to examine the effect of insanity defense attitudes (measured by the IDA-R) on verdict decisions, a binary logistic regression was conducted. To directly test the hypothesis that participants with more negative attitudes about the insanity defense are more likely to reach a guilty verdict over an insanity defense option, verdict decisions were collapsed into a two-category variable consisting of any insanity defense verdict

(NGRI, GBMI, GEI combined – coded as “0”) and Guilty (coded as “1”); participants that chose not guilty were not used in this analysis. Results supported the hypothesis: negative insanity defense attitudes were significantly associated with mock jurors’ likelihood of reaching a guilty verdict, $b = 0.05$, Wald $X^2(1) = 36.67$, $p < .001$ [logistic regression model $\chi^2(1) = 42.6$, $p < .001$, Nagelkerke $R^2 = .14$]. See Table 5 for more information regarding the logistic regression.

Table 5
Logistic regression model predicting verdict decision from insanity defense attitudes

Predictor	β	SE β	Wald	df	P	Odds ratio
Constant	-4.93	.60	71	1	<.001	-
IDA-R Score	.05	.01	36.7	1	<.001	1.046

A binary logistic regression was conducted to examine whether more anti-defense evidence interpretation would be associated with a greater likelihood of picking guilty compared to an insanity defense. The two-category verdict options variable used in the first part of this hypothesis (testing insanity defense attitudes) was again used to examine this part of the hypothesis (testing evidence interpretation). This verdict options variable consisted of all the insanity defense verdicts (NGRI, GBMI, GEI – coded as “1”) and Guilty (coded as “0”); participants that chose not guilty were not used in this analysis.

Results supported the hypothesis; people who interpreted the evidence in a more anti-defense way were 1.17 times more likely to reach a guilty verdict than an insanity verdict, $b = 0.16$, Wald $X^2(1) = 74.9$, $p < .001$ [logistic regression model $\chi^2(1) = 132.73$,

$p < .001$, Nagelkerke $R^2 = .41$]. See Table 6 for more information regarding the logistic regression.

Table 6.
Logistic regression model predicting verdict decision from Evidence Interpretation scores

Predictor	β	SE β	Wald	df	p	Odds ratio
Constant	2.75	.23	139.5	1	<.001	-
Interpretation of the Evidence Score	.16	.02	74.9	1	<.001	1.17

Hypothesis 4. To examine whether instruction condition systematically helps jurors differentiate between different insanity verdict options, logistic regressions were conducted. For this analysis, only participants who reached an insanity verdict were examined (e.g., NGRI, GBMI, or GEI verdict). We expected that jurors in the specific (vs. typical) instruction condition would be systematically more likely to choose a GEI verdict, likely because they would understand the differences between these three insanity verdicts and would situate GEI as a compromise verdict with both the retributive aspects of GBMI and the rehabilitative aspects of NGRI.

Results robustly supported the hypothesis. First, an omnibus binary logistic regression with instruction condition as the independent variable and a two-level insanity verdict categorical variable (GEI coded as “1” and NGRI + GBMI combined coded as “0”) revealed that mock jurors in the specific instruction condition were 4.62 times more likely to reach a GEI verdict than participants in the typical instruction condition, $b =$

1.53, Wald $X^2(1) = 46.86, p < .001$ [logistic regression model $x^2(1) = 51.87, p < .001$, Nagelkerke $R^2 = .16$]. See Table 7 for more information regarding the logistic regression.

Follow-up targeted contrasts to examine whether participants were more likely to reach a GEI verdict than an NGRI verdict and a GBMI verdict in the specific vs. typical conditions were conducted. Each test further supported the hypothesis. Participants in the specific (vs. typical) instructions condition were 5.42 times more likely to reach a GEI than GBMI verdict, $b = 1.70$, Wald $X^2(1) = 51.24, p < .001$ [logistic regression model $x^2(1) = 56.66, p < .001$, Nagelkerke $R^2 = .20$. And participants in the specific (vs. typical) instructions condition were 2.77 times more likely to reach a GEI than NGRI verdict, $b = 1.02$, Wald $X^2(1) = 10.0, p = .002$ [logistic regression model $x^2(1) = 9.88, p = .002$, Nagelkerke $R^2 = .06$. See Table 7 for more information regarding the logistic regression.

Table 7
Logistic regression model predicting insanity defense verdict decisions from Specific Instructions

Predictor	β	SE β	Wald	df	p	Odds ratio
Constant	-1.31	.18	52.36	1	<.001	-
GEI vs GBMI & NGRI	1.53	.22	46.86	1	<.001	4.62
Constant	-1.11	.18	35.93	1	<.001	-
GEI vs GBMI	1.70	.24	51.24	1	<.001	5.42
Constant	.40	.25	2.56	1	.109	-
GEI vs NGRI	1.02	.32	10.0	1	.002	2.77

Hypothesis 5. A moderated mediation analysis was conducted to examine the hypothesis that preexisting attitudes about the insanity defense influences verdict decision through the interpretation of the evidence, moderated by instruction condition. IDA-R total scores served as the predictor variable, interpretation of evidence scores served as the mediator, and instruction condition was the moderator (Specific coded as “1” and Typical coded as “0”). Verdict served as the dependent variable, collapsed into a two category variable comparing all the insanity defense verdicts (NGRI, GBMI, GEI) to Guilty, with Not Guilty was coded as system-missing. A moderated mediation analysis was done through PROCESS, Model 8.

The hypothesis was not supported: instructions did not moderate the relationship between IDA-R scores and verdict, nor did it moderate the mediation relationship between IDA-R scores influencing verdicts through how the evidence was interpreted, see Figure 4. The pathway from attitudes to interpretation of the evidence was significant ($a = -.38, SE = .03, 95\% CI = -.45, -.32$), such that more negative attitudes toward the insanity defense are associated with motivated reasoning against the defense. The pathway from interpretation of the evidence to verdict was significant ($b = .15, SE = .02, 95\% CI = 0.11, 0.2$) such that motivated reasoning against the defense is associated with higher likelihood of voting guilty.

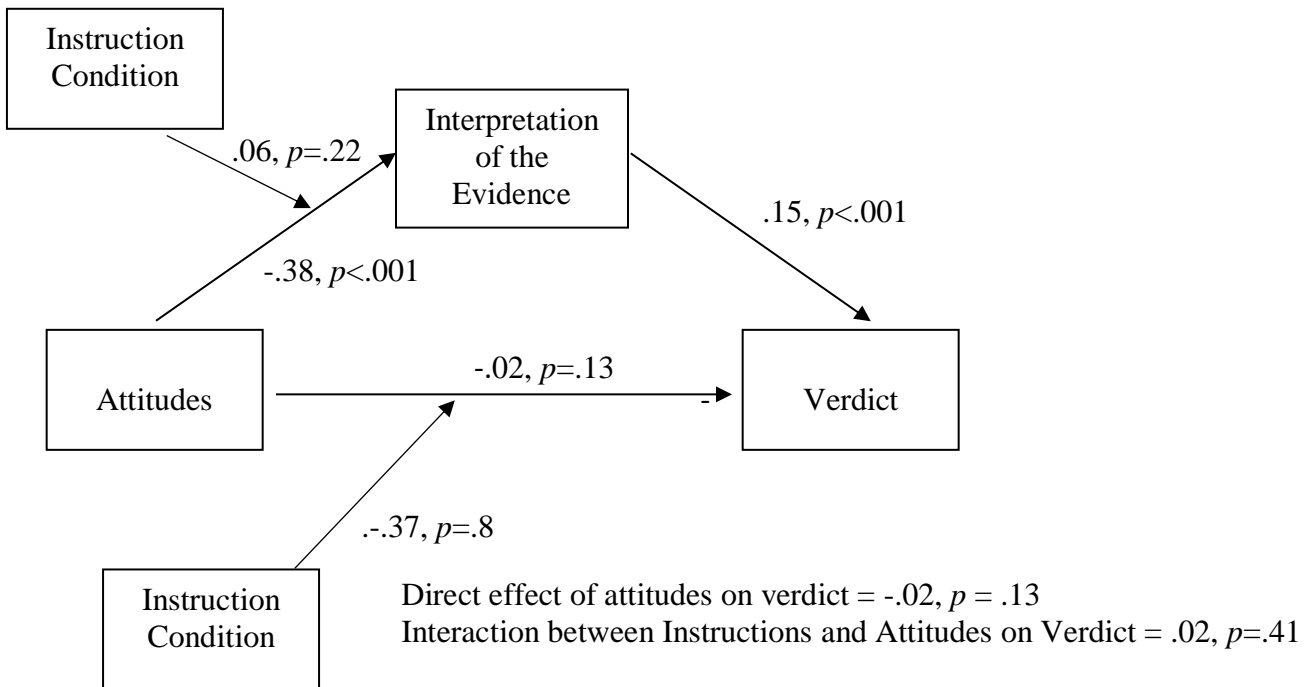


Figure 4. Moderated mediation analysis for Hypothesis 5, examining the moderating effect of instruction condition (typical vs. specific) on the relationship of insanity defense attitudes influencing verdict through how the evidence is interpreted.

Discussion

Due to the misperceptions that surround the insanity defense, defendants who raise the defense and plead insanity are faced with significant challenges to how it will be perceived by jurors. Most jurors lack knowledge of the outcomes of insanity defense verdicts, often believing the defense is a ‘loophole’ for defendants to avoid punishment for their crimes (Bloechl et al., 2007). Adding juror instructions that include an understandable description of the outcomes is proposed in the current study to lessen the biasing effects of misconceptions and negative attitudes on jurors’ verdicts in insanity cases.

Our findings suggest that giving jurors specific instructions with a simple visual aid increases their comprehension of complex verdict options in insanity cases. Jurors given specific instructions in this study found the process to be less confusing and more helpful compared to those that received the typical instructions. Additionally, they remembered and comprehended significantly more information from the instructions compared to those in the typical instruction condition. One reason for these findings could be that the specific instructions gave jurors a better understanding of what actually happens to individuals that are acquitted by the insanity defense. Often people have negative perceptions of the insanity defense because of the lack of information available about the outcome of insanity defense cases and the erroneous assumptions jurors make about what happens to defendants that are adjudicated insane (Liu, 1993).

In this study, jurors in the specific condition knew what would happen to the defendant for each of the potential verdict options, meaning that they did not have to make erroneous assumptions. There is a legal debate about whether jurors should be given outcome information in their instructions, with some jurisdictions holding that it deters from the fact-finding role of the juror (Piel, 2012). The findings from the current study suggests that allowing outcome information into the jury instructions can help jurors make more informed decisions. Furthermore, jurors preferred the specific instructions— they found them more helpful and less confusing than typical instructions.

This research sheds some light into the processes involved in insanity defense verdict decision making. In jurisdictions where jurors are provided with more than one insanity verdict option (e.g., Alaska, Georgia, Indiana, and Pennsylvania; National Center

for State Courts, 2004), more detailed information about each of the outcomes may alleviate verdict confusion. Without the additional information jurors may be making assumptions about what each verdict outcome entails, using their attitudes and biases to guide these assumptions. Whereas allowing jurors to understand what would happen to the defendant for each verdict option would assist in clarification of confusing and vague terminology. The results show that when mock jurors are given the additional information about the multiple verdicts, they are more likely to pick GEI compared to the other insanity defense options. One reason for why this occurred is because the GEI outcome has both retributive and rehabilitative aspects, and participants believed that the verdict as a middle ground where they can punish the defendant for the crime but also treat the mental illness. Showing that participants do want to treatment defendants that they know has a mental illness but not at the cost of no incarceration. Further research needs to be conducted to explore this effect and the role that information plays in punishing mentally ill criminals.

The findings show that attitudes and cognitively biased reasoning processes significantly influence verdict decisions. Those with more negative attitudes toward the insanity defense and anti-defendant reasoning processes were more likely to reach guilty verdicts. Participants with more positive attitudes toward the insanity defense and more pro-defense reasoning processes were more likely to reach an insanity verdict. These finding suggests jurors rely on preexisting attitudes and biases and that additional information given in the specific instructions did not overcome the effects of preexisting attitudes and biases on verdict decision making. Further research needs to be done to

examine interventions that can reduce jurors' reliance on their attitudes and biases when making their decisions, especially in controversial cases like insanity defense cases that are deeply rooted in negative misconceptions.

Changes are needed to improve the existing template that is used to instruct jurors. Previous research has shown the effectiveness of additional instructions, and that there is a need for jurors to have more comprehensive instructions (Piel, 2012; Sloat & Frieison, 2005). This current study examined juror instructions accompanied with simple visual aids to convey the gist of complicated legalese. The revised instructions provided in this study did increase comprehension and subjective perceptions of helpfulness and reduction in confusion. But the intervention did not reduce jurors' reliance on preexisting attitudes and cognitively biased reasoning processes when deciding on a verdict.

Limitations

As with all research, there are a number of limitations with the current study. One is that the participants were a homogenous sample of undergraduate students (largely White and female). This sample may not be generalizable to the public. Further studies including more representative populations should be conducted to confirm the results of the study.

Additionally, the results from the pilot study are different to what was found in the current study; the pilot study found no effect of the specific instructions on verdict decisions. One reason for this could be sample that was used; MTurk was used for the pilot study and there was a more diverse sample. One way to be able to examine if this would have an effect on the results would be to do another study with an MTurk or a

community sample rather than undergraduate students. Additionally, the current study examined if the instruction increased comprehension whereas the pilot study did not examine that relationship. Therefore, this study should be replicated on a more representative sample to confirm the results.

Another limitation involves the measurement of mock jurors' comprehension, which was a series of five multiple choice questions pertaining to jurors understanding of what would happen to the defendant depending on the verdict. These questions did tap into an aspect of jurors' comprehension (understanding on outcomes), but does not look at other aspects, for example jurors understanding of legal insanity. Creating a broader set of questions addressing juror comprehension may be a way to assist with this, as well as having pre- and post-questions after the instructions are given to mock jurors to gauge what information that actually did learn from the instructions given to them.

Future Directions

Research needs to be conducted to further examine the effect of specific instructions accompanied with visual aids on assisting jurors with their verdict decisions. The instructions that were created were effective at increasing comprehension and decreasing confusion. Specific instructions should be examined outside of the insanity defense context to see if the specific Fuzzy Trace Theory-inspired instructions can be effectively implemented in different types of cases.

The goal of the study was to reduce bias and the effect of attitudes on insanity defense cases, and that was not fully accomplished. Further research needs to be conducted to find better ways to reduce this effect. The use of deliberation in future

studies may be able to address this. The ability to deliberate with fellow jurors may allow for the discussion of the instructional information amongst jurors, thus allowing for more information to be absorbed from the instructions. Research has also shown that deliberations reduce jurors' reliance on their biases when rendering verdicts as a group and have a better understanding on the instructions (Diamond et al., 2006). Therefore, future studies should explore the effect of deliberation to see if there is improvement in instruction adherence and if the usage of attitudes and bias is reduced.

References

- Ajzen, I. (1989). Attitude structure and behavior. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and behavior* (pp. 241–274). Hillsdale, NJ: Erlbaum.
- Arizona Revised Statutes (2017). Title 13. Criminal Code Section 13-3994.
- Balcetis, E., & Dunning, D. (2006). See what you want to see: motivational influences on visual perception. *Journal of Personality and Social Psychology, 91*, 612. doi: 10.1037/0022-3514.91.4.612
- Blalock, S., Reyna, V., Kazak, Anne E., Sheeran, Paschal, & Bosch, Jos A. (2016). Using Fuzzy-Trace Theory to Understand and Improve Health Judgments, Decisions, and Behaviors: A Literature Review. *Health Psychology, 35*(8), 781-792.
- Bloechl, A., Vitacco, M., Neumann, C., & Erickson, S. (2007). An empirical investigation of insanity defense attitudes: Exploring factors related to bias. *Law and Psychiatry, 30*, 153-161. doi: 10.1016/j.ijlp.2006.03.007
- Borum, R. & Fulero, S. (1999) Empirical research on the insanity defense and attempted reforms: Evidence toward informed policy. *Law and Human Behavior, 23*, 375-394. doi:10.1023/A:1022330908350
- Braff, J., Arvanites, T., & Steadman, H. (1983). Detention Patterns of Successful and Unsuccessful Insanity Defendants. *Criminology, 21*(3), 439-448.
- Committee of the United States Court of Appeals for the Tenth Circuit (2011). *Criminal Pattern Jury Instruction*. Retrieved from https://www.ca10.uscourts.gov/sites/default/files/clerk/Jury%20Instructions%20Update%202015_0.pdf
- Daftary-Kapur, T., Groscup, J., O'Connor, M., Coffaro, F., & Galiotta, M. (2011). Measuring knowledge of the insanity defense: Scale construction and validation. *Behavioral Sciences & the Law, 29*(1), 40-63.
- Shari Seidman Diamond, Mary R. Rose, Beth Murphy, & Sven Smith. (2006). Juror Questions During Trial: A Window into Juror Thinking. *Vanderbilt Law Review, 59*, 1927-2053.
- Elwork, A., Alfini, J. & Sales, B.D. (1982). Toward understandable jury instructions. *Judicature, 65*, 432-443.

