DO ATTRIBUTIONS OF AGGRESSIVE SUBTYPES AFFECT THE OUTCOME OF CRIMINAL CASES?

by

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DEDICATION

I would like to dedicate this hard work to my family. Being away from them for the past eight years has been just as difficult for me as it has been for them and has added more pressure to the already anxious journey which is graduate school. Yet, despite the distance and my busy life, they have always found a way to support me and make me feel like they are right there with me every step of the way.

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With this degree I hope to inspire and encourage the next generation in our family. As Persian immigrants living in Sweden, my parent's generation has had to work hard and sacrifice their own hopes and dreams in the hope that my generation would lead a happy life in which we realize all our goals. With this degree, I have taken the first step in doing so and showed my parents that all their hard work and sacrifice is paying off.

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ABSTRACT

The insanity defense has been of special interest to psycholegal scholars. Despite its notoriety, the defense is infrequently used and rarely successful. Yet, it is surrounded by myths and misconceptions. These misconceptions put the credibility of our legal system at stake since it can cause biased jurors to judge criminal acts based on their own misconstruals of what it means to find a defendant Not Guilty By Reason of Insanity (NGRI). In order to understand and eventually counteract these biases, it is important to first understand what they are.

In recent years, developments in aggression research have strengthened the link between psychology and criminal law. Most notably, the reactive/instrumental dichotomy of aggression has been suggested as a model by which both fields can understand and explain behavior. The dichotomy has had many legal applications but has yet to be used to examine the insanity defense.

The purpose of the current study was to examine how attributions of reactive and instrumental aggression as well as the defendant's level of psychosis and injury to victim affect the outcome of NGRI cases. This study further explored whether police officers would make distinct attributions of reactive and instrumental aggression, or assume one general dimension of aggression.

Participants were 101 defendants in the state of Wisconsin who had pleaded NGRI. The data were collected during the defendant's competency to stand trial hearings and were based on police reports of the defendant's violent offenses.

In the first model, reactive and instrumental aggression were treated as separate factors. In the second model, they were combined into one factor of premeditation.

Structural Equation Modeling of the data did not reveal good fit, but indicated a few significant pathways. Given these results, further exploratory and confirmatory analyses were run.

Results indicated that police officers rated aggressive behavior as one factor (premeditation) and that premeditation was the only significant predictor of outcome. These findings suggest that jurors, and potentially judges, may have certain biases toward defendants whose cases indicate a high level of planning. Possible implications and future directions are discussed.

CHAPTER I

INTRODUCTION

‘‘Our collective conscience does not allow punishment where it cannot impose blame.’’

-Judge David Bazelon[1]

Despite a long history of mutual influence, the fields of psychology and law still have much to learn from one another. It takes merely one look at our legal history to see that we have an extensive legislative tradition of basing laws on basic assumptions about human behavior. Unfortunately, these assumptions are not always informed by, or even in line with, psychological theory and science (Valdes, 2005). Moreover, even when there is an attempt at considering empirical evidence, there seem to be an ever-revolving door of new theories and trends (Robinson, 1996, pp.183-200). The influence of psychology on law can differ greatly from one state to the next (Sloat & Frierson, 2005). Ultimately, while the justice system may work differently from one jurisdiction to the next, the common goal of law is to protect law-abiding citizens from those who do not abide by the law (Wenzel, Okimoto, Feather & Platow, 2007; Fontaine, 2008). As for these violators of the law, the justice system uses various forms of punishment to penalize them for their deviant behavior and to modify that behavior in hopes of preventing future crimes (Wenzel et al, 2007). There are several aspects of the purpose of punishing offenders: retribution, deterrence (both specific and general), incarceration, rehabilitation, and restoration (Podgor, Henning, Taslitz, & Garcia, 2009, pp. 4-6). Naturally, each theory of

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[1] Cited in Torry, Z.D., & Billick, S.B. (2010). Overlapping universe: Understanding legal insanity and psychosis. *Psychiatry Quarterly, 81,* 253-262.

punishment is important in its own right and they have each made contributions to our criminal justice system. However, our justice system was primarily built on retributive theory and we punish offenders according to retributive principles (Vidmar & Miller, 1980; Robinson, 2000; Aharoni, Weintraub & Fridlund, 2007; Wenzel et al, 2007). Since retribution lies at the base of our punishment system, it affects every aspect of the trial process from jury instruction to severity of sentence (Fontaine, 2007). Given the important role retribution plays in our legal system, any discussion of criminal responsibility should begin with an overview of retributive theory.

1.1. The Retributive Theory of Punishment

The basis of retributive philosophy and policy is that the offender has to receive his[*] "just desserts." In other words, the offender must be punished to the degree that he is culpable and the punishment must fit the crime (*Atkins v. Virginia*, 2002; Morse, 2003; Vidmar 2000; Strelan, 2007; Fontaine 2009b). Retributivists focus on the past, not the future and are therefore not concerned with rehabilitation, deterrence or restoration. Retributivist scholars are only concerned with incarceration to the extent that it is a form of punishment; different forms and other reasons for punishment are all secondary to the main goal of making the offender pay for his wrong-doing because he has made others, whether individuals or society, suffer (Wenzel et al, 2007; Podgor et al, 2009, p.4).

While this concept sounds fair and logical in theory, the true difficulties arise in its practice. How do we decide what is "just desserts"? The just dessert of each crime is

[*] For the purposes of flow and consistency, I have only used the masculine pronouns *he*, *him*, *himself*, and *his*, when referring to hypothetical characters throughout this paper. There is no intended gender or sex bias.

determined by establishing the defendant's degree of culpability (Schroeder et al, 2003). Thus, according to retributive theory, we must first establish the culpability of the offender since punishing offenders who are not culpable would do nothing to serve the purpose of punishment under retributive theory (LaFave, 2003, p.372). There are two main occasions during which courts are faced with the challenge of evaluating an offender's culpability; in questions of criminal intent and when a defendant raises the insanity defense.

1.1.1. Negotiation of Criminal Intent vs. Legal Insanity

American criminal law has two staples on which the guilt of an offender is evaluated, *actus reus* and *mens rea.* Actus reus means "guilty act" and refers to the criminal act itself. Mens rea means "guilty mind" and refers to the intent to commit the criminal act (Podgor et al, 2009, p. 82). In order to be found guilty of a crime, the defendant must have committed the guilty act and must have had the guilty mind to do so. A lack of mens rea negates the intent requirement and, in many jurisdictions, leads to a reduced sentence (Morse, 2003; LaFave, 2009, p.454; Podgor et al, 2009, pp. 103-172, 685-693). In the case of murder, the defendant who did not *intend* to kill the victim is treated differently than the defendant who purposefully or, in some states, knowingly committed the murder (Podgor et al, 2009, p. 104-107). With this distinction, the influence of retribution is clear; we only aim to punish those who deserve to be punished and only punish them in proportion to their guilt, which is established by the criminal act and criminal mental state.

Unfortunately, the lack of criminal intent and the insanity defense are often confused with one another (Podgor et al, 2009, p.677). This may in part be due to the similarities between the diminished capacity defense, which is a partial responsibility defense (LaFave, 2009, p.454), and the insanity defense. The two defenses often share a degree of reduced cognitive capacity and, occasionally, some form of mental illness. If a defendant does not have the cognitive capacity to form intent, he has not met the mens rea requirement and the defense can use the excuse of diminished capacity to argue for a lesser-included crime (Dressler, 1984; Morse, 2003; Faix & Wolber, 2007; LaFave, 2009, p.452; Podgor et al, 2009, p. 103-172). Thus, similar to the insanity defense, the lack of criminal intent, when admissible, can be a defense of excuse. This means that the defendant makes the claim that even if he committed the criminal act, he is not culpable and that the act should be excused (Morse, 2003; Podgor et al, 2009, p. 685). Unlike the insanity defense though, diminished capacity does not have the potential of an acquittal, only a possible reduced sentence (Faix & Wolber, 2007; LaFave, 2009, p.452). An acquittal following a successful insanity defense is, of course, a special form of the verdict where the defendant is committed to a mental institution rather than being incarcerated (LaFave, 2003, p.369)

Furthermore, one of the most important distinctions between diminished capacity and the insanity defense is difference in the burden of proof. The burden of proof of showing criminal intent falls on the prosecutor (to be proven beyond a reasonable doubt) while, in most states, the insanity defense is an affirmative defense that must be proven (by a preponderance of the evidence) by the defense (Butler, 2006). Thus, despite their similarities, the two defenses are not the same and it is important to understand this

distinction. The current paper will focus solely on the insanity defense of Not Guilty by Reason of Insanity (NGRI) during which the defendant admits to committing the actus reus and having the intent, mens rea, to commit the crime.

The challenge facing jurors in insanity cases is, therefore, not whether the defendant committed the act or whether the defendant intended to commit the act but whether the defendant knew that what he was doing was wrong and, in certain states, whether he had control over his actions and whether his actions were the result of a mental disease or defect. To do this, jurors must not only learn about the crime committed but they must also be educated on the purposes of our justice system and base their judgment on what outcome will best serve the insanity standards of the jurisdiction they find themselves in.

1.1.2. Should One Size Fit All?

Two of the main purposes of the justice system are to punish offenders and to prevent future crime (Morse, 2003; Sloat & Frierson, 2005). In order to be sure that our treatment or punishment of offenders is efficient and appropriate, we must first know what and whom we are treating. If an offender's motive for his crime is based on, for example, monetary gain and involves little to no emotion, finding him NGRI and sending him to a mental health institution will do little good. Similarly, if an offender is motivated by anger and commits a violent act in response to a provocation, it might do more harm than good to incarcerate him where he might be further provoked by other inmates and his anger might worsen. It is important for us as scholars to know whether the justice system is adequately and appropriately distinguishing between these very different forms of

aggressive acts because it tell us whether or not we are meeting the purposes of punishment that our justice system is built upon.

As mentioned, the American legal system is in large part based on the theory of retribution, which states that an offender should be punished for his bad acts in proportion to his crime (Fontaine, 2007; Wenzel Okimoto, Feather & Platow, 2007). This theory of punishment goes hand in hand with research on peoples' perceptions of justice which has shown that people want to believe that we live in a just world (Lench & Chang, 2007). As such, we have built our justice system on laws and regulations that we have deemed to be appropriate, just and fair. Subsequently, a representative legal system must follow this sense of fairness and punish offenders only to the degree of their culpability.

Unfortunately, there are many misconceptions among the general public regarding the treatment of mentally ill offenders (Steadman, 1985) and the NGRI verdict has become a hot topic of political debate. The negativity, stemming from a long history of myths regarding the defense, has jeopardized peoples' trust in the justice system and lead to a generally biased public (Steadman, 1985; 1987; Perlin, 1996). Considering the fact that it is members from this general public who serve as jurors in criminal trials, it is crucial to investigate the insanity defense, the characteristics of defendants attempting the defense as well as the myths and the effects of the myths surrounding the defense.

Despite the multiple shifts in NGRI standards, the ultimate purpose of the defense is, and always has been, to punish offenders in proportion to their crime. Research has shown that jurors are more likely to give a more severe punishment to a defendant who has intentionally and deliberately caused harm than to someone who could not help his

actions (Finkel, 1989). This shows that jurors might punish a defendant who has committed a well-planned and goal-directed crime more severely than someone who has acted impulsively and in response to a provocation. This may happen despite the lack of mention of planning or impulsivity in insanity law. There is not always full agreement regarding how to define "planning" of a crime or "impulsive behavior" but at the base of the defense, the characteristics of the crime and the actions of the criminal have always been considered.

In aggression and violence literature, there is a distinction between these two different types of aggressive behavior. Planned and goal-directed behavior is generally referred to as *Instrumental Aggression* while impulsive, provoked aggression is generally referred to as *Reactive Aggression*. The distinction between these subtypes of aggression has been empirically supported (e.g. Dodge, 1991; Cornell, Warren, Hawk, Stafford, Oram, & Pine, 1996; Fontaine, 2007; Shuman & Gold, 2008; Traclet, Rascle, Souchon, Coulomb-Cabagno, & Dosseville, 2008) and the type of aggression displayed often tells an important story about the characteristics of a crime as well as the offender's motivation for committing the crime.

In the current paper, I predict that (1) that instrumental and reactive aggression are attributed as independent factors rather by police officers, (2) the more instrumental aggression is displayed in a given crime, the more severe the sentence will be, (3) the higher level of reactive aggression is used in the crime, the less the severe the sentence will be, (4) the higher level of psychosis is in the aggressor, the less severe the sentence will be, (5) the more severe the injury to the victim is, the more severe the sentence will be, (6) high levels of instrumental aggression will lead to less severe injury to the victim,

(7) a high level of reactive aggression leads to more severe injuries to the victim, (8) a high level of psychosis will lead to more severe injury, (9) that a high level of psychosis will cause low levels of instrumental aggression, and (10) that a high level of psychosis will cause high levels of reactive aggression.

Considering the importance of the characteristics of criminal behavior, and being aware of the potentially damaging effects of misconceptions regarding the insanity defense, this paper will aim to examine characteristics of crimes committed by defendants who plead insanity and the effect those characteristics have on the outcome of the defendants' cases. It is important to note that any discussions of the history and role of the insanity defense in this paper serve as a basis upon which to build the specifics of the current study and a background against which to understand the results of the study. The current paper will not concern itself with arguments regarding whether the insanity defense, in its various forms, should exist or be abolished. This paper aims to be a study in the effects certain specific variables will have on the outcome of NGRI cases.

In this paper I will, (1) review the empirical literature on the psychological aspects of aggression as well as the history of various legal standards for the insanity defense, (2) examine the myths and misconceptions most often associated with the insanity defense, (3) review current insanity law, including the standard used in Wisconsin were these cases for the current paper were heard, (4) discuss the methods used to conduct the current study, as well as present the findings of the study, and (5) conclude with a discussion of the results of the current study and recommendations for future directions.

CHAPTER II

REVIEW OF THE LITERATURE

In law, defendants who raise the insanity plea are either successful or not and defendants who are found to be legally insane can expect the same general outcome of being sent to treatment at a mental institution (Sloat, & Frierson, 2005). The law does not concern itself with the specifics of what form of "insanity" the defendant has displayed. How many, or which, mental disorders the defendant is diagnosed with may be important for mitigation purposes but does not matter when determining the defendants legal insanity. It is in these matters that we find the greatest gap between psychology and law. In law, testimony of any potential diagnosed mental disorder is only admissible to the extent that it supports or refutes arguments regarding the defendant's ability to distinguish right from wrong (*Washington v. United States,* 1967; *State v. Winder,* 2009). Prosecutors and defense attorneys may use expert witnesses to speak to the defendant's mental state but, in many jurisdictions, these experts cannot and do not offer an opinion on whether the defendant is sane or insane by legal standards (*Washington v. United States,* 1967).

In psychology, on the other hand, the specifics of an offender's mental disorder and the motive behind the violent act are crucial components in evaluating a violent person (Eaves et al, 2000; Salekin & Rogers, 2001). The goals of psychology include being able to understand, explain, predict and potentially modify human behavior (Aronson, Akert, & Wilson, 2007). To meet these goals, we have to dissect human behavior and understand not only why people behave the way they do but also how we judge others' behaviors.

2.1. The Psychology Behind Legal Insanity

How and *why* violent acts are committed often influence how jurors judge the violent actor and how the law punishes him. Throughout the history of psychology there have been various theories of aggressive behavior in humans, from theories of demonic possession (Robinson, 1996, p. 202) to evolutionary theories (e.g. Figueredo, Gladden & Hohman, in press) and theories focusing on the social environmental influences on human behavior (e.g. Bandura, Ross, & Ross, 1963; Bandura, 1983). These theories on aggression have undoubtedly caused certain trends and influenced lay peoples' view on the causes of aggression. In order to understand jurors' judgments of defendant's aggressive behavior, it is beneficial to examine the history of aggression research and the trends that may have affected the general public's view on aggressive behavior and violent acts.

2.1.1. Theories of Aggression

Hydraulic vs. Strategic Theories

A visual way of describing the foundational differences between the various theories of aggression is dividing them into two broad categories based on the each theory's explanation for the motivation and process of aggression. The two broad categories of aggression theories have been labeled *hydraulic theories of aggression* and *strategic theories of aggression* (Figueredo & Jacobs, in press).

Hydraulic theories of aggression have been so named because of the explanation they provide for the build-up and release of aggression in people, just as liquid can build up in a container before it is finally released at the point of flooding (Figueredo & Jacobs, in

press). Some of the theories that fall under this category include Freud's psychoanalytic theory of aggression which suggests that aggression builds up in us until we reach the breaking point, or are triggered by some external stimulus, and release that aggression on a target. Many of Freud's infamous psychological terms stem from his theory of aggression; Freud suggested that if we cannot release our aggression onto the person who has caused the aggression in the first place, we will take it out on a more acceptable target. He referred to this mechanism as *displacement* and gave the example of the frustrated worker who could not take his anger out on his boss and, therefore, came home and kicked his dog (Freud, 1915). Another term Freud used in his aggression theory was *catharsis*. Freud believed that the only way to calm down was to unleash our aggression in some way, at some target, and reach *catharsis,* or "cleansing" (Freud, 1922). It is only then, when we have released our built-up anger that we can return to our calm selves. According to Freud, once the tank is empty, the person will be calm until the aggression builds up again.

Another theory that has fallen under the label of hydraulic theories of aggression is the Frustration-Aggression Hypothesis proposed by Dollard and colleagues in the 1930s (Dollard, Doob, Miller, Mowrer, & Sears, 1939). The Frustration-Aggression Hypothesis, which was based on psychoanalytic theory, proposed that frustration always precedes aggression and that aggression, in turn, is a natural consequence of frustration (Dollard et al, 1939, p.1). The argument was that people become frustrated when their goals are thwarted and that this sense of frustration is manifested by aggressive behavior which Dollard described as acts of hostility toward the source of the actor's frustration (Dollard et al, 1939, p. 39). Similarly to the psychoanalytic theory of Freud, the frustration-

aggression hypothesis claimed that once there is a release of aggression, there would be a resting phase before the next outburst since it takes some time to rebuild that aggression.

The second broad category of aggression theories, the strategic theories of aggression, includes theories that describe aggression as intentional, planned action which is displayed only if the actor intends to display it and is used as a means to an end (Figueredo & Jacobs, in press). Unlike the hydraulic theories, which predict aggression to take place in its full extent when there is an external trigger, strategic theories of aggression argue that an aggressive act can happen in a controlled manner and is only displayed if the actor feels that it is more beneficial than detrimental to use aggressive behavior in any given context.

From these two broad theories, often based on the early theories of psychology, have grown more complex reformulations in the form of new theories of aggression.

Berkowitz vs. Bandura

Starting in the 1950s Berkowitz took on the topic of aggression in a series of articles (e.g. Berkowitz, 1958; Berkowitz, Green & Macaulay, 1962; Berkowitz, 1983; 1989; 1990). With a fresh take on the original frustration-aggression model first suggested by Dollard and colleagues (Dollard et al, 1939), Berkowitz argued that frustration creates an unpleasant feeling in people and that it is this negative affect that leads to aggression (Berkowitz, 1989). With his new theory of aggression, Berkowitz had several criticism of the Frustration-Aggression Hypothesis (Berkowitz, 1958; 1989):

1) Berkowitz argued that the model developed by Dollard and colleagues focuses only on forms of *hostile aggression*, that is the actor's intentional attempt to hurt the

source of the experienced frustration, but disregards *instrumental aggression* which is a form of aggression where the actor's intention is to attain some other goal such as social status or money. Thus, according to Berkowitz, the original Frustration-Aggression Hypothesis cannot adequately explain the full spectrum of aggressive behavior because it merely considers one type of aggression (Berkowitz, 1989).

2) Another point of criticism brought up by Berkowitz is the assumption made in the Frustration-Aggression Hypothesis that frustration always leads to aggression (Dollard et al, 1939, p.1). This claim lead to a great deal of controversy (e.g. Bateson, 1941), so much so that one of the authors of the Frustration-Aggression Hypothesis, Miller, himself responded to it. Miller suggested that the original Frustration-Aggression Hypothesis had been overly simplistic in that it had failed to distinguish the instigation of a behavior and the actual behavior itself. Miller admitted that the Frustration-Aggression Hypothesis should have been phrased differently and suggested that aggressive behavior should be seen as one of the responses to instigation, not the *only* consequence of it (Miller, 1941).

3) Berkowitz further argued that Dollard and colleagues' list of the determinants of the frustration to aggression link was incomplete. The Frustration-Aggression Hypothesis suggests that the strength of the instigation to aggression relies on three components, "(1) the strength of instigation to the frustrated response, (2) the degree of interference with the frustrated response, and (3) the number of frustrated response-sequences" (Dollard et al, 1939, p. 28). In addition to these three

components, the Frustration-Aggression Hypothesis also includes "anticipated punishment" as a factor in the determination of whether to behave aggressively (Dollard et al, 1939, p.33). Berkowitz argues that the Frustration-Aggression Hypothesis overlooks individual differences and though there is some mention of personality traits, individual life histories and later personal hierarchies (Miller, 1941), Berkowitz claims the Hypothesis still fails to make a substantial distinction between individuals.

As a solution to the criticism he brings up, Berkowitz proposes a more general link between negative affect and aggression. According to Berkowitz, and his neo-associationist theory of aggression, people display aggression in response to a range of provocations whether they are intentional or accidental, personal or impersonal and legitimate or illegitimate (Berkowitz, 1989). The neo-association model states that there are a wide variety of stimuli that can cause people to have negative affect which is followed by a cognitive appraisal of the situation. Then, depending on the strength of the negative affect and the subsequent cognitive appraisal of the situation, a person may or may not decide to engage in aggressive behavior (Berkowitz, 1990). Thus, Berkowitz argues that frustration can make a person more likely to aggress but that, ultimately, the manifestation of aggressive behavior depends on social cues found in the environment and cognitive appraisals of those cues. With the neo-associationistic model, Berkowitz alleviated the concerns he presented regarding the original Frustration-Aggression Hypothesis' lack of individual differences while still maintaining its role as a so-called "drive theory."

An alternative, but equally popular, theory of aggression starting in the 1950s was the Social Learning theory of aggression suggested by Albert Bandura. Bandura was interested by the research started by Dollard and colleagues in the 1940s but disagreed with their Frustration-Aggression Hypothesis, arguing that motivation for aggression is much more complex and diverse that the Frustration-Aggression Hypothesis. He posited that aggression is not always motivated by a hostile need to cause injury and that aggression is not necessarily the direct and natural consequence of frustration. Instead, Bandura believed that there are situations were aggression is learned, adaptive behavior. He gave the example of a political riot which may seem aggressive and hostile to some but heroic and brave to others depending on personal biases and perceptions of the issue at hand (Bandura, 1962, p.12-13). Thus, he argued, to say that aggression is motivated purely by hostility is to oversimplify a multifaceted area of human behavior.

To fully understand aggressive behavior, Bandura believed that there was a need for empirical research in the area. One of his most famous studies came to be known as the "BoBo doll experiments" (Bandura et al, 1963). Bandura was interested in the concept of vicarious learning and so the study examined whether imitation of aggression was influenced by a model's experience with rewards or punishment. In the experiment, school children were randomly assigned to one of four groups, (1) in the first group, the children observed the aggressive model being rewarded, (2) in the second group, the children observed the aggressive model being punished, (3) the third group was a control group where the model was expressive but did not show aggression, and (4) the fourth group was a second control group where the children were not exposed to a model at all. It was predicted that children in the first group, who witnessed the model being rewarded

for aggressive behavior, would show more imitative aggression than the children in the other three groups. It was further predicted that children in the second group, who observed the model being punished for aggressive behavior, would show less non-imitative aggression and equal amounts of imitative aggression as the children in the two control groups. After being exposed to the models in the four conditions, the children moved on to the testing phase.

During the testing phase, children were put in a room with a baton and two 5-foot "Bobo dolls," a lasso, three balls, a hoola-hoop, plastic farm animals, darts, toy guns to enable aggressive play as well as a doll and dollhouse with furniture, a blackboard, three cotton dolls and building blocks to enable non-aggressive play. The children spent 20 minutes in the room while being observed by judges who were to rate the children's behavior after observing them through a one-way mirror. There were two independent raters who were both blind to which condition they were observing and rating. Any behavior that matched the behavior the children had observed was labeled imitative aggressive behavior whereas aggressive behavior that did not match the video seen by the children was labeled non-imitative aggressive behavior.

The results of the "Bobo doll" study revealed that children who had watched the aggressive model receive rewards engaged in more imitative aggressive behavior than children in the aggression-punished group or the two control groups. There was no significant difference between the children in the aggression-punished group and the two control groups suggesting that when children observe an aggressive model being punished they refuse to imitate the aggressive behavior.

Bandura based his theory of aggression on the behaviorist theories of learning but took it one step further. With a series of studies like the "Bobo doll" experiment, Bandura suggested that people learn not only by rewards and punishments but also by the actions, and the consequences to those actions, of people around them through vicarious learning Thus, he argued, people can learn, relearn and modify behavior based on what they experience as well as what they observe others experiencing. Bandura referred to this theory as *Social Learning* (Bandura, 1962). Bandura's *Social Learning Model of Aggression* states that people learn aggression, as well as other behaviors by direct instruction or observation of others and that the learned behavior can be strengthened by personal experience or vicariously by observing others being rewarded for their aggressive activities (Bandura, Ross & Ross, 1963). In fact, he found that children of parents who prefer aggressive tactics tended to be more aggressive themselves, that communities in which aggression is regarded as a positive trait have higher rates of aggression, and that televised violence has been shown to teach children aggressive techniques and desensitized them toward violence (Bandura, 1962, p. 15).

The theories of Berkowitz and Bandura may seem to be in conflict with each other but in reality they have come to supplement each other and together give us a better and more complete understanding of the factors underlying human aggression. These conflicting theories have laid the basis for more unified theories, which state that there are various types of aggression and that there is more than one source of, and motivation for, aggression. These modern theories focus on the *subtypes* of aggression, which suggest that aggression can take many forms for a variety reasons in different contexts, rather than relying on one almighty theory on the cause of aggression (e.g. Dodge, 1991; Orobio

de Castro, 2005; Raine, Loeber, Gatzke-Kopp, Lynam, Reynolds, Stouthammer-Loeber, & Liu, 2006).

Reactive vs. Proactive Aggression

Research has clearly shown a distinction between various subtypes of aggression (e.g. Dodge, 1991; Cornell, Warren, Hawk, Stafford, Oram, & Pine, 1996; Fontaine, 2007; Fontaine, 2007; Shuman & Gold, 2008; Traclet, Rascle, Souchon, Coulomb-Cabagno, & Dosseville, 2008). Early research on the subtypes of aggression revealed two distinct subtypes of aggression: *reactive aggression* (also often referred to as *hostile aggression*) and *instrumental aggression* (also often referred to as *proactive* aggression).

Reactive aggression is "hot" aggression, which is displayed in response to some form of provocation. It is characterized by impulsive, emotion-laden aggressive behavior and is motivated and driven by the primary goal of harming the perceived provocateur. Instrumental aggression, on the other hand, is "cold" aggression which is characterized by unemotional, planned and goal-directed aggressive behavior. Instrumental aggression is a means to an end rather than being an end in itself and is driven by a desire for a gain of some sort (Dodge 1991; Cornell et al, 1996; Raine et al, 2006; Fontaine, 2007). Setting the ground work for a more comprehensive theory, Berkowitz (1983) saw aggression as primarily reactive, i.e. as an emotional response to a provocation in order to protect oneself or as a reaction to the perceived frustration, while Bandura (1983) had long argued that aggression was mainly instrumental, i.e. planned and goal-driven, and used for personal gain. The reactive/instrumental model of aggression brings these two

theories together and while distinguishing between reactive and instrumental aggression, argues that aggression can take either form (Dodge & Coie, 1987).

Knowledge of the specifics of violent behavior becomes especially useful in the legal field where the goal of the justice system is to punish offenders of violent crimes and to reduce future violent crimes in order to ensure public safety (Morse, 2003; Sloat & Frierson, 2005). There has been great scholarly support (e.g. Eaves, Douglas, Webster, Ogloff, & Hart, 2000) for the important role of these subtypes in assessing risk for future violence and predicting effectiveness of treatment for violent offenders.

The introduction of psychological theory into law should come as no surprise since the overlap between criminal law and psychology has long been an area of interest to scholars and legislators alike. The hope is that if we, as researchers, can understand *why* criminals act the way they do, we might be able to take measures to prevent them from committing future crimes. These issues are especially relevant in a legal context because the legal system essentially consists of a series of judgments of human behavior and what is or is not acceptable. The problem is that even the offenders themselves do not always know why they do what they do. It is, therefore, important to distinguish those who deliberately commit crime from those who are not culpable due to mental disease or defect. An offender's mental condition becomes an important matter of law when a defendant pleads insanity.

2.2. The Law Behind The Insanity Defense

The idea that people cannot and should not always be held responsible for their bad acts is by no means a modern one. Thousands of years ago, mental illness and its

manifestations, was associated with sin in man (Biggs, 1955, pp. 38-39) and mentally ill people were thought to be possessed by demons (Robinson, 1996, p. 62-66) or suffering from mental illness as a punishment from God (Perlin, 1996). In many places, these views on insanity lead to mentally ill people being persecuted and ostracized from their communities. However, despite the horrendous treatment of mentally ill people, there was one arena where there mental illness was excused; in criminal trials.

2.2.1. Wild Beast Test

One of the earliest insanity standards was formulated by the English judge Henry de Braeton in 1256. According to later scholars (Biggs, 1955; Guttmacher, 1961), Judge Braeton had stated that "Such (mad) men are not greatly removed from beasts for they lack reasoning" (Biggs, 1955, p.82). In 1723, that statement was strengthened by another judge, Judge Tracy, who stated that insanity was grounds for expulsion if the defendant did not know what he was doing more than a wild beast would (Platt & Diamond, 1965). This was the origin of the *Wild Beast Test* and was the standard by which criminal responsibility was to be determined until the early 1800s and the case of *Hadfield* (*Rex v. Hadfield,* 1800).

The *Hadfield* case involved a former soldier, James Hadfield, who out of the delusion that he was responsible for saving mankind, tried to assassinate King George III of England. Hadfield claimed that he had chosen the king because it was a crime punishable by death and, thereby, would make Hadfield a well-known martyr upon execution (Simon, 1983). The prosecution tried to convince the court that the level of planning involved, including purchasing a gun and powder as well as hiding the gun, was proof

that Hadfield was not a mad man and that he had been aware of his actions. The defense's strategy was to agree. Hadfield's attorney, Lord Erskine, stated that Hadfield might have planned the act and fully known right from wrong but argued that such planning was no indication that the defendant was mentally sane. Lord Erskine suggested that because Hadfield's actions were the product, or cause, of his mental condition he should not be held criminally responsible. Lord Erskine's strategy worked. The Chief Justice recommended that the jury terminate Hadfield's trial, thereby acquitting him, as he was insane when he committed the crime and should, therefore, not be held responsible for his actions (*Rex v. Hadfield*, 1800).

The Justice's recommendation and Hadfield's subsequent acquittal changed two major components of the insanity defense, (1) it was established that a defendant did not need to suffer from a complete lack of reasoning, and (2) it no longer presumed that a defendant who knows right from wrong is legally sane (Simon, 1983). Even though it took several years for the English courts to abandon the Wild Beast Test, the Hadfield case had set the groundwork for the next landmark case that was yet to come, the case of Daniel McNaughton.

2.2.2. The M'Naughten Rules

One of the most famous cases of the insanity defense is the case that inspired one of the most common forms of the defense; the case of Daniel McNaughton (*Regina v. McNaughton,* 1843). In 1843 Daniel McNaughton fatally shot Edward Drummond, who was the secretary to England's prime minister, believing that Drummond was the prime minister himself. McNaughton claimed he had suffered from paranoid delusions during

the killing and was subsequently found not guilty by reason of insanity. During McNaughton's trial, the prosecutor (or Solicitor General) reminded the jury, based on a speech from the earlier landmark insanity case of *Hadfield,* that it is not enough for the defendant to simply suffer from a delusion, but that it must be proven that he committed the criminal act as a direct effect of that delusion (*Regina v. McNaughton,* 1843). The defense presented several medical experts who stated that McNaughton suffered from delusions and was thought to be insane. Upon hearing the expert witnesses for the defense and with a lack of experts for the prosecution, the judge stopped the trial and stated to the jury that with such overwhelming testimony regarding the defendant's insanity, it left no doubt that the defendant was insane and it would, thus, be of little use to review any further evidence. The judge's comments were all the jury needed and they immediately returned a verdict of not guilty by reason of insanity (Robinson, 1996, pp. 170-171).

With strong encouragement from the queen, who had herself been the target of an assassination attempt by an offender who was later found insane (Robinson, 1996, pp.164-167), and in order to alleviate the general public frustration with the verdict, the English government established a group of high court judges to investigate the insanity defense (Janofsky, Dunn, Roskes, Briskin, &Rudolph, 1996). The investigation lead to the "M'Naughten Rules" which turned the requirements for the insanity defense into the strict insanity defense we know as the M'Naughten standard.

Under the M'Naughten rules, a person is presumed to be sane, unless otherwise proven. M'Naughten further states that a person is not legally sane if, at the time of the crime, "the person was laboring under such a defect of reason, from disease of mind, as

to not know the nature and quality of the act he was doing or, if he did know it that he did not know he was doing what was wrong" (*Regina v. McNaughton,* 1843; Knoll, & Resnick, 2008). Thus, the *M'Naughten* test consist of three elements,

> (1) The defendant has to suffer from a disease or defect of the mind,
> (2) It must be shown that, due to the disease or defect, the defendant did not know the nature and quality of his actions, or
> (3) Even if the defendant knew the nature and quality of his actions, he did not know that what he was doing was wrong (*Regina v. McNaughton,* 1843).

The House of Lords argued this version of the insanity defense would be favorable since it did not require knowledge about the specific laws of a state or land and because it judged the defendant based on his mental state during the specific criminal act he had committed rather than his overall mental capacity (Robinson, 1996, p.173).

A similar case of an actual crime affecting the legal insanity standards was introduced to the United States following the assassination attempt on President Reagan by John Hinckley in the 1980s (*United States v. Hinckley,* 1981). After assaulting President Reagan, Hinckley pleaded insanity and was acquitted of all charges. Much like the consequence of the McNaughton verdict in England, the acquittal of John Hinckley in the U.S. created great controversy (Janofsky et al, 1996). Following the Hinckley trial, the United States Congress passed the Insanity Defense Reform Act of 1984 (IDRA), which set new, stricter standards for the insanity defense and shifted the burden of proof to the defense (Insanity Defense Reform Act, 1984). Under IDRA, the insanity defense became an affirmative defense that required the defendant to prove, by clear and convincing evidence, that he was not sane when committing the criminal act (Feix & Wolber, 2007). With the *M'Naughten* rules and the passing of the IDRA came a wave of criticism from

mental health, medical and legal scholars and practitioners who argued that the standard was too narrow and rendered a successful insanity plea near impossible (Ogloff, Roberts & Roesch, 1993). The criticism of M'Naughten lead to the start of a new chapter in the history of the insanity defense with what came to be known as the Irresistible Impulse test.

2.2.3. Irresistible Impulse

Following the *McNaughton* case, there was a movement of legal scholars who argued that the *M'Naughten* standards had a cognitive bias and should be supplemented to include cases where the defendant might have known right from wrong but could not control his insanity and overcome the strong desire to commit the criminal act created by that insanity (Robinson, 1996, p. 184). The first application of the Irresistible Impulse standard was heard in the Alabama Superior Court in the case of *Parson* (*Parson v. State,* 1887). Parsons was found not guilty by reason of insanity using the irresistible impulse standard as the court determined that,

> [The defendant is not] legally responsible if the two following conditions concur: 1) If, by reason of the duress of...mental disease he had so far lost the power to choose between right and wrong, and to avoid doing the act in question, as that his free agency was at the time destroyed; 2) and if, at the same time, the alleged crime was so connected with such mental disease, in the relation of cause and effect, as to have been the product of it solely (*Parsons v. State,* 1886).

With the *Parson* verdict, the *M'Naughten Rules* and the volitional requirement of the irresistible impulse test came to be used in one form or another in the majority of jurisdictions (with a few exceptions) across the United States (Ogloff et al, 1993).

However, just when it seemed the insanity defense had finally found a home in the legal arena, the revolving door of science and law turned again and caused another shift.

2.2.4. The Durham Rule

An especially illustrative example of advances in the mental health sciences affecting the law and legal standards for insanity is the case of Monte Durham (*Durham v. United States,* 1954). Monte Durham was discharged from the Navy in the mid-1940s after being found unfit to serve due to psychiatric illness. Durham was in and out of mental hospitals, courts and prisons for fraud, breaking-and-entering and parole violations for years after his discharge. After undergoing psychiatric evaluations, Durham was diagnosed with psychosis with psychopathic personality. During his trial, the judge ruled that he be found not guilty by reason of insanity (Robinson, 1996, p. 189).

The verdict changed the traditional right-wrong test with the court stating that a defendant is not criminally responsible for a crime if the criminal act was the consequence of a mental disease or defect (*Durham v. United States,* 1954). The standard adopted by the court had, in fact, relied heavily on the social sciences literature at the time which stated that while a mentally ill person may be capable to tell right from wrong, it does not mean that he should be treated the same as a mentally sane individual. The *Durham* court used the analogy of people with disability being evaluated for an insurance claim and argued that the decision they had made should not be considered any more controversial than changing the standards for disability claims to make sure that they are in line with the medical field (Robinson, 1996, p. 202).

As a result of the *Durham* verdict and in response to fears regarding a potential increase in successful insanity pleas, St. Elizabeth's hospital, which housed Durham, created a new category of diagnosis, known as "sociopathy without mental disorder." This new diagnosis allowed patients receive a diagnosis and still be found competent to stand trial (Robinson, 1996, p. 202). It did, however, not take long before there was another shift in opinion and these "sociopaths" were considered to be mentally ill once again. The temporary shift of the *Durham* verdict had created a standard so broad that the legal system had become overwhelmed with the number of defendants pleading insanity and judges expressed a great deal of frustration with the constantly shifting nature of the social sciences influence on law (Robinson, 1996, pp. 200-203). Out of this need for a narrower standard for the insanity defense, the American Law Institute (ALI) created a new version of the insanity standard in its Model Penal Code.

2.2.5. ALI – Model Penal Code

The American Law Institute's (ALI) standard for criminal responsibility is found in Article 4, § 4.01 of the Model Penal Code which states,

> (1) A person is not responsible for criminal conduct if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity either to appreciate the criminality [wrongfulness] of his conduct or to conform his conduct to the requirements of law.
>
> (2) As used in this Article, the terms "mental disease or defect" do not include an abnormality manifested only by repeated criminal or otherwise antisocial conduct (American Law Institute, 1962).

The ALI standard first saw light with the case of *Brawner* which was argued in Federal Appeals Court (*United States v. Brawner,* 1954). Archie Brawner had been

drinking heavily before attending a party where a fight broke out between Brawner and another partygoer. Brawner got his jaw broken and rushed out of the party claiming he was going to return to the party and that when he did "someone was going to die…" (Ibid.). When Brawner returned, he fired five shots at the crowd, killing one person. A variety of experts evaluated Brawner and diagnosed him with *personality disorder associated with epilepsy*, *psychologic brain syndrome* and *explosive personality.* The defenses expert witness stated that Brawner's actions were a direct result of his mental illness while the prosecution argued that his actions were cause by rage rather than illness (Ibid.).

With this determination, the ALI standard became known as the *Brawner* rule, stating that the criminal act had to be a result of mental disease or defect in order to be excused (Robinson, 1996, p. 204). The ALI standard also added a paragraph stating, "the terms 'mental disease or defect' do not include an abnormality manifested only by repeated criminal or otherwise anti-social conduct" (Robinson, 1996, p. 205).

Thus, the ALI standard differed from previous insanity standards in two significant ways, (1) It combined the cognitive component from the M'Naughten rules and the volitional impairment requirement from the Irresistible Impulse test, and (2) It excluded psychopathic defendants, preventing the inclusion of anti-social behavior under the mental disease and defect category (Melton et al, 1987).

2.2.6. Burden and Standard of Proof In Insanity Cases

The issue of the burden of proof is an important one in NGRI cases because it affects the likelihood of success for a defendant who pleads insanity. In most jurisdictions, the

state has the burden of proof regarding the elements of the crime. As such, the prosecutor must have enough evidence to convince the court of the defendant's guilt, beyond a reasonable doubt, in every element of the alleged crime (Howard & Clark, 1985; Ogloff, Roberts, & Roesch, 1993). The state also bears the burden of proof regarding the defendant's sanity in certain states where sanity is considered to be an element of the crime (Simon, 1983; Howard & Clark, 1985; Miller, Olin, Ball, Bennett, Bevin, & Pitt, 2006; Robinson & Dubber, 2007).

The burden of proof for the insanity defense consists of two parts, (1) the burden of going forward, and (2) the burden of persuasion. The burden of going forward generally falls on the defendant who must introduce evidence that is sufficient to create reasonable doubt as to his sanity (LaFave, 2009, p.414). In most states, the insanity defense, just like other cases of justification or excuse, is considered to be an affirmative defense. This means that once the insanity defense is introduced, the burden of persuasion falls on the defendant who must prove, by a preponderance of the evidence, that he was not legally sane at the time of the crime (Ogloff et al, 1993). There are some states where the burden of persuasion for a defendant's sanity falls on the state which has to prove, beyond a reasonable doubt, that the defendant was sane at the time of the crime (LaFave, 2009, p.414).

In addition to the legal requirements for proving insanity, many defendants face additional difficulties convincing jurors to find them insane. In general, jurors are hesitant to return a judgment of insanity often because of misconceptions of what that will mean for the defendant. These misconceptions have turned into myths regarding the insanity defense that are perpetuated, partly due to lack of jury instruction as to the consequences

of an NGRI acquittal, partly due to media misrepresentations of the defense and, partly due to politicians' fear-inducing rants about the defense (e.g. McCutcheon & McCutcheon, 1994; Perlin, 1996). Naturally, jurors' negative biases will have an effect on a defendant's chance of successfully using the defense and must, therefore, be explored.

2.3. The Myths Behind The Insanity Defense

Unfortunately there are many myths regarding the outcome and characteristics of the insanity defense as well as the frequency with which it is used in the courtroom (Silver, Cirincione, & Steadman, 1994; Sloat, & Frierson, 2005; Butler, 2006).

According to certain jurisprudence scholars such as Perlin (1996), these myths partially exist because the only time lay people and the media concern themselves with the specifics of the insanity defense is when there are threats of abolishing the defense as was done by President Nixon in the 1970s or high profile cases involving the defense such as that of John Hinckley in the 1980s. Following these events, the myths regarding the overuse of the insanity defense grew and with the Insanity Defense Reform Act of 1984 the defense became even less attainable than it had been.

These myths are often perpetuated because we have been engrained with a fear of evil and taught that evil must be punished. Thus, when we think that what we perceive as evil goes unpunished, it upsets our basic beliefs about a just world (Lench & Chang, 2007). This is not only true for lay people but also for those who are knowledgeable about the law. For instance, Perlin (1996) takes a deeper look at the myths and misconceptions regarding the insanity defense that surfaced during John Hinckley's highly publicized

trial. The congressional hearings that followed the Hinckley trial revealed a wide variety of the myths often associated with the defense being enforced by some of our most trusted and respected leaders. Perlin writes of both senators and the U.S. Attorney General stating that the abolition of the insanity defense would keep our streets safe, that the defense was a "rich man's defense" and that it causes many criminals get away with murder. Not surprisingly, these examples of misconceptions regarding the insanity defense are the same myths found in studies of peoples' attitudes and biases toward the defense. Among the most common myths regarding the insanity are, (1) overuse of the insanity defense and overestimation of its success (2) that the insanity defense is a "loophole" for criminals (3) that defendants can feign mental illness and be found NGRI, and (4) that the majority of NGRI cases involve homicide (Perlin, 1996).

2.3.1. Overuse of the Insanity Defense

One of the most common myths about the insanity defense is that it is used frequently and that it is frequently successful (Jeffrey & Pasework, 1983; Perlin, 1996). Due to zealous politicians, popular law-related television shows and media coverage of high-profile cases, where the insanity defense has played an important role, the general public has come to form a negative and often inaccurate view of the uses of the insanity defense (McCutcheon & McCutcheon, 1994; Salekin & Rogers, 2001).

However, contrary the myths that the majority of defendants who are found NGRI are murderers who get away with murder and are roaming our streets, research has shown that only about 1% of defendants use the insanity defense (Callahan, Steadman, McGreevy, & Robbins, 1991; Butler, 2006). Furthermore, only about 20-25% of those

who use the insanity defense are successful (McCutcheon & McCutcheon, 1994; Perlin 1996).

2.3.2. The Insanity Defense: A Loophole?

A great deal of the public's negativity toward the insanity defense is fostered by a fear that the defense is a loophole in the law, used by criminals to escape punishment and get out to commit further crimes (Salekin & Rogers, 2001). This myth is strengthened by television shows and media attention to cases that tug at the heart strings causing people to base their beliefs on emotional factors rather than empirically supported facts (McCutcheon & McCutcheon, 1994). Despite these misconceptions, however, defendants who are found NGRI tend to spend more time incarcerated than those found guilty of similar crimes (Steadman, 1980; 1985).

2.3.3. Malingering

Another common myth about the defense is that defendants are successful in feigning insanity (Perlin, 1996). In the mental health field this is referred to as "malingering" (American Psychological Association, 2000) and there are several tests and assessment methods that are designed to distinguish the mentally ill defendant from the malingerer (Hawk & Cornell, 1989; Rogers, 1996; Rogers, Sewell, Grandjean, & Vitacco, 2002). It is important to note that the myth is not regarding whether criminals feign mental illness or not, it has been established that they do (Resnick, 1986), it is a myth because laypeople believe that criminals are successful in making the court believe that they are legally insane. Thus, dispelling this myth does not mean convincing the public that defendants

do not malinger in insanity cases, it means using empirical evidence to show people that, in most cases, these malingerers are unsuccessful and rare. For instance, results from a study by Rogers (1986) that included data from multiple states, revealed that cases of definite malingering were only 4.5%.

2.3.4. The Crimes Behind NGRI Cases

Unfortunately there are many misconceptions regarding the nature of the crimes for which defendants use the insanity defense. In the 1970s Steadman (1987) conducted a multi-city study on peoples' perceptions of the criminally insane. He found that when he asked people to describe who came to mind when they thought of someone being criminally insane, respondents overwhelmingly mentioned names of murderers or famous criminals who had attempted murder.

The reality of the crimes behind NGRI cases is varied. Steadman (1985) collected data on the type of crime committed by insanity acquittees from a number of states in the 1970s and revealed that there is great disparity between the states. In Michigan and New York, Steadman found that the crime most frequently committed by NGRI acquittees were murder (57%) and attempted murder (51%). In contrast, in Connecticut, New Jersey, Missouri and Oregon, the percentage of defendants being acquitted after committing murder was markedly lower (28%, 26%, 5% and 5%). The variations between states can be due to a variety of factors such as different legislation, different legal standards, etc.

The Steadman studies are just limited examples of the rates of murders in NGRI cases and should naturally not be taken as the universal answer to how many insanity acquittees

are murderers but it does show that, while there is some variation from state to state, the majority of NGRI cases do not involve murder despite what television shows, crime dramas, and politicians want us to believe.

2.4. Current Insanity Law

The different versions of the insanity defense has lead to a varied landscape of different insanity standards in the United States. Most states use some variation of the *M'Naughten* standard to determine legal insanity with other states use either the ALI standard, or a combination of the *M'Naughten* rule and Irresistible Impulse standards. Four states (Kansas, Idaho, Montana and Utah) do not have an insanity defense at all (Robinson, 1997, p. 513; Robinson & Cahill, 2005, p. 41; Sloat & Frierson, 2005; Butler, 2006; Torry & Billick, 2010). Jurisdictions also vary in who carries the burden of proof with a majority of states and federal law putting the burden of proof on the defendant and a minority of states putting the burden of proof on the state (Ogloff et al, 1993; Torry & Billick, 2010). Since the data from the current study were collected in Wisconsin, this paper will focus solely on the insanity defense used in Wisconsin. Therefore, any further mention of the insanity defense will be in reference to the A.L.I. Model Penal Code insanity standard, which is the standard currently used in the state of Wisconsin. Wisconsin also lays the burden of proof on the defendants, to be established with reasonable certainty by the greater weight of the evidence (Wis. Stat. § 971.15).

2.4.1. Wisconsin Insanity Defense

By using the ALI standard for determining legal insanity, Wisconsin combines the cognitive requirement of the *M'Naughten* standard and the *Durham* rule's requirement of mental disease or defect with the Irresistible Impulse standard's failure to conform prong (Ogloff et al, 1993; O'Meara, 2009). The Wisconsin state statute on insanity reads,

WIS. STAT. Sec. 971.15 (2010)

> (1) A person is not responsible for criminal conduct if at the time of such conduct as a result of mental disease or defect the person lacked substantial capacity either to appreciate the wrongfulness of his or her conduct or conform his or her conduct to the requirements of law.
>
> (2) As used in this chapter, the terms "mental disease or defect" do not include an abnormality manifested only by repeated criminal or otherwise antisocial conduct.
>
> (3) Mental disease or defect excluding responsibility is an affirmative defense which the defendant must establish to a reasonable certainty by the greater weight of the credible evidence.

As the statute states, the burden of proof for the insanity defense lies on the defense with the standard of proof of the greater weight of the credible evidence. According to the Wisconsin Jury Instruction Civil 200: Burden of Proof: Ordinary (2004),

> The greater weight of the credible evidence means that the evidence in favor of a "yes" answer has more convincing power than the evidence opposed to it. Credible evidence means evidence you believe in light of reason and common sense.

Furthermore, unlike many other states, juries in Wisconsin are instructed on what will happen to a defendant, who is found NGRI,

WIS. STAT. Sec. 971.165 (2)

> If the plea of not guilty by reason of mental disease or defect is tried to a jury, the court shall inform the jury that the effect of a verdict of not guilty by reason of mental

> disease or defect is that, in lieu of criminal sentence or probation, the defendant will be committed to the custody of the department of health services and will be placed in an appropriate institution unless the court determines that the defendant would not pose a danger to himself or herself or to others if released under conditions ordered by the court. No verdict on the plea of not guilty by reason of mental disease or defect may be valid or received unless agreed to by at least five-sixths of the jurors.

This information is of importance since it means that the jury is fully aware of the consequences of acquitting a defendant by reason of insanity. The hope is that this instruction will counteract any misconceptions the jurors may have about the defendant walking free.

2.5. Current Study

The myths surrounding the insanity defense may seem harmless to some, especially when jurors receive specific instructions as they do in Wisconsin. However, giving out instructions does not necessarily mean that they are going to be followed. Previous research has shown that jurors have a variety of misconceptions regarding the insanity defense and that they tend to focus more on factors such as the defendant's dangerousness (Steadman & Cocozza, 1978) and the defendant's mental illness (Ogloff, 1991). For instance, in a study using mock jurors, Ogloff (1991) found that jurors focused on the mental illness of the defendant, expert witness testimony about the defendant and the defendant's intention rather than the specifics of the insanity standard instructions they were given. Since previous research has shown that jurors tend to focus on the aspects of crime as well as factors relevant to the defendant's intentionality, the next logical step is to examine these factors.

Previous studies on the insanity defense have looked at demographics and personal characteristics of NGRI acquittees (Steadman, 1985), the historical relevance of the insanity defense (Robinson, 1996) or juror bias toward the insanity defense (McCutcheon & McCutcheon, 1994; Perlin, 1996; Butler, 2006). These are all important studies that tell us a great deal about the defense but there seems to be lack of literature on the role of aggression in insanity cases. The types of aggressive behavior displayed by the defendant during the commission of a crime reveals a great deal about his intentionality and mental state at the time which can, in turn, help us establish the defendant's culpability (Mitchell, 1986; Fontaine, 2007; Shuman & Gold, 2008; Fontaine 2009b). Furthermore, a closer examination of how aggressive subtypes and other characteristics of crime affect outcomes of insanity defense cases can have important psychological and legal implications.

2.5.1. Psychological Implications of Current Study

There has been a great deal of empirical support for the reactive/instrumental aggression model (e.g. Dodge & Coie, 1987; Dodge, 1991; Day, Bream & Pal, 1992; Cornell et al, 1996; Fontaine, 2007; Shuman & Gold, 2008; Traclet, Rascle, Souchon, Coulomb-Cabagno, & Dosseville, 2008). Scholars have argued for the use of the reactive/instrumental dichotomy for establishing criminal responsibility (Mitchell, 1986; Roberts, Golding, & Fincham, 1987; Fontaine, 2007) and for assessing the risk for future violence (Eaves et al, 2000) in violent criminal offenders. However, despite the empirical support for the model itself and encouragements to use it in assessments of violent

criminal offenders, the reactive/instrumental dichotomy has received its share of criticism.

Criticisms of the dichotomy include claims that the model is too simplistic and does not account for cases of multiple motives (Bushman & Anderson, 2001). An example might be a case where the aggressive actor wants to harm someone he feel has provoked him but is also using the aggressive act to gain status. The dichotomy is further criticized for failing to account for the overlap of reactive and instrumental aggression in cases that are both highly reactive and instrumental (Cornell et al, 1996; Bushman & Anderson, 2001). It is important to heed these criticisms because they bring up some important points regarding the reactive/instrumental model. One can very well imagine scenarios where a person is angry as a result of a provocation but still manages to carefully plan out a criminal act. For instance, imagine a mother whose son is murdered. Infuriated, she plans to find her son's killer and kill the murderer in retaliation for her son's murder. There is an obvious provocation which caused a great deal of emotional arousal in the actor. Yet, her criminal act was carefully planned with a clear goal of harming the provocateur and perhaps protecting the rest of her family in mind. Such a scenario involves multiple motives and elements of both reactive and instrumental aggression, and is the kind of scenario that has been brought up in criticisms of the reactive/instrumental dichotomy (Bushman & Anderson, 2001). With such criticisms, the question of interest becomes whether reactive and instrumental aggression are distinct forms of aggression where an aggressive act is determined to be *either* primarily reactive *or* primarily instrumental, or whether they are independent concepts which can both be present in any given act of aggression.

This question has been of great interest to scholars who have investigated the distinction between attributions of reactive and instrumental aggression. This research has mainly been conducted with children and based on teacher ratings. In a series of studies, Dodge and Coie (1987) examined whether aggressive behavior displayed by adolescent boys could be divided into either reactive or proactive (instrumental) aggression. The researchers asked the boys' teachers to answer questions about the boys' aggressive behavior. Results of the studies revealed that the teacher ratings loaded on two factors, indicting a distinction between teacher's attributions of reactive and instrumental aggression. However, since there was only strong statistical support for one factor and there was high correlation between the reactive and instrumental scales, there was some question as to whether the two the two subtypes of aggression are really a part of a single factor. Results of subsequent studies (e.g. Coie, Dodge, Terry, & Wright, 1991; Day et al 1992) revealed that teachers do, in fact, make distinct attributions of reactive and proactive aggression regarding children. In a more recent study, Poulin and Boivin (2000) were interested in testing whether teachers and parents attributed children's aggressive behavior as distinctly reactive and instrumental. The researchers concern was whether the high correlation between the two subtypes reported in previous literature was an indication of a single factor of aggressiveness. Based on parent and teacher ratings, the researchers conducted confirmatory factor analysis (CFA), testing a single-factor model against a two-factor model. Results revealed a better fit for the two-factor model, indicating that reactive and instrumental aggression are distinguishable subtypes of aggression. However, the authors warn that the high correlation between the aggressive subtypes might limit the usefulness of the two-factor model.

As has been shown by previous literature, despite evidence of distinct patterns of behavior, there is a great deal of overlap between reactive and instrumental aggression. Previous research on factors related to this reactive/instrumental distinction has primarily focused on children's and adolescents' aggressive behavior as rated by teachers, parents and peers (Dodge & Coie, 1987; Day et al 1992; Barker, Vitaro, Lacourse, Fontaine, Carbonneau, & Tremblay, 2010). The current study differs from previous research since the ratings of reactive and instrumental aggression are based on police reports, rather than teacher, parent, or peer ratings. These police reports offer a look into the specifics of aggressive behavior displayed by criminal offenders. Furthermore, they point to whether police officers' attributions of aggression differ from that of teachers, peers and parents, or if reactive and instrumental aggression are so fundamentally different that it does not matter who observes the behavior or what measures are used.

While the support for the dichotomy and its usefulness in predicting several aspects of social interactions is well documented, there are still many areas that would benefit from its application. The reactive/instrumental dichotomy has already been introduced to the legal field where it has been discussed in relation to the heat of passion defense (Fontaine, 2007; Fontaine, 2009a; Fontaine 2009b), as well as being used as a tool with which to assess risk of future dangerousness among violent criminal offenders (Eaves et al, 2000). However, to this author's knowledge, there are no studies investigating the possible effects of different subtypes of aggression on the outcome of insanity defense cases. Given this gap in the psychology and law literature, results from the current study could have very interesting implications for psychology by examining how attributions of

reactive and instrumental are made when involving criminal offenders and how those attributions influence jurors and judges.

If the models of reactive and instrumental aggression based on police officers' observations reveal distinct difference between the subtypes, it further supports the prevalent view that, despite high correlation between reactive and instrumental aggression, they are distinct forms of aggression that are as clearly distinct to police officers as they are to teachers, parents and peers. If, on the other hand, results indicate a single-factor, it might indicate that one factor represents a general aggressive dimension as reported by police officers.

2.5.2 Legal Implications of Current Study

Psychology and law have an extensive history of mutual influence, a relationship that has developed naturally since they both involve judgments and predictions of behavior as well as behavior modifications. For instance, there has been great support for the use of the reactive/instrumental dichotomy within the legal field (Eaves et al 2000; Fontaine, 2007; Fontaine 2009b). Specifically, the provocation aspect of reactive aggression has been linked to the legal concept of heat of passion (Fontaine, 2007; Fontaine 2009b).

Furthermore, the planning and goal-directedness of instrumental aggression are considered parts of premeditation (Kremnitzer, 1998; Fontaine, 2009b). Pre-mediation is defined as "Conscious consideration and planning that precedes some act (such as committing a crime)" (Black's Law Dictionary, 2009). This definition translates well into the planning characteristic of instrumental aggression in psychology. Previous research has argued for the use of the reactive/instrumental dichotomy in various areas of law but

there is yet to be a close examination of the role of the reactive/instrumental dichotomy in insanity cases.

The insanity defense is an infrequently used defense that is often unsuccessful, therefore, this study offers a rare opportunity to see how jurors, who are essentially the general public, judge aggressive behavior in light of the insanity defense and how characteristics of aggression affect sentence severity in cases where defendants are found guilty.

Psychological research has shown that lay people assume that a person who is able to plan a criminal act is rational (Roberts et al, 1987) and that rational people should be held criminally liable for his acts (Howard & Clark, 1985). This assumption is echoed in the requirements for the heat of passion defense where a planned, or premeditated, crime is considered murder whereas an impulsive, reactive crime is manslaughter (Fontaine 2009b; LaFave, 2009, p.454-456). Furthermore, it has been shown that a person who, in anger, fights back as a reaction to being provoked is considered less culpable for his actions than he who has no apparent basis for his violence (Mitchell, 1986; Kremnitzer, 1998). The reason for these assumptions could lie in the origin of the insanity defense and the comparison of mentally ill offenders to wild beasts. A "wild beast" is incapable of planning or setting goals and will attack when provoked and angry (Platt & Diamond 1965). This is one of the many reasons the communication between law and psychology is important; because there are often discrepancies between what and how the legal system assumes that people think and judge, and how we actually think and judge.

The current study provides an opportunity to examine what happens in cases where defendants plead insanity. Depending on the findings, this study could potentially be of value to legislators and attorneys for several important reasons,

(1) If, as predicted, attributions of instrumental aggression affect how jurors determine insanity and how judges sentence defendants, it means that jurors in these cases focused on two distinct aspects of the crime: planning and goal-directedness.

If this is the case, it is important that these factors either be reflected in the insanity standards or efforts be made to reduce such a misconception among jurors. The planning and goal-directedness, which characterizes instrumental aggression, have already been introduced to law, under the label of premeditation, as determining factors of offender culpability under the heat of passion doctrine (see Robinson & Dubber, 2007; Kreimzanter, 1998; Fontaine 2009a). Under the heat of passion doctrine, premeditation is an important component in the distinction between murder and manslaughter (Fontaine 2009b). If, as this paper predicts, attributions of instrumental aggression significantly predict the outcome of NGRI cases, it could suggest that premeditation might influence sentence severity by being an important aspect of determination of guilt versus insanity as well.

Currently, there is no explicit mention of, or reference to, level of planning or clarity of goals in the Wisconsin insanity standard. There may be an assumption that a person who did not know right from wrong and/or could not control his actions, would be

incapable of planning or setting clear goals but this is a risky leap. There are numerous cases of where goal-oriented defendants carefully planned out their criminal acts but did not that their actions were wrong and/or did not have the capability to stop themselves (e.g. *Clark v. Arizona; United States v. Hinckley*). If jurors are basing their insanity judgments on the instrumentality of the crime, i.e. planned behavior and goal-directedness, rather than knowledge and ability to conform to right and wrong, it could mean three things, (a) level of premeditation, as indicated by level of instrumental aggression, has an effect on the outcome insanity trials, (b) judges show a greater concern regarding the dangerousness of instrumentally aggressive offenders, and (c) jurors are not adhering to insanity standards they were instructed to follow. The latter possibility is a major point of concerns since it suggests that we may be punishing people who, according to insanity standards, should be acquitted. In other words, judges may be handing out severe sentences to mentally ill offenders who are capable of planning and jurors are focusing on the assumptions underlying the insanity defense, rather than the requirements of the defense itself. Since it is every person's constitutional right to receive a fair trial (U.S. Const. amend. VI) and our justice system is built on the doctrine of just desserts (Schroeder et al, 2003; Fontaine, 2007), it is of outmost importance to recognize factors that may affect a defendant's chances of attaining his rights (Bloechl, Vitacco, Neumann, & Erickson, 2006). Furthermore, it is important for attorneys to be aware of any potential biases jurors might have before they engage in jury selection (Bloechl et al, 2006).

If, however, attributions of instrumental aggression do not affect the outcome of these cases, it could mean that (a) judges do not assume that increased instrumentality means

increased dangerousness, and (b) jurors are adhering to the instructions they receive and are not swayed by general assumptions of rationality that can often follow evidence of planned behavior in criminal offenders (Howard & Clark, 1985; Roberts et al, 1987).

(2) Furthermore, if attributions of reactive aggression affect how jurors judge insanity and how judges sentence defendants, it means that jurors in these cases focused on two additional aspects of the crime: perceived provocation and emotional arousal of the defendant.

Research in psychology has shown that reactive aggression is linked to certain attributional biases as a result of distortion of cognitive processing (Crick & Dodge, 1994; Fontaine, 2008). However, despite the strong empirical support for such biases, something seems to have been lost in the translation from psychological research to legal practice where defenses such as the heat of passion doctrine have failed to fully recognize the influence of cognitive dysfunctions on human behavior (Fontaine 2009b). The issue of what constitutes provocation has been the target of discussion in previous literature (Fontaine, 2009a). In the current study, the measure of provocation is a subjective one, which means that level of provocation refers to what the defendant might have perceived as provocation. For example, in one of the current cases, the defendant assaulted a corrections officer when she gave him a tray of food because the defendant claimed he was being held there against his will and he felt his life was threatened. In this case, the defendant perceived his imprisonment as a highly threatening provocation and, feeling that he had been wronged, decided to retaliate against his captor. Due to the perception

of provocation, this case would be rated as a high provocation case. The use of subjective provocation has been encouraged in psychological literature (e.g. Cornell et al, 1996; Fontaine, 2009b) and is, therefore, considered to be a valuable measure in the current study.

If reactive aggression has the predicted effect on the outcome of these NGRI cases, it could indicate that, (a) judges consider an offender less culpable the higher the reactivity of his crime is, and (b) jurors pay special attention to the presence of provocation and emotional arousal in judging an offender's culpability. Research has shown that a person who behaves aggressively while highly emotionally agitated is viewed as less culpable than a person who does so without a provocation (Mitchell, 1986). This could be due to the assumption that if we are pushed to the point of no return (through some form of provocation), we snap and are unable to control our actions. This assumption is reminiscent of the Frustration-Aggression Hypothesis in psychology, echoes the principles of the heat of passion defense (LaFave, 2009, p.789) and is the basis for the volitional prong of the insanity defense in law.

If, on the other hand, reactive aggression has the opposite effect on the outcome of the case, it might indicate that judges and jurors deem aggression more dangerous if it is of a reactive nature. Finally, if there is no effect of reactive aggression on the outcome of the case, it would suggest that jurors do not consider provocation and emotional arousal strong enough grounds for an insanity defense.

(3) If a defendant's level of psychosis affects the outcome of insanity cases, it will bring us one step closer to understanding the potential effects of psychosis on

juror's determination of criminal culpability and judges regard for psychotic symptoms as a mitigating factor. Such a finding could potentially inform defense attorneys and prosecutors about how jurors understand psychotic symptoms.

There has been a great deal of debate in the psychological literature regarding the effect of psychotic symptoms and disorders on defendant's success in insanity cases (Warren, Murrie, Chauhan, Dietz, & Morris, 2004; Torry, & Billick, 2010). For instance, Warren and colleagues (1991) found that schizophrenia, a disorder characterized by psychotic symptoms, was the most common diagnosis in cases where the defendant was found to be insane. Similarly, a study comparing clinical characteristics of NGRI acquittees and convicted murders found that NGRI acquittees were more likely to have been considered psychotic at the time of the offense (Nestor & Haycock, 1997). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) psychotic symptoms include, but are not limited to, delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior (American Psychiatric Association, 2000). This allows people with psychotic symptoms to vary greatly from one another depending on what symptoms they are experiencing. For instance, a person can be highly delusional and believe that his neighbor is the human embodiment of the devil and that God has entrusted only him with that information. This person might in a well organized manner plan his neighbors murder, calmly carry it out and then dispose of the evidence so that he will not be arrested (since he is the only one who knows that his neighbor is the devil). If psychosis has an effect on how jurors determine insanity, such a person would likely be found insane. If, however, psychotic

symptoms do not affect a defendant's chances at successfully pleading insanity, the same person will likely be found guilty and sentenced to prison. Should this man be held criminally responsible for his actions? He did, by definition, commit premeditated murder and hid the evidence knowing his acts were legally wrong. On the other hand, he would not have engaged in such actions had it not been for his delusions (one of the requirements of the insanity defense under Wisconsin law), which had lead him to believe that his actions were morally right.

The language of the insanity defense is clear in stating that the defendant who does not understand right from wrong should be found NGRI. However, it does not specify whether it is referring to moral or legal wrong versus right. While there is literature and on the moral/legal wrong distinction (see Martin, & Weiss, 2010) further discussion of the subject is beyond the scope of this paper.

After controversial cases such as *United States v. Hinckley* (1982) and *Clark v. Arizona* (2006), there has been great hesitation on part of jurors and judges to find a defendant insane solely based on their psychotic symptoms. This hesitation goes hand in hand with the misconception that NGRI acquittees are released to walk free (Salekin & Rogers, 2001). If the current study finds that defendants with a high level of psychosis are less likely to receive a severe sentence, it could suggest that, (a) at least in the state of Wisconsin, jurors are not biased by the mentioned controversial cases, or (b) jury instructions regarding what happens to NGRI acquittees are effective. It is further relevant that psychotic symptoms can also used as a mitigating factor during the sentencing stage of a criminal trial (Barnett, Brodsky, & Manning-Davis, 2004) so even if a jury does not find a defendant insane, he still has a chance of getting a reduced sentence

by the judge at sentencing. Thus, if it the current data reveal that psychosis affects the outcome of the current cases, ca have predictive utility both for determining a defendant's sanity and for establishing the effectiveness of psychosis as a mitigating factor at sentencing.

If, on the other hand, there is no effect of psychosis on the outcome of cases, it could mean that, (a) there is still some level of hesitation in setting a person free because they acted under the effect delusions or hallucinations, (b) jurors are ignoring instructions regarding the fate of NGRI acquittees, (c) judges are not considering psychotic symptoms as a mitigating factor, or (d) jurors and/or judges consider a psychotic person (or at least someone who has been being psychotic) more dangerous than a non-psychotic defendant. It has been argued that the perception that criminal codes lead to justice being served is crucial for the code's moral credibility (Robinson, 2000). It is, therefore, of outmost importance for the continued integrity of our legal system to make sure that our laws are just and have the results they were intended to have.

CHAPTER III

METHODS

3.1. Hypotheses

Hypothesis 1

Instrumental aggression and reactive aggression are independent factors. Previous research on reactive and instrumental aggression has found that measures of these subtypes of aggression tend to load on two separate factors (Dodge & Coie, 1987; Poulin & Boivin, 2000). Previous studies used teacher, parent and peer ratings while the current study was based on police officer's attributions of reactive and instrumental aggression. However, the prediction is that reactive and instrumental aggression are such distinct concepts that they are rated differently, regardless of who is rating the aggressive behavior.

Hypothesis 2

A high level of instrumental aggression will lead to a more severe sentence. The instrumental aggression variable in this study is composed of the variables of planning and goal-directedness. Previous research has shown that planning is an important component in mock jurors' judgments of insanity (Roberts et al, 1987) and that planning and goal-directedness are two prominent characteristics of instrumental aggression (Dodge & Coie, 1987; Barker et al, 2010). The current study hopes to provide an answer as to whether attributions of instrumental aggression will affect the sentence severity in real criminal cases with the assumption being that planned, goal-directed behavior will be punished more severely than impulsive behavior.

Hypothesis 3

A high level of reactive aggression will lead to a less severe sentence. Two important components representative of reactive aggression are provocation and emotional arousal (Dodge & Coie, 1987; Barker et al, 2003). Previous studies have shown that a defendant is viewed as less culpable if his actions were in response to a provocation (Mitchell, 1986; LaFave, 2009, p.789). The current study can reveal whether jurors in insanity cases are less likely to return a determination of guilt if the defendant was provoked and highly emotionally aroused at the time of, or immediately preceding, the crime.

Hypothesis 4

A high level of psychosis will lead to a less severe sentence. Psychotic symptoms include delusions and hallucinations (American Psychiatric Association, 2000). Psychotic symptoms have played an important part in many insanity cases (e.g. *State v. Winder,* 2009; *Clark v. Arizona,* 2006). Under the retributive theory of justice, which our legal system is built on, we must only punish offenders in proportion to their culpability (Schroeder et al, 2003; Fontaine, 2009b). While there are cases of psychotic defendants failing to meet the requirements of legal insanity, delusional thought can easily lead to a distortion of a person's judgment of right and wrong. Moreover, symptoms such as command hallucinations, paranoid ideation and persecutory delusions might cause a person to engage in violent behavior, which to the psychotic person may seem involuntary (Torry & Bilick, 2010).

A study in Japan (Satsumi & Oda, 1995) revealed that 84% of defendants in NGRI cases had delusions and 50% had hallucinations. The study also showed that many of the

crimes were directly motivated by the defendants' delusions and hallucinations. It has further been argued that people suffering from psychotic symptoms do not have the legal evil intent necessary to be held criminally responsible because they might not know the act is evil or not have the ability to stop the act (Torry & Billick, 2010). Some scholars have gone so far as to suggest that a lack, or low level, psychosis decrease a defendant's chances of being found NGRI (Novak, McDermott, Scott & Guillory, 2007). It is, therefore, reasonable to expect that a person who suffers from delusions and/or hallucinations will not be punished as severely as someone who is rational.

Hypothesis 5

The more severe the injury to the victim is, the more severe the sentence will be. The range of injury to victim goes from no assault to extreme homicide so it seems natural that a person who commits homicide will be given a longer sentence that a defendant who causes no injury or only minor injury.

Hypothesis 6

A high level of psychosis will lead to a low level of instrumental aggression. Traditionally, mentally ill offenders have been considered to be irrational and unable to plan or control their actions (Mitchell, 1986). Specifically, people with psychotic symptoms have been viewed as bizarre, irrational and impulsive (Roberts et al, 1987). Research has further shown that people tend to rate crimes in which personal gain (one of the main characteristics of instrumental aggression) is a main motivation as being rational and crimes with delusional ideation (a symptom of psychosis) as irrational (Howard &

Clark, 1985). Given the previous research in the area, it is plausible to predict that a person with psychotic symptoms will be less likely to display instrumental aggression.

Hypothesis 7

A high level of psychosis will lead to a high level of reactive aggression. Previous research has suggested that psychotic people tend to act impulsively and irrationally (Roberts et al, 1987). Similarly, it has been shown that crimes of passion where emotions tend to run high have been linked with intermediate or low rationality (Howard & Clark, 1985). Given that high emotional arousal and provocation are both main characteristics of reactive aggression, this paper predicts that a high level of psychosis, i.e. clear presence of delusions or hallucinations, will increase the likelihood of acts of reactive aggression.

Hypothesis 8

Instrumental aggression will cause less severe injury to the victim. Instrumental aggression is characterized by a level of planning where the goal to harm the victim is only secondary, if at all present, to other motives, such as for example financial gain. Because of its high degree of planning, instrumental aggression has been argued to be more easily prevented (Coie et al, 1991; Shuman & Gold, 2008) and to be less intense. Given that harming the victim is not the primary goal of instrumental aggression and that the level of planning that goes into these aggressive acts make them more susceptible for prevention, it is plausible that acts of instrumental aggression are less likely to be severe.

Hypothesis 9

Reactive aggression will cause more severe injury to the victim. Reactive aggression is displayed in response to a provocation with the primary goal of harming the wrongdoer (Dodge & Coie, 1987). As such, it is plausible that a person who displays reactive aggression is more prone to cause severe injury to his victim than a person who has not been provoked. For instance, Coie and colleagues (1991) showed that when boys engaged in reactive aggressive acts, the intensity of aggression was more likely to escalate. Lorenz (1966) has also suggested that reactive aggression (which he referred to as hostile aggression) is more violent.

Hypothesis 10

A high level of psychosis will cause more severe injury to the victim. Research on the link between psychotic symptoms and violence has had mixed outcomes. One study showed that the majority of patients with psychotic symptoms did not have a history of aggression (63%), the same study found that the 13% of patients who displayed severe aggression were more likely to have suffered from untreated psychosis for a longer time than those who were non-aggressive (Verma, Poon, Subramaniam, & Chong, 2005). Another study (Coid et al, 2006) found that even though psychotic symptoms in aggressors only increased victim's risk of injury by 1.2%, risk of repetitive violence increased when the violent actor displayed psychotic symptoms. Assuming that a psychotic person might not be operating at normal cognitive capacity during a psychotic episode and may, therefore, not be able to stop himself, this study hypothesizes that a high level of psychosis will lead to more severe victim injury.

3.2. Participants

Participants of the current study were 101 defendants who were being charged with a violent offense and who are pleading not guilty by reason of insanity (NGRI) in the state of Wisconsin. All of the data, excluding the outcome data, were collected based on police reports of the violent incident for each defendant. The participants were sent to Mendota Mental Health Institute in Wisconsin during a pre-trial competency to stand trial hearing.

Participants ranged in age from 16 years old to 68 years old and were all male. 38.6 % of the participants were European American, 45.5% were African American, 1% were Hispanic and 14.9% identified as "other."

3.3. Procedure

The data are based on police reports from cases where police responded to a violent incident. The police reports were each typed up as a criminal complaint reports with the circuit court criminal division of Milwaukee County, Wisconsin. The reports were sent to Mendota Mental Health Institute during the defendants' pretrial competency hearings. At Mendota, the criminal complaints were coded for nine variables (instrumentalreactive, psychosis, provocation, arousal, goal-directedness, planning, intoxication, relationship to victim, severity of injury to victim) based on the Coding Guide For Violent Incidents: Instrumental versus Hostile/Reactive Aggression (Cornell et al, 1996) by two advanced research assistants under the supervision of Dr. Michael Vitacco. In addition to the nine case variables, there was a variable of case outcome (dismissed, insanity, jail < 1 year, prison 1-5 years and prison > 5 years). Based on the outcome of the eight variables, the defendants were divided into a clearly reactive aggression group, primarily reactive

aggression group, clearly instrumental aggression group and a primarily instrumental aggression group. The form of aggression the defendant had displayed during the violent incident determined group membership.

The data set as well as the criminal complaint reports and coding sheets were sent to the current author for further analysis. A determination of human research form was sent in to the Internal Review Board (IRB) for the University of Arizona. It was determined that the data were not human research and was based on public record and, therefore, did not need to be reviewed further by the IRB (see Appendix A).

Measures

Since the study was based purely on archival data and public records, there were no measures used beyond those the data were based on. The factors used in this study were originally measured and coded according to the Cornell Coding Guide for Violent Incidents (Cornell et al, 1996).

Level of Planning (PLAN) – The level of planning was measured by the amount of planning that the defendant had put into his crime. The planning variable was coded on a four-point scale where 1 =very little or no planning (acts during argument or fight, no preparation), 2 = some planning (action within 24 hours, some plan or preparation), 3 = moderate planning (contemplation of action for more than 24 hours), and 4 = extensive planning (detailed plan or preparation, rehearsal).

Goal-directedness (GOAL) – The goal-directedness refers to the degree to which the crime was committed to achieve a goal other than harming the victim such as e.g. financial gain, social status, etc. Goal-directedness was coded on four-point scale where 1= No apparent goal-directedness (motive to injury victim, retaliate, defend), 2= Secondary goal-directedness, in presence of other primary motives, 3= Primary goal-directedness, with presence of other motives, 4= Clear, unequivocal goal-directedness (include shooting during crimes).

Degree of provocation (PROV) – The provocation measure was based on the defendant's perception of provocation. Subjective measures of provocation are used for psychological purposes but its application in the law for various defenses has been debated (see Fontaine, 2009a; 2009b). For the purposes of this study and according to the instrument used (Cornell et al, 1996) provocation was measured on a six-point scale where 1= No apparent provocation, 2 = Mild provocation (insult, minor argument, confrontation with police), 3 = Moderate provocation (serious argument or dispute, threat of assault), 4 = Strong (break-up of a romantic relationship, threat of major life change), 5= Very strong provocation (assault) and 6= Exceptionally strong provocation (repeated assault, severe assault).

Level of Arousal (AROUSAL) – Arousal was coded as the defendant's mental state at the time of the crime, primarily focusing on anger but also measuring for instance fear. Arousal was measured on a four-point scale where 1 = Calm or tense at most, 2 = Excited, very nervous, anxious, scared, 3 = Angry, mad, extremely frightened (can be

protracted state), 4 = Enraged, furious, described as "out of control" or "irrational" or panicked (brief state).

Severity of violence (INJURY) – Severity of violence was a measured by actual harm to victim and not the defendant's intention. Severity of violence was measured on a seven-point scale where 1 = No assault (e.g. threatened with weapon), 2 = Assault without injury, 3 = Minor injury (e.g. bruises, minor medical treatment, attempted rape), 4 = Serious injury, requiring substantial hospital treatment (e.g. broken limb, rape, gunshot), 5 = Severe injury (e.g. lasting impairment or life-threatening injury, some rapes), 6 = Homicide, and 7= Extreme homicide (multiple victims or multiple fatalities, mutilation).

Psychosis (PSYCHO) – The psychosis variable measured the defendant's reality testing ability. The defendant's degree of psychotic symptoms was measured on a four-point scale where 1= Not psychotic, 2 = Non-psychotic disturbance (e.g. depersonalized), 3 = Moderate psychotic symptoms (intermittent voices and delusions), 4 = Substantial psychotic symptoms (e.g. bizarre and pervasive delusions).

For the purposes of the current study, the variables relationship to victim and intoxication were not included. The excluded variables may be interesting for future analysis but are beyond the scope of the current paper. Furthermore, since the instrumental/reactive variable was based on scores which included the relationship to victim and intoxication variables, that variable was excluded as well.

3.4. Data Analyses

Reliability

Two independent raters rated the data resulting in two ratings for each variable. First, interclass correlations (ICC) were run to make sure that there was adequate reliability between the two raters. Since the two raters each rated all the 101 cases, a two-way mixed ICC analysis was run. To test whether the two raters differed in the score they assigned each case, the reliability was tested for absolute agreement (Shrout & Fleiss, 1979). The reliability for goal-directedness (α= .947), psychosis (α= .935) and severity of injury (α= .958) were excellent, the reliability for arousal (α= .818) was good, planning (α= .759) was acceptable and provocation (α= .622) was close to acceptable (see Table 1). Although the variables of planning and provocation did not have excellent interclass correlations, they did have high reliability considering the reliability found by previous research using the same measures (e.g. Cornell et al, 1996).

Given the acceptable reliability, new variables were created by averaging the two ratings for each variable. Thus, the new variables became PLAN (level of planning), GOAL (goal-directedness), PROV (perceived provocation), AROUSAL (emotional arousal), PSYCHO (level of psychosis) and INJURY (severity of injury to victim).

	Planning	Goal	Psychosis	Provocation	Arousal	Severity of Injury
Cronbach's Alpha	.759	.947	.935	.622	.818	.958

Table 1. Inter-rater reliability for two independent raters.

Factors Included in Current Study

According to the literature, planning and goal-directedness are both components of instrumental aggression (Dodge & Coie, 1987). It might, thus, be possible that the manifest variables (variables that can be measured directly) of planning and goal-directedness are indicators of an underlying latent factor (which is hypothetical constructs that are not measured directly) of instrumental aggression. Bivariate correlations revealed that planning and goal-directedness were highly correlated (see Table 2) and could, thus, be considered indicators of a latent factor. The factor was labeled INSTRUMENTAL for instrumental aggression and included in the model (see Figure 1). Similarly, provocation and arousal are two main components of reactive aggression (Dodge & Coie, 1987). This link in the literature served as a good basis by which to examine whether provocation and arousal were indicators of the latent construct of reactive aggression. Further analysis revealed a high correlation between provocation and arousal (see Table 2) which lead to the inclusion of a second latent factor, labeled REACTIVE for reactive aggression. Thus, the new variables and factors included in the model where GOAL, PLANNING, PROVOCATION, AROUSAL INSTRUMENTAL, REACTIVE, PSYCHOSIS, INJURY and OUTCOME (for outcome of the case).

	PLAN	GOAL	PROV	AROUSAL	PSYCHO	INJURY
PLAN		0.689*	- 0.375*	-0.526*	-0.044	-0.116
GOAL	0.689*		-0.586*	-0.570*	0.133	0.217
PROV	- 0.375*	-0.586*		0.658*	-0.084	0.184
AROUSAL	-0.526*	-0.570*	0.658*		-0.092	-0.003
PSYCHO	-0.044	0.133	-0.084	-0.092		-0.002
INJURY	-0.116	0.217	0.184	-0.003	-0.002	

* = correlation is significant at $p < 0.001$.

Table 2. Correlation matrix for independent variables.

Structural Equation Modeling (SEM)

The data were analyzed using structural equation modeling (SEM). SEM models include both a *measurement model* (which includes a confirmatory analyses) and a *structural model*. Path analysis using the PROC CALIS function in SAS (SAS Institute, 2005) was used in order to estimate parameters to examine which model indicated the best fit according to the hypotheses.

Two causal models were tested. The first model assumed a two-factor model where INTRUMENTAL and REACTIVE were treated as two independent latent factors (see Figure 1). In the second model, INSTRUMENTAL and REACTIVE were hypothesized to be caused by a common latent construct labeled PREMED for premeditation (see Figure 2). Both models were saturated models, which were tested to determine which model showed a better fit.

CHAPTER IV

RESULTS

SEM - Model 1

The first model was the inclusive model, which included all casual pathways that were established based on a priori theory (see Figure 1). The model revealed a significant chi-square, χ^2 (9) =19.51, p < 0.05 (see Table 3). Some of the practical and parsimonious indices of fit for the inclusive model were acceptable (NFI=0.91, CFI =0.95), while others were not (RMSEA =0.11). Furthermore, the standardized regression coefficients (beta weights) for all causal pathways and intercorrelations were all statistically non-significant (p >.05) except for four pathways; PLAN and INSTRUMENTAL (β= 0.85, t = 11.64, p< 0.05), GOAL and INSTRUMENTAL (β= 0.85, t = 11.64, p< 0.05), PROV and REACTIVE ((β= 0.81, t = 10.99, p< 0.05), and AROUSAL and REACTIVE ((β= 0.85, t = 11.64, p< 0.05).

Thus, there was not significant support for hypothesis 2 (β= 0.35, t = 1.48, p > 0.05), revealing that a high level of instrumental aggression does not to a more severe sentence according to model 1. Restricted models did not generally a good fit either but removal of even one pathway yielded the path between instrumental aggression and outcome significant (t = 3.31, p <0.05). Significant support was also not found for hypothesis 3 (β= 0.05, t= -0.02, p> 0.05) which shows that reactive aggression did not have an effect on the outcome of the case, hypothesis 4 (β=0.04, t = -0.32, p> 0.05) indicating that psychosis did not have an effect on sentence severity, hypothesis 5 (β= 0.17, t = 0.17, p> 0.05) revealing that severity of victim injury did not significantly affect sentence severity, or hypothesis 6 (β= -0.12, t = 0.11, p> 0.05) showing a lack of significant causal

relationship between psychosis and instrumental aggression. Furthermore, there was not a significant relationship between psychosis and reactive aggression (hypothesis 7; β= -0.11, t = -0.97, p> 0.05), between instrumental aggression and injury to victim (hypothesis 8; β= -0.38, t = -1.61, p>0.05), reactive aggression and injury to the victim (hypothesis 9; β= 0.20, t = -0.85, p>0.05), or psychosis and injury to the victim (hypothesis 10; β= -0.07, t = -0.64, p>0.05). Finally, there was high negative correlation between INSTRUMENTAL and REACTIVE (*r* = - 80).

SEM - Model 2

The second model was a one-factor model where the INSTRUMENTAL and REACTIVE variables were treated as one latent factor, named PREMED. There were also paths connecting the factor to the manifest variables, and from the manifest variables to the outcome variable according to a priori theory. The model revealed a significant chi-square, χ^2 (11)= 55.38, p < 0.001 (see Table 3). One of the practical and parsimonious indices of fit for the inclusive model was acceptable (CFI =0.91) while others were not (NFI=0.88, RMSEA =0.15). The standardized regression coefficients (beta weights) for four of the causal pathways statistically non-significant (see Figure 2) but six paths were significant; these were the paths between PLAN and PREMED (β= 0.69, t = 7.93, p< 0.05), GOAL and PREMED (β= 0.97, t = 13.34, p< 0.05), PROV and PREMED (β= -0.62, t = -6.90.58, p< 0.05), AROSUAL and PREMED (β= -0.58, t = -6.33, p< 0.05), PREMED and INJURY (β= -0.23, t = -2.30, p< 0.05) and, finally, PREMED and OUTCOME (β= 0.35, t = 3.58, p< 0.05).

	Chi-square	RMSEA	CFI	NFI
MODEL 1	19.51*	0.11	0.95	0.91
MODEL 2	55.38**	0.15	0.91	0.88

*significant at $p < 0.05$, **significant at $p < 0.001$, $df = 9$

Table 3. Indices of fit for the SEM models.

Exploratory Factor Analysis (EFA)

Since the results of the SEM lead to the rejection of both models, an exploratory factor analysis (EFA) was conducted to determine the number of factors using scree plots. Previous research (Dodge & Coie, 1987; Day et al, 1992; Poulin & Boivin, 2000) on reactive and instrumental aggression has utilized factor analysis to examine whether reactive and instrumental aggression should be considered two separate factors or whether they load on one single factor. The independent variables were PLAN, GOAL, PROV, AROUSAL, INJURY AND PSYCHO. The dependent variable was OUTCOME. In this first step, I was interested in testing which variables were independent versus indications of the same factor. In other words, I was interested in whether the variable of PLAN, GOAL, PROV and AROUSAL were, in reality, manifestations of one latent factor I labeled, PREMED or if they would load on two separate factors of INSTRUMENTAL and REACTIVE. The PROC FACTOR function of SAS (SAS Institute, 2005) was used to conduct the factor analysis.

Results of the EFA revealed an Eigen value of 2.3 for the first factor, which indicated that latent factor PREMED, explained 95% of the variance. After the first factor there is a dramatic drop-off as indicated by the scree plot and Eigen-values. Given these results, the

analysis was run a second time, this time assuming a cleaner one-factor solution. The scree plot and Eigen-values indicated that, indeed, the PREMED factor was responsible for 95% of the variance.

Next, using the PROC CORR function, correlational analysis were run to test discriminant and convergent validities to make sure that the variables of PLAN, GOAL, PROV and AROUSAL were correlated with the PREMED factor and that INJURY and PSYCHOSIS were not correlated with PREMED. This was also to ensure that the variables PSYCHO and INJURY were not correlated with each other (see Table 4).

As predicted, the analyses revealed significant correlations between PLAN and PREMED (r =0.788), GOAL and PREMED (r = 0.866), PROV and PREMED (r=-0.797), and AROUSAL and PREMED (r = -0.837), but no significant correlation between PSYCHO and PREMED (r =0.001), or INJURY and PREMED (r =-0.156). Furthermore, PSYCHO and INJURY were not correlated with each other (r = -0.002).

	PLAN	GOAL	PROV	AROUSAL	PSYCHO	INJURY
PREMED	0.788*	0.866*	-0.797*	-0.837*	-0.001	-0.156

	INJURY
PSYCHO	-0.002

* = correlation is significant at $p < 0.001$.

Table 4. Correlations for the relationships between independent variables and the latent factor PREMED and relationship between variables PSYCHO and INJURY.

Multiple Regression

The final step involved running hierarchical multiple regression analysis using the PROC REG function in SAS to test how well the independent variables of PREMED, PSYCHO and INJURY would predict the outcome of the case. In the first model (see Figure 3), PREMED, PSYCHO and INJURY were set as predictors of OUTCOME. In the second model, PREMED was the sole predictor of OUTCOME (see Figure 4). Results indicated that the Model 1 accounted for a greater proportion of the variance. However, some models show a better fit because of a large number of parameters and it is, thus, important to consider a model's parsimony (Bentler & Mooijart, 1989; Mulaik et al, 1989). A parsimonious model will be able to explain the data in a much simpler fashion, using fewer parameters (Poulin & Boivin, 2000). Given that the second model was more parsimonious, the next step was to exam whether there was a significant difference between the variance accounted for by Model 1 ($R^2 = 0.10$) and the variance accounted for by Model 2 ($R^2 = 0.08$).

A difference R-squared test was conducted and revealed no significant difference between the variance explained by Model 1 and the variance explained by Model 2, F (2, 98) = 1.51, p = 0.23. With the lack of significance between the two models and adhering to the principle of parsimony, the second model was accepted over the first one.

SEM – Model 3

Once the EFA and MR models were run, there were some interesting results that warranted further data analyses. The final model of the MR analysis (see Figure 4) was very similar to the second model of the SEM (see Figure 2). The correlations between the four indicators of PREMED (PLAN, GOAL, PROV and AROUSAL) were not equal. In

other words, PLAN and GOAL were highly correlated with each other (r = 0.69) but less so with PROV and AROUSAL. Likewise, PROV and AROUSAL were highly correlated with each other (r = 0.66) but less so with PLAN and GOAL. Such a pattern is indicative of two pairs; one pair consisting of measures for PLAN and GOAL, and the other pair consisting of the measures for PROV and AROUSAL. Previous model run in the current study was ignoring the possibility of these two pairings, thus causing estimation problems.

Given the similarities between the MR and SEM models, the potential existence of two pairs and in order to avoid estimation problems, a third SEM model was created (see Figure 5). In model 3, PLAN and GOAL as well as PROV and AROUSAL were allowed to co-vary. This improved the indices but still did not indicate a good fit. The chi-square was still significant, χ^2 (10)= 20.425, p=0.0255, and the indices of fit were not all acceptable (RMSEA= 0.10, CFI= 0.95, NFI= 0.90). The significant pathways in model 3 were the paths between: PREMED and OUTCOME ((β= 0.338, t = 3.31, p< 0.05), PREMED and INJURY (β= -0.219, t = - 2.17, p< 0.05), PLAN and PREMED (β= 0.698, t = 7.50, p< 0.05), GOAL and PREMED (β= 0.973, t = 11.13, p< 0.05), PROV and PREMED (β= -0.590, t = - 6.10, p< 0.05) and AROUSAL and PREMED (β= -0.582, t = -6.20, p< 0.05). The rest of the paths were non-significant; between PSYCHO and PREMED (β= -0.126, t = -1.23, p> 0.05), PSYCHO and INJURY (β= -0.030, t = -0.30, p> 0.05), and PSYCHO and OUTCOME (β= -0.033, t = - 0.36, p> 0.05). Given these results, a fourth SEM model was created (see Figure 6) and analyzed using Confirmatory Factor Analysis (CFA).

SEM – Model 4

Results for model 4 revealed good fit (see Table 5) with a non-significant chi-square, χ^2 (3)= 4.763, p=0.190 and acceptable practical and parsimonious indices of fit (RMSