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The Insanity Defense, Public Anger, and the Potential Impact on Attributions of Responsibility and Punishment

Chioma Ajoku
Graduate Center, City University of New York

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THE INSANITY DEFENSE, PUBLIC ANGER, AND THE POTENTIAL IMPACT ON ATTRIBUTIONS OF RESPONSIBILITY AND PUNISHMENT

by

CHIOMA C. AJOKU

A dissertation submitted to the Graduate Faculty in Clinical Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

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This manuscript has been read and accepted for the Graduate Faculty in Clinical Psychology in satisfaction of the Dissertation requirement for the degree of Doctor of Philosophy.

Maureen O'Connor, J.D., Ph.D.

________________  ________________________
Date                   Chair of Examining Committee

Joshua Brumberg, Ph.D.

________________  ________________________
Date                   Executive Officer

Steve Penrod, J.D., Ph.D.

Preeti Chahar, Ph.D.

Neil Vidmar, Ph.D.

Tarika Daftary Kapur, Ph.D.

Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK
ABSTRACT

THE INSANITY DEFENSE, PUBLIC ANGER, AND THE POTENTIAL IMPACT ON ATTRIBUTIONS OF RESPONSIBILITY AND PUNISHMENT

by

CHIOMA C. AJOKU

Adviser: Maureen O’Connor

Research indicates that the general public perceives the insanity defense negatively and inaccurately despite the infrequency with which it is pled and the realities often surrounding those who plead the defense. The negative and inaccurate perception of the insanity defense, combined with the potentially increased punitive judgments the defense elicits, suggests that emotion may play a role in perception of the insanity defense. In particular, the psychological literature on anger may contain answers to reactions toward the insanity defense. The current research explored the role of anger on punitive judgments toward a defendant pleading not guilty by reason of insanity (NGRI). Punitive judgment was assessed by measuring participants’ perceptions of controllability (the extent to which the defendant’s actions were perceived as preventable and controllable), punishment worthiness (the degree to which the defendant’s actions were seen as intentional and perceptions of blameworthiness, punishment-worthiness, recklessness, and future recklessness), plea fairness, verdict fairness, verdict, and verdict certainty. In both studies, mock jurors read case vignettes in which a defendant pled NGRI. In Study One, potential jurors considered a plea and verdict of NGRI to be less fair than a plea and verdict of self-defense. In Study Two, participants in the medication non-compliance group felt more anger, after reading the vignettes, than participants in the prior history group. Additionally, anger was able to predict verdict to a statistically significant degree. Overall, the current research suggests that anger does play a role in negative perceptions of the insanity defense. Thus, it is important to further explore the role of emotions in insanity defense bias and effective bias reduction tools and strategies.
DEDICATION

This dissertation is dedicated to those whom I rely on for support. Thank you for always believing in me.

Without you much of this would not have been possible. And of course, I love you the most and more.
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I would like to acknowledge my committee and my advisor for believing that my research was worthwhile.
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Chapter 1: Introduction

The law is reason, free from passion

Aristotle

The law takes for granted that jurors are rational beings who weigh the reliability of all evidence presented and render a verdict that is supported by fact, by legal instruction, and is free from prejudice and emotional influence (Maroney, 2006). Yet, a substantial body of research calls this assumption into question. One arena in which personal beliefs, attitudes, and biases may influence legal decision-making is in insanity defense cases. Research suggests that the public is biased against the insanity defense. In general, the literature indicates that the public believes a number of negative myths about the insanity defense, holds a number of negative attitudes pertaining to the defense, does not adhere to insanity defense standards or other jury instructions and, when serving as jurors or mock jurors, uses their own biases against the insanity defense to decide cases (Hans, 1986; Ogloff, 1991; Skeem & Golding, 2001; Whittemore & Ogloff, 1995). Though the insanity defense is used infrequently, it shines a particularly vivid light on the question of whether jurors can put aside their emotions and uphold the principles of law as written.

The insanity defense is an affirmative defense\(^1\) in which defendants assert that they should not be held criminally liable for their actions because their actions were the result of a mental disease or

\(^1\) An affirmative defense is one in which the defendant introduces evidence, which, if found to be credible, will negate liability, even though the defendant has to concede that he committed the alleged acts. An affirmative defense can either be a justification defense or an excuse defense (Robinson, 1982). A justification defense must involve an event that authorizes a necessary and proportional act (on the part of the actor/defendant). The act is necessary if it is needed to protect or further an interest in jeopardy. And the act is proportional if it is a rational reaction relative to the harm threatened or the interest to be advanced (Robinson, 1982). In the legal system, justification means that the act in question was justifiable, the defendant’s conduct permissible. It means that a defendant’s behavior is approved and the consequences of their actions are seen as fair. An example of a justification defense would be self-defense (Robinson, 1982).

Article 35 of NY Penal Law states that: Unless otherwise limited by the ensuing provisions of this article defining justifiable use of physical force, conduct which would otherwise constitute an offense is justifiable and not criminal when: 1. Such conduct is required or authorized by law or by a judicial decree, or is performed by a public servant in the
defect (Nusbaum, 2002). Currently, all but four jurisdictions\(^2\) allow an insanity defense, and use some variation of the American Law Institute (ALI) Standard or the M’Naghten Rule to determine insanity. The ALI Standard states that a defendant may not be held criminally responsible for his or her actions if, “as a result of a mental disease or defect, he lacks substantial capacity either to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law” (ALI, 1962, § 4.01).\(^3\) The M’Naghten Rule states that a person may not be held criminally responsible for his or her actions if, “at the time of the committing of the act, the party accused was laboring under such a defect of reason, arising from a disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know what he was doing was wrong” (Regina v. M’Naghten, 1843).

According to the goals of the legal system, punishment is reserved for those who: 1) committed the act in question (actus reus); and, 2) had the requisite “guilty mind” (mens rea) (Borum & Fulero, 1992). Reasonable exercise of his official powers, duties or functions; or 2. Such conduct is necessary as an emergency measure to avoid an imminent public or private injury which is about to occur by reason of a situation occasioned or developed through no fault of the actor, and which is of such gravity that, according to ordinary standards of intelligence and morality, the desirability and urgency of avoiding such injury clearly outweigh the desirability of avoiding the injury sought to be prevented by the statute defining the offense in issue. The necessity and justifiability of such conduct may not rest upon considerations pertaining only to the morality and advisability of the statute, either in its general application or with respect to its application to a particular class of cases arising thereunder. Whenever evidence relating to the defense of justification under this subdivision is offered by the defendant, the court shall rule as a matter of law whether the claimed facts and circumstances would, if established, constitute a defense.

An excuse defense differs from a justification defense in that the actor is exempt from criminal liability because of a quality/characteristic they possess as opposed to some quality or characteristic of the events that preceded the actor’s actions (as would be the case in a justification defense). Insanity is classified as a justifying condition. Other justifying conditions include intoxication, subnormality, or immaturity. The justifying condition may be short-term, long-term, or permanent in nature. In addition, the condition must cause the act leading to the offense in question. In order to meet criteria for an excuse defense at least one of four conditions must be met: (1) the act is not voluntary; (2) the actor does not perceive the physical nature or consequences of their actions; (3) the actor does not know his actions are wrong or criminal; or (4) the actor is unable to control his actions (Robinson, 1982).

Thus, justification is based on the quality of the act (or the situation) which justifies the defendant’s actions whereas excuse is based on some quality in the defendant that frees them from liability due to the effect of that characteristic on the defendant’s status or capacity.

\(^2\) Montana, Idaho, Utah, and Kansas abolished the insanity defense. Nevada also abolished the defense but Nevada’s Supreme Court later ruled the abolishment of the defense unconstitutional.

\(^3\) In general, the male pronoun will be used to discuss the insanity defendant.
The system has no interest in, and reaps no benefits from, punishing those who cannot exercise free will. That is why the law does not punish those who lack the cognitive capacity to understand and/or control their actions. Therefore, if an individual commits a crime as a direct result of mental illness then that individual should not be punished and instead should receive rehabilitation in the form of treatment (Silver, 1995). So, although a not guilty by reason of insanity verdict (NGRI) results in confinement (to a mental health facility), the primary purpose of confinement is treatment (and safety) as opposed to punishment.

Despite these goals, the public response to the insanity defense is often punitive and far from compassionate. The insanity defense elicits a level of antagonism that is remarkable and disproportionate, given that so few individuals actually plead insanity (Butler & Wasserman, 2006). Silver, Cirincione, and Steadman (1994) found that the insanity defense is used less than 1% of the time and is successful in only about 25% of those cases. Yet, despite the rarity of the plea, the defense, in general, is perceived negatively and misconceptions about the defense are common.

For example, some core myths identified by the literature are: 1) the insanity defense is overused; 2) use of the insanity defense is limited to murder cases/violent crimes; 3) there is no risk to the defendant who pleads insanity; 4) NGRI acquittedees are quickly released from custody; 5) NGRI acquittedees spend much less time in custody than do defendants convicted of the same offenses; 6) criminal defendants who plead insanity are usually faking; 7) most insanity defense trials feature "battles of the experts"; and 8) criminal defense attorneys employ the insanity defense plea solely to "beat the rap (Perlin, 1995).

In addition, negative and inaccurate perceptions (such as the aforementioned ones) have been shown to influence verdict selection (e.g., the selection of a guilty verdict versus an NGRI verdict) and can be more predictive of verdict selection than manipulation of case facts or insanity defense standards (Bailis, Darley, Waxman, & Robinson, 1995; Roberts & Golding, 1991; Skeem, Louden, & Evans, 2004).
Thus, it seems, with regard to insanity cases, jurors’ verdicts may not be based on “reason free from passion.” Such negative perceptions of the insanity defense are problematic because they inevitably affect the ability of defendants to legitimately and effectively use the defense. If potential jurors are hostile to a particular defense, then it may be impossible for individuals to have a fair trial, as guaranteed by the 6th Amendment.

In general, the insanity literature has focused on myths related to bias, beliefs/attitudes related to bias, and the impact of insanity defense standards/jury instructions on verdict selection. What has received less attention, empirically, is why the insanity defense, in general, is subject to such bias. It is important to try to understand what fuels bias because such an understanding affords the potential to successfully combat bias in this area and ensure that the law is impartially applied.

Emotion research is one area that could potentially help explain the pervasiveness and intractability of insanity bias. In particular, exploring the potential role of anger could be beneficial given that research implicates anger in the elicitation of more punitive judgments (Forgas, 2001). Reviewing the insanity literature4, one can see instances in which research findings about emotion could provide missing links in current understanding. Research suggests that anger can influence trial outcomes. For

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4 A review of public response to highly publicized controversial insanity cases, such as United States v. Hinckley, also implicates anger in bias against the insanity defense. In 1982, when the Hinckley jury returned with a verdict of NGRI, for a defendant who shot the President of the United States in plain view, the public was enraged. Experts diagnosed Hinckley as either schizophrenic or psychotic and under the applicable standard at the time (ALI) the jury found Hinckley NGRI. After the verdict, news outlets highlighted the general public’s outrage (Myers, 2009). Numerous articles contained biting quotes about the trial. An ABC News poll taken the day after the verdict showed 83% of those polled thought "justice was not done" in the Hinckley case. People blamed a legal system that they felt made it too easy for juries to find defendants NGRI (http://www.law.umkc.edu/faculty/projects/ftrials/hinckley/hinckleyaccount.html). One article stated, "It's the system which found him innocent that's insane...a legal system that totally disregards the issue of guilt or innocence and instead relies on so-called psychiatric experts to tell us whether a man who committed a deliberate attack should be acquitted because he watched too many movies (http://www.time.com/time/magazine/article/0,9171,925501-1,00.html)."

Of the reforms that took place between 1978 and 1990, the majority occurred after the verdict in the Hinckley trial. Within a month of the verdict, House and Senate committees held hearings concerning the use of the insanity defense. In the three years following the Hinckley verdict, Congress and half the states implemented limiting reforms to the defense. Congress and nine states restricted/narrowed the scope of their respective insanity defense standards; Congress and two-thirds of the states shifted the burden of proof to the defendant; eight states afforded jurors the use of the separate and additional verdict choice of guilty but mentally ill (GBMI); and Utah abolished the defense (Linder, 2008; Neville, 2010).
example, when individuals feel angry, they become more retaliation focused and more certain of their cognitions. Individuals are also more likely to have their verdicts influenced by stereotypes/heuristics, leading to a decrease in the use of systematic processing of information relevant to reaching a verdict (Lerner, Goldberg, & Tetlock, 1998; Lerner & Tiedens, 2006).

Research on mental illness stigma also suggests that emotions such as fear and disgust could play a role in insanity defense bias due to their impact on attributions of responsibility which lead to the desire to punish and distance oneself from the object of fear and/or disgust (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 1980; Hinshaw & Stier, 2008; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Link, Yang, Phelan, & Collins, 2004; Thornicroft, Rose, Kassam, Sartorious, 2006). However, in order to focus the scope of research and because of this paper’s particular interest in the role of anger on attributions of responsibility and punishment, only the potential role of anger on insanity defense bias will be explored at this time.

In order to highlight the possible role anger plays in public response to the insanity defense, this paper first gives an overview of the insanity defense literature suggesting the defense is subject to bias. Specifically, an overview of the myths related to bias and attitudes related to bias explores research indicating that potential jurors perceive the defense negatively and hold beliefs that are unsympathetic to the spirit of the defense. After reviewing the insanity literature, this paper reviews the anger literature which focuses on the influence of anger on judgment and decision making with a particular focus on anger’s effect on attributions of causality and responsibility. Finally, it synthesizes the potential role of anger on judgment and decision-making in insanity cases.

**Myths, Stereotypes, and Injustice**

Perlin (1996) has stated that the insanity defendant is a chief object for societal anger because the unpunished criminal challenges society’s conceptualizations of justice. According to Perlin (1996), the public believes that good should be rewarded and criminal conduct must be punished. Perlin (1996)
has theorized that if punishment is absent or uncertain, members of society feel that the entire psychological and social structure on which morality relies is jeopardized. Additionally, when crimes are punished individuals can let society handle retribution, channel its aggression, anger, and hostility, project its “guilt, blame, shame, and fear,” and show the criminal that if members of society cannot break the law, neither can the criminal (Perlin, 1996).

The insanity defense is problematic to members of society because individuals need to believe that they are in control of their actions. Anything that suggests otherwise leads to distress. Mentally ill individuals, particularly those who commit crimes and are not held criminally liable, challenge the idea of free will. This is one potential explanation for why the public often feels that individuals are faking their mental illness and/or are trying to evade punishment (Perlin, 1996; Roberts & Golding, 1991). Thus, one potential explanation for why the insanity defense may trigger anger is because it offended individual’s sense of justice and defies perceptions of free will.

Early research on the insanity defense offers credence to the idea that the defense triggers a sense of injustice. Hans (1986) conducted an opinion survey to explore public perceptions of the insanity defense. Participants in the study took part in a telephone survey assessing their level of agreement with various statements about the insanity defense. The range of categories assessed were: 1) support for the insanity defense; 2) attitudes about the insanity defense; and 3) knowledge about use of the insanity plea. Additionally, Hans assessed participants’ social and political attitudes (Hans, 1986).

The results showed that approximately half the participants wanted the defense abolished. The results of a factor analysis showed that respondents’ attitudes could be separated into five factors: 1) punishment; 2) perceived danger (of having the insanity defense); 3) perceived injustice; 4) belief in psychiatric treatment; and, 5) belief in effectiveness of procedures. About half the participants felt the insane should be punished. With regard to perceived danger of having the defense, a majority of participants saw the defense as a loophole and endorsed the statement that the defense sent criminals
the message that they could get away with crime. The majority of participants also believed that the defense allowed dangerous individuals to roam the streets. The majority also felt that psychiatrists would say anything as long as they were paid to say it. The “belief in psychiatric treatment” construct involves beliefs that the insane deserve treatment, the insane should be treated rather than punished, and that psychiatrists should testify in trials. A strong majority agreed with the aforementioned three statements. However, at the same time, a majority of participants indicated that punishment does not work on the insane and that judges and juries have a hard time telling whether someone is insane.

Hans (1986) theorized that negative attitudes about the insanity defense could be separated into two broad categories: moral disapproval (retribution; reassertion of societal values and norms) and utilitarian disapproval (behavioral control; deterrence & isolation of the offender). According to Hans (1986), moral disapproval stems from the belief that insanity defendants are excused from retribution. They make the public uncomfortable because they are deemed legally and morally excused from their crimes. Individuals who feel moral disapproval could be characterized as those who feel that while defendants are not “faking it” they perhaps should still be punished (Hans, 1986).

Utilitarian disapproval, on the other hand, stems from the belief that insanity defendants are “faking it” and therefore the insanity defense provides defendants with a “loophole.” Additionally, individuals who disapprove of the insanity defense for utilitarian reasons also feel that the defense does not adequately contain defendants found NGRI from the public (Hans, 1986).

Hans (1986) also found that participants grossly overestimated use of the insanity plea. While the plea is used successfully less than 1% of the time, participants believed the plea was used successfully about 14% of the time. Participants also had misconceptions about the fate of NGRI defendants, estimating that about half go to a mental health facility, a quarter are immediately set free, leaving another quarter inexplicably unaccounted for. The study also found that while almost all
participants supported treatment for the “insane,” nearly half simultaneously felt that the “insane” should also be punished (Hans, 1986).

Insanity Defense Facts

In order to dispute the veracity of insanity myths, Silver, Cirincione, and Steadman (1994) conducted a longitudinal study in eight states on the use, success, and outcomes of the insanity defense compared to public perception. The results underscored the gap between insanity myths and reality showing that the public overestimates: the amount of insanity pleas that involve a murder charge; the rate the plea is used in felony cases; the rate of acquittal for defendants who use the plea; and immediate release upon acquittal. On the other hand, the public underestimates: the extent of hospitalization and the length of confinement in mental hospitals (Silver et al., 1994).

The study found that while the plea rate for insanity was only 0.9% the public perceived it as 37% (41 times greater than the reality). Additionally, while the success rate of the plea was only 26% the public perceived it to be 44%. The public also believed that only 50.6% of defendants found NGRI are hospitalized and that 25.6% of defendants found NGRI “go free.” The reality in those eight states was that 84.7% of defendants found NGRI were hospitalized and only 15.3% of NGRI were immediately released. If conditional release and outpatient treatment are taken into consideration (since the patient is monitored by the hospital) then the reality is that 1.1% of defendants found NGRI are immediately released as compared to the public perception of 25.6% (Silver et al., 1994).

Additionally, while the public believed that defendants found NGRI are confined 21.8 months, confinement period lasts 32.5 months for defendants found NGRI who are not charged with murder and 76.4 months for those charged with murder. In fact, some research indicates that defendants found NGRI are imprisoned longer than those convicted of the same offense (Silver et al., 1994).

The study also found that while 11% of all felony charges result in imprisonment, 67% of unsuccessful insanity pleas result in imprisonment. This suggests that raising the insanity plea does
indeed hold consequences and is not a “loophole.” Additionally, it also suggests that defendants who unsuccessfully raise the plea are treated more “punitively” (Silver et al., 1994).

Silver (1995) also conducted a multi-state longitudinal survey study, using real world data to explore the realities of the insanity defense. The results indicated that defendants found NGRI were less likely to be released than those found guilty after raising an insanity plea. The results were mixed with regard to time. In some states they spent less time in confinement and in other states they spent more time. Even in states in which they spent less time, length of confinement was related to seriousness of the offense (Silver, 1995). The results also showed that for all eight states, seriousness of offense was more predictive of probability of release than mental disorder. In four of the states, offense was strongly related to probability of release, whereas mental disorder was not significantly related (Silver, 1995). In the other three states, mental disorder was a factor, although not as strong a factor as offense. Overall, the more serious the offense the longer the length of confinement and, contrary to public sentiment, successfully pleading insanity was not a ticket for quick release from custody (Silver, 1995).

**Effect of Education, Standards, and Knowledge**

Although Silver et al., (1994) and Silver (1995) were able to show that individuals’ beliefs about the insanity defense are inaccurate, they could not be sure individuals’ beliefs would change if they were presented with accurate information regarding the insanity defense.

Jeffrey and Pasewark (1983) explored the role of disconfirming data on public opinion. In their study, they surveyed 75 community members and 150 undergraduates regarding their beliefs about the insanity defense. The survey found that participants greatly overestimated the use of the insanity plea and the rate of acquittal. In fact, 92% of participants endorsed the following statements, “[t]he insanity plea is used too much.” Eighty-nine percent endorsed the statement, "too many people escape responsibility for crimes by pleading insanity." In addition, participants believed that 38% of defendants entered an insanity plea and 45% of defendants who pled insanity were acquitted.
Even after actual statistics of the insanity defense were conveyed to participants (i.e., that only 0.8% of defendants in the state where the study was conducted pled insanity, and of these only 4% were found legally insane), 52% of participants still agreed that the defense was abused and used too much. The results of the study suggest that while some individuals’ beliefs are the result of misinformation and can theoretically be corrected, others will continue to find the plea objectionable even when provided with information about the defense’s low base rate. This suggests that beliefs about the insanity defense may, at least in part, be perpetuated by an emotional component. In addition, since these beliefs are negative and inaccurate, individuals who hold these beliefs view the defense through a biased lens.

Previous research (Hans, 1984; Jeffrey and Pasewark, 1983; Silver, Cirincione, & Steadman, 1994) indicated that the public holds inaccurate perceptions about the disposition of individuals found NGRI. Whittmore and Ogloff (1995) sought to further explore the impact of providing participants with information about the disposition of those found NGRI on verdict selection. Whittmore and Ogloff (1995) theorized that participants who did not receive dispositional information would be less likely to render a NGRI verdict.

In their study, Whittmore and Ogloff (1995) had participants read one of two vignettes based on actual trials. One trial was based on the Patten trial in which a female defendant with a history of bipolar disorder heard voices from God that led her to take her hands off the steering wheel causing her to hit and kill a pedestrian. The second trial was based on the Burkes trial in which a male defendant with no history of mental illness killed his daughter and assaulted her boyfriend. After reading the vignette assigned to them, participants were given the disposition for the defendant if found NGRI. The dispositions were: indeterminate, will remain in "strict custody" for an undetermined period of time; capped, will remain in custody for a determined period of time (roughly equivalent to the maximum sentence available for the offense for which the accused was charged); and no disposition, no information given about length of custody. Participants were also given information about mental state.
(psychotic, neurotic, and symptom free) of the defendant at the time of the trial. Participants then had to render a verdict. The results showed that knowing what would happen to a defendant found NGRI did not influence verdict selection. Furthermore, most participants knew that defendants found NGRI are sent to a mental institution (Whittmore & Ogloff, 1995). These results suggest that accurate knowledge about disposition may not factor into verdict selection.

In addition, the study found that most participants were not able to accurately recall the defendant’s mental state at the time of the trial. Nevertheless, those who thought the defendant was insane at the time of the trial were more likely to find the defendant NGRI (Whittmore & Ogloff, 1995). These results have grave implications because mental state at the time of the trial is not a pertinent part of insanity defense standards. Additionally, a number of irrelevant factors can play into a defendant’s sanity or lack thereof at the time of the trial (e.g., medication). Thus, reliance on mental state at the time of the trial can lead to flawed verdicts. Perhaps jurors mistakenly believe that if a defendant is insane at the time of the trial it is more likely that they were insane at the time of the offense and therefore are not “faking it.”

Byars and Galietta (2011) studied whether educational packets addressing myths, appreciation (the extent to which a defendant has an appreciation of the wrongfulness and consequences of their actions), or both could diminish bias based on post-test measures of insanity knowledge and attitudes. In their study, undergraduate participants were given a full mock-trial transcript in which a defendant pled NGRI under the ALI standard. After reading the transcript participants were given one of three educational packets: a myth education packet; an appreciation education packet (which explained that mental illness can in certain cases affect appreciation); and a combination packet. Participants were also given pre and post-test measures of insanity defense beliefs: the Knowledge of Insanity Defense Scale (KIDS) (Daftary-Kapur, Groscup, O’Connor, Coffaro, & Galietta, 2011) and the Attitudes toward the Insanity Defense Scale (ATID) (Monier, Andersson, Daftary, & Groscup, 2008).
The appreciation package did not, by itself, produce significant pre and post-test changes in insanity defense knowledge. In contrast, the myth education materials did produce similar and significant pre and post-test changes in insanity defense knowledge. This suggested that it was the myth education component and not a combination of myth and appreciation education that caused changes in insanity defense knowledge (Byars & Galietta, 2011). The results held, however, only for participants without strong anti-insanity defense attitudes. The knowledge base of participants with strong anti-insanity defense attitudes was resistant to change. Thus, the study provides preliminary evidence that misinformation across a number of myths can be combated with education if education is given to individuals without strong anti-insanity defense attitudes. If the individual holds strong bias toward the defense then education may not have a significant effect. This bolsters previous studies suggesting that the defense is subject to bias. In addition, the resistance of some to education further indicates that there may be an emotional component involved in insanity defense bias.

**Attitudes Correlated with Anti-Insanity Bias**

While individuals hold a number of change resistant inaccurate and negative beliefs about the insanity defense that affect their attitude about the defense, they may also hold other attitudes that influence perception of the defense.

Ellsworth, Bukaty, Cowan, and Thompson (1984) explored the potential link between death-qualified jurors (jurors who are not categorically opposed to the imposition of capital punishment), attitudes toward the defense, and verdicts in insanity cases. Ellsworth et al., (1984) theorized that attitudes toward the insanity defense had more to do with individuals’ opinion about criminals as opposed to individuals’ opinions about the mentally ill. This would make sense for those opposed to the insanity defense for the utilitarian reasons described by Hans (1986). Such individuals assume that those who plead insanity are not actually “insane.” Ellsworth et al., (1984) also argued that those who believed
in crime control also believed that individuals should be punished for their crimes regardless of their mental health status.

In sum, Ellsworth et al., (1984) theorized that those who believed in crime control would be more likely than those who were more due process oriented to convict a defendant pleading NGRI. In their study, death-qualified, jury eligible adults and Witherspoon Excludable jury eligible adults (jurors whose reservations about capital punishment would prevent them from making an impartial decision as to sentencing the defendant) were given summaries of four murder cases in which the insanity defense was raised. In two vignettes, the defendants’ actions were the result of “organic illnesses” (i.e., intellectual disability and psychomotor epilepsy). In the other two vignettes, the defendants’ actions were the result of “pure mental illness” (i.e., schizophrenia). The participants were then asked to render verdicts of guilt or NGRI using the ALI standard. Participants were also asked to determine the percentage of defendants who plead NGRI that are actually insane (as in not faking) and the reliability of psychiatric testimony. Ellsworth et al. (1984), hypothesized that individuals concerned with crime control would be more accepting of “organic illnesses” in insanity pleas but be suspicious of “pure mental illness” in insanity pleas due to concerns about malingering.

The results demonstrated that excludable jurors (those whose opposition to the death penalty would make it impossible for them to decide upon guilt fairly and impartially) had similar rates of NGRI verdicts across all vignettes, while the NGRI rates for organic illness versus pure mental illness vignettes differed significantly for death qualified jurors (the NGRI rates in organic cases were similar to those of excludable jurors while the NGRI rates in pure mental illness cases was significantly lower) (Ellsworth et al., 1984). The breakdown of verdicts was indicative of death qualified jurors’ negative bias against

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5 “Organic illness” and “pure mental illness” were the terms used by Ellsworth et al., (1984) in the study though more recent work would not distinguish organic from mental since mental illnesses such as schizophrenia are considered organic in nature.
schizophrenic/mentally ill defendants, and not the insanity defense, because death qualified jurors gave NGRI verdicts 50% of the time in organic cases, but only 10-20% in insanity cases involving schizophrenia.

When looking at their beliefs regarding the sanity of NGRI defendants, those whose opposition to the death penalty would make it impossible for them to decide upon guilt fairly and impartially believed that defendants were truly insane around 56% of the time whereas death qualified jurors believed NGRI defendants were truly insane around 31% of the time. Ellsworth et al., (1984) interpreted the results to suggest that death qualified jurors oppose the insanity defense because they do not believe that those who avail themselves of the defense are truly insane.

Ellsworth et al., (1984) concluded that, “[t]o a person who believes strongly in crime control, who believes that people must pay for their irresponsible behavior, it must be particularly galling to see one form of irresponsibility excused by another (Ellsworth et al., 1984, pg. 90).” Therefore, individuals are more forgiving of physical disorders because they are seen as outside of the person's control whereas mental disorders are seen as “irresponsibility” or as weak or corrupted character (Ellsworth et al., 1984).

Roberts and Golding (1991) also explored factors that jurors consider important in determinations of criminal responsibility and insanity. Roberts and Golding (1991) studied the role of delusional content, planfulness, and jury instructions by varying these elements and evaluating the effect on attributional outcome. They also explored the role of social-moral perception and its role on attributions of responsibility and then verdict selection. Finally, they measured attitudes toward the insanity defense and punishment and the relationship to attributions of responsibility and verdict selection.

To explore the aforementioned relationships, undergraduate and community participants read a vignette which met DSM criteria for paranoid schizophrenia. In some vignettes, the delusion content was manipulated so that the defendant was operating under a self-defense framework. In the other
vignettes, the defendant was psychotic and paranoid but did not believe others were trying to kill him. With regard to planfulness, in planful vignettes, the defendant shot the victim with a gun purchased several days prior to the offense, called in sick to work the day of the offense, waited for the victim for several hours, fled the scene of the crime, and was caught driving a getaway car several miles away. In the non-planful condition, the victim was shot when he knocked at the defendant's door. The defendant waited for the police and told them, "perhaps now this whole mess can get cleared up." After reading the vignettes in which delusional content and planfulness were manipulated the participants had to decide if the defendant was: 1) guilty or NGRI (ALI standard), or 2) guilty but mentally ill (GBMI), guilty, or NGRI. The GMBI standard states that: A person who, at the time of the commission of a criminal offense, was not insane but was suffering from a mental illness, is not relieved of criminal responsibility for his conduct and may be found guilty but mentally ill.

NGRI verdicts were given 60% of the time in NGRI vs. guilty conditions, and only 35% in the NGRI vs. guilty vs. GBMI condition. These results showed that the introduction of a GBMI verdict reduced NGRI verdicts in a case in which the defendant was floridly psychotic and the psychosis was linked to the crime. In other words, participants were favoring GBMI verdicts even in a case that might be considered a prototypical insanity case. Additionally, individuals who chose GBMI endorsed more construals of responsibility to the defendant. For example, they had increased perceptions that the defendant: was mentally disordered, demonstrated appreciation of the wrongfulness of his act, was capable of acting differently, had the capacity for logical reasoning, had the capacity to consider alternative courses of action other than shooting the victim, had the capacity for rational behavior, had control over his beliefs, and should be blamed and punished (Robert & Golding, 1991). The results suggest that GBMI verdicts may have been given inappropriately because the GBMI verdict option reduced NGRI rates across the board and not just in cases in which insanity related variables (planfulness or delusional content) were manipulated.
With regard to the attitudes/independent variables measured in the study, a step-wise discriminant analysis revealed that the biggest predictor of verdict was Perceived Criminal Responsibility (28% variance) (Robert & Golding, 1991). This was followed by Strict Liability (16%), Insanity Irrelevant to Guilt (7%), Judicial Instructions (5%), Detention Concerns (5%), and Death Penalty Attitudes (1%) (Robert & Golding, 1991).

In sum, the results of the study showed construals of responsibility and attitudes toward the insanity defense were more predictive of verdict selection than jury instructions and manipulation of case facts. In addition, the popularity of GBMI as a verdict choice perhaps betrays the desire of the public to punish rather than treat the mentally ill.

Cutler, Moran, and Narby (1992) explored the relationship of particular attitudes to verdict. Specifically, Cutler et al., (1992) theorized that individuals with negative attitudes towards psychiatrists and the insanity defense would be less likely to give a verdict of NGRI. Participants in the study read a vignette or saw a videotaped trial and then filled out a survey measuring case scenario and verdict; case relevant attitudes; legal authoritarian attitudes; and demographics. Cutler et al., (1992) did not provide participants with a legal definition of insanity or jury instructions.

Nearly 80% of the participants gave a guilty verdict and 18-22% of the participants voted NGRI. Mock jurors high in legal authoritarianism were more likely to give a guilty verdict and to perceive the psychiatrist as: less credible, less convincing, and less understandable. Participants high in authoritarianism were more prone to perceive the defendant as: less likely to be insane, more likely to have appreciated the nature and quality of his acts, more likely to have understood the difference between right and wrong, more blameworthy, and more responsible. Finally, jurors high in authoritarianism found the defense lawyer less skillful and felt that the insanity defense is less frequently justified. In sum, legal authoritarian attitudes and attitudes toward psychiatrists were predictive of verdict selection. The results are important because they show a correlation between an authoritarian
belief system and elements of myth endorsement and both may have a role in a sense of injustice and
the activation of anger in insanity cases. Since the authors did not manipulate case facts the link
between legal authoritarian attitudes and attitudes toward psychiatrists and verdicts must be inferred.

Taking it one step further, Poulson, Brondino, Brown, and Braithwaite (1998) explored the
interrelationship between evidential factors, verdict, and attitudes. Poulson et al., (1998) theorized that
decision’s attitudes influenced the way they perceived evidence, and this in turn affected verdict selection.
Specifically, Poulson et al., (1998) hypothesized that attitudes toward the insanity defense, due process
versus crime control, and the death penalty influenced perceptions of the defendant’s mental status,
belief in rehabilitation, and beliefs about the accuracy of expert testimony. All of this, in turn, influenced
pre-deliberation verdicts.

In this study (Poulson et al., 1998), participants listened to an audio tape and viewed slides of a
trial and then were asked to give a verdict of guilty, GBMI, NGRI, or not guilty. The study also measured:
attitude toward the insanity defense, attitude toward due process versus crime control, attitude toward
the death penalty, belief that the defendant could be rehabilitated, and beliefs regarding accuracy of
expert testimony. A path analysis tested the hypothesized relationships.

The final path model suggested that jurors’ attitudes toward the insanity defense and death
penalty affected perceptions of the defendant’s mental status and evaluation of expert testimony.
Perceptions of mental status and expert testimony then had a direct impact on verdict selection. Beliefs
about the benefit of treatment also had a small impact on verdict selection. Additionally, attitudes
toward the insanity defense, due process vs. crime control, and the death penalty had a negative
influence on beliefs that the defendant could benefit from psychological treatment (Poulson et al.,
1998).

The results of the study also indicated that participants who held favorable attitudes toward the
insanity defense believed the defendant’s mental status was an important factor in verdict selection.
Those who did not hold favorable attitudes toward the insanity defense did not believe the defendant’s mental state was an important factor in verdict selection (Poulson et al., 1998).

In sum, the study suggested that jurors’ attitudes toward punishment, crime control, and the death penalty are important factors in verdict selection because they affect interpretation of evidential factors. The defendant’s mental status (thinking, awareness, incapacity, etc.) was an important factor but perception of mental status may be influenced by attitudes toward punishment, crime control, and the death penalty (Poulson et al., 1998). For example, NGRI and GBMI-NGRI participants were more likely to believe the defendant lacked capacity, had distorted thinking, and impaired awareness. Guilty and guilty-GBMI participants were more likely to believe the defendant had the capacity to control his behavior and was able to think clearly.

Butler (2006) explored the relationship between support for the insanity defense and attitudes toward insanity myths, the legal definitions of insanity, mental illness, and verdict selection using 300 venirepersons who had been called for jury duty (via a random selection of driver’s licenses and voter’s registrations). Butler (2006) theorized that participants low in support for the defense would be more likely to have negative attitudes toward mental illness; endorse insanity myths; be less receptive to legal standards of insanity; and find the defendant guilty.

To test her theory, Butler (2006) had participants read the summary of testimony presented during the first degree murder trial of a defendant pleading NGRI. Participants were then given jury instructions and asked to select their verdict preference amongst guilty, not guilty, and NGRI. In addition, participants’ support of the defense was measured by having participants circle the statement that they agreed with most: (1) The insanity defense is never an appropriate defense for the crime of first-degree murder; (2) In principle, I am opposed to the insanity defense, but I would consider it under certain circumstances; (3) In principle, I favor the insanity defense, but I would not consider it under certain circumstances; and (4) The insanity defense is always an appropriate defense for the crime of first-degree murder.
degree murder (Butler, 2006). In addition, Butler (2006) assessed participants’ attitudes toward the legal standards of insanity; mental illness, and the myths associated with the insanity defense.

The study showed that, as hypothesized, participants high in support for the defense were more likely to have positive attitudes toward mental illness; less likely to endorse insanity myths; more receptive to legal standards of insanity; and less likely to find the defendant guilty (Butler, 2006). In addition, level of support for the defense, age, educational level, occupation, type of prior jury service, and political views affected verdict preference. However, Butler (2006) did not find a significant relationship between participants’ experience with psychological disorders; participants’ exposure to psychotropic medications; or participants’ experience with psychologists or psychiatrists and verdict preference.

The aforementioned studies (Butler, 2006; Cutler et al., 1992; Ellsworth et al., 1984; Poulson et al., 1998; Roberts & Golding, 1991) demonstrated that several attitudes influenced verdict selection. Previous research had not, however, developed a scale that could easily identify whether potential jurors held core attitudes related to bias against or attitudes toward the insanity defense itself. Skeem, Louden, and Evans (2004) addressed this issue by developing the Insanity Defense Attitude Scale (IDA) that would assess core elements of insanity defense attitudes, which could then predict verdict selection. After the scale was constructed, validated, and refined (and renamed the Insanity Defense Attitude Scale-Revised (IDAS-R)), the final version assessed attitudes on two dimensions: strict liability, or the extent to which venirepersons believe that (a) mental illness reduces one’s capacity for rational decision-making and control, and (b) reduced capacity is relevant to the issue of criminal responsibility; and injustice and danger, which reflects the extent to which venirepersons believe the insanity defense is misused, perhaps with the effect of jeopardizing public safety.

Thus, the IDAS-R reflects one’s views of the fundamental logic that underlies the insanity defense and the extent to which one believes the insanity defense is dangerously abused. As noted by
Hans (1986), these dimensions are loosely consistent with alternative goals of punishment. A strict liability orientation is consistent with the principle of retribution: those who break the law ought to be punished as “payback,” regardless of their degree of insanity. Similarly, concerns that the defense is unjust and dangerous are consistent with utilitarian goals: dishonest and/or insane criminals must be kept off the streets to control crime.

To test the scale’s predictive validity, participants were asked to read an insanity vignette, indicate the likelihood (0–100%) that they would deem the defendant insane, render a categorical verdict (guilty or insane) based on their own conceptions of insanity, and rate a set of case construal items. The case construal items asked about participants’ perceptions of the defendant with respect to nine dimensions (i.e., the extent to which the defendant was mentally disordered; appreciated that his actions were wrong; was capable of perceiving alternatives, reasoning logically, acting differently, behaving rationally; could help believing as he did; and should be blamed or punished) (Skeem et al., 2004).

Finally participants were given several vignettes that matched the prototype identified by Skeem and Golding (2001). The strength of association between IDAS-R scores and case judgments were highly similar across manipulations of the defendant’s characteristics, suggesting that the moderate-strong relation between IDAS-R and case judgments is not limited to particular constellations of case facts (Skeem et al., 2004).

In terms of predictive utility, results of the study showed that of the IDAS-R factors, strict liability (opinions that mental disorder implies reduced capacity or that defendants are responsible for their crimes regardless of whether they are mentally disordered) is relatively strongly associated with case judgments and injustice and danger (perceptions that the insanity defense is unjust and concerns about the detention and dangerousness of insanity acquittees) is moderately so. Regardless of defendant
characteristics, venirepersons with strong strict liability and punishment orientations are relatively likely to vote guilty (Skeem et al., 2004).

Given the importance of insanity attitudes on verdict as shown by Skeem et al., (2004), Bloechl, Vitacco, Neumann, and Erickson (2005) explored factors that might affect those attitudes. Participants filled out demographic information and were asked to fill out the Insanity Defense Attitude Scale Revised (IDAS-R) and the Attitude toward the Death Penalty Scale (ATDP). The results indicated that, in general, participants held negative attitudes toward the insanity defense. Furthermore, positive attitudes toward the death penalty and endorsement of the belief that the defense is overused (asked in the demographic questionnaire) were the greatest predictors of negative attitudes toward the insanity defense.

Daftary-Kapur, Groscup, O’Connor, Coffaro, and Galietta (2011) furthered scale development by developing a scale, Knowledge of Insanity Defense Scale, to measure knowledge about the defense as opposed to attitudes toward the defense. The scale was based on the insanity defense myths identified by Perlin (1995). To develop the scale, Daftary-Kapur et al., (2011) developed items that echoed each of the eight insanity myths. The items were then administered to participants in multiple pre-testing sessions to choose the items that would be included in the final scale based on their item-total correlations, factor loadings, and validity. After the items were developed and assessed for reliability, Daftary-Kapur et al., (2011) tested the scale’s validity by exploring the relationship of insanity defense knowledge with verdict selection. The authors hypothesized that: (1) the scale would be related to attitudes toward the insanity defense, such that those who have negative attitudes toward the insanity defense will have lower levels of knowledge regarding its various aspects; (2) the scale would not be related to legal authoritarianism because authoritarianism has been shown to be an anti-defendant attitude and associated with control as opposed to due process concerns; (3) it would not be related to knowledge of mental illness in general because such knowledge is not related to the insanity defense per
se; and (4) that it would be predictive of insanity verdicts in a mock insanity case vignette (Daftary-Kapur et al., 2011).

In the validation study, undergraduate participants read a case vignette and selected verdicts. The data from a logistic regression showed that participants’ scores on the knowledge scale significantly predicted their verdicts in an insanity defense case. In fact, the nine factors on the scale accounted for a significant percent of the variance in verdict decision. Participants who believed that: the insanity defense was more likely to be pled in cases that involved violent crimes; there was no risk to pleading NGRI; those found NGRI are quickly released from custody; and that defendants who plead insanity are usually faking, were more likely to find the defendant guilty than those who did not endorse the aforementioned beliefs, or who believed them to a lesser degree (Daftary-Kapur et al., 2011).

Summary

Literature suggests the public believes a number of core negative myths about the insanity defense. These negative myths play a role in verdict selection in insanity cases. Additionally, certain attitudes have been implicated in myth endorsement and insanity defense bias. For example, studies have linked attitudes about crime control, due process, the death penalty, utilitarianism, and authoritarianism to negative beliefs about the insanity defense and myth endorsement. Additionally, studies suggest that jurors respond to the insanity defense in ways that are punitive in nature. Given the findings of insanity defense literature (e.g., that even in the face of disconfirming evidence jurors still persist in believing insanity myths and that attitudes are more predictive of verdict than manipulation of case facts, jury instructions, and legal standards) it seems plausible that emotions play a role in insanity defense bias and verdict selection. Anger, in particular, is one emotion that may be implicated because anger influences judgment and decision-making by biasing response tendencies integral to the formation of judgments and the rendering of decisions. Ultimately, anger’s influence on judgment and decision-
making leads individuals to feel more certain and to take action steps that are often retaliatory in nature (Lerner, Goldberg, & Tetlock, 1998; Lerner & Tiedens, 2006).

Some of the information in the insanity defense literature potentially suggests that individuals, when regarding insanity cases, might feel an injustice has occurred and might be acting in a punitive/retaliatory manner as a result of biased response tendencies (e.g., statements made by the public, particularly in cases with sympathetic victims). For example, the content and persistence of insanity defense myths despite disconfirming evidence and attitudes related to insanity bias are potentially related to a sense of injustice.

The insanity defense literature identifies eight core insanity myths. To varying degrees, belief in any of the eight myths could lead an individual confronted with a defendant raising an insanity defense to feel an injustice had occurred (the crime committed) and that an individual had done something they should not have done. The injustice potentially has many levels. On one level, the injustice can be the offense itself. By pleading not guilty by reason of insanity (unlike a defendant that pleads not guilty) a defendant essentially says, “I am the party responsible for the acts that occurred but I should not be held legally or morally responsible.” On another level, the injustice is that not only has a defendant committed a transgression but they also escape punishment.

To begin to better understand these strong reactions to the insanity defense, this paper will explore the potential influence of anger on insanity judgments. It will first critically analyze the literature on the influence of anger on certain aspects of judgment and decision-making, and then apply those insights to explanations about the possible role of anger on insanity verdicts/attitudes.

Anger

*Anybody can become angry—that is easy; but to be angry with the right person, and to the right degree, and at the right time, and for the right purpose, and then in the right way—that is not easy.*

-Aristotle, *Nicomachean Ethics*
The literature on the impact of anger on decision-making as it pertains to juror decision-making is limited. A number of promising findings suggest, however, that this area may have the potential to contribute significantly to the understanding of juror behavior generally and insanity defense cases in particular. This section will begin by defining “anger” as it will be used in this analysis and will follow with a review of the available literature on the influence of anger on judgment and decision-making.

Anger is considered a basic emotion that is negative, varies in strength and duration, and is linked to emotional arousal and a perception of being wronged by another (Carver & Harmon-Jones, 2009; Kassinove & Sukhodolsky, 1995). This is often followed by a strong desire to undo said harm (Averill, 1982). Anger is thought to consist of several aspects: physiological (general sympathetic arousal, hormone/neurotransmitter function), cognitive (irrational beliefs, automatic thoughts, inciting images), phenomenological (subjective alertness and classification of angry moods), and behavioral (facial expressions, acting out of anger verbally/behaviorally) (Berkowitz, 1993; Deffenbacher, 1994; Eckhardt & Deffenbacher, 1995; Kassinove & Sukhodolsky, 1995).

Anger is associated with threat identification and is a component in a number of psychological disorders. Anger appears in combination with delusions and command hallucinations in psychotic disorders, emotional instability present in personality disorders, irritability and “attacks” in mood disorders, impulse control disorders, intellectual impairments, and dementia (Deffenbacher, 2011).

When anger plays a role in a particular mental illness, it is the dysregulation of anger that is problematic, the activation, expression, and experience sans proper controls. Thus, it is not anger itself that is intrinsically an issue but the intensity, frequency, and behavioral effects that can result in harm and distress. From a clinical perspective, anger is harmful, in part, because it can cause functional impairment in a number of domains negatively affecting careful deliberation, important relationships, work performance, and physical health. Anger has been linked to numerous types of aggressive behavior
such as spousal abuse, child abuse, road rage, murder, and is linked to myriad maladaptive behaviors that usually result in negative psychosocial and interpersonal consequences (Deffenbacher, 2011).

Although related and often linked, the clinical literature makes a distinction between the constructs of anger, hostility, and aggression (Spielberger, Reheiser, & Sydeman, 1995). In general, anger is the emotion; hostility is the attitude, and aggression is the behavior. Thus, anger is not conceptualized as a behavior or personality trait (Edmondson & Conger, 1996). Hostility is considered a persistent aggressive attitude that causes a person to engage in aggressive behavior (Boyle & Vivian, 1996; Spielberger, Jacobs, Russell, & Crane, 1983).

Those high in anger experience greater levels of anger in a variety of situations. In addition, those high in anger often attempt to stifle their anger or they express their anger in negative and problematic ways. They may have poor coping skills and likely handle stress in maladaptive ways. They have lower self-esteem than those with less anger, and are at an increased risk for drug and alcohol abuse. Furthermore, those who experience greater levels of anger show bias in how they assess and judge events leading them to blame others for bad outcomes and view the behavior of others (in such situations) as deliberate (Hazebroek, Howells, & Day, 2001).

Anger is the result of: (a) one or more triggering events, (b) an individual’s pre-anger state (involving both temporary states and enduring ways of cognitively interpreting situations), and (c) appraisals of the trigger and coping resources (i.e., primary and secondary appraisal) (Lazarus, 1991).

There are three types of triggering events. The first is explicit, identifiable external events. Examples of identifiable external events are exasperating or provoking events, the actions of others, objects, and one’s own behaviors or characteristics. These events share several elements. In such situations, an individual will identify the anger provoking agent. And the angry individual will usually ascribe a cause and effect relationship between the external event and their anger (e.g., “their behavior made me angry”). In addition, to the individual experiencing anger, their level of anger always seems
proportional to the triggering event. Sometimes, anger is triggered not only by external events but also by anger-causing memories and images. This means that sometimes a situation causes an individual to feel angry and it activates anger-related memories that increase the level of anger an individual experiences as a result of the current event. It is often not easy to name the source of anger and the anger in such cases does not seem proportionate to the identified trigger (Deffenbacher, 2011).

In addition to external stimuli, anger can be triggered by internal stimuli that can be cognitive and/or emotional. In these cases, anger can be triggered by ruminating or brooding about past maltreatment, injustice, or abuse. As rumination increases so does the level of anger. This increases the individual’s sense of being out of control and results in a higher chance of a maladaptive reaction (Nolen-Hoeksema, 2003). In addition to rumination and brooding, anger can also be triggered by other emotions like rejection, hurt, embarrassment, or humiliation. The key to understanding anger in such cases is to identify the emotions and/or cognitions that triggered the anger (Deffenbacher, 2011).

Anger can also be strongly impacted by one’s pre-anger state, by for example, temporary and long-lasting characteristics that the individual possesses when the triggering event occurs. The likelihood, strength, and direction of anger are affected by the individual’s current emotional-physiological state. If a person is in a good mood when a triggering event happens anger may not be elicited or it may be mild. If an individual is in an angry mood, this can increase the chances of an angry response even if the triggering event is unrelated to the cause of their prior angry mood (Deffenbacher, 2011; Zillman, 1971).

Anger is also affected by the way an individual sees the world (Deffenbacher & McKay, 2000; Kassinove & Tafrate, 2002). For example, anger often results when an individual feels that another has encroached on their province (Beck, 1976) and infringed on an individual’s beliefs, code of conduct, and standards of living (Dryden, 1990). Anger also results when an individual feels something important to their view of themselves is being criticized or when something/someone interferes with an individual’s
goal (Lazarus, 1991). When one’s world view is flexible and the result of personal preference, anger tends to be mild to moderate when this view is challenged. However, if one’s worldview is inflexible and overly inclusive this results in greater levels of anger and more aggressive behavior (Deffenbacher, 2011).

Appraisal is the third factor in anger. When a trigger occurs it is appraised based on the context in which the angering event occurs and based on the individual’s pre-anger state (Deffenbacher, 2011; Deffenbacher & McKay, 2000; Kassinove & Tafrate, 2002). Primary appraisals are aimed at the triggering event and the nature of that situation. For example, if a triggering event is seen as a breach of standards and norms, an intrusion on one’s domain, an attack on one’s self image, and/or an unjustifiable obstruction of one’s goals then this will lead to strong anger and potentially lead to aggressive behavior. This occurs, because the angry individual has come to the conclusion that something did occur or could occur that should not. The likelihood and degree of anger are greater if events are also appraised as: “(a) intentional (i.e., someone did it on purpose vs. it was accidental or just in the natural course of things), (b) preventable or controllable (i.e., the event could have been and therefore should have been controlled vs. it was accidental or just a benign outcome of events), (c) unwarranted (i.e., unjust, unfair, and/or undeserved vs. fair, deserved, and/or happenstance), and (d) blameworthy (i.e., someone or something is not only responsible but deserves pain, punishment, and suffering vs. an accurate appraisal of responsibility, but without the need for punishment)” (Deffenbacher, 2011).

In addition, a triggering event is more likely to elicit anger if the event is attributed to an “enemy,” outsider, or member of an out-group. In such cases, anger is greater because an individual is set off by the situation and the other person’s association with a negative group or label. Anger is also greater when the individual sees triggering events as having more importance or negative consequences than it does in reality, sees situations in extremely divided, negative lights (i.e. dichotomous thinking), ascribes malicious purpose to the identified source of anger (i.e. hostile attributional bias), and/or

Thus, emotion literature indicates that anger can influence judgment and decision-making because of its impact on appraisals of causality and responsibility for triggering events (Deffenbacher, 2011; Hazebroek, Howells, & Day, 2001; Lazarus, 1991; Lerner & Keltner, 2001).

**Relationship between Anger and Attributions**

One way anger is thought to affect judgment and decision-making is through its influence on attributions of causality and responsibility. Researchers have theorized that anger affects attributions in ways that differ from the impact of other negatively valenced emotions such as fear and sadness, and thus have explored such potential differences. Keltner, Ellsworth, and Edwards (1993) tested whether anger influences attributions of causality and responsibility by increasing the likelihood of predicting both dispositional attributions for future events and dispositional attributions made for ambiguous events.

To test this hypothesis, Keltner et al., (1993) conducted two studies in which emotion was induced by giving participants either an anger scenario or a sadness scenario to read. In the sadness scenario, participants imagined the death of their mother, who died as a result of unforeseen and inexplicable reasons. In the anger scenario, participants imagined receiving an extremely low grade from an unfair and unreasonable teaching assistant.

In Study One, participants gave estimates of the likelihood of future events. In Study Two, participants read a scenario of a situation and were then asked to rate: the causes of the target situation (human factors/human agency vs. situational factors/situational agency), its hopelessness (the extent to which anything could be done to improve the situation), the fairness of others' actions, and the emotions the situation would induce (would they feel sadness, anger, guilt, contempt, happiness, and pride) (Keltner et al., 1993). The results of the study showed that in the induced anger condition,
participants perceived that future events were more likely to be caused by the person. Sadness had the opposite effect.

In Studies 3-5, Keltner et al., (1993) manipulated the salience of either experienced emotion or attributional content (explicit agency information) in order to tease apart the role of emotion versus cognition in differences seen in attributional judgments. For example, Experiment 3, a replication of Experiment 1, added two emotionally neutral conditions in which appraisals of human or situational agency were made salient by repeatedly attributing relatively non-emotional events to human or situational agency (e.g., getting a good grade on a test due to luck or studying depending on the condition) (Keltner et al., 1993). In Experiment 4, the opposite approach was employed. Emotions were made salient, but not appraisals. In Experiment 4, sadness and anger were induced without mentioning agency. In order to accomplish this, participants were asked to make sad or angry expressions. In Experiment 5, the intensity of participants’ emotional response to the recollection of a past sad or angry event was varied by using a technique suggested by Strack, Schwarz, and Gschneidinger (1985), which found that participants became emotional when asked how a past emotional experience occurred, but did not become emotional when asked why such an event occurred (Keltner et al., 1993).

The results of Experiment 3 showed that the salient appraisals of situational and human agency in the non-emotional story had no significant effect on likelihood estimates, while the effects of the emotional stories were significant, mirroring the results of Experiment 1. Experiment 4 found that sadness and anger influenced appraisals of human versus situational causes of future negative events even when the emotions were induced without mention of the relevant appraisals, and without suggesting an actual experience that might call these appraisals to mind (Keltner et al., 1993). Finally, the results of Experiment 5 suggested that sad subjects saw negative events and general life circumstances as more the result of situational factors. Angry subjects saw the same events as caused by human agency. In sum, the results showed that emotion and not cognition (explicit agency information)
increased the likelihood that individuals would attribute human agency to negative future events (Keltner et al., 1993).

Goldberg, Lerner, and Tetlock (1999) expanded the work of Keltner et al., (1993) by exploring the specific circumstances under which experimentally primed anger would impact attributions of responsibility and punishment for future unrelated events. In their study, undergraduate participants viewed scenarios in which harm caused (a video of a man beating up a helpless teenager) varied with regard to justice served (punished, unpunished, justice-ambiguous/no information given). In the control condition, participants did not see the video and therefore were not emotionally primed. Participants were then given a vignette to read regarding acts of negligence and recklessness and were then asked, on a 1-7 scale: how intentional the defendant's actions were; to what extent the defendant should be blamed; to what extent the defendant should be punished; how much money, if any, should be paid to the victim; how reckless the defendant seemed to be; and how reckless the defendant might be in future situations. Participants were also asked how much personal control the defendant had, and how mitigating circumstances might affect their assignment of blame.

Contrary to the findings of Keltner et al., (1993), anger did not uniformly lead to blame and punishment. The results showed that anger resulted in increasingly punitive judgments of wrongdoers (the defendants in the vignettes) only in combination with an injustice belief. However, when the wrongdoer was punished, or when no information on justice was given, anger did not result in increasingly punitive judgments. Furthermore, this occurred even though all participants experienced the same level of anger after viewing the crime-video. In addition, those participants who were explicitly told that justice had been served, or who received no justice information, took into consideration the defendants' intentions in determining the right level of punishment. However, for participants who believed that an injustice had occurred, the connection between intention and punishment was mediated by anger, and intention no longer predicted punishment.
In sum, the results of the study indicate that anger elicited more punitive attributional heuristics for inferring responsibility of harm when the original cause of the person's anger was unpunished. According to Goldberg et al., when individuals are angry and feel that justice has not been served they become “intuitive prosecutors” who are angered by and desire to punish wrongdoers. Intuitive prosecutors become angered by a norm violation/transgression thereby becoming more likely to see future transgressions as deserving of punishment. Since intuitive prosecutors feel that justice has been eluded, they do not see the need for engagement in attributional searches of alternative explanations or perpetrators. The barrier for believing an injustice has occurred is therefore lowered. Thus, the focus turns from evaluating the situation (with regard to responsibility, etc.) to being in a punishment mind frame in order to impede future norm violations (Goldberg et al., 1999).

Using a similar design, Lerner, Goldberg, and Tetlock (1998) explored the relationship of accountability, authoritarianism, and anger on attributions of responsibility. In their study, undergraduate participants were primed to feel anger, by watching a video in which a bully beat up a helpless teenager, or were primed for a neutral emotion. In the anger with injustice condition the bully is charged but found not guilty due to a technicality. In the anger with justice condition the bully served a substantial amount of time in jail. Some participants were told their responses to the priming video would either be public (accountable) or private (unaccountable). Participants filled out measures of authoritarianism. Finally, participants had to make attributions of responsibility and punishment with regard to four vignettes with increasing degrees of intent and harm.

The results showed that when participants were primed to feel anger they were more likely to make punitive attributions of responsibility. While differences were found between the justice and injustice paradigms, the degree of punitive attributes was influenced by individual personality traits. In particular, the study found that amongst individuals who were primed to feel angry those who were higher on authoritarianism were even more punitive (Lerner et al., 1998). It is important to note that
while individuals high in authoritarianism were more likely than those low in authoritarianism to be punitive. They were no more likely to be influenced by incidental anger. In other words, such individuals were not more sensitive to the anger inducing video that showed a clear norm violation. Additionally, as suggested by other studies, anger led to the use of simple heuristic cues. For example, angry participants attributed equivalent levels of responsibility and punishment to the four actors in the vignettes despite the differing levels of intent and harm caused (Lerner et al., 1998).

Another important finding of the study is that individuals were less punitive when they believed they would have to account for their judgments. This suggests that individuals will be more thoughtful and reflective when they are made accountable for their judgments. The study found that accountability tamed punitive judgments regardless of when individuals are told they will be held accountable (before or after anger priming). In addition, accountability tapered punitive judgments even for participants who experienced the most anger (Lerner et al., 1998).

Based on the work of Lerner, Vidmar (2001) developed a six-stage model to explain the phenomenon of retribution. Vidmar’s retribution model posits that: “(1) there is a perceived rule or norm violation; (2) the rule violator’s intention is perceived as blameworthy; (3) the combination of (1) and (2) threatens or actually harms values related to the perceiver’s personal self, status, or internalized group values; (4) the emotion of anger is aroused; (5) the cognitions and emotions foster reactions against the violator; (6) during or following punishment the anger dissipates, cognitions return toward homeostasis, and the rule or norm is perceived to be vindicated (Vidmar, 2001, pgs. 2-3).” The desire for retribution, at least in laboratory studies, also seems to dissipate in the face of an excuse or mitigating condition (Vidmar, 2001). However, excuses and mitigating conditions do not always seem to have the same ameliorating effects in field research, at least where the insanity defense is concerned. When looking at insanity cases, results from field studies suggest that community members do not perceive
insanity as a legitimate defense and that community member see the defendant as responsible and worthy of punishment (Vidmar, 2001).

**Anger and the Insanity Defense**

Overall, the literature on anger indicates that anger is elicited when individuals feel an injustice has occurred. One way the experience of anger influences judgment and decision-making is by biasing attributions of causality and responsibility. Ultimately, anger’s influence on judgment and decision-making leads individuals to take action steps that are often retaliatory in nature (Lerner, Goldberg, & Tetlock, 1998; Lerner & Tiedens, 2006).

Applying these findings to what is known about insanity defense judgments suggests that individuals might feel an injustice has occurred and might be acting in a punitive/retaliatory manner as a result of biased response tendencies (e.g., statements made by the public, particularly in cases with sympathetic victims). For example, the content and persistence of insanity defense myths despite disconfirming evidence and attitudes related to insanity bias are potentially related to a sense of injustice.

The insanity defense literature identifies eight core insanity myths. To varying degrees, belief in any of the eight myths could lead an individual confronted with a defendant raising an insanity defense to feel an injustice had occurred (the crime committed) and that an individual had done something they should not have done. The injustice potentially has many levels. On one level, the injustice can be the offense itself. By pleading not guilty by reason of insanity (unlike a defendant that pleads not guilty) a defendant essentially says, “I am the party responsible for the acts that occurred but I should not be held legally or morally responsible.” On another level, the injustice is that not only has a defendant committed a transgression but they also escape punishment. As the research indicates these feelings of anger would then make potential jurors more retaliation focused and more certain of their cognitions. Jurors would also be more likely to have their verdicts influenced by stereotypes/heuristics, leading to a
decrease in the use of systematic processing of information relevant to reaching a verdict (Lerner, Goldberg, & Tetlock, 1998; Lerner & Tiedens, 2006).

Although anger was not explicitly measured, a number of the insanity defense studies previously reviewed indicate that jurors exhibit response tendencies demonstrated by angry individuals. For example, studies such as the one conducted by Jeffrey and Pasewark (1984) and Whittmore and Ogloff (1995), show that many jurors remain certain of their cognitions even in the face of disconfirming information. Since anger promotes certainty (Lerner & Keltner, 2001), individuals’ certainty that the insanity defense promotes injustice that needs to be rectified would interfere with an individual’s ability to process and retain myth disconfirming facts about the insanity defense.

In addition to certainty bias, the anger literature also suggests that anger can cause bias in attributions of causality and responsibility. Namely, anger causes individuals to see others as more responsible and in control of their actions (Goldberg et al., 1999; Keltner et al., 1993). Therefore, despite the fact that the public is told that mental illness can impair a person’s ability to understand or control their actions, anger could cloud the public’s ability to “buy” such an argument because angry individuals see others as more responsible for and in control of their actions. Thus, it seems quite possible that anger is involved in insanity defense bias and therefore affects juror decision-making in such cases.

The insanity defense exists because a major tenet of the American legal system is the belief that individuals with mental illness, who, as a result of that illness do not meet the legal standard for culpability, deserve treatment as opposed to punishment. On one hand, it would seem that potential jurors intellectually understand or accept the rationale behind the insanity defense, hence the support for treatment that has been measured by insanity defense research. On the other hand, emotionally, potential jurors are angered and repelled by people who are deemed to be “insane” or by the offenses committed by those people and therefore desire to punish those who plead NGRI. Such reactions go against the spirit of the law. If the insanity defense elicits anger in jurors and anger affects judgment and
decision making in a way that causes jurors to see insanity defendants as more blameworthy, less trustworthy, and more deserving of punishment, then it would be difficult for a defendant pleading NGRI to get a fair trial per their 6th amendment right. Not only would it be difficult to get a fair trial but if anger is clouding judgment and decision-making, the law in insanity cases becomes unpredictable. If jurors are not using given legal standards to determine cases, variability ensues which results in miscarriages of justice that are unacceptable based on the reality of the insanity defense and the goals of the legal system.

Comparing the insanity and anger literature suggests that affect, specifically anger, could be driving insanity defense bias. Exploring the link between anger and insanity defense bias is important because a wealth of information exists not only about why anger exists but also regarding mechanisms of anger. Additionally, if anger is driving insanity bias then it may be important to focus research on potential ways to curb or lessen the effect of anger on response tendencies critical to judgment and decision making.

The law may not, in other words, be free from passion. The research suggests that individuals use their emotional states as informational cues. When asked to come to a judgment the individual will be guided by their current emotional state. As a result, how they feel subsequently becomes a barometer for how they feel about the thing to be evaluated and what type of judgment is warranted (Forgas, 2001). If jurors feel anger when dealing with the insanity defense this will lead to more punitive sentences.

Therefore, contrary to public belief, using the defense is a gamble. In fact, research suggests that an unsuccessful insanity plea often leads to harsher punishments than not using the defense at all. All of this presents a problem for individuals with mental illness who should be able to effectively use the defense and for defense attorneys trying to properly represent their clients. NGRI is an appropriate verdict for those who lack the requisite mens rea but defendants who the meet standards necessary for
an NGRI verdict may not get such a verdict. Exploring and understanding the role of anger will help direct possible anger targeted remedies and solutions that may change perceptions of the insanity defense or at the very least (and perhaps more realistically) stop jurors from accessing biases and bring jurors in greater accordance with the spirit of insanity defense law.
Chapter 2: Study One Methods

Overall Design

The literature suggests that anger may mediate the link between the use of an insanity defense and subsequent punitive judgments. Thus, it is possible that the degree of anger experienced by jurors (when presented with an insanity case) explains the degree to which an individual will be punitive toward a defendant pleading insanity. Consequently, if a defendant pleads insanity and jurors experience anger as result of the plea, then the jurors will be more punitive in their judgments.

This dissertation was designed to investigate the relationship between anger and the insanity defense using vignettes based on a hypothetical murder case. Study One, investigated whether participants would react more punitively, and with more anger, when a defendant pleads insanity versus self-defense, in a case that could support either verdict. Trait and state anger, as well as overall emotional arousal, were measured in addition to attitudes toward the legal defenses themselves. Study Two (discussed in detail in Chapter 4), which focused only on a defendant who pleads insanity, investigated which features of the case facts might produce a higher anger response – either the defendant’s own failure to take prescribed medication or a prior history between the defendant and the victim. Prior research findings suggest that certain case facts, such as the two explored in Study Two, play into public concerns regarding moral blameworthiness (medication non-compliance potentially raises issues of preventability and prior history potentially raises issues of planfulness). Taken together, the two studies explored not only the role of pleading insanity on punitive judgments and anger but also the role of specific case facts, in insanity cases, on punitive judgments and anger. This chapter, details the methodology of Study One.

The hypotheses for Study One were that:

1) An insanity plea would increase punitive judgments as compared to a plea of self-defense;

2) An insanity plea would increase anger as compared to a plea of self-defense; and,
3) Increases in anger would lead to increases in punitive judgment.

If the results supported all three hypotheses, for Study One, then the results would indicate that anger mediates the relationship between plea and punitive judgments. A mediation model, presented in Figure 1, shows the hypothesized relationships (see Figure A1).

Participants

There were 379 participants in the study, recruited via Amazon Mechanical Turk (Mturk). The use of Mturk was employed because it allowed for the effective recruitment of a large number of participants for a nominal amount. Additionally, Mturk participants in the U.S. are more representative of the U.S. population than college students. Furthermore, in general, they are motivated to successfully complete “HITS” because their Mturk “reputation”/rating depends on successful completion/payment (Paolacci, Chandler, & Ipeirotis, 2010). Of the 379 participants, 155 were male and 225 were female (59.4%). For participant ethnicity, 9.8% were African American, 8% were Native American, 6.1% were Asian, 0.3% were Pacific Islander, 2.1% were biracial, 75.7 were Caucasian, 4.5% were Hispanic, and 0.8% identified as other. Participants were of legal age to consent to participate in a research project. In addition, participants were jury eligible. Thus, participants were those who reported they were: United States citizens, at least 18 years of age, not currently subject to felony charges, and never convicted of a felony. Participants were paid 25 cents for their participation. The average age for participants was 35.3 (SD = 12.8).

Materials

Case Vignettes. Participants were randomly assigned to read a summary of a homicide case in which: a) the plea was not guilty by reason of insanity (NGRI); b) the plea was not guilty by reason of self-defense; or, c) no information about plea was given. Information about plea was followed by two brief paragraphs containing details of the case (See Appendix B). The vignettes provided brief background information about the victim’s actions prior to his death (such as the fact that he was
hanging out with a friend and then decided to go to the grocery store alone); and, information that
aided the police in the arrest of the defendant in the vignette (e.g., the defendant’s fingerprints were
found on the murder weapon). The last paragraph contained brief testimony from the defendant
regarding his version of events as well as information potentially relevant to his mental state at the time
of the alleged offense (i.e. the defendant had felt threatened by the victim and felt that he might need
to protect himself from the victim in the future). Each summary presented identical information and
only differed with regard to the plea entered by the defendant. In the summaries, the defendant is
charged with second degree murder after the victim was found dead with two stab wounds to the back
and the defendant’s fingerprints were found on a murder weapon with eyewitness testimony
connecting the defendant to the crime. The vignettes were adapted from stimulus materials that had
been used in previous research on the insanity defense (Louden & Skeem, 2007; Roberts et al., 1987;
Schlumper, 2011; Skeem & Golding, 2001).

Measures

**Demographics Questionnaire.** Participants completed a demographics questionnaire. The
questionnaire asked participants to identify their gender, age, ethnicity, citizenship, whether they were
currently subject to felony charges, whether they had ever been convicted of a felony, and their degree
of belief in free-will. Degree of belief in free-will was assessed by simply asking participants, “To what
degree do you believe in free-will?” on a 1-9 scale (with 1 being “not at all” and 9 being “extremely”).
Participants were asked this question because free will is thought to be related to less acceptance of an
NGRI defense (Bloechl et al., 2005). According to descriptive data for Study One, the mean score for
free-will was 7.66 on a 9 point scale. The questionnaire also asked participants, on a scale of 1-9, how
they felt about the plea of self-defense (with 1 being the most negative and 9 being the most positive)
(See Appendix C).
Manipulation Check Questionnaire. Each participant completed a manipulation check questionnaire tailored to the condition to which they were randomly assigned. The questionnaire asked questions that assessed participants’ knowledge of core and relevant components of the case summary they had read (e.g., what was the defendant’s plea) (See Appendix D).

State Trait Anger Scale (STAS). The State-Trait Anger Scale developed by Spielberger, Jacobs, Russell, and Crane (1983) includes 20 items (10 per scale) and consists of two subscales: S-Anger - state anger, which is an emotional state comprised of subjective feelings of tension, annoyance, irritation, fury and rage; and T-Anger - trait anger which measures the individual differences in the frequency that S-Anger was experienced over time (See Appendix E). The Cronbach’s Alpha for the current sample was .91 for the full scale, .93 for the state anger scale, and .88 for the trait anger scale. The average score for trait anger, amongst participants, was 16.49 on a 10-40 scale. The STAS is used in this study because it is a well-known anger scale and it is also markedly shorter than other known anger scales. It has been successfully used in health literature, can be used to assess anger in psychiatric and non-psychiatric populations, and operationally distinguishing state anger from trait anger (Glancy & Saini, 2005).

Emotional Arousal Questionnaire (EAQ). The EAQ is a 16-item emotion self-report inventory developed by Gross and Levenson (1995) (amusement, anger, arousal, confusion, contempt, contentment, disgust, embarrassment, fear, happiness, interest, pain, relief, sadness, surprise, and tension), which directs participants to “circle the number on the scale that best describes the greatest amount of each emotion you felt at any time during the case you have just read. On this scale, 0 means you did not feel even the slightest bit of the emotion and 8 is the most you have ever felt in your life.” For the studies conducted for this dissertation, the questionnaire was modified to ask participants to circle the number on the scale that best described the amount of each emotion they felt as a direct result of the plea entered by the defendant (See Appendix F). The EAQ is used in this study because it
has been successfully used in emotion and decision-making studies (Lerner & Tetlock, 1998) and provides a brief way to measure myriad emotions. The Cronbach’s Alpha for the current sample was .93.

**Punitive Judgment Instrument (PJI).** To examine participants’ punitiveness toward the defendant (as appropriate for a case raising a question about the defendant’s state of mind at the time of the crime and the public concerns about the insanity defense) the Punitive Judgment Instrument (PJI) was created for this study (see Appendix G). After each vignette, participants were asked on a 1-9 scale (with 1 indicating “Not at all” and 9 indicating “Extremely”): (a) how intentional were the defendant’s actions; (b) how preventable were the defendant’s actions; (c) how controllable were the defendant’s actions; (d) how fair would entering a **PLEA** of Not Guilty By *(Insert Plea)* be; (e) how fair would a **VERDICT** of Not Guilty By *(Insert Plea)* be (for the participants in the NGRI and Self-Defense conditions); (f) to what extent should the defendant be blamed; (g) to what extent should the defendant be punished; (h) how reckless did the defendant seem to be; and (i) how reckless the defendant might be in future situations. The participants were also asked: a) what verdict would you choose to give the defendant, Not Guilty By *(Insert Plea)*, Guilty, or Not Guilty; and b) how certain are you (on a 1-9 scale) that this is the appropriate verdict?

A principle components factor analysis, using a direct oblimin rotation, was conducted using IBM SPSS 19 (IBM Corp., 2010) to see if the items in the PJI had common unobserved variables and could be reduced to subscales rather than being calculated separately. The factor analysis demonstrated that items (a) intentionality, (f) blame, (g) punishment, (h) recklessness, and (i) future recklessness were one factor (“Punishment Worthiness”) while items (b) preventability and (c) controllability were another factor (“Controllability”). The items in the controllability factor had primary loadings over 0.90. The five items in the punishment worthiness factor had primary loadings over 0.50. Four of the five items had primary loadings over 0.80 (See Table K1). The Cronbach’s Alpha for the seven items was .88 (See Table K2). The Cronbach’s Alpha for the controllability scale was .83 and .90 for the punishment worthiness.
scale. The remaining items (plea fairness, verdict fairness, verdict, and verdict certainty) were not included in the factor analysis or Cronbach’s Alpha analysis and were analyzed separately. The decision to analyze the aforementioned items separately was made for several reasons: 1) Plea fairness, verdict fairness, verdict, and verdict certainty arguably tap into a different aspect of punitive judgment than the items comprising the controllability and punishment worthiness factors; 2) questions regarding plea fairness, verdict fairness, verdict, and verdict certainty were not asked of participants in the no information condition; 3) although one could combine plea and verdict fairness (as evidenced by an exploratory factor analysis), it was arguably important to see if participants felt that the issue of plea “fairness” versus verdict “fairness” were separate issues (e.g. the defendant had the right to plead NGRI or it was fair to plead NGRI but a verdict of NGRI would not be fair, etc.); and 4) verdict was not a continuous variable and thus was not measured on the same scale as the other items in the instrument.

**Insanity Defense Attitude Scale-Revised (IDAS-R).** The IDAS-R, which was administered to all participants, measures attitudes toward the insanity defense (Skeem, 2004). The IDAS-R is a 32-item measure that is scored on a seven-point Likert scale with 1 meaning “strongly disagree” to 7 meaning “strongly agree.” Prior confirmatory factor analyses indicate a two factor solution of – “strict liability” and “injustice and danger (Skeem, 2004).” The IDAS-R measures general attitudes regarding the insanity defense and not attitudes regarding a specific test (e.g., McNaughton standard) (See Appendix H). The Cronbach’s Alpha for the current sample was .94 for the full scale, .89 for the strict liability scale, and .93 for the injustice and danger scale.

**Self-Defense Attitudes Scale.** The Self-Defense Attitudes Scale, which was administered to all participants, was designed for this study, in order to measure attitudes toward self-defense in a manner comparable to the IDAS-R. Some of the items were identical to items in the IDAR-S but for the change in terminology (insanity defense to self-defense) while other questions were not identical to questions in the IDAS-R but rather were instead modeled after the IDAS-R to fit self-defense. The measure includes
11 items and asked participants on a seven-point Likert scale (with 1 meaning “strongly disagree to 7 meaning “strongly agree”) questions that measured their attitudes toward the plea of self-defense. The scale includes items such as: “The plea of self-defense should be abolished” and “The plea of self-defense is mainly a rich person’s defense” (See Appendix I). The Cronbach’s Alpha for the current sample was .94.

Procedure

Via Mturk, participants were invited to participate in a study on legal decision-making. They were then asked to fill out a demographics questionnaire.

Participants were then randomly assigned to read a summary of a homicide case in one of three conditions in which: 1) the defendant pled not guilty by reason of insanity (NGRI); 2) the defendant pled not guilty by reason of self-defense; or, 3) no information about plea was provided.

Directly after reading a vignette the participants filled out a manipulation check questionnaire. Afterwards all participants completed the State Trait Anger Scale (STAS). Then participants were asked to fill out the Emotional Arousal Questionnaire (EAQ).

Participants were then asked to complete the Punitive Judgment Instrument. Participants in all conditions then completed the IDAS-R and then the Self-Defense Attitudes Scale, in that order. Finally, participants were provided with a written debriefing and thanked for their participation. Participants received payment once it was verified that they had completed the study and had not participated more than once.

Data Analysis Plan

Study One hypothesized that: 1) An insanity plea would increase punitive judgments as compared to a plea of self-defense; 2) An insanity plea would increase anger as compared to a plea of self-defense; and 3) Increases in anger would lead to increases in punitive judgment.
In order to test these hypotheses, data analyses were conducted in SPSS 19 (IBM Corp., 2010) and conducted in several phases. A factor analysis was conducted to see if the items in the PJI had common unobserved variables and could be reduced to subscales rather than being calculated separately. Cronbach’s Alpha was calculated to examine the internal consistency of the scale in this sample. Descriptive statistics were analyzed in order to summarize and describe the data and assess the normality of the data. Mediation analyses were conducted. A mediation relationship was not established, thus a MANCOVA was run and assumptions were examined. MANCOVA was run to test differences between group means (independent variable), after controlling for the effect of covariates.

For Hypothesis 1, an independent samples t-test was also run to test the difference in means for several of the dependent variables (Plea Fairness, Verdict Fairness, and Verdict Certainty) for the NGRI and self-defense conditions. This was done because the No Information condition was not asked about Plea Fairness and Verdict Fairness.

A chi-square test for independence was run to analyze the relationship between plea and verdict for the NGRI and self-defense conditions. Chi-square was used because plea and verdict are both categorical variables.

For Hypothesis 3, a series of multiple regressions were run to see how well anger (as measured by state anger and EAQ anger) predicted punishment worthiness and controllability. Multiple regressions were run because both anger measures are continuous variables.

Statistical analyses were conducted as follows:

**Step 1**

a. Descriptive statistics - measures of central tendency and spread/dispersion were examined in order to describe the data collected in order to test the hypotheses.

b. Exploratory statistics - to detect outliers and anomalies in the data collected.
Step 2

For Hypothesis 1 (that an insanity plea would increase punitive judgments as compared to a plea of self-defense): A factor analysis and Cronbach’s Alpha were run to see if items in the PJI had internal consistency (interrelatedness among the items) and homogeneity (unidimensionality). Two subscales were created: “Controllability” (preventable and controllable) and “Punishment Worthiness” (intentionality, blameworthiness, punishment worthiness, recklessness, and future Recklessness). Plea fairness, verdict fairness, verdict, and verdict certainty were analyzed separately.

Step 3

Descriptive statistics and a one-way ANOVA were used to analyze the manipulation check data.

Step 4

A series of linear regressions were run to test for a mediation relationship between plea, anger, and punitive judgment variables.

Step 5

Since a mediation relationship was not established, correlation, one-way ANOVA, tests of normality, and multivariate analysis of data were run to test several assumptions of MANCOVA (correlation between covariates and dependent variables, independence of covariate, normal distribution, and homogeneity of regression slopes). Correlation matrix data was used to determine which variables were highly correlated to the dependent variables and thus would be appropriate to use as covariates in the MANCOVA.

Step 6

For Hypothesis 1 (that an insanity plea would increase punitive judgments as compared to a plea of self-defense): A MANCOVA was run to determine if differences in punishment worthiness and controllability (DVs) scores existed for differing levels of plea (IV), after controlling for the potential effect of IDAS-R scores (insanity bias), trait anger, and free-will (covariates).
Independent samples t-tests were run to test the differences in means between the NGRI and self-defense conditions for the dependent variables plea fairness, verdict fairness, and verdict certainty. A chi-square test for independence was run to test the relationship between plea (NGRI and self-defense) and verdict.

**Step 7**

For Hypothesis 2 (that an insanity plea would increase anger as compared to a plea of self-defense): A MANCOVA was run to assess if there was a significant difference on anger scores (as measured by the EAQ and state anger scores) for the participants assigned to the different plea levels while controlling for the potential effect of IDAS-R scores, age, and trait anger.

**Step 8**

For Hypothesis 3 (that the increase in anger would mediate the relationship between the insanity plea and any increase in punitive judgments): A series of multiple regressions were run to see how well anger (a measured by state anger and EAQ anger) explained punishment worthiness and controllability. See Figure A2 for a model of the proposed relationship between plea, anger, and punitive judgment with covariates included.

**Step 9**

Post Hoc analyses were run for all hypotheses where necessary.
Chapter 3: Study One Results

Data Transformations

Given that Study One did not have high frequencies of “other” racial groups, race was divided into two groups, Caucasian and “all other” racial groups. The variables free-will, age, and trait anger were transformed in order to address skew. After transforming the skewed variables, skew was reduced to acceptable levels (below 0.40).

Manipulation Check

Removal of participants who failed the manipulation check questions resulted in conditions that were uneven and skewed, thus all participants were included in data analysis. The majority of participants in the NGRI condition (84%) were able to correctly identify the plea. 65.3% of participants in the self-defense condition were able to correctly identify the plea. 46.6 percent of the participants in the no information condition were able to correctly identify that no information was given with regard to plea.

Regression Analysis

In order to explore the hypothesized mediation model (see Figure A1), which was that the relationship between plea (A) and punitive judgment (C) is mediated by anger (B), a series of linear regressions were conducted. Establishing mediation usually involves four steps. Step One establishes that the independent variable is correlated with the dependent variable. Step Two establishes that the independent variable is correlated with the mediator. Step Three establishes that the mediator affects the dependent variable. Step Four establishes that the mediator completely mediates the relationship between the independent and dependent variable. It is important to note that, in this study, punitive judgment (C) is comprised of more than one item or subscale—Controllability and Punishment Worthiness. Thus more than one regression was conducted to explore the relationship between plea (A) and punitive judgment (C).
Controllability.

Step One. A linear regression was conducted to ascertain the extent to which plea (A) predicted controllability scores (C). Plea did not significantly predict controllability scores, \( \beta = -.017, 95\% \text{ CI [-.486, .451]}, p = .942 \). Plea predicted -0.3% of the total variance in controllability scores. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for Controllability.

Punishment Worthiness.

Step One. A linear regression was carried out to ascertain the extent to which plea (A) predicted punishment worthiness (C). Plea significantly predicted punishment worthiness, \( \beta = -1.232, 95\% \text{ CI [-2.163, -0.301]}, p = .010 \). Plea also predicted 1.8% of the variance in punishment worthiness.

Step Two. Since the regression model significantly predicted punishment worthiness for the independent variable, a regression analysis was then run to see whether the independent variable predicted the hypothesized mediation variable (anger as measured by state anger and EAQ anger). It is important to note that anger was assessed using two measures. Thus, more than one regression was carried out to ascertain the extent to which plea (A) predicted anger (B).

First, a linear regression was conducted to ascertain the extent to which plea (A) predicted the mediation variable state anger (B). Plea did not significantly predict state anger, \( \beta = -.27, 95\% \text{ CI [-.93, .39]}, p = .42 \). Plea predicted 0.2% of the variance in state anger.

Next, a linear regression was conducted to ascertain the degree to which plea (A) predicted EAQ anger (B). Plea did not significantly predict EAQ anger, \( \beta = -.15, 95\% \text{ CI [-.39, .080]}, p = .20 \). Plea predicted 0.4% of the variance in EAQ anger. Since a mediation effect was not established, MANCOVA analyses were run to test the relationship between the variables.

Hypothesis 1 (MANCOVA)

To assess whether an insanity plea increases punitive judgments as compared to a plea of self-
defense, a MANCOVA was conducted to test mean differences between plea (NGRI, self-defense, no information) and degree of punitive judgment (controllability and punishment worthiness) while controlling for IDAS-R scores (insanity bias), trait anger, and free-will. A statistically significant multivariate effect across the plea groups for the combined dependent variables (punishment worthiness and controllability) was obtained: Wilks’ Lambda = .98, F (4, 744) = 2.40, p = .049 (see Table K3). A statistically significant univariate effect was also obtained, showing that punishment worthiness differed significantly across plea conditions: F (2, 373) = 3.72, p = .025 (see Table K4).

A post-hoc (Bonferroni) analysis indicated that participants in the NGRI (M = 36.6, SE = .63) and no info (M = 36.7, SE = .61) groups found the defendant more punishment worthy than participants in the self-defense (M = 34.60, SE = .64) group. However, only the difference between the no info and self-defense groups was significant (see Table K5).

**Hypothesis 1: Independent Samples T-Test (Plea Fairness; Verdict Fairness)**

To assess whether an insanity plea increased punitive judgments as compared to a plea of self-defense (with NGRI>self-defense) an independent samples t-test was conducted to test mean differences between an NGRI and self-defense plea and punitive judgments (i.e., plea fairness and verdict fairness). There was a significant difference (p = .013; p = .003) between NGRI (M = 2.18, SD = 1.88; M = 2.41, SD = 1.68) and self-defense (M = 3.86, SD = 2.29; M = 3.21, SD = 2.09) conditions across plea fairness and verdict fairness (see Table K6), such that participants in the NGRI condition rated an NGRI plea and verdict as less fair than their counterparts in the self-defense condition rated a plea and verdict of self-defense (see Table K6).

**Hypothesis 1: Independent Samples T-Test (Verdict Certainty)**

An independent samples t-test revealed no a significant difference between NGRI and self-defense conditions across verdict certainty (see Table K7).
Hypothesis 1: Chi-square Test of Independence (Verdict)

A chi-square test of independence showed no relationship between plea condition and verdict, $X^2 (2, N = 246) = 3.07, p = .22$. The verdict selected by participants did not significantly differ by plea (see Table K8).

Hypothesis 2

To assess whether an insanity plea increased anger, a MANCOVA was conducted controlling for IDAS-R scores, age, and trait anger. The multivariate effect across groups for the combined dependent variables (state anger and EAQ anger) was not significant: Wilks’ Lambda = .984, $F (4, 744) = 1.54, p = .19$) (see Table K9). The univariate effect was also not significant. Thus, anger scores did not differ significantly across conditions (see Table K10).

Hypothesis 3

A multiple regression was run to predict punishment worthiness from anger scores as measured by state anger and EAQ anger. These variables did not statistically significantly predict punishment worthiness, State Anger: $\beta = -.078$, 95% CI [-.248, .092], $p = .092$; EAQ Anger: $\beta = -.142$, 95% CI [-.342, .626], $p = .626$. $R^2 = .002$ (N=376, $p = .662$) (see Table K11).

Similarly, anger scores (as measured by state anger and EAQ anger) did not significantly predict controllability, State Anger: $\beta = -.013$, 95% CI [-.097, .072], $p = .772$; EAQ Anger: $\beta = -.032$, 95% CI [-.274, .209], $p = .792$. $R^2 = .001$ (N=376, $p = .847$) (see Table K12).
Chapter 4: Study Two Methods

**Study Two** was designed to further explore the role that anger might play in punitive judgments toward the insanity defense. In this study, certain factors known to be associated with insanity defense bias were manipulated – specifically, medication non-compliance and prior history (with the victim) to provide insight into the underlying emotional response. It was hypothesized that medication non-compliance would be seen as the biggest norm violation and produce the highest punitive ratings, followed by the prior history condition, both of which would be different than the control condition in which neither variable was present.

Therefore, the overall design for Study Two was a between subjects one factor design with three levels (Responsibility/Norm Violation: “Control/Standard,” “Medication Non-Compliance,” and “Prior History with Victim” for Hypotheses 1 and 2) and a between subjects two factor design (STAS anger and EAQ anger for Hypothesis 3), with the following hypotheses:

1) Increased norm violation/perceived responsibility leads to an increase in punitive judgments (with medication non-compliance>prior history>standard);

2) Increased norm violation/perceived responsibility leads to increased anger (with medication non-compliance>prior history>standard);

3) Increases in anger would lead to increases in punitive judgments.

If the results supported all three hypotheses then this would indicate that anger mediates the relationship between norm violation/perceived responsibility and punitive judgments. A mediation model was designed in order to illustrate the hypothesized mediation model (see Figure A3).

**Participants**

There were 388 participants in the study, recruited via Amazon Mechanical Turk (Mturk). Of the 379 participants, 167 were male and 221 were female. 10.3% were African American, 1.3% were Native
American, 5.9% were Asian, 0.3% were Pacific Islander, 1.8% were biracial, 73.2% were Caucasian, 5.7% were Hispanic, and 1.5% identified as other. Participants were of legal age to consent to participate in a research project. In addition, participants were jury eligible. Thus, participants were: United States citizens, at least 18 years of age, not currently subject to felony charges, and never convicted of a felony. Participants were paid 25 cents for their participation. Overall, 57% of the participants were female. The average age for participants was 34.40 (SD = 12.14).

Materials

Case Vignettes. The vignette used in Study One was modified for Study Two. Thus, participants were randomly assigned to either read: 1) a summary of a homicide case in which the defendant pled not guilty by reason of insanity (NGRI) (“Control/Standard”); 2) the same summary but with an addition that the NGRI defendant had a history of non-compliance with medication (“Medication Non-Compliance”); or 3) the same summary but with an addition that the NGRI defendant had a prior acrimonious history with the victim (“Prior History with Victim”). The plea in all vignettes was the same (NGRI). Information about plea was followed by three to four paragraphs containing information about the case. The vignettes provided brief background information about the victim’s actions prior to his death and information that aided the police in the arrest of the defendant in the vignette. In the summaries, the defendant is charged with second degree murder after the victim was found dead with two stab wounds to the back and the defendant’s fingerprints were found on a murder weapon with eyewitness testimony connecting the defendant to the crime. Each summary presented identical information and only differed with regard to case facts manipulating perceived responsibility (i.e., the medication non-compliance vignette contained a paragraph highlighting the fact that the defendant was prescribed medication but did not take said medication while the prior history vignette contained information about past acrimonious interactions the defendant had with the victim). The vignettes were adapted from stimulus materials that had been used in previous research on the insanity defense
(Louden & Skeem, 2007; Roberts et al., 1987; Schlumper, 2011; Skeem & Golding, 2001) (See Appendix J).

Measures

**Demographics Questionnaire.** Participants completed a demographics questionnaire. The questionnaire asked participants to identify their gender, age, ethnicity, citizenship, whether they were currently subject to felony charges, whether they had ever been convicted of a felony, and their degree of belief in free-will. The mean score for free-will was 7.70 on a 9 point scale. The questionnaire also asked participants, on a scale of 1-9, how they felt about the plea of self-defense (with 1 being the most negative and 9 being the most positive) (See Appendix D).

**Manipulation Check Questionnaire.** Each participant completed a manipulation check questionnaire tailored to the condition to which they were randomly assigned. The questionnaire asked questions that assessed participants’ knowledge of core and relevant components of the case summary they had read (e.g., what was the defendant’s plea) (See Appendix E).

**State Trait Anger Scale (STAS).** As described in Study One. The average score for trait anger, amongst participants, was 16.70 on a 10-40 scale. The Cronbach’s Alpha for the current sample for the full scale was .90, .88 for the trait anger scale, and .90 for the state anger scale (See Appendix F).

**Emotional Arousal Questionnaire (EAQ).** As described in Study One. The Cronbach’s Alpha for the current study was .93 (See Appendix G).

**Punitive Judgment Instrument (PJI).** The same Punitive Judgment Instrument that was developed for Study One was administered in Study Two (See Appendix H).

A factor analysis and Cronbach’s Alpha were calculated to see if the items in the PJI had internal consistency (interrelatedness among the items) and homogeneity (unidimensionality) in order to determine if the items in the PJI would be calculated separately for each participant or grouped together.
A principle components factor analysis, using a direct oblimin rotation, was conducted using IBM SPSS 19 (IBM Corp., 2010) to see if the items in the PJII had common unobserved variables and could be reduced to subscales rather than being calculated separately. The factor analysis demonstrated that items (a) intentionality, (f) blame, (g) punishment, (h) recklessness, and (i) future recklessness were one factor (“Punishment Worthiness”) while items (b) preventability and (c) controllability were another factor (“Controllability”). The items in the controllability factor had primary loadings over .80. The five items in the Punishment Worthiness factor had primary loadings over .50. Three of the five items in the Punishment Worthiness factor had primary loadings over .7 (see Table K134). The Cronbach’s Alpha for the seven items was .85 (See Table K145). The Cronbach’s Alpha for the controllability scale was .71 and .85 for the punishment worthiness scale. The remaining items that were analyzed (plea fairness, verdict fairness, verdict, and verdict certainty) were not included in the factor analysis or Cronbach’s Alpha analysis and were analyzed separately.

The decision to analyze the aforementioned items separately was made for several reasons: 1) Plea fairness, verdict fairness, verdict, and verdict certainty arguably tap into a different aspect of punitive judgment than the items comprising the controllability and punishment worthiness factors; 2) although one could combine plea and verdict fairness (as evidenced by an exploratory factor analysis), it was arguably important to see if participants felt that the issue of plea “fairness” versus verdict “fairness” were separate issues; and 3) verdict was not a continuous variable and thus was not measured on the same scale as the other items in the instrument.

**Insanity Defense Attitude Scale-Revised (IDAS-R).** As described in Study One (See Appendix I). The Cronbach’s Alpha for the current sample was .93 for the full scale, .90 for the strict liability scale, and .90 for the injustice and danger scale.

**Self-Defense Attitudes Scale.** As described in Study One (See Appendix J). The Cronbach’s Alpha for the current study was .92.
Procedure

Participants were told that they were participating in a study on legal decision-making. They were then asked to fill out a demographics questionnaire.

Participants were then randomly assigned to read either: 1) a summary of a homicide case in which the defendant pled not guilty by reason of insanity (NGRI) (same vignette from Study One), 2) the same summary with an added history of non-compliance with medication, or 3) the same summary with an added history of a past acrimonious history with the victim.

Directly after reading a vignette the participants filled out a manipulation check questionnaire. Afterwards all participants filled out the State Trait Anger Scale (STAS). Participants were then asked to fill out the Emotional Arousal Questionnaire (EAQ). Afterwards all participants completed the PJI.

All participants then filled out the IDAS-R and the Self-Defense Attitudes Scale, in that order (the Self-Defense Attitudes Scale was administered to see if attitudes about self-defense were significantly correlated with other variables of interest in the study). Finally, participants were provided with a written debriefing and thanked for their participation. Participants received payment once it was verified that they had completed the study and had not participated more than once.

Data Analysis Plan

Study Two had three hypotheses. Hypothesis 1 stated that: Increased norm violation/perceived responsibility leads to an increase in punitive judgment (with medication non-compliance>prior history>standard). Hypothesis 2 stated that: Increased norm violation/perceived responsibility leads to increased anger (with medication non-compliance>prior history>standard). Hypothesis 3 stated that: Increases in anger would lead to increases in punitive judgments. In order to test these hypotheses, data analyses were conducted in SPSS 19 (IBM Corp., 2010) and conducted in several phases.

Step 1

a. Descriptive statistics were run in order to summarize the data. Measures of central
tendency and spread/dispersion were examined in order to describe the data collected in order to test the hypotheses.

b. Exploratory statistics were run in order to detect outliers and anomalies in the data collected.

Step 2

For Hypothesis 1 (increased norm violation/perceived responsibility leads to an increase in punitive judgment): A factor analysis and Cronbach’s Alpha were run to see if the items in the PJI had internal consistency (interrelatedness among the items) and homogeneity (unidimensionality). The items in the PJI were separated into two groups: Controllability (preventable and controllable) punishment worthiness (intentional, blameworthiness, punishment worthiness, recklessness, and future recklessness). Plea fairness, verdict fairness, verdict, and verdict certainty were analyzed separately.

Step 3

Descriptive statistics, an independent samples t-test, and a one-way ANOVA were used to analyze the manipulation check data.

Step 4

A series of linear and logistic regressions were run to test for a mediation relationship between responsibility conditions, anger, and punitive judgment variables.

Step 5

Since a mediation relationship was not established, correlation, exploratory statistics, and multivariate analysis of data were run to test several assumptions of MANCOVA (correlation between covariates and dependent variables, independence of covariate, normal distribution, and homogeneity of regression slopes). Correlation matrix data was used to determine which variables were highly correlated to the dependent variables and thus would be appropriate to use as covariates in the MANCOVA.
Step 6

For Hypothesis 1: A MANCOVA was run to determine whether differences in punishment worthiness, controllability, plea fairness, verdict fairness, and verdict certainty scores (DVs) existed for differing levels of responsibility (IV), after controlling for the potential effect of IDAS-R scores (insanity bias) (covariate).

A chi-square test for independence was run to test the relationship between differing levels of responsibility and verdict.

Step 7

For Hypothesis 2 (increased norm violation/perceived responsibility leads to increased anger): A MANCOVA was run to assess if there was a significant difference on anger scores (as measured by the EAQ and state anger scores) for the participants assigned to read the different responsibility vignettes while controlling for the potential effect of IDAS-R scores and trait anger. See Figure A4 for a model of the proposed relationship between norm violation, anger, and punitive judgment with covariates.

Step 8

For Hypothesis 3 (increases in anger would lead to increases in punitive judgments): A series of multiple regressions were run to see how well anger (as measured by state anger and EAQ anger) predicted punishment worthiness, controllability, plea fairness, verdict fairness, and verdict certainty. Multiple regressions were run because both anger measures are continuous variables.

Since anger (as measured by state and EAQ anger) was a continuous variable, a discriminant analysis was run to see if anger scores predicted verdict.

Step 9

Post Hoc analyses were run for all hypotheses when necessary.
Chapter 5: Study Two Results

Data Transformations

Given that Study Two did not have high frequencies of other racial groups, race was divided into two groups, Caucasian and all other racial groups. The variables free-will, age, and trait anger were transformed in order to address skew. For the variable that was negatively skewed (free-will), the variable was log transformed (reflect and Log10). For the variables that were positively skewed (age and trait anger) a log transformation (Log10) was performed. After transforming the skewed variables, skew was reduced to acceptable levels (below 0.36).

Manipulation Check

Due to an error when constructing the study on Psychsurveys.com, participants in the control condition were not asked the first manipulation check question. For that reason and in order to avoid imbalance between participant groups, all participants were included in data analysis. With regard to the second and third manipulation check question, analysis of the data showed that the majority of participants, 96.1% had carefully read the vignette and were able to correctly identify whether or not the victim had been stabbed twice in the back. Further analysis of manipulation check data showed that the majority of participants, 95.1% were able to correctly identify whether or not the defendant had been hospitalized.

Regression Analysis

In order to explore the hypothesized mediation model (see Figure A3), which was that the relationship between norm violation/perceived responsibility (A) and punitive judgment (C) is mediated by anger (B), a series of linear and logistic regressions were conducted. It is important to note that, in this study, punitive judgment (C) is comprised of more than one item or subscale—punishment worthiness, controllability, plea fairness, verdict fairness, verdict, and verdict certainty (these subscales/items served as the dependent variables in the regression analyses). The relationship between
norm violation/perceived responsibility and verdict was tested using a logistic regression because verdict was a dichotomous dependent variable (NGRI and guilty after removing the not guilty verdicts; N = 5).

**Controllability.**

**Step one.** A linear regression was conducted to ascertain the extent to which norm violation/perceived responsibility (A) predicted controllability scores (C). Norm violation/perceived responsibility did not significantly predict controllability, $\beta = .22$, 95% CI [-.26, .70], $p = .36$. Norm violation/perceived responsibility predicted 0.2% of the total variance in controllability scores. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for controllability.

**Punishment worthiness.**

**Step one.** A linear regression was then conducted to ascertain the extent to which norm violation/perceived responsibility (A) predicted punishment worthiness (C). Norm violation/perceived responsibility did not significantly predict punishment worthiness, $\beta = .13$, 95% CI [-.80, 1.07], $p = .78$. Norm violation/perceived responsibility predicted 0.0% of the total variance in punishment worthiness. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for punishment worthiness.

**Plea fairness.**

**Step one.** A linear regression was then conducted to ascertain the extent to which norm violation/perceived responsibility (A) predicted plea fairness (C). Norm violation/perceived responsibility did not significantly predict verdict fairness (C), $\beta = -.081$, 95% CI [-.38, .22], $p = .60$. Norm violation/perceived responsibility predicted 0.5% of the total variance in plea fairness. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for plea fairness.
Verdict fairness.

Step one. A linear regression was then conducted to ascertain the extent to which norm violation/perceived responsibility (A) predicted verdict fairness (C). Norm violation/perceived responsibility did not significantly predict verdict fairness (C), $\beta = -.22, 95\% \text{ CI } [-.51, .08], p = .15$. Norm violation/perceived responsibility predicted 0.5% of the total variance in verdict fairness. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for verdict fairness.

Verdict certainty.

Step one. A linear regression was then conducted to ascertain the extent to which norm violation/perceived responsibility (A) predicted verdict certainty (C). Norm violation/perceived responsibility did not significantly predict verdict certainty (C), $\beta = -.06, 95\% \text{ CI } [-.31, .19], p = .63$. Norm violation/perceived responsibility predicted 0.1% of the total variance in verdict certainty. Since the independent variable was not correlated with the dependent variable the mediational analysis was not continued for verdict certainty.

Verdict.

Step one. A logistic regression was conducted to ascertain the degree to which norm violation/perceived responsibility (dummy coded into a dichotomous variable; medication non-compliance and prior history) predicted verdict (NGRI and guilty). The logistic regression model was statistically significant, $\chi^2 = 8.23, p = 0.016$. The model explained 2.9% (Nagelkerke $R^2$) of the variance in verdict and correctly classified 62.7% of cases. Being a participant in the medication non-compliance condition was associated with a 1.82 ($\text{Exp}(B) = 1.82, 95\% \text{ CI } [1.10, 2.99]$) increase in selecting a guilty verdict versus an NGRI verdict. Being a participant in the prior history condition was associated with a 1.98 ($\text{Exp}(B) = 1.98, 95\% \text{ CI } [1.18, 3.34]$) increase in selecting a guilty verdict versus an NGRI verdict.
Step two. After establishing a predictive relationship between the independent variable and the
dependent variable, the next step involved testing for a predictive relationship between the
independent variable and the hypothesized mediation variable. Thus, two linear regressions were run to
test the relationship between the independent variable (plea) and the hypothesized mediator variables
(state anger and EAQ anger).

First, a linear regression was conducted to ascertain the extent to which norm
violation/perceived responsibility (A) predicted state anger (B). Norm violation/perceived responsibility
did not significantly predict state anger (B), $\beta = -0.41$, 95% CI [-0.99, 0.17], $p = 0.17$. Norm
violation/perceived responsibility predicted 0.5% of the variance in state anger.

Next, a linear regression was conducted to ascertain the extent to which norm
violation/perceived responsibility (A) predicts EAQ anger (B). Norm violation/perceived responsibility did
not significantly predict EAQ anger (B), $\beta = -0.083$, 95% CI [-0.32, 0.15], $p = 0.49$. Norm violation/perceived
responsibility predicted 0.1% of the variance in EAQ anger.

Since a mediational relationship was not established MANCOVA analyses were run to test the
relationship between the variables.

Hypothesis 1 (MANCOVA)

To assess whether increased norm violation/perceived responsibility leads to an increase in
punitive judgments (with medication non-compliance>prior history>standard), a MANCOVA was
conducted on type of norm violation/perceived responsibility and degree of punitive judgment
(controllability, punishment worthiness, verdict fairness, verdict, and verdict certainty) while controlling
for IDAS-R scores (insanity bias). There was no significant multivariate outcome, in respect of the
combined dependent variables across the norm violation groups: Wilks’ Lambda = 0.98, $F (10, 760) =
55.928, p = 0.64$ (see Table 15). There were also no univariate outcomes (see Table K16).
Hypothesis 1: Chi-square Test of Independence (Verdict)

A chi-square test of independence was performed to examine the relation between norm violation and verdict. The relation between these variables was not significant, $X^2 (4, N = 388) = 8.86, p = .07$. The verdict selected by participants did not significantly differ by plea (see Table K17).

Hypothesis 2 (MANCOVA)

To assess whether increased norm violation/perceived responsibility leads to increased anger (with medication non-compliance>prior history>standard), a MANCOVA was conducted to ascertain differences in means between type of norm violation/perceived responsibility and degree of anger while controlling for IDAS-R scores and trait anger.

A statistically significant multivariate effect across conditions for the combined dependent variables (state anger and EAQ anger) was obtained: Wilks’ Lambda = .97, F (4, 754) = 3.39, p = .009 (see Table K18). The univariate outcome showed that state anger and EAQ anger differed across the groups of norm violation: state anger (F (2, 378) = 6.276), p = .002) and EAQ anger (F (2, 378) = 3.859, p = .022) (see Table K19). A post-hoc (Bonferroni) analysis indicated that participants in the medication non-compliance group (M = 14.3, SE = .38; M = 3.19, SE = .15) reported more anger (state and EAQ), after reading the vignettes, than participants in the prior history group (M = 12.5, SE = .39; M = 2.61, SE = .16) (see Table K20).

Hypothesis 3 (Multiple Regression and Discriminant Analysis)

A multiple regression was run to predict punishment worthiness from anger scores as measured by state anger and EAQ anger. These variables significantly predicted punishment worthiness, State Anger: $\beta = -.266, 95\% CI [-.46, -.07], p = .009$; EAQ Anger: $\beta = 1.068, 95\% CI [.57, 1.56], p = .000, R^2 = .045$ (N=385, p = .000) (see Table K21).

A multiple regression was run to predict controllability from anger scores as measured by state anger and EAQ anger. Overall, the model/variables significantly predicted controllability scores, $R^2 = .017$
(N=385, p = .040). However, only EAQ anger added to the prediction, State Anger: $\beta = -.083$, 95% CI [-.19, .020], p = .11; EAQ Anger: $\beta = .333$, 95% CI [.076, .59], p = .011 (see Table K22).

A multiple regression was run to predict plea fairness from anger scores as measured by state anger and EAQ anger. These variables did not statistically significantly predict plea fairness, State Anger: $\beta = -.032$, 95% CI [-.097, .033], p = .34; EAQ Anger: $\beta = .039$, 95% CI [-.12, .20], p = .64. $R^2 = .002$ (N=385, p = .62) (see Table K23).

A multiple regression was run to predict verdict fairness from anger scores as measured by state anger and EAQ anger. These variables did not statistically significantly predict verdict fairness, State Anger: $\beta = -.024$, 95% CI [-.040, .088], p = .467; EAQ Anger: $\beta = .036$, 95% CI [-.20, .12], p = .66, $R^2 = .001$ (N=385, p = .77) (see Table K24).

A multiple regression was run to predict verdict certainty from anger scores as measured by state anger and EAQ anger. Overall, the model/variables did not significantly predict verdict certainty, $R^2 = .014$ (N=385, p = .062). However, EAQ anger added to the prediction (while state anger did not), State Anger: $\beta = -.027$, 95% CI [-.079, .026], p = .33; EAQ Anger: $\beta = .15$, 95% CI [.022, .29], p = .022 (see Table K25).

Discriminant analysis was used to test whether differences in anger would lead to differences in verdict. The overall Chi-square test was significant (Wilks’ Lambda = .958, Chi-square = 16.4, df = 4, Canonical correlation = .20, p = .003) (see Table K26). Thus, the variables predict verdict at a statically significant level. The variables were better able to predict NGRI (72%) and Not Guilty (60%) verdicts than they were able to predict Guilty (15.4%) verdicts. Overall, 36.9% of the cases are classified correctly.
Chapter 6: Discussion

Study One

Hypotheses, Major Findings, Interpretation. Study One had three hypotheses. 1) An insanity plea would increase punitive judgment as compared to a plea of self-defense; 2) An insanity plea would increase anger as compared to a plea of self-defense; and 3) Increases in anger would lead to increases in punitive judgment. In this study, perceptions of controllability, punishment worthiness, plea fairness, verdict fairness, verdict, and verdict certainty were used to measure punitive judgment.

The results supported Hypothesis 1 (that, an insanity plea would increase punitive judgments as compared to a plea of self-defense) in part but did not support either Hypothesis 2 (that an insanity plea would increase anger as compared to a plea of self-defense) or Hypothesis 3 (that increases in anger would lead to increases in punitive judgment).

With regard to Hypothesis 1, in terms of punitive judgment, potential jurors considered a plea and verdict of NGRI to be less fair than a plea and verdict of self-defense, given the same case facts.

With regard to Hypothesis 1, jurors were also significantly more likely to see the defendant as blameworthy, punishment worthy, reckless and potentially reckless in the future when no information was given about plea as compared to a plea of self-defense. This finding might seem surprising given that Goldberg, Lerner, and Tetlock (1999) found that individuals are more punitive only when the actor goes unpunished (but not when the actor is punished or no information is given about punishment). However, their study explored the relationship between primed anger and its influence on punitive judgments with regard to unrelated acts. In this current study, participants were making punitive judgments on the act directly related to their primed anger.

Overall, these findings suggest that the insanity defense is subject to bias (as evidenced by the increase in some punitive judgments rendered when a defendant pled insanity as compared to when a defendant pled self-defense).
Previous Research. In general, the findings from Study One are supported by previous research. For example, previous research suggests that individuals feel that the “insane” should be punished (Hans, 1986) and when individuals have a choice between NGRI, GBMI, and guilty vs. NGRI and guilty, given the same case facts (representing a prototypical NGRI case), individuals are more likely to choose GBMI (Robert and Golding, 1991). In their study, NGRI verdicts were given 60% of the time in NGRI vs. guilty conditions, and only 35% of the time in NGRI vs. guilty vs. GBMI conditions. The results of their study show that even in a prototypical insanity case, jurors desired a more punitive verdict (thus the drift to GBMI when it is an available verdict option).

Given previous research on the insanity defense, it is not surprising that potential jurors (in this study) determined that a plea and verdict of NGRI were unfair (compared to a plea of self-defense) and were more likely to find the defendant guilty (as compared to when the defendant plead self-defense). The results of this current study reinforce data suggesting that even if case facts fit a defense of insanity, potential jurors will still desire the defendant punished regardless of what the law prescribes.

Although not all of Study One’s hypotheses were supported, this study expanded upon previous research by comparing insanity to another comparable defense, in this case self-defense. Previous research, generally, focused either on attitudes about the insanity defense or verdict selection in insanity cases. This current study provided perspective on how individuals react to the insanity defense in comparison to another affirmative defense. This allowed exploration of not only whether potential jurors are biased toward the insanity defense but also whether this bias extends to other similar defenses or is specific to the insanity defense. This is important because it helps rule out the possibility that the bias shown toward the insanity defense is no greater than the bias that potential jurors exhibit toward any other affirmative defense.

The fact that this current study showed differences between pleading insanity and pleading self-defense, suggests that there is something about the insanity defense that elicits a more punitive
response (in some regards) and that potential jurors do not regard all affirmative defenses in the same way. Both NGRI and self-defense are affirmative defenses. Thus, they are both a defense in which the defendant can introduce evidence, which, if found credible, will negate liability, even though the defendant has to acknowledge that he committed the alleged acts (Robinson, 1982).

NGRI and self-defense differ in that NGRI is an excuse defense and self-defense is a justification defense. In the legal system, justification means that the act in question was justifiable and the defendant’s conduct permissible. So, the defendant’s behavior is approved and the consequences of their actions are seen as fair (Robinson, 1982). An excuse defense differs from a justification defense in that the defendant is exempt from criminal liability because of a quality/characteristic they possess as opposed to some quality or characteristic of the events that preceded the defendant’s actions. In order to meet criteria for an excuse defense at least one of four conditions must be met: (1) the act is not voluntary; (2) the actor does not perceive the physical nature or consequences of their actions; (3) the actor does not know his actions are wrong or criminal; or, (4) the actor is unable to control his actions (Robinson, 1982). Thus, justification is based on the quality of the act (or the situation) which justifies the defendant’s actions whereas excuse is based on some quality in the defendant that frees them from liability due to the effect of that characteristic on the defendant’s status or capacity.

As previously theorized in this dissertation, it is possible that the differences between NGRI and self-defense, seen in this study, occur because insanity (or a pre-existing mental illness) is not seen as a “justifying condition” thus NGRI is not seen as a legitimate excuse or a legitimate defense. Thus, a plea of insanity results in greater levels of punitive judgment than a plea of self-defense. Individuals perhaps can more readily accept that they (or the defendant) cannot control the acts of others than they can accept that they (or the defendant) cannot control their own actions. Thus, self-defense is considered a “justification” defense (e.g., the defendant’s actions were justified and do not warrant punishment)
while insanity is seen as an “excuse” defense (e.g., a defendant’s attempt to excuse his/her criminal behavior and avoid deserved punishment).

This theory is supported by the fact that, in field research, excuses and mitigating conditions do not always seem to reduce the desire for retribution, at least with respect to the insanity defense, even though this reduction is seen in laboratory studies (Vidmar, 2001). When looking at insanity cases, results from field studies suggest that individuals do not perceive insanity as a legitimate defense and that members of the community perceive the defendant as responsible and worthy of punishment (Vidmar, 2001).

**Alternative Explanations of the Findings.** The lack of support for Hypotheses 2 and 3, while potentially explained by limitations of the study (which will be discussed later) can also be accounted for by alternative theories. In particular, correlation data from the current study suggests that other variables such as disgust, contempt, and fear (in addition to anger) were also correlated with the independent and dependent variables. Thus, it is possible that plea did not significantly increase anger scores, and anger scores did not significantly predict punitive judgments, because anger scores are not only affected by plea, and punitive judgments are not only affected by anger, but also by other emotions such as contempt, disgust, and/or fear. Literature suggests that moral outrage occurs when individuals feel a moral transgression has occurred (and that moral outrage is a combination of anger and disgust as well as possibly contempt) (Peter-Hagene, Jay, and Salerno, 2014). Thus, it is possible that plea alone does not affect anger levels but only affects anger when levels of other emotions such as contempt, disgust, and fear are at certain levels. Along the same lines, it is possible that anger alone does not affect punitive judgments but only affects punitive judgments when levels of other emotions are at certain levels.

Existing literature in moral psychology suggests that when individuals observe a moral transgression they feel moral outrage. In the literature, some studies define moral outrage as a cognitive
(e.g., attributions of blame), behavioral (e.g., desire to punish), and emotional response (e.g., anger) to perceived bad behaviors (Carlsmith, Darley, & Robinson, 2002; Fiske & Tetlock, 1997; Lotz, Okimoto, Schlosser, & Fetchenhauer, 2011; Skitka, Bauman, Mullen, 2004; Tetlock et al., 2000; Tetlock, Kristel, Elson, Green, & Lerner, 2000). In general, the greater the level of moral outrage felt, the more harm an individual feels has occurred, and the more punishment the individual feels is necessary to nullify the harm caused and restore the balance of justice (Peter-Hagene, Jay, and Salerno, 2014). Thus, moral outrage increases the likelihood of punitive judgments. Additionally, while some existing literature defines moral outrage as anger other literature defines moral outrage as a combination of anger and disgust (Peter-Hagene, Jay, & Salerno, 2014). In that study, Peter-Hagene, Jay, and Salerno (2014), found that it was the combination of anger and disgust that predicted how much moral outrage individuals felt towards offenders. Furthermore, and most importantly, neither emotion worked independently to increase moral outrage. The impact of one (on moral outrage) was dependent on the impact of the other. So, if an individual felt angrier this would only lead to an increase in moral outrage if the individual had also experienced at least a moderate level of disgust (Peter-Hagene, Jay, & Salerno, 2014). Thus, although people often believe that anger and moral outrage are one and the same, research indicated that anger is unrelated to moral outrage if the angry individual is not simultaneously experiencing disgust (Peter-Hagene, Jay, & Salerno, 2014). The reverse was also found to be true. Disgust was unrelated to moral outrage if the disgusted individual was not simultaneously experiencing anger. Thus, one cannot predict moral outrage from anger without also knowing how disgusted an individual was. This might potentially explain why plea alone was not able to predict or account for an increase in anger in the current study and why anger alone was not able to affect punitive judgments. It is possible that one cannot effectively or reliably predict anger from plea or punitive judgment from plea without also knowing how disgusted an individual was (or without also additionally knowing how much contempt and/or fear they felt).
Limitations. There were a number of limitations that potentially impacted the findings of Study One. For example, because Mturk participants are completely anonymous it is not possible to verify demographic information and Mturk workers may not have truthfully answered the demographic information required to participate in this study. Furthermore, Mturk provides a lack of environmental control. While some Mturk workers may be conducting the study in a quiet environment with few distractions, other Mturk workers may be engaged in any number of other activities, or exposed to any number of distractions, while participating in the study. This possibility is especially problematic for a study like the one conducted for this dissertation since it relies heavily on attention and emotion.

Another potential limitation of this study was the use of vignettes. Although the use of vignettes allows for consistency, there is something lost in ability to elicit as strong an emotional reaction as another form of presenting case information. In addition, with regard to the vignette used in Study One, although based on a vignette successfully used in prior research, the vignette was significantly pared down and simplified so that the same vignette could be used in each condition (thus eliminating the potential impact of differing case facts on the results). Thus, the insanity vignette may not have been able to elicit the level of emotional reaction necessary to tease apart any differences in anger between participants in different conditions.

One of the methodological issues encountered in the study, that potentially affected the results, was that participants in the no information (about plea) condition were not asked if they thought a plea and verdict of NGRI/self-defense would be fair. This omission was intentional as the participants in the no information condition received no information about plea and thus would have been unable to answer the two aforementioned items. However, this omission presented an issue when it came time to analyze the data. Since only two of the three conditions were asked the two questions regarding plea and verdict fairness, it was not possible to run a MANCOVA on those particular items. Thus, an independent samples t-test was run for the items addressing plea fairness and verdict fairness. Another
methodological issue occurred for the item addressing what verdict participants would choose to give the defendant. While participants in the NGRI and self-defense conditions only had three options to choose from, the participants in the no information condition had four options to choose from making a MANCOVA analysis also hard to run for the verdict item. Thus, an independent sample t-test was also run on verdict and verdict certainty.

**Generalizability.** Research suggests that Mturk users in the United States better reflect the U.S. population that the traditional college pool often used for research. Thus, with regard to gender, race, age, and education Mturk workers better represent the U.S. population than university students and are at least as representative as other internet samples (Paolacci, Chandler, & Ipeirotis, 2010; Berinsky, Huber, & Lenz, 2011). Thus, the practical implications of the findings are that individuals pleading insanity are subject to a greater level of bias than those who do not plead NGRI. This fact is concerning considering it should be perceived in the same way other affirmative defenses are perceived. However, the data suggest that this is not the case. In which case, defendants pleading NGRI may not be getting their 6th amendment right to a fair trial.

**Impact.** Given the aforementioned, there are possible avenues to consider such as whether there is some way to alert jury members about their potential bias or anger as studies have shown that making individuals aware of the aforementioned can reduce the effect of bias or negative emotions (Galinsky & Moskowitz, 2000; Plant & Devine, 2001; Rudman, Ashmore, & Gary, 2001; Richeson & Nussbaum, 2004; Casey, Warren, Cheesman, and Elek, 2012). Even the clinical literature on anger indicates that psychoeducation and awareness of anger helps to reduce anger in individuals (DeLucia, 2004; Glancy & Saini, 2005; Jongsma & Bruce, 2011). According to bias reduction literature there are several potential strategies that could help alleviate bias (Casey, Warren, Cheesman, and Elek, 2012; Kang, Bennett, Carbado, Casey, Dasgupta, Faigman, Godsil, Greenwald, Levinson, & Mnookin, 2012). In addition, since judges are not immune to bias strategies should target both judges and jurors.
The literature suggests that knowledge of bias and the negative impact it can have on judgment, decision-making, and behavior motivates individuals to reduce their bias. By itself, knowledge of bias and its impact cannot eradicate or combat bias (Green, Carney, Pallin, Ngo, Raymond, Iezzoni, & Banaji, 2007). However, it may be the impetus that fosters the accrual of tools that more effectively combat bias. Thus, an important initial strategy could involve educating judges and jurors about insanity defense bias and how that bias can impact judgment and decision-making. Research suggests that motivation to reduce bias and be egalitarian occurs when an individual receive facts about bias. In other words, if judges and potential jurors are convinced that there is a problem they will be motivated to address said problem. For judges, this education can take place outside of the courtroom. For jurors, judges can potentially spend time discussing bias and its impact during jury selection and make an effort to remind jurors about bias over the course of the trial.

Another strategy suggested in the literature is to foster an appreciation of and sensitivity to group and individual differences if judges and jurors are involved in a trial involving a group that is subject to bias. Research indicates that a “color blind” approach (ignoring/avoiding differences between social groups) is not only an ineffective way to reduce bias but also actually increases bias (Rudman, Ashmore, & Gary, 2001; Richeson & Nussbaum, 2004). Thus in insanity defense cases, jurors should be encouraged to think about and ask questions about the bias that the mentally ill, in general, or those raising the insanity defense, in particular, face. Furthermore, they should be encouraged to think about and ask questions (especially during deliberations) about how the particular mental illness or deficit, in question, could have impacted behavior at the time of the crime (given the insanity defense standard they are being asked to consider).

In addition to education and fostering appreciation and sensitivity to bias and differences, the literature suggests providing judges and jurors with research based techniques that are clear, specific, and concrete. Thus, for example, it may not be enough to simply tell jurors not to be biased or to
suppress any stereotypes they may endorse about the mentally ill or those who plead insanity. In fact, doing so is likely to activate a “rebound effect” that may actually increase bias. One technique that has worked in bias reduction is asking individuals to engage in perspective taking exercises, such exercises involve imagining themselves in the other person’s shoes (Galinsky & Moskowitz, 2000).

Literature on the effect of emotions on judgment and decision-making suggests that in order to reduce intuitive reasoning that potentially leads to biased judgments (especially in emotionally charged cases) individuals need a sufficient amount of time and cognitive resources in order to carefully and comprehensively process case facts. Thus, in the case of judges, it might be useful for the judge to take more time preparing for cases involving the insanity defense or to take more time going over the facts of a case before rendering a decision.

Another potential strategy involves feedback. Research suggests that when individuals receive information that others are not biased in some regard they are more likely to work on addressing their biased attitude and behaviors (Casey, Warren, Cheesman, and Elek, 2012; Kang, Bennett, Carbado, Casey, Dasgupta, Faigman, Godsil, Greenwald, Levinson, & Mnookin, 2012). Feedback is most effective when: 1) the source is perceived as legitimate and respected; 2) it focuses on the decision-making process as opposed to the decision itself and; 3) when the feedback is offered before an individual comes to a decision (Plant & Devine, 2001). Once an individual makes up their mind it is harder to get him or her to change it (Lerner & Tetlock, 1999). It is also important that the feedback does not make the individual feel forced or pressured to change their views. Otherwise, feedback may have the opposite effect and cause the individual to think and act in more biased ways.

**Future Research.** Considering the current findings, potential implications of the results, and potential remedies for insanity defense bias there are many avenues that future research on this topic should/can take. Examining the relationship between anger and punitive judgments within an NGRI group, given one particular set of case facts, might allow researchers to explore differences between
participants who significantly differ with regard to their emotional response and punitive judgments in NGRI cases. Also, if case facts were delivered to participants in a medium designed to elicit the emotional response that would be generated from a real trial, anger might be more salient, and therefore, have a stronger influence on outcomes. The studies in this paper looked at the effect of plea on anger and punitive judgments but it would be interesting to see if participants anger levels changed after receiving information about plea. In other words, one could design a study in which participants would be randomly assigned to one of three groups. The participants would all be presented with the same case facts in which the defendant pleads NGRI. Emotional arousal and punitive judgments would be measured. Then participants would receive information about verdict (Guilty, Not Guilty, or NGRI). Then emotional arousal and punitive judgments would be measured again. This would allow one to test the way in which punishment dissipates/affects emotional arousal.

It is also clear that the potential role of other relevant emotions needs to be explored. It seems likely that, at a minimum, disgust and fear could be influencing people’s responses. Preliminary, exploratory, MANOVA analyses conducted during this study indicated that contempt and fear (independently and when interacting with each other and plea) significantly affected anger. Disgust, independently and when interacting with contempt or fear also significantly affected anger. Preliminary exploratory data also indicated that contempt significantly effects punitive judgment when controlling for condition. The data also showed a significant interaction effect for contempt and disgust on punitive judgment. Thus, the nature of the relationship between plea and multiple negative emotions (i.e., anger, disgust, fear, and contempt) needs to be further explored in order to tease apart how the aforementioned cluster of negative emotions work together and independently to impact punitive judgment.

In the current studies, participant’s reaction to the defendant’s actions and plea were measured with a series of items addressing punitive judgment. Additional work is needed to develop a scale with
necessary validation steps to improve the ability to measure punitive judgment. Finally, efforts to minimize the effects of bias toward the insanity plea need to be tested and developed so that meaningful bias reduction can be accomplished.

**Study Two**

**Hypothesis, Major Findings, Interpretation.** Study Two had three hypotheses. Hypothesis 1 stated that: Increased norm violation/perceived responsibility leads to an increase in punitive judgments (with medication non-compliance>prior history>standard). Hypothesis 2 stated that: Increased norm violation/perceived responsibility leads to increased anger (with medication non-compliance>prior history>standard). Hypothesis 3 stated that: Increases in anger lead to increases in punitive judgments.

The data from the study supports Hypothesis 2 but did not support Hypothesis 1 and only supports Hypothesis 3 in part. The results of the study showed that changing/increasing responsibility case facts increased level of anger (Hypothesis 2) and that anger scores could predict verdict selection to a statistically significant degree (Hypothesis 3).

**Previous Research.** The results of the study showed that when case facts increased responsibility on the defendant’s part, potential jurors experienced an increase in anger. Participants in the medication non-compliance group felt more anger, after reading the vignettes, than participants in the prior history group, as measured by state anger and EAQ anger.

This is consistent with the psychological literature on anger, when an individual is seen as being responsible for their actions they are more likely to elicit anger from an observer. Furthermore, if an event that triggers anger is seen as a breach of standards and norms then this will lead to a strong degree of anger and potentially lead to aggressive behavior. This has been shown to occur because the angry individual has come to the conclusion that something did occur, or could occur, that should not. In addition, the likelihood and degree of anger are greater if events are also appraised as: (a) intentional, (b) preventable or controllable, (c) unwarranted, and (d) blameworthy (Deffenbacher, 2011). The
aforementioned appraisals then lead to a desire to enact retribution. According to Vidmar’s (2001, pp. 292-293) retribution model: “(1) there is a perceived rule or norm violation; (2) the rule violator’s intention is perceived as blameworthy; (3) the combination of (1) and (2) threatens or actually harms values related to the perceiver’s personal self, status, or internalized group values; (4) the emotion of anger is aroused; (5) the cognitions and emotions foster reactions against the violator; (6) during or following punishment the anger dissipates, cognitions return toward homeostasis, and the rule or norm is perceived to be vindicated.”

A defendant not complying with medication would seemingly make the defendant seem more responsible and thus this information would elicit anger from participants. In addition, it is easy to see how the defendant’s lack of medication compliance would be perceived as intentional, preventable or controllable, unwarranted, and/or blameworthy. So, the defendant has engaged in behavior that is seen as a norm violation and as blameworthy. The combination offends the values of the participant, leads to anger, and then leads to a desire to render more punitive judgments.

**Alternative Explanations of the Findings.** Like Study One, the results of Study Two potentially suggest that other emotions such as contempt, disgust, and fear might need to be investigated in order to fully conceptualize the relationship between plea, emotion, and punitive judgments. As previous research suggests, it is likely that anger alone cannot account for punitive judgments. This could explain why anger scores did not impact degree of punitive judgments.

**Limitations.** Although the current data and previous research support Hypothesis 2, the data did not support Hypothesis 1 and only supported Hypothesis 3 in part (nor was a mediational relationship established). A number of methodological limitations could have affected the findings. As in Study One, Study Two was vulnerable to the limitations associated with online studies in general and the use of Mturk in particular. In addition, similarly to Study One, the use of vignettes in the study may not have elicited a strong enough emotional response. Finally, it is possible that the case facts that were
manipulated in order to increase responsibility were not perceived by participants as characterizing more or less responsibility. Thus, the non-compliance and prior history conditions made the defendant appear more responsible than the standard condition. However, non-compliance and prior history (at least as presented in this particular study) may have evoked the same (or similar) perceptions of responsibility. As a result, significant differences would not be detected overall with regard to the impact of condition on punitive judgments or on anger.

**Future Research.** According to Vidmar’s (2001) retribution model, when individuals perceive another’s act as a rule or norm violation the rule violator’s intention is perceived as blameworthy. Furthermore, the perceiving individual’s values, related to self, status, or the group, are threatened or harmed. This results in feelings of anger which results in further emotions and cognitions that foster punitive reactions toward the violator.

The insanity defense literature suggests that certain variables/case facts can trigger perceptions of norm violation and feed into the insanity myths identified by Perlin. For example, insanity defense research already indicates that case facts related to planfulness and medication compliance can affect attributions of blame and punishment in insanity cases (Robert & Golding, 1991; Whittmore & Ogloff, 1995). Thus, some future avenues of research could involve manipulating other responsibility case facts (along with planfulness and medication non-compliance) to see not only what other kinds of facts impact punitive judgments and anger but to also explore whether research can tease apart more clearly if there are certain facts/violation that are worse than others.

**General Conclusion**

Overall, the data from both studies suggest that at least in some ways the law is not “reason free from passion.” Potential jurors considered a plea and verdict of NGRI to be less fair than a plea and verdict of self-defense. The data also suggested that level of anger affected the degree to which a defendant was perceived as blameworthy, punishment worthy, reckless and potentially reckless in the
future. Additionally, level of anger also affected the degree to which a defendant’s actions were seen as controllable and preventable (controllability). This suggests that when the insanity defense is involved, the defendant may not be able to obtain his 6th amendment right to a fair trial. Given the goals of the legal system it is important to further explore the role of emotions in insanity defense bias and to further study effective bias reduction tools and strategies.
Appendix A: Figures

**Figure 1. Proposed Mediation Relationship between Plea, Anger, and Punitive Judgment**

**Figure 2. Proposed Mediation Relationship between Plea, Anger, and Punitive Judgment with Hypothesized Covariates**
Figure 3. Proposed Mediation Relationship between Norm Violation/Perceived Responsibility, Anger, and Punitive Judgment

Figure 4. Proposed Mediation Relationship between Norm Violation/Perceived Responsibility, Anger, and Punitive Judgment with Hypothesized Covariates
Appendix B: Study One Vignettes

Case Description (NGRI Condition)

The defendant has been charged with second degree murder and has entered a plea of **NOT GUILTY BY REASON OF INSANITY.**

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.

The defendant stated that he had felt threatened by the victim. The convenience store clerk testified that he had actually hired the defendant to clean the store’s parking lot but had changed his mind when the defendant had started harassing customers. The defendant’s uncle testified that the defendant had been staying with him for the past two weeks since moving to town. The defendant’s uncle also stated that the defendant had confided in him that he thought a particular store customer was out to get him and that the defendant felt that he might need to protect himself if he ran into the customer again.

Case Description (Self-Defense Condition)

The defendant has been charged with second degree murder and has entered a plea of **NOT GUILTY BY REASON OF SELF-DEFENSE.**

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.
The defendant stated that he had felt threatened by the victim. The convenience store clerk testified that he had actually hired the defendant to clean the store’s parking lot but had changed his mind when the defendant had started harassing customers. The defendant’s uncle testified that the defendant had been staying with him for the past two weeks since moving to town. The defendant’s uncle also stated that the defendant had confided in him that he thought a particular store customer was out to get him and that the defendant felt that he might need to protect himself if he ran into the customer again.

Case Description (No Plea Information Given Condition)

The defendant has been charged with second degree murder.

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.

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Appendix C: Demographic Questionnaire

1. My gender is:
   __Male __Female

2. I am ________ years old.

3. I consider myself to be:
   __ African American __ Native American __ Asian
   __ Pacific Islander __ Biracial __ Caucasian
   __ Hispanic __ Other (Specify___________)

4. Are you a citizen of the United States?
   YES_____ or NO______

5. Are you currently subject to felony charges?
   YES_____ or NO______

6. Have you ever been convicted of a felony charge?
   YES_____ or NO______

7. To what degree do you believe in free-will?
   Not at all------1-------2-------3-------4-------5-------6-------7-------8-------9-------Extremely

8. On a scale of 1-9, how do you feel about the plea of self-defense (with 1 being the most negative and 9 being the most positive).
   Negatively------1-------2-------3-------4-------5-------6-------7-------8-------9-------Positively
Appendix D: Manipulation Check Questionnaire

Case Description (1.1)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
   d) Self-Defense

Was the victim stabbed twice in the back?
   a) Yes
   b) No

Was the defendant ever hospitalized for mental health issues?
   a) Yes
   b) No

Case Description (1.2)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
   d) Self-Defense

Was the victim stabbed twice in the back?
   a) Yes
   b) No

Case Description (1.3)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
   d) Self-Defense

Was the victim stabbed twice in the back?
   a) Yes
   b) No
Case Description (2.1)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
   d) Self-Defense

Was the victim stabbed twice in the back?
   a) Yes
   b) No

Was the defendant ever hospitalized for mental health issues?
   a) Yes
   b) No

Case Description (2.2)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
   d) Self-Defense

Was the victim stabbed twice in the back?
   a) Yes
   b) No

Was the defendant ever hospitalized for mental health issues?
   a) Yes
   b) No

Once released from the hospital did the defendant take medication prescribed to him?
   a) Yes
   b) No

Case Description (2.3)

What was the defendant’s plea?
   a) Guilty
   b) Not Guilty
   c) Guilty by Reason of Insanity
d) Self-Defense

Was the victim stabbed twice in the back?
  a) Yes
  b) No

Was the defendant ever hospitalized for mental health issues?
  a) Yes
  b) No

Did the defendant have a prior history with the victim?
  a) Yes
  b) No
Appendix E: State-Trait Anger Scale

Please report the intensity of your feelings right now:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
<td>Somewhat</td>
<td>Moderately</td>
<td>Very much so</td>
</tr>
</tbody>
</table>

I feel angry
I am furious
I feel irritated
I am mad
I am burned up
I feel like hitting someone
I feel like breaking things
I feel like banging on the table
I feel like yelling at somebody
I feel like swearing

Please rate how you generally feel:

<table>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td></td>
<td>Almost never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Almost always</td>
</tr>
</tbody>
</table>

I have a fiery temper
I am quick-tempered
I am a hotheaded person
I fly off the handle
I feel infuriated when I do a good job and get a poor evaluation
It makes me furious when I am criticized in front of others
I feel annoyed when I am not given recognition for doing good work
I get angry when I’m slowed down by others mistakes
When I get mad, I say nasty things
When I get frustrated, I feel like hitting someone
Appendix F: Emotional Arousal Scale

Circle the number on the scale that best describes the *greatest amount* of each emotion you felt as a direct result of the plea entered by the defendant. On this scale, 0 means you did *not feel even the slightest bit* of the emotion and 8 is the *most you have ever felt in your life:*

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amusement</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Anger</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Arousal</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Confusion</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Contempt</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Contentment</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Disgust</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Embarrassment</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Fear</td>
<td>Most you have felt in your life.</td>
</tr>
<tr>
<td>Emotion</td>
<td>Scale Representation</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Happiness</td>
<td>1-8</td>
</tr>
<tr>
<td>Interest</td>
<td>1-8</td>
</tr>
<tr>
<td>Pain</td>
<td>1-8</td>
</tr>
<tr>
<td>Relief</td>
<td>1-8</td>
</tr>
<tr>
<td>Sadness</td>
<td>1-8</td>
</tr>
<tr>
<td>Surprise</td>
<td>1-8</td>
</tr>
<tr>
<td>Tension</td>
<td>1-8</td>
</tr>
</tbody>
</table>
Appendix G: Punitive Judgment Instrument

Please circle the number that best represents your opinion:

Not at all--------1--------2--------3--------4--------5--------6--------7--------8--------9--------Extremely

How intentional were the defendant's actions?
How preventable were the defendant’s actions?
How controllable were the defendant’s actions?
How fair would entering a **PLEA** of (Insert Plea) be?
How fair would a **VERDICT** of (Insert Verdict) be?
To what extent should the defendant be blamed?
To what extent should the defendant be punished?
How reckless did the defendant seem to be?
How reckless might the defendant be in future situations?
What verdict would you choose to give the defendant (Pick One):
Not Guilty By *(Insert Plea)*, Guilty, or Not Guilty
How certain are you (on a 1-9 scale) that this is the appropriate verdict?
Appendix H: Insanity Defense Attitudes Scale – Revised

Instructions: 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. Indicate your level of agreement with each of the following items by pairing each item with a number based on this scale:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly</strong></td>
<td><strong>Disagree</strong></td>
<td><strong>Disagree</strong></td>
<td><strong>Neutral</strong></td>
<td><strong>Slightly</strong></td>
<td><strong>Agree</strong></td>
<td><strong>Slightly</strong></td>
<td><strong>Agree</strong></td>
</tr>
<tr>
<td><strong>Disagree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

___ I believe that people should be held responsible for their actions no matter what their mental condition.

___ I believe that all human beings know what they are doing and have the power to control themselves.

___ 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.

___ I believe that mental illness can impair people’s ability to make logical choices and control themselves. R

___ A defendant’s degree of insanity is irrelevant: if he commits the crime, then he should do the time.

___ The insanity defense returns disturbed, dangerous people to the streets.

___ 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.

___ As a last resort, defense attorneys will encourage their clients to act strangely and lie through their teeth in order to appear “insane.”

___ Perfectly sane killers can get away with their crimes by hiring high-priced lawyers and experts who misuse the insanity defense.

___ The insanity plea is a loophole in the law that allows too many guilty people to escape punishment.

___ We should punish people who commit criminal acts, regardless of their degree of mental disturbance.
It is wrong to punish people who commit crime for crazy reasons while gripped by uncontrollable hallucinations or delusions. R

Most defendants who use the insanity defense are truly mentally ill, not fakers. R

Some people with severe mental illness are out of touch with reality and do not understand that their acts are wrong. These people cannot be blamed and do not deserve to be punished. R

Many of the crazy criminals that psychiatrists see fit to return to the streets go on to kill again.

With slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom.

It is wrong to punish someone for an act they commit because of any uncontrollable illness, whether it be epilepsy or mental illness. R

I believe that we should punish a person for a criminal act only if he understood the act as evil and then freely chose to do it. R

For the right price, psychiatrists will probably manufacture a “mental illness” for any criminal to convince the jury that he is insane.

Instructions: Please place a check mark over the corresponding number.

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

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

23. How much do you care about the insanity defense?
<table>
<thead>
<tr>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Very Much</th>
</tr>
</thead>
</table>
Appendix I: Self-Defense Attitudes Scale

**Instructions:** For each of the statements below, please indicate to what extent you agree or disagree.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Slightly Disagree</td>
<td>Neutral</td>
<td>Slightly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

The plea of self-defense should be abolished.
The plea of self-defense is mainly a rich person’s defense.
As a juror, I would never vote for a self-defense plea regardless of the facts and circumstances of the case.
In general, I am opposed to the plea of self-defense.
The plea of self-defense is a loophole that allows too many guilty people to go free.
As a juror, I could not vote for the plea of self-defense, even if the law allowed me to.
I am opposed to a plea of self-defense under any circumstances.
People should be held responsible for their actions no matter what their reason (i.e. self-defense).
A lot of people commit crimes and “get away with it” by using a plea of self-defense.
The plea of self-defense allows dangerous criminals to escape responsibility by not sending them to prison.
With slick attorneys and a sad story, any criminal can use a plea of self-defense to manipulate their way to freedom.
Appendix J: Study Two Vignettes

Case Description (Medication Non-Compliance Condition)

The defendant has been charged with second degree murder and has entered a plea of NOT GUILTY BY REASON OF INSANITY.

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.

The convenience store clerk testified that he had actually hired the defendant to clean the store’s parking lot but had changed his mind when the defendant had started harassing customers. The defendant’s uncle testified that the defendant had been staying with him for the past two weeks since moving to town. The defendant’s uncle also stated that the defendant had confided in him that he thought people were out to get him and that he often felt the need to protect himself. The uncle was not aware that for the past several years, the defendant had been in and out of mental hospitals where he was treated for various mental illnesses.

His medical records confirmed several hospital admissions where the defendant was given medication for his condition. The medication improved his condition while in the hospital but once released his problems seemed too much for him to control, even while he was medicated.

Case Description (Control Condition)

The defendant has been charged with second degree murder and has entered a plea of NOT GUILTY BY REASON OF INSANITY.

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of
the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.

The convenience store clerk testified that he had actually hired the defendant to clean the store’s parking lot but had changed his mind when the defendant had started harassing customers. The defendant’s uncle testified that the defendant had been staying with him for the past two weeks since moving to town. The defendant’s uncle also stated that the defendant had confided in him that he thought people were out to get him and that he often felt the need to protect himself. The uncle was not aware that for the past several years, the defendant had been in and out of mental hospitals where he was treated for various mental illnesses.

His medical records confirmed several hospital admissions where the defendant was given medication for his condition. The medication improved his condition while in the hospital but once released his problems seemed too much for him to control. Records indicate this was often due to his refusal to take his medication once released from the hospital. Medical reports indicate that in the weeks leading up to the victim’s death the defendant had not been taking the medication prescribed to him.

**Case Description (Prior History Condition)**

The defendant has been charged with second degree murder and has entered a plea of NOT GUILTY BY REASON OF INSANITY.

The victim, age 30, often walked to the grocery store across the street from his apartment building. One evening, he went to the store but had not returned after several hours. One of his friends, decided to go to the store himself to check if he was still there. Not finding him, he returned to the victim’s apartment and called the police, who found the victim’s body behind the store. The medical examiner confirmed that the victim had died as a result of being stabbed twice in the back. A knife found at the scene was confirmed to be the murder weapon. On the knife the police found fingerprints which matched those of the defendant, who was picked up a block away from the store. The police decided to fingerprint him after the store clerk stated that the defendant had left the area shortly after the victim did. Upon further inspection, the police noticed that defendant had blood on his hands. Additionally, two eyewitnesses stated that they saw the defendant wandering in the store’s parking lot and then leave abruptly just after the victim left the store.

The convenience store clerk testified that he had actually hired the defendant to clean the store’s parking lot but had changed his mind when the defendant had started harassing customers.
In fact, the victim was one of the customers the clerk had seen the defendant harassing on more than one occasion. The clerk recalled that the victim and defendant had heated exchanges on numerous occasions.

The defendant’s uncle testified that the defendant had been staying with him for the past two weeks since moving to town. The defendant’s uncle also stated that the defendant had confided in him that he thought people were out to get him and that he often felt the need to protect himself. The uncle was not aware that for the past several years, the defendant had been in and out of mental hospitals where he was treated for various mental illnesses. His medical records confirmed several hospital admissions where Green was given medication for his condition.
Appendix K: Tables

Study One

Table 1

*Factor Loadings from Principle Component Factor Analysis*

<table>
<thead>
<tr>
<th>Component</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentional</td>
<td>.56</td>
<td>.25</td>
</tr>
<tr>
<td>Preventable</td>
<td>.017</td>
<td>.91</td>
</tr>
<tr>
<td>Controllable</td>
<td>-.003</td>
<td>.92</td>
</tr>
<tr>
<td>Blameworthiness</td>
<td>.82</td>
<td>.063</td>
</tr>
<tr>
<td>Punishment</td>
<td>.93</td>
<td>-.084</td>
</tr>
<tr>
<td>Worthiness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recklessness</td>
<td>.90</td>
<td>-.001</td>
</tr>
<tr>
<td>Future Recklessness</td>
<td>.91</td>
<td>-.064</td>
</tr>
</tbody>
</table>

Table 2

*Reliability Statistics*

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.88</td>
<td>.89</td>
</tr>
</tbody>
</table>

Table 3

*Multivariate Tests*

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>(F)</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDAS-R</td>
<td>.91</td>
<td>17.5</td>
<td>2.00</td>
<td>372</td>
<td>(p &lt; .001)</td>
<td>.086</td>
</tr>
<tr>
<td>Trait Anger</td>
<td>.98</td>
<td>4.23</td>
<td>2.00</td>
<td>372</td>
<td>.015</td>
<td>.022</td>
</tr>
<tr>
<td>Freewill</td>
<td>.97</td>
<td>6.37</td>
<td>2.00</td>
<td>372</td>
<td>.002</td>
<td>.033</td>
</tr>
<tr>
<td>Condition</td>
<td>.98</td>
<td>2.40</td>
<td>4.00</td>
<td>744</td>
<td>.049</td>
<td>.013</td>
</tr>
</tbody>
</table>
Table 4

Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDAS-R</td>
<td>Punishment</td>
<td>1701</td>
<td>1</td>
<td>1701</td>
<td>34.5</td>
<td>p &lt; .001</td>
<td>.085</td>
</tr>
<tr>
<td></td>
<td>Worthiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Controllability</td>
<td>160</td>
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<td>160</td>
<td>12.2</td>
<td>.001</td>
<td>.032</td>
</tr>
<tr>
<td>Trait Anger</td>
<td>Punishment</td>
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<td>1</td>
<td>277</td>
<td>5.63</td>
<td>.018</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>Worthiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Controllability</td>
<td>1.49</td>
<td>1</td>
<td>1.49</td>
<td>.11</td>
<td>.74</td>
<td>.000</td>
</tr>
<tr>
<td>Freewill</td>
<td>Punishment</td>
<td>222</td>
<td>1</td>
<td>222</td>
<td>4.52</td>
<td>.034</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>Worthiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Controllability</td>
<td>164</td>
<td>1</td>
<td>164</td>
<td>12.5</td>
<td>p &lt; .001</td>
<td>.033</td>
</tr>
<tr>
<td>Condition</td>
<td>Punishment</td>
<td>367</td>
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<td>3.72</td>
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<tr>
<td></td>
<td>Worthiness</td>
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</tr>
<tr>
<td></td>
<td>Controllability</td>
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<td>.009</td>
<td>.001</td>
<td>.999</td>
<td>.000</td>
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<tr>
<td>Error</td>
<td>Punishment</td>
<td>18385</td>
<td>373</td>
<td>49.3</td>
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<td></td>
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<tr>
<td></td>
<td>Worthiness</td>
<td></td>
<td></td>
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<td></td>
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<td>Controllability</td>
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<td>13.1</td>
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Table 5

Pairwise Comparisons

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<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) Condition</th>
<th>(J) Condition</th>
<th>Mean Difference (I- J)</th>
<th>Std. Error</th>
<th>Sig. a</th>
<th>95% Confidence Interval for Difference a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment Worthiness</td>
<td>NGRI</td>
<td>No Info</td>
<td>-.117</td>
<td>.88</td>
<td>1.00</td>
<td>-2.23 - 2.00</td>
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<tr>
<td></td>
<td>Self Defense</td>
<td>No Info</td>
<td>2.05</td>
<td>.90</td>
<td>.070</td>
<td>-1.12 - 4.22</td>
</tr>
<tr>
<td></td>
<td>Self Defense</td>
<td>NGRI</td>
<td>.117</td>
<td>.88</td>
<td>1.00</td>
<td>-2.00 - 2.24</td>
</tr>
<tr>
<td></td>
<td>No Info</td>
<td>Self Defense</td>
<td>2.17</td>
<td>.88</td>
<td>.043</td>
<td>.047 - 4.29</td>
</tr>
<tr>
<td></td>
<td>Self Defense</td>
<td>NGRI</td>
<td>-2.05</td>
<td>.90</td>
<td>.070</td>
<td>-4.22 - .12</td>
</tr>
<tr>
<td></td>
<td>No Info</td>
<td>Self Defense</td>
<td>2.17</td>
<td>.88</td>
<td>.043</td>
<td>-4.29 - -.047</td>
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</table>
### Table 6

**Independent Samples Test**

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Plea</td>
<td>6.22</td>
<td>.013</td>
<td>-.395</td>
</tr>
<tr>
<td>Fairness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.97</td>
<td>.003</td>
<td>-.331</td>
</tr>
<tr>
<td>Verdict</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairness</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 7

**Independent Samples Test**

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Verdict</td>
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<td>Certainty</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 8

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
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</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
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<td>2</td>
<td>.22</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>246</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9

Multivariate Tests

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<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDAS-R</td>
<td>Wilks' Lambda</td>
<td>.98</td>
<td>3.59</td>
<td>2</td>
<td>372</td>
<td>.029</td>
</tr>
<tr>
<td>Age</td>
<td>Wilks' Lambda</td>
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<td>3.26</td>
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<td>372</td>
<td>.039</td>
</tr>
<tr>
<td>Trait Anger</td>
<td>Wilks' Lambda</td>
<td>.87</td>
<td>27.10</td>
<td>2</td>
<td>372</td>
<td>.000</td>
</tr>
<tr>
<td>Condition</td>
<td>Wilks' Lambda</td>
<td>.98</td>
<td>1.54</td>
<td>4</td>
<td>744</td>
<td>.19</td>
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Table 10

Tests of Between-Subjects Effects

<table>
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<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDAS-R</td>
<td>State Anger</td>
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<td>1</td>
<td>12.1</td>
<td>.50</td>
<td>.48</td>
<td>.001</td>
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<tr>
<td></td>
<td>EAQ Anger</td>
<td>20.6</td>
<td>1</td>
<td>20.6</td>
<td>6.86</td>
<td>.009</td>
<td>.018</td>
</tr>
<tr>
<td>Age</td>
<td>State Anger</td>
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<td>1</td>
<td>106</td>
<td>4.45</td>
<td>.036</td>
<td>.012</td>
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<tr>
<td></td>
<td>EAQ Anger</td>
<td>15.5</td>
<td>1</td>
<td>15.4</td>
<td>5.13</td>
<td>.024</td>
<td>.014</td>
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Table 11

Regression Analysis for Anger Predicting Punishment Worthiness

<table>
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<th>Standardized Coefficients</th>
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<tbody>
<tr>
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<td>Std. Error</td>
<td>Beta</td>
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<td>1</td>
<td>(Constant)</td>
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Table 12

Regression Analysis for Anger Predicting Controllability

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<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<td>State Anger</td>
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<td>.043</td>
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Study Two

Table 1

Factor Loadings from Principle Component Factor Analysis

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<td>Intentional</td>
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<tr>
<td>Preventable</td>
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<td>.871</td>
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<tr>
<td>Controllable</td>
<td>.123</td>
<td>.812</td>
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<tr>
<td>Blameworthiness</td>
<td>.711</td>
<td>.184</td>
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<tr>
<td>Punishment</td>
<td>.690</td>
<td>.235</td>
</tr>
<tr>
<td>Worthiness</td>
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<td></td>
</tr>
<tr>
<td>Recklessness</td>
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<tr>
<td>Future Recklessness</td>
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<td>-.177</td>
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Table 14

Reliability Statistics

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<td>.847</td>
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Table 15

Multivariate Tests

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<th>Effect</th>
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<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<tbody>
<tr>
<td>IDAS-R</td>
<td>Wilks' Lambda</td>
<td>.58</td>
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<td>380.000</td>
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<td>55.928</td>
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**Table 16**

Tests of Between-Subjects Effects

<table>
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<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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</thead>
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<tr>
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<td>902.448</td>
<td>72.637</td>
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<td>560.299</td>
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<td>560.299</td>
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<td>551.611</td>
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<td>.000</td>
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<td>152.443</td>
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<td>152.443</td>
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<td>8.895</td>
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<td>.489</td>
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<td>2</td>
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<td>.742</td>
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<td>20.606</td>
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<td>10.303</td>
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<td>.083</td>
<td>.013</td>
</tr>
<tr>
<td>Condition Verdict Fairness</td>
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<td>.809</td>
<td>2</td>
<td>.404</td>
<td>.115</td>
<td>.891</td>
<td>.001</td>
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<td>384</td>
<td>41.815</td>
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<td></td>
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<tr>
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**Table 17**

Chi-Square Tests

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<td>Pearson Chi-Square</td>
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<td>N of Valid Cases</td>
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**Table 18**

Multivariate Tests

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<th>Effect</th>
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<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
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<tr>
<td>IDAS-R</td>
<td>Wilks' Lambda</td>
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<td>12.8a</td>
<td>2</td>
<td>377</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Trait Anger</td>
<td>Wilks' Lambda</td>
<td>.89</td>
<td>23.5</td>
<td>2</td>
<td>377</td>
<td>p &lt; .001</td>
</tr>
<tr>
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<td>Wilks' Lambda</td>
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<td>3.39</td>
<td>4</td>
<td>754</td>
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### Table 19

**Tests of Between-Subjects Effects**

<table>
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<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<tr>
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<td>State Anger</td>
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<td>1</td>
<td>72.2</td>
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<td>.058</td>
</tr>
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<td>849</td>
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<td>849.4</td>
<td>46.4</td>
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<td>.11</td>
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<td>.049</td>
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### Table 20

**Pairwise Comparisons**

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<th>(J) Condition</th>
<th>Mean Difference (I- J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval for Difference</th>
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<tr>
<td>State Anger</td>
<td>NGRI Control</td>
<td>NGRI Med Non Compliance</td>
<td>-1.17</td>
<td>.53</td>
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<td>-2.45 - .11</td>
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<td></td>
<td></td>
<td>NGRI Prior History</td>
<td>.69</td>
<td>.55</td>
<td>.62</td>
<td>-.63 2.01</td>
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<tr>
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<td>NGRI Control</td>
<td>NGRI Med Non Compliance</td>
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<td>.084</td>
<td>-.11 2.45</td>
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<td>.53</td>
<td>.002</td>
<td>.58 3.15</td>
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<td>NGRI Control</td>
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<td>NGRI Control</td>
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<td>-.42 .67</td>
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<td>NGRI Control</td>
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<td>-.078 .98</td>
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<td>NGRI Prior History</td>
<td>NGRI Control</td>
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<td>.22</td>
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<td>.048 1.11</td>
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<td>NGRI Control</td>
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<td>.23</td>
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<td>-.67 .42</td>
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<td>NGRI Control</td>
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<td>-1.11 -.048</td>
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Table 21

Regression Analysis for Anger Predicting Punishment Worthiness

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
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<td>Beta</td>
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<td>0.27</td>
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Table 22

Regression Analysis for Anger Predicting Controllability

<table>
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<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
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<td>Std. Error</td>
<td>Beta</td>
</tr>
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<td></td>
<td></td>
<td></td>
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<td>(Constant)</td>
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<td>State Anger</td>
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<td>-0.103</td>
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</table>

Table 23

Regression Analysis for Anger Predicting Plea Fairness

<table>
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<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
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<td>Std. Error</td>
<td>Beta</td>
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Table 24

Regression Analysis for Anger Predicting Verdict Fairness

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<th>Standardized Coefficients</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
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<td>Beta</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>(Constant)</td>
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</table>
### Table 25

**Regression Analysis for Anger Predicting Verdict Certainty**

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<th>Model</th>
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<th>Standardized Coefficients</th>
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</tr>
</thead>
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<td>Beta</td>
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### Table 26

**Discriminant Analysis Wilks' Lambda**

<table>
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<tr>
<th>Test of Function(s)</th>
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<th>Chi-square</th>
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<td>.87</td>
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References