- Fagerlin, A., Zikmund-Fisher, B. J., & Ubel, P. A. (2011). Helping patients decide: Ten steps to better risk communication. *Journal of the National Cancer Institute, 103*, 1436-1443. doi: 10.1093/jnci/djr318
- Finkel, N. (1991) The insanity defense- A comparison of verdict schemas. *Law and Human Behavior, 15*(5). doi:10.1007/BF01650293
- Finkel, N. & Handel, S. (1988). Jurors and insanity: Do test instructions instruct? *Forensic Reports, 1*, 65-79.
- Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology, 44*, 155-194. doi:10.1146/annurev.ps.44.020193.001103
- Georgia Code Title 17 (2017). Criminal Procedure. Section 17-7-131.
- Huss, M.T. (2013). *Forensic Psychology (2nd Edition)*. Wiley Global Education. ISBN: 1118804112
- Kachulis, L. (2017). Insane in the mens rea: Why insanity defense reform is long overdue. *Southern California Interdisciplinary Law Journal, 26*(2), 357-378.
- Kunda, Z. (1990). The case of motivated reasoning. *Psychological Bulletin, 108*, 480-498. doi:10.1037/0033-2909.108.3.480
- Levett, L. (2008). Story model for juror decision making. In B. L. Cutler (Ed.), *Encyclopedia of psychology and law* (Vol. 1, pp. 767-768). Thousand Oaks, CA: SAGE Publications Ltd. doi: 10.4135/9781412959537.n300
- Liu, J. (1993) Federal jury instructions and the consequences of a successful insanity defense. *Columbia Law Review, 93*, 1223-1248.
- Louden, J. E. & Skeem, J. L. (2007) Constructing insanity: Jurors' prototypes, attitudes, and legal decision-making. *Behavioral Sciences and the Law, 25*, 449-470. doi:10.1002/bsl.760
- Lymburner, J., & Roesch, R. (1999). The Insanity Defense. *International Journal of Law and Psychiatry, 22*(3-4), 213-240.
- Lynch, H., & Haney, C. (2000). The effect of jury deliberation of jurors' propensity to disregard inadmissible evidence. *The Journal of Applied Psychology, 85*, 932-939.
- Maeder, E., McLaughlin, K., Yamamoto, S., & Zannella, L. (2016, August). Mental illness type on juror decision making in NGRI trials. Presented at 2016 APA

- Annual Convention, Denver, CO.
- Morse, S. J. & Hoffman, M. B. (2007) The uneasy entente between legal insanity and mens rea: Beyond Clark v. Arizona. *The Journal of Criminal Law and Criminology (1973-)*, 97, 1071-1149.
- National Center for State Courts (2004). The Defense of Insanity: Standards and Procedures. Retrieved from <http://cdm16501.contentdm.oclc.org/cdm/ref/collection/criminal/id/70>.
- Ogloff, J. R. P. (1991). A comparison of insanity defense standards on juror decision making. *Law and Human Behavior*, 15, 509-531.
- Penninton, N., & Hastie, R. (1986). Evidence evaluation in complex decision making. *Journal of Personality and Social Psychology*, 51, 242-258.
- Perlin, M. (1995). The jurisprudence of the insanity defense. *Journal of Legal Medicine*, 16, 453-459.
- Peters, M. & Lecci, L. (2011) Predicting verdicts, adherence to judge's instructions, and assumptions about the disposition of the defendant in a case involving the insanity defense. *Psychology, Crime & Law*, 18, 817-831. doi:10.1080/1068316X.2011.566872
- Piel, J. (2012). In the aftermath of State v. Becker: A review of state and federal jury instructions on insanity acquittal disposition. *Journal of the American Academic Psychiatry and the Law*, 40, 537-546.
- Reyna, V. F., & Brainerd, C. J. (1995). Fuzzy-trace theory: An interim synthesis. *Learning and Individual Differences*, 7, 1-75. doi:10.1016/1041-6080(95)90031-4
- Roberts, C.F., Sargent, E.L., & Chan, A.S. (1993). Verdict Selection Processes in Insanity Cases: Juror Construals and the Effects of Guilty But Mentally Ill Instructions. *Law and Human Behavior*, 17, 261-275. doi:10.1007/BF01044508
- Severance, L.J. & Loftus, E.F. (1984) Improving criminal justice: Making jury instructions understandable for American jurors. *International Review of Applied Psychology*, 33, 91-119. doi: 10.1111/j.1464-0597.1984.tb01422.x
- Shannon v. United States*, 512 U. S. 773 (1994).
- Skeem, J.L., Loudon, J. E., & Evans, J. (2004) Veniirepersons's attitudes toward the insanity defense: Developing, refining, and validating a scale. *Law and Human*

- Behavior*, 28,623-648. doi:10.1007/s10979-004-0487-7
- Skeem, J.L. & Golding, G. L. (2001) Describing jurors' personal conception of insanity and their relationship to case judgements. *Psychology, Public Policy, and Law*, 7, 561-621. doi: 10.1037//1076-8971.7.3.561
- Silver, E., Cirincione, C., & Steadman, H. (1994). Demythologizing inaccurate perceptions of the insanity defense. *Law and Human Behavior*, 18(1), 63-70.
- Sloat, L. M. & Frierson, R. L. (2005). Juror knowledge and attitudes regarding mental illness verdicts. *Journal of the American Academy of Psychiatry and the Law*, 33, 208-212.
- Smith, E. (2008). Did They Forget to Zero the Scales: To Ease Jury Deliberations, the Supreme Court Cuts Protection for the Mentally Ill in *Clark v. Arizona*. *Law and Inequality: Journal of Theory and Practice*, 26, 203-232.
- Sood, A. M. (2013). Motivated cognition in legal judgements: An analytic review. *Annual Review of Law and Social Science*, 9, 307-325. doi: 10.1146/annurev-lawsocsci-102612-134023
- State v. Gary Allen Rimert*, 446 S. E.2d 400 (S.C. 1994)
- Steadman, H.J., Mulvey, E.P., & Monahan, J. (1998). Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry*, 55, 393-401.
- Wheatman, S. & Shaffer, D. (2001) On finding for defendants who plead insanity: The crucial impact of depositional instructions and opportunity to deliberate. *Law and Human Behavior*, 25(2), 167-183. doi:10.1023/A:100564541499

APPENDIX A
TRIAL VIGNETTE

Trial Transcript
A.H. v. Miller

Alleged Crime: Second-degree murder
Victim: Alex Hughes
Defendant: Jordan Miller
D.O.B.: March 6th, 1989
Arrested: December 10th, 2014

Judge's Opening Instructions to the Jury

At the end of the trial I will give you detailed guidance on the law and on how you will go about reaching your decision. But now I simply want to generally explain how the trial will proceed.

This criminal case has been brought by the State. I will sometimes refer to the government as the Prosecution. Mr. Miller is represented by his attorney, called the Defense.

The indictment charges the defendant with the second-degree murder of Mr. Alex Hughes. The indictment is simply the description of the charge made by the state government against the defendant; it is not evidence of guilt or anything else. The defendant is presumed innocent. He may not be found guilty unless you determine that the government has proved his guilt beyond a reasonable doubt.

You are to consider all the evidence received in this trial. It will be up to you to decide what evidence to believe and how much of any witness's testimony to accept or reject. After you have heard all the evidence on both sides, the Prosecution and the Defense will each be given time for their final arguments.

It is important that you wait until all the evidence is received and you have heard my instructions on the controlling rules of law before you reach your verdict.

With that introduction, Prosecution you may present the opening statement for the government.

Prosecution Opening Statement

On the night of December 10th, 2014, Jordan Miller stabbed and killed Alex Hughes. The facts meet the elements of second-degree murder; this is not in dispute by either side. The defendant further, by his own admission, knew that he was committing murder, and that murder is illegal. Thus, his action and admission satisfy all of the elements necessary to convict him of second-degree murder.

The reason we are here today is to determine how the defendant is going to be held responsible for his actions. In pleading insanity, the Defense actually assumes the burden of proof. It is true that the Prosecution always assumes the burden of proof in establishing guilt versus innocence, because the defendant is assumed to be innocent until proven guilty. However, the law has established that the defendant is assumed to be mentally intact unless the Defense can prove otherwise. In other words, the burden for proving criminal responsibility rests with the Defense, not with the Prosecution. In this case, the Defense would have you believe that at the time of the offense, the defendant, Mr. Miller, was extremely mentally ill. But while you're listening to this testimony, I urge you to remember that the simplest explanation tends to be the right one. After you have seen the evidence you will understand that Mr. Miller is simply a violent person who snapped on his roommate during an argument that got so heated a neighbor overheard and called the police.

Although you will hear psychological testimony that, according to the words of the defendant, he was mentally ill at the time of the offense, the Prosecution will show that actions speak louder than words in this case. You will hear testimony that the defendant stole money from the victim, and was preparing to skip town to avoid apprehension by the police. These are the actions of a person who knows he did something wrong but doesn't want to answer for it. Members of the jury, while Mr. Miller may have done an act that you and I believe only a sick individual could do, he was mentally intact when he did so. Don't accept the Defense's farfetched fiction, the only evidence about which comes from a violent offender's claims, but instead hold him responsible. We ask you to return the only verdict appropriate in this case, Guilty.

Defense Opening Statement

Members of the jury, Jordan Miller suffers from a very severe mental illness known as paranoid schizophrenia. The composed, seemingly rational person you see before you is a product of anti-psychotic medication. However, you have all heard the idiom, 'never judge a book by its cover.' To judge the inner workings of Mr. Miller's mind and mental illness based on his external appearance while he is on anti-psychotic medication is a grave mistake. You will hear medical testimony showing that the defendant has been positively diagnosed with paranoid schizophrenia.

Mr. Miller's actions were, in his mind, truly justified. The rationality of his belief, given his diagnosis of paranoid schizophrenia, is not the legal question to be decided here today. If a person kills another under a delusion that the salvation of the human race depends on it, then his action might be 'legally wrong', but it is not 'wrong' if we mean 'morally wrong'. The law is clear about this, members of the jury. A mental disease caused him to think that killing another person was the only option. If you, the jury, feel that Mr. Miller was not in his right mind and that he believed his actions were morally justified, then you must find that the defendant *insane*.

To return an insanity verdict you do not need to understand what he believed; surely, no sane person would believe that his loved ones have been replaced by alien imposters. What you do need to understand is *why* he believed what he did. The answer to that point is a severe mental illness or disease known as paranoid schizophrenia. It was only because of this mental illness that he stabbed Mr. Hughes. Keeping these facts in mind, the Defense calls on you to return a verdict of insanity.

Prosecution Witness, Officer Mark Hanes

Prosecuting Attorney: Can you please state your name and occupation?

Hanes: My name is Mark Hanes, and I am the police officer who was the first to arrive on scene on the day in question. I was also the officer that later arrested Jordan Miller.

Prosecuting Attorney: Can you please describe the events that took place on the evening of December 10th?

Hanes: At approximately 8:40 pm I responded to a 911 call from a neighbor about a disturbance at the apartment of Alex Hughes and Jordan Miller. When I arrived, the door was open, and the victim, Mr. Hughes, was lying on the floor in the kitchen. I could see that the Mr. Hughes had lost a lot of blood, and I immediately called for medical assistance. Mr. Hughes was pronounced dead shortly after arriving at the hospital, and the cause of death was noted as multiple stab wounds to the neck and chest.

Prosecuting Attorney: What happened next?

Hanes: We interviewed the neighbor who had called 911. We learned from this person that Mr. Hughes had a roommate, Jordan Miller.

Prosecuting Attorney: Was the defendant, Jordan Miller, there at that time?

Hanes: No he was not.

Prosecuting Attorney: When and where did you find Mr. Miller?

Hanes: At approximately 9:15 we found Mr. Miller at the home of his mother, Mrs. Miller.

Prosecuting Attorney: Can you describe what happened next?

Hanes: We arrived at the home of Mrs. Miller, and identified ourselves as police officers. Mrs. Miller indicated that Mr. Miller was in his childhood bedroom. When we went to his room, it was evident the defendant was quickly attempting to pack some belongings. We let Mr. Miller know that we needed to ask him some questions pertaining to Alex Hughes.

Prosecuting Attorney: Did the defendant comply with your instructions?

Hanes: No he did not. Mr. Miller attempted to flee through the bedroom window, which was on the ground level of the house. At that time we apprehended Mr. Miller and took him in for questioning.

Prosecuting Attorney: Did you find anything of note at Mrs. Miller's home?

Hanes: Yes. We found a butcher's knife, which we later identified as the murder weapon. Mr. Miller had cleaned the knife in the bathroom sink. We also recovered a wallet, which contained \$200 cash and several cards; it belonged to the victim, Mr. Hughes.

Prosecuting Attorney: So, to summarize, Mr. Miller was attempting to pack his belongings, and to avoid capture?

Hanes: Yes.

Defense Cross-examination:

Defense Attorney: What was Mr. Miller's demeanor at the time you arrived at his house?

Hanes: He seemed frantic, and unsettled by sudden police presence.

Defense Attorney : Did he say anything?

Hanes: He shouted something to the effect of: "Get away from me, don't let them take me."

Defense Witness, Dr. Devin Cassady

Defense Attorney: Can you please state your name and occupation for the court?

Cassady: I'm Dr. Devin Cassady. I'm a psychologist working at the Forensic Mental Health Institute.

Defense Attorney: What are your credentials?

Cassady: I earned my Ph.D. in clinical psychology and later became board-certified in forensic psychology by the American Board of Professional Psychology. I've been a forensic psychologist for over 20 years now.

Defense Attorney: Have you spoken extensively with the defendant, Jordan Miller?

Cassady: Yes. I conducted a full psychological assessment of Mr. Miller.

Defense Attorney: What did you learn from this assessment?

Cassady: Based on a psychological and medical history, a standardized questionnaire, and my own more detailed interview, it is my professional opinion that Mr. Miller meets the diagnostic criteria for schizophrenia, paranoid type.

Defense Attorney: Can you describe for the courts what exactly 'schizophrenia' is?

Cassady: Schizophrenia is a severe brain disorder in which people interpret reality abnormally. Schizophrenia may result in some combination of hallucinations, delusions, and extremely disordered thinking and behavior. Hallucinations involve perceiving something with one of your five senses when that something isn't really there, such as hearing voices when no one is actually speaking. Delusions are fixed, false beliefs - believing something that isn't true, a firm belief that can't be altered even in the face of proof. The origins of schizophrenia are not yet fully understood by scientists, but its potential debilitating effects are well documented.

Defense Attorney: Could you please tell the jury some details about how someone is diagnosed with schizophrenia, and what that means?

Cassady: Well, first you must rule out other mental health disorders and determine that the symptoms aren't due to substance abuse, medication, or a medical condition. In addition, a person must have at least two of a specific set of symptoms outlined in the Diagnostic and Statistical Manual of Mental Disorder (also called the 'DSM'), and those symptoms would be present for most of the time during a one-month period, with some level of disturbance being present over six months. We look for things like delusions, hallucinations, disorganized speech (indicating disorganized thinking), and extremely disorganized behavior.

Defense Attorney: What did you learn, during your assessment, about Mr. Miller's behavior on the day in question?

Cassady: Mr. Miller suffers from what is called "Capgras Delusion", a relatively rare type of delusion that can occur in patients with paranoid schizophrenia. The key feature of this delusion is that the patient believes that his loved ones have been replaced by

identical looking imposters. Mr. Miller indicated to me that he believed that an alien imposter had replaced his roommate. Further, he stated he believed that an alien imposter had transplanted a chip into his brain. This chip, Mr. Miller believed, was responsible for his hearing of Mr. Hughes's voice even when Mr. Hughes was not present. Mr. Miller told me he suspected that aliens were conspiring to take over the planet, and that the Mr. Hughes imposter was attempting to extract information from his mind. He remarked to me that he began to suspect this was the case a couple of months prior, when he came home to find that Mr. Hughes had moved the TV to a different spot in the room.

Defense Attorney: In your discussions with Mr. Miller about the night in question, what did he tell you?

Cassady: He recalled that he and Mr. Hughes were talking in the kitchen, and that he heard a knock on the door. He believed that Mr. Hughes intended to take him away to a secret facility that night, and that he had to kill him to get away.

Defense Attorney: In your opinion, is Mr. Miller trying to mislead you into believing he has schizophrenia?

Cassady: No I do not. Mr. Miller presented with classic symptoms of schizophrenia, and in particular, Capgras delusion.

Prosecution Cross-Examination

Prosecuting Attorney: Are you an expert in deception, Dr. Cassady?

Cassady: No, I am not. But I have many years of experience treating real illnesses, and the ability to detect malingering is part of the job.

Prosecuting Attorney: Is that because people sometimes lie, and try to trick their doctor into diagnosing them with an illness?

Cassady: It's a possibility, but to my knowledge it is not all that common. Capgras Delusion specifically is not necessarily well known to most people, so it wouldn't really be something one would fake easily.

Prosecuting Attorney: But, wasn't your diagnosis just based on what the defendant told you, after some time had passed following the incident?

Cassady: No. I conducted a full psychological assessment. From this assessment, which included a retrospective examination of records from earlier in Mr. Miller's life - including records from the time of the crime - it is my opinion that Mr. Miller's behavior was consistent with a diagnosis of schizophrenia.

Prosecuting Attorney: But in fact, you didn't even interview Mr. Miller until two full weeks after the crime had occurred, isn't that right?

Cassady: Yes that's correct.

Prosecuting Attorney: Do you think that is enough time for someone to research the symptoms of schizophrenia, or research the insanity defense?

Cassady: I don't really know – I couldn't speak to the defendant's activities during that time.

Prosecuting Attorney: Yet you can be confident about his mental state at the time of the crime? That he has this bizarre, specific delusion based only on a description of his activities?

Cassady: I conducted a full psychological assessment. That means that I had to take into account a lot of factors, not just Mr. Miller's word. I looked for things like certain speech patterns, emotional expression, thinking, and perception spanning the months leading up to the incident and at the time of assessment. We're not just looking for what patients say, but looking too at other records as collateral sources that document how patients behave over time – it's not as simple as just making up stories.

Prosecuting Attorney: So, you're saying that the victim believed aliens replaced his roommate and he had to escape quickly, but he still felt he had time to take the victim's wallet? Was that part of this 'delusion' as well?

Cassady: The point is that Mr. Miller's behaviors were erratic, frantic, because he was under the influence of paranoid delusions. For example, he indicated that if the police captured him, the aliens could get to him easily. Although the behavior is irrational to a person who is well, it is reasonable to suspect that taking the wallet somehow played into those delusions.

Prosecuting Attorney: Speaking of mental health history, to your knowledge, has the defendant ever been hospitalized for paranoid delusions before the incident?

Cassady: No he has not.

Prosecuting Attorney: Thank you Dr. Cassady, that's all I have for you today.

Defense Re-direct

Defense Attorney: Dr. Cassady, is it surprising to you that Mr. Miller would not have spent time in a mental health facility?

Cassady: Not necessarily. Among men, onset of schizophrenia typically occurs during early to mid 20's. Even if Mr. Miller, who was 25 at the time of the alleged crime, began experiencing disturbances before the incident, he would not likely have understood the need to seek treatment. Having moved out of his family home, his family would not have realized the need to intervene either.

Prosecution Closing Statement

Mr. Hughes woke up on December 10th, excited to finish his last exam before the holidays and soon go home to friends and family. He was a good student, and had many exciting plans in store, but instead, his life was cut short. I would like to remind you, ladies and gentlemen, that Mr. Miller does not deny intentionally ending Mr. Hughes's life. So, you don't need to take my word for it, instead you can take this information directly from the defendant. The disturbing truth is that Mr. Miller is a dangerous, cold-blooded killer. Frustrated with his roommate, he snapped and violently silenced Mr. Hughes. He knew that it was illegal, and he knew he would get in trouble. We can clearly see this because he took some quick cash from the victim, fled the scene, and even cleaned the murder weapon. Once he got caught red-handed he had to come up with a good story. Members of the jury, do not fall for his fanciful story. What is likely: that the defendant suddenly experienced paranoid delusions even though we have no evidence of this? The defense is so insistent that these outlandish beliefs explain Mr. Miller's behavior, and yet you didn't hear from a single witness who could attest to any strange behavior in the months leading up to the crime. Is it more plausible that he is just a violent person who lost his cool when he argued with his roommate one too many times? Not one piece of evidence was introduced, besides the defendant's own account, that he had a mental disease at the time of the event. What we do have is overwhelming evidence of second-degree murder: the body of Mr. Hughes, a murder weapon, the defendant's belongings in Mr. Miller's room, and even a direct admission. While the forensic psychologist you heard from might not be able to tell when someone is faking an illness, I have every confidence that you can, members of the jury, and that you will return the correct verdict in this case: Guilty.

Defense Closing Statement

This is a very tragic case, ladies and gentlemen; there is no doubt that. Mr. Miller also deeply feels the loss of his best friend and roommate, Mr. Hughes. The real culprit here is mental illness. We have shown you beyond a shadow of a doubt that Mr. Miller did not know his act was wrong. You heard testimony from a very experienced doctor describing an undisputed diagnosis of paranoid schizophrenia. The Prosecution would have you believe that because Mr. Miller's account is so bizarre, it can only be a piece of fiction. But after hearing Dr. Cassady's testimony, you can understand that the reason these beliefs sound so far-fetched to you or me is because they came from a mind that is unwell. Don't fall into the trap of attempting to understand Mr. Miller's delusion. The Prosecution is trying to distract you from the real legal issue at hand: namely, whether Mr. Miller believed these things because of a mental illness. Trust in an expert's full assessment that was based on a lot more information than you've heard in this case. It was based on years of training, experience, and study of mental health as well as other sources in Mr. Miller's history. Let us not punish Mr. Miller for being the unlucky recipient of a mental disease that consumed his life and left him in fear for it. What Mr. Miller really needs to receive is mental health care from trained medical professionals who understand how the brain works. I trust you, members of the jury, to follow the law in this case. The law tells us that if a person did not knowingly and intentionally commit a crime, then you must find so, plain and simple. This doesn't mean he can just walk out of here, it just means that we recognize something that was so beyond his control. This isn't a case of evil, but rather it is a case of illness. While Mr. Miller did not have the choice to act rationally at the time of the crime, you have a choice here and now; the rational one is to find the defendant insane.

APPENDIX B
TYPICAL JUROR INSTUCTIONS

Typical Condition Juror Instructions

Judge's Closing Instructions to the Jury

The defendant is charged in the indictment with murder in the second degree in violation of Section 1111 of Title 18 of the State Code. In order for the defendant to be found guilty of that charge, the government must prove each of the following elements beyond a reasonable doubt:

First, the defendant unlawfully killed Alex Hughes; and
Second, the defendant killed Alex Hughes with malice aforethought.

To kill with malice aforethought means to kill either deliberately and intentionally or recklessly and with extreme disregard for human life.

If you conclude that the government has proved beyond a reasonable doubt that the defendant committed the crime charged, you must then consider whether the defendant should be found insane. There are three different types of insanity verdicts to consider: Not Guilty by Reason of Insanity, Guilty but Mentally Ill, and Guilty Except Insane.

Mental illness may be temporary or permanent. You may consider evidence of the defendant's mental condition before, during, and after the crime, in deciding whether he was mentally ill at the time of the crime. Unlike other aspects of a criminal trial, the defendant has the burden of proving an insanity defense. The defendant does not have to prove insanity beyond a reasonable doubt, but only by clear and convincing evidence. Clear and convincing evidence is evidence that makes it highly probable that the defendant was insane. You should render one of the insanity verdicts if you find, by clear and convincing evidence, that the defendant was insane when he committed the crime charged.

For you to return an insanity verdict, the defendant must prove 1) that he suffered from a severe mental disease or defect when he committed the crime; and (2) that, as a result of this mental disease or defect, he was not able to understand what he was doing or to understand that it was wrong.

Under the law, a person found "**Not Guilty by Reason of Insanity**" is not criminally liable for his conduct while insane. Insanity is therefore a defense to the crime charged. The defendant has presented evidence of insanity at the time he committed the crime charged.

Under the law, a person found "**Guilty But Mentally Ill**" remains criminally liable for his conduct under the Guilty but Mentally Ill (GBMI) Verdict. GBMI is therefore not a full defense to the crime charged. The defendant has presented evidence of mental illness at the time he committed the crime charged.

Under the law, a person found **“Guilty Except Insane”** remains criminally liable for his conduct while insane. Guilty Except Insane is therefore a not a full defense to the crime charged. The defendant has presented evidence of insanity at the time he committed the crime charged.

Although the defendant has raised the issue of insanity, the government still has the burden of proving all of the essential elements of the offense charged beyond a reasonable doubt. Remember that there are five possible verdicts in this case: Guilty, Not Guilty, Not Guilty by Reason of Insanity, Guilty But Mentally Ill, and Guilty Except Insane.

APPENDIX C

SPECIFIC JUROR INSTRUCTIONS AND VISUAL AIDS

Specific Condition Juror Instructions

Judge's Closing Instructions to the Jury

The defendant is charged in the indictment with murder in the second degree in violation of Section 1111 of Title 18 of the State Code. In order for the defendant to be found guilty of that charge, the government must prove each of the following elements beyond a reasonable doubt:

First, the defendant unlawfully killed Alex Hughes; and
Second, the defendant killed Alex Hughes with malice aforethought.

To kill with malice aforethought means to kill either deliberately and intentionally or recklessly and with extreme disregard for human life.

If you conclude that the government has proved beyond a reasonable doubt that the defendant committed the crime charged, you must then consider whether the defendant should be found insane. There are three different types of insanity verdicts to consider: Not Guilty by Reason of Insanity, Guilty but Mentally Ill, and Guilty Except Insane.

Mental illness may be temporary or permanent. You may consider evidence of the defendant's mental condition before, during, and after the crime, in deciding whether he was mentally ill at the time of the crime. Unlike other aspects of a criminal trial, the defendant has the burden of proving an insanity defense. The defendant does not have to prove insanity beyond a reasonable doubt, but only by clear and convincing evidence. Clear and convincing evidence is evidence that makes it highly probable that the defendant was insane. You should render one of the insanity verdicts if you find, by clear and convincing evidence, that the defendant was insane when he committed the crime charged.

For you to return an insanity verdict, the defendant must prove 1) that he suffered from a severe mental disease or defect when he committed the crime; and (2) that, as a result of this mental disease or defect, he was not able to understand what he was doing or to understand that it was wrong.

Under the law, a person found "**Not Guilty by Reason of Insanity**" is not criminally liable for his conduct while insane. Insanity is therefore a defense to the crime charged. The defendant has presented evidence of insanity at the time he committed the crime charged.

Under the law, a person found "**Guilty But Mentally Ill**" remains criminally liable for his conduct under the Guilty but Mentally Ill (GBMI) Verdict. GBMI is therefore not a full defense to the crime charged. The defendant has presented evidence of mental illness at the time he committed the crime charged.

Under the law, a person found **“Guilty Except Insane”** remains criminally liable for his conduct while insane. Guilty Except Insane is therefore not a full defense to the crime charged. The defendant has presented evidence of insanity at the time he committed the crime charged.

Although the defendant has raised the issue of insanity, the government still has the burden of proving all of the essential elements of the offense charged beyond a reasonable doubt. Remember that there are five possible verdicts in this case: Guilty, Not Guilty, Not Guilty by Reason of Insanity, Guilty But Mentally Ill, and Guilty Except Insane.

Not Guilty By Reasons of Insanity (NGRI)

- I charge you that should you find the defendant not guilty by reason of insanity at the time of the crime, the defendant will be committed to a secure state mental health facility until such time, if ever, that the court is satisfied that he should be released pursuant to law. To satisfy the court that he should be released, the defendant must show that he is no longer mentally ill or a danger to society.

Guilty But Mentally Ill (GMBI)

- I charge you that should you find the defendant guilty but mentally ill at the time of the crime, the defendant will be sentenced and placed in the custody of the Department of Corrections which will have responsibility for the evaluation and treatment of the mental health needs of the defendant, which may include, at the discretion of the Department of Corrections, referral for temporary hospitalization at a facility operated by the Department of Behavioral Health and Developmental Disabilities. The defendant will be released from the Department of Corrections at the end of his sentence.

Guilty Except Insane (GEI)

- I charge you that should you find the defendant guilty except insane at the time of the crime, the defendant will be sentenced with the same sentence he would have received if he had not been found insane. He will be placed under the jurisdiction of the psychiatric security review board and committed to a secure mental health facility for that term, which can be extended if the defendant remains mentally ill or dangerous at the expiration of his sentence. Should the defendant no longer need ongoing treatment for mental illness during that term, and if he continues to pose a danger to society, the board shall order him to be transferred to the Department of Corrections for the remainder of his sentence.

VISUAL AID PRESENTATION ORDER 1

Guilty



Not Guilty



Not Guilty by Reason of Insanity (NGRI)



(May be released, if ever, when no longer mentally ill or dangerous)



Guilty Except Insane (GEI)



(if no longer mentally ill but still dangerous, transferred to prison until end of sentence.)



Guilty But Mentally Ill (GBMI)

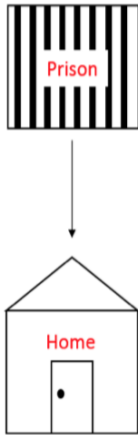


(May Receive Treatment in Prison)



VISUAL AID PRESENTATION ORDER 2

Guilty



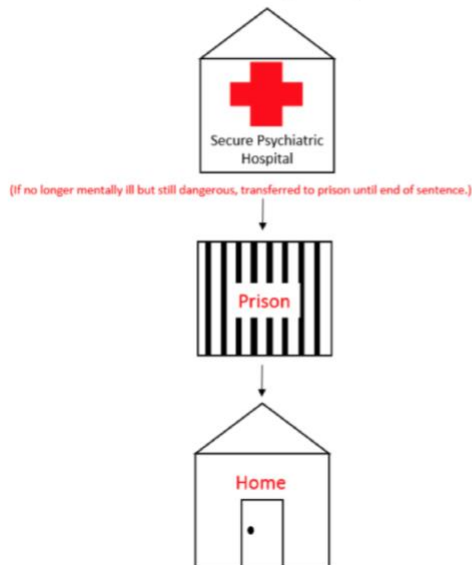
Not Guilty



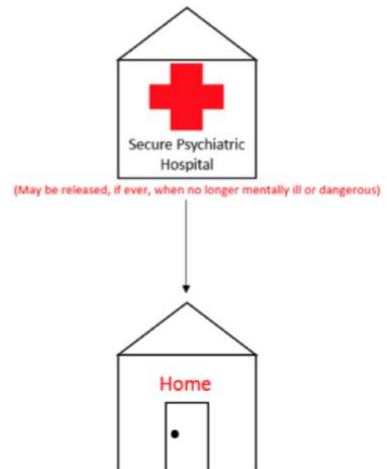
Guilty But Mentally Ill (GBMI)



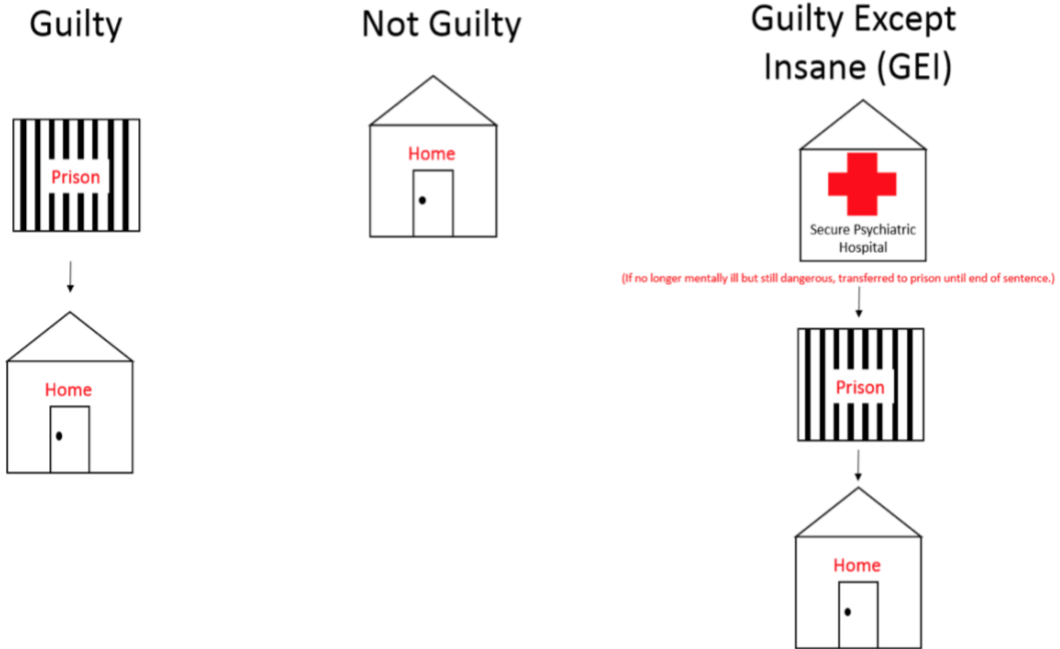
Guilty Except Insane (GEI)



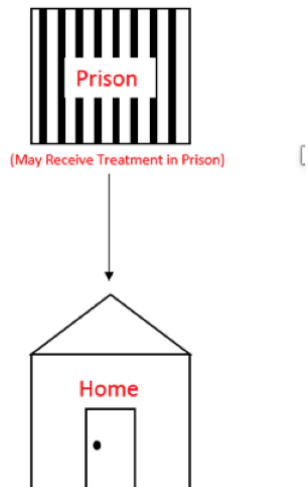
Not Guilty by Reason of Insanity (NGRI)



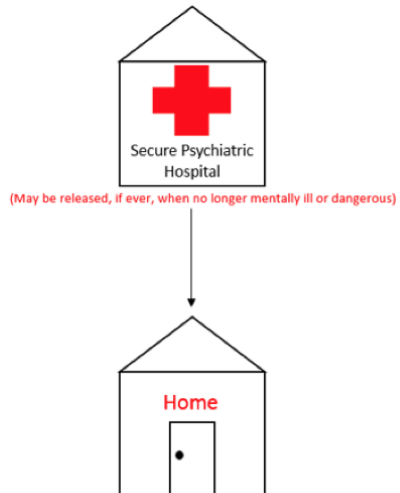
VISUAL AID PRESENTATION ORDER 3



Guilty But Mentally Ill (GBMI)

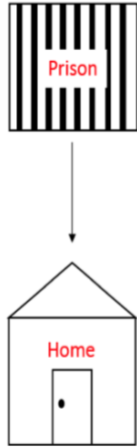


Not Guilty by Reason of Insanity (NGRI)



VISUAL AID PRESENTATION ORDER 4

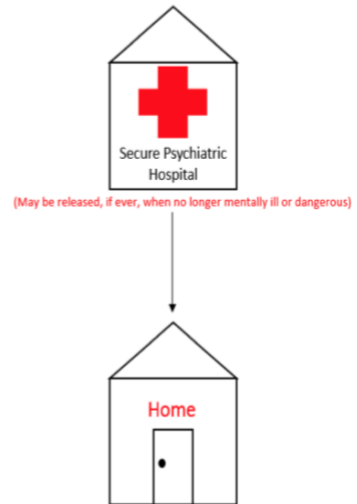
Guilty



Not Guilty



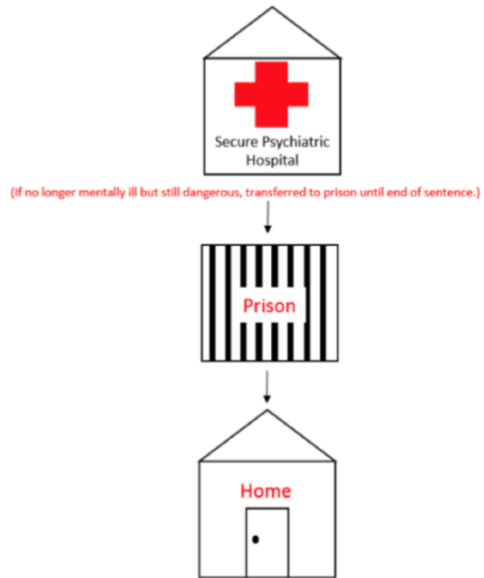
Not Guilty by Reason of Insanity (NGRI)



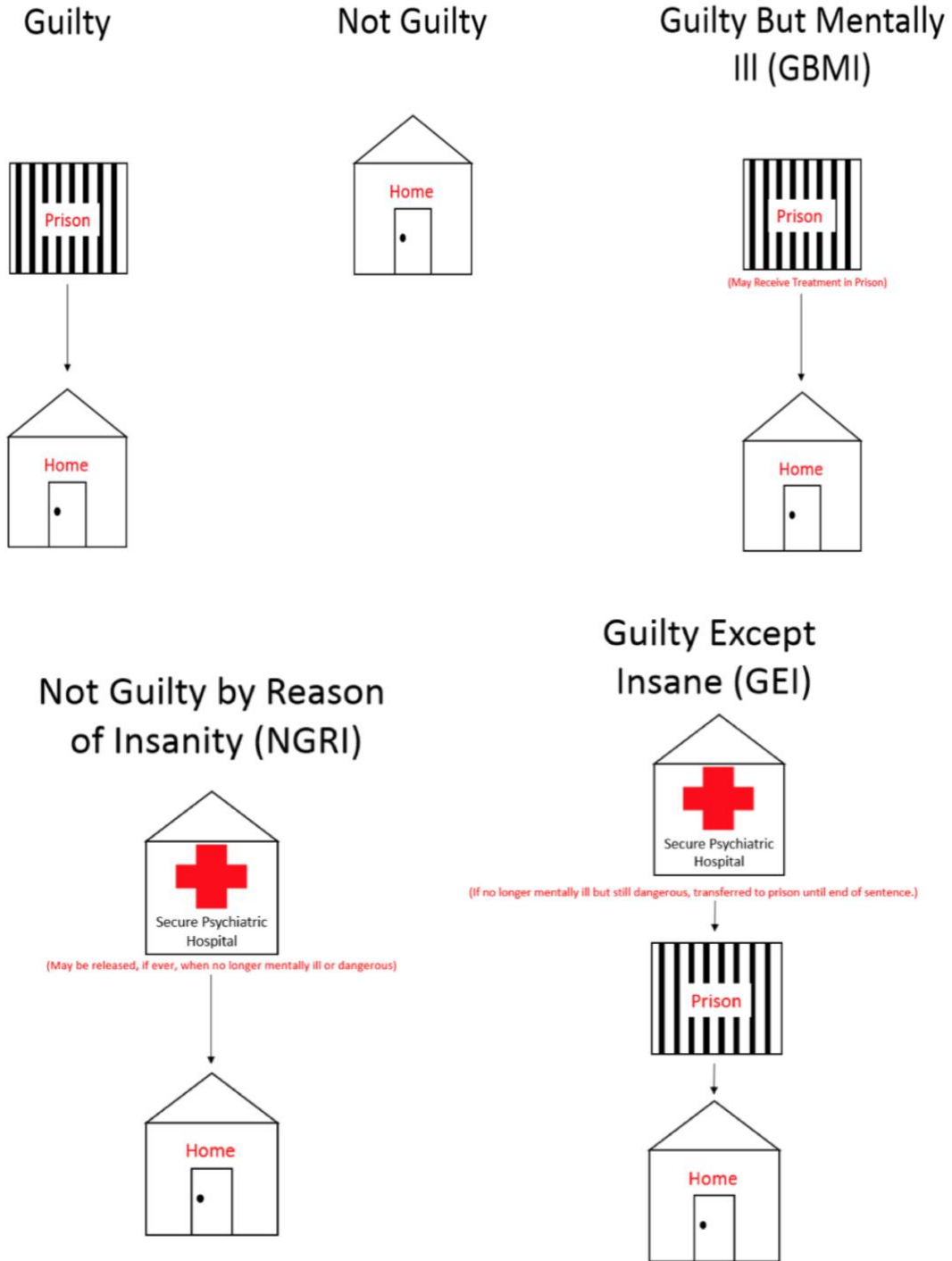
Guilty But Mentally Ill (GBMI)



Guilty Except Insane (GEI)



VISUAL AID PRESENTATION ORDER 5



VISUAL AID PRESENTATION ORDER 6

Guilty



Not Guilty



Guilty Except Insane (GEI)



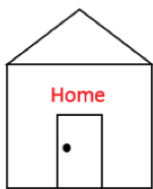
(If no longer mentally ill but still dangerous, transferred to prison until end of sentence.)



Not Guilty by Reason of Insanity (NGRI)



(May be released, if ever, when no longer mentally ill or dangerous)



Guilty But Mentally Ill (GBMI)



(May Receive Treatment in Prison)



APPENDIX D
QUESTIONNAIRE

JUROR QUESTIONS

To what degree do you believe the defendant has a mental illness?

0 - 100% _____

To what extent should the defendant be blamed for his actions?

0 - 100% _____

To what extent did the defendant have control of his actions?

0 - 100% _____

To what extent does the defendant need treatment for his mental illness?

0 - 100% _____

To what extent should the defendant be punished for his actions?

0 - 100% _____

To what degree do you believe the defendant physically killed the victim (setting aside the issue of mental state)?

0 - 100% _____

Do you believe *beyond a reasonable doubt* that the defendant committed the crime charged, second-degree murder?

_____ Yes _____ No

To what degree do you believe the Defense showed that the defendant was insane at the time of the crime?

0 - 100% _____

Do you believe that the Defense showed, by *clear and convincing evidence*, that the defendant was insane at the time of the crime?

_____ Yes _____ No

What is your verdict?

_____ Guilty _____ Not Guilty _____ Not Guilty by Reason of Insanity (NGRI)

_____ Guilty but Mentally Ill (GBMI) _____ Guilty Except Insane(GEI)

INTERPRETATION OF THE EVIDENCE QUESTIONS

For the following questions, you will find statements about pieces of evidence that were introduced during the trial in this case. We would like to know how much each piece of evidence influenced your verdict decision in this case. Please rate how much you agree that each piece of evidence influenced your verdict. To the right of each statement is a rating scale. You may interpret the seven points on this scale as follows:

1	/	2	/	3	/	4	/	5	/	6	/	7
STRONGLY DISAGREE		DISAGREE		SLIGHTLY DISAGREE		NEUTRAL		SLIGHTLY AGREE		AGREE		STRONGLY AGREE

After reading each statement, please indicate the response that comes closest to saying how much you agree or disagree that each piece of evidence influenced your verdict in this case.

- | | Disagree | | Agree | | | | |
|--|-----------------|---|--------------|---|---|---|---|
| 1. When the police found the defendant in his room at his mother’s house, he was quickly attempting to pack some belongings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Jordan Miller suffers from a very severe mental illness known as paranoid schizophrenia, including a rare “Capgras” delusion in which he believed that his loved ones have been replaced by identical-looking imposters. Mr. Miller believed that aliens were conspiring to take over the planet, and that his roommate, Mr. Hughes, had been replaced by an alien imposter who was attempting to extract information from Mr. Miller’s mind. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. When Mr. Miller was told by the police that they needed to ask him some questions pertaining to the victim, he attempted to flee through the bedroom window. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. On the night of the offense, Mr. Miller and Mr. Hughes were talking in the kitchen, and when Mr. Miller heard a knock on the door he believed that meant Mr. Hughes intended to take him away to a secret facility that night. Given this delusional belief, Mr. Miller believed had to kill Mr. Hughes in order to save his own life. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. The police found a butcher’s knife in the defendant’s mother’s house, which was later identified as the murder weapon. The defendant had cleaned the knife in the bathroom sink. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. When the police arrived at his house, Mr. Miller was unsettled by the sudden police presence and shouted something to the effect of: “Get away from me, don’t let them take me” and tried to run from them as if he thought they were aliens too. 1 2 3 4 5 6 7
7. The police found the victim’s wallet, which contained \$200 cash and several cards, in the defendant’s room at his mother’s house. 1 2 3 4 5 6 7
8. Mr. Miller cleaned the butcher knife and stole the wallet to “hide his tracks” from what he believed were aliens so he could escape and save his own life. 1 2 3 4 5 6 7
9. Dr. Cassady is not an expert in deception and could have been tricked by Mr. Miller’s faking of mental illness. 1 2 3 4 5 6 7
10. Dr. Cassady has many years of experience detecting people who attempt to “fake” mental illness. 1 2 3 4 5 6 7
11. Dr. Cassady did not interview Mr. Miller until two full weeks after the crime occurred, time for the defendant to research the symptoms of schizophrenia, or research the insanity defense, enough time to learn how to “fake” it. 1 2 3 4 5 6 7
12. Capgras Delusions are rare and not well known to most people, and thus is not a type of mental illness that a person could fake easily. 1 2 3 4 5 6 7
13. The defendant had never been hospitalized for mental illness before this crime. 1 2 3 4 5 6 7
14. Even though Mr. Miller had not previously spent time in a mental health facility, he was of the age when schizophrenia typically first begins and this this could have been his first episode of psychosis. 1 2 3 4 5 6 7

MANIPULATION CHECK AND ATTENTION QUESTIONS

The verdict options available to me in this case were (select all that apply):

Guilty Not Guilty Not Guilty By Reason of Insanity (NGRI)
 Guilty but Mentally Ill (GBMI) Guilty Except Insane (GEI)

I was provided with detailed information about what would happen to the defendant if I found him insane, such as visual aids showing what would happen to him after the trial before being released back into the community.

Yes No

I am paying attention. As such, I am marking the second option below.

A. He said it. B. I was told to pick this.
 C. They didn't know. D. She did it.

COMPREHENSION QUESTIONS

What will happen to the defendant after the trial if he is found Not Guilty?

- ___ A. He will be immediately released back into the community.
- ___ B. He will go to prison to serve his sentence.
- ___ C. He will go to prison to serve his sentence, where he might receive psychiatric treatment, before he is released back into the community.
- ___ D. He will go to a secure psychiatric hospital for treatment until he is no longer mentally ill or dangerous, then he will be released back into the community.
- ___ E. He will go to a secure psychiatric hospital for treatment until the end of his sentence. If he is no longer mentally ill but still dangerous, he will be transferred to prison to serve the remainder of his sentence before he is released back into the community.

What will happen to the defendant after the trial if he is found Guilty?

- ___ A. He will be immediately released back into the community.
- ___ B. He will go to prison to serve his sentence.
- ___ C. He will go to prison to serve his sentence, where he might receive psychiatric treatment, before he is released back into the community.
- ___ D. He will go to a secure psychiatric hospital for treatment until he is no longer mentally ill or dangerous, then he will be released back into the community.
- ___ E. He will go to a secure psychiatric hospital for treatment until the end of his sentence. If he is no longer mentally ill but still dangerous, he will be transferred to prison to serve the remainder of his sentence before he is released back into the community.

What will happen to the defendant after the trial if he is found Not Guilty by Reason of Insanity (NGRI)?

- A. He will be immediately released back into the community.
- B. He will go to prison to serve his sentence.
- C. He will go to prison to serve his sentence, where he might receive psychiatric treatment, before he is released back into the community.
- D. He will go to a secure psychiatric hospital for treatment until he is no longer mentally ill or dangerous, then he will be released back into the community.
- E. He will go to a secure psychiatric hospital for treatment until the end of his sentence. If he is no longer mentally ill but still dangerous, he will be transferred to prison to serve the remainder of his sentence before he is released back into the community.

What will happen to the defendant after the trial if he is found Guilty But Mentally Ill (GBMI)?

- A. He will be immediately released back into the community.
- B. He will go to prison to serve his sentence.
- C. He will go to prison to serve his sentence, where he might receive psychiatric treatment, before he is released back into the community.
- D. He will go to a secure psychiatric hospital for treatment until he is no longer mentally ill or dangerous, then he will be released back into the community.
- E. He will go to a secure psychiatric hospital for treatment until the end of his sentence. If he is no longer mentally ill but still dangerous, he will be transferred to prison to serve the remainder of his sentence before he is released back into the community.

INSANITY DEFENSE ATTITUDE SCALE SURVEY

On the following pages, you will find statements that express commonly held opinions about the insanity defense. We would like to know how much you agree or disagree with each of these statements. To the right of each statement is a rating scale. You may interpret the seven points on this scale as follows:

1 / 2 / 3 / 4 / 5 / 6 / 7
STRONGLY DISAGREE SLIGHTLY DISAGREE NEUTRAL SLIGHTLY AGREE AGREE STRONGLY AGREE

After reading each statement, please circle the point on the scale that comes closest to saying how much you agree or disagree with the statement.

	<u>Disagree</u>			<u>Agree</u>			
1. I believe that people should be held responsible for their actions no matter what their mental condition.	1	2	3	4	5	6	7
2. I believe that <u>all</u> human beings know what they are doing and have the power to control themselves.	1	2	3	4	5	6	7
3. The insanity defense threatens public safety by telling criminals that they can get away with a crime if they come up with a good story about why they did it.	1	2	3	4	5	6	7
4. I believe that mental illness can impair people's ability to make logical choices and control themselves.	1	2	3	4	5	6	7
5. A defendant's degree of insanity is irrelevant: if he commits the crime, then he should do the time.	1	2	3	4	5	6	7
6. The insanity defense returns disturbed, dangerous people to the streets.	1	2	3	4	5	6	7
7. Mentally ill defendants who plead insanity have failed to exert enough willpower to behave properly like the rest of us. So, they should be punished for their crimes like everyone else.	1	2	3	4	5	6	7

	<u>Disagree</u>				<u>Agree</u>		
8. As a last resort, defense attorneys will encourage their clients to act strangely and lie through their teeth in order to appear “insane.”	1	2	3	4	5	6	7
9. Perfectly sane killer can get away with their crimes by hiring high-priced lawyer and experts who misuse the insanity defense.	1	2	3	4	5	6	7
10. The insanity plea is a loophole in the law that allows to many guilty people to escape punishment	1	2	3	4	5	6	7
11. We should punish people who commit criminal acts, regardless of their degree of mental disturbance.	1	2	3	4	5	6	7
12. It is wrong to punish people who commit crime for crazy reasons while gripped by uncontrollable hallucinations or delusions.	1	2	3	4	5	6	7
13. Most defendants who use the insanity defense are truly mentally ill, <u>not</u> fakers.	1	2	3	4	5	6	7
14. Some people with severe mental illness are out of touch with reality and do not understand that their act are wrong. These people cannot be blamed and do not deserve to be punished.	1	2	3	4	5	6	7
15. Many of the crazy criminals that psychiatrists see fit to return to the streets go on to kill again.	1	2	3	4	5	6	7
16. With slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom.	1	2	3	4	5	6	7
17. It is wrong to punish someone for an act they commit because of <u>any</u> uncontrollable illness, whether it be epilepsy or mental illness.	1	2	3	4	5	6	7
18. I believe that we should punish people for a criminal act <u>only</u> if he understood the act as evil and then freely chose to do it.	1	2	3	4	5	6	7
19. For the right price, psychiatrists will probably manufacture a “mental illness” for any criminal to convince the jury that he is insane.	1	2	3	4	5	6	7

20. How strongly do you feel about the insanity defense?

Not at all 1 2 3 4 5 6 7 Very strongly

21. How personally important is your opinion on the insanity defense?

Not at all 1 2 3 4 5 6 7 Very important

22. How much do you care about the insanity defense?

Not at all 1 2 3 4 5 6 7 Very much

DEMOGRAPHICS

1. What is your gender? ___Male ___Female

2. What is your age? _____

3. What do you consider to be your race or ethnicity?

___ African American ___ Hispanic (non-white) ___ Pacific Islander

___ Asian ___ Hispanic (white) ___ White

___ Native American ___ Other

(Specify_____)

4. Have you ever served on jury duty?

_____Yes or _____ No

5. Please rate your support for the death penalty.

 1 2 3 4 5 6 7 8 9

Strongly Opposed

Strongly In Favor

6. [For people who responded “1” or “2” to previous question] Despite your strong opposition to the death penalty, would you be able to set aside your beliefs and sentence a defendant to death if there were more aggravating circumstances (factors supporting death) than mitigating circumstances (factors supporting life)?

_____Yes or _____ No

7. Would you be able to set aside any beliefs you have against the insanity defense and decide that a defendant should be found legally insane if the evidence supported such a verdict?

_____Yes or _____ No

APPENDIX E
IRB APPROVAL DOCUMENT



EXEMPTION GRANTED

Tess Neal
NEW: Social and Behavioral Sciences, School of (SSBS)
602/543-5680
Tess.Neal@asu.edu

Dear Tess Neal:

On 6/8/2017 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	The Effects of Insanity Verdict Options and Instructions on Juror Decisions in Criminal Responsibility Cases
Investigator:	Tess Neal
IRB ID:	STUDY00006335
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none">• Morgan_Participant Info Sheet 3.pdf, Category: Consent Form;• Morgan_RecruitScript 3.pdf, Category: Recruitment Materials;• IRB Protocol , Category: IRB Protocol;• AHvMiller_Crim Respon Vignette 2.pdf, Category: Technical materials/diagrams;• Measures for Thesis 2.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 6/8/2017.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).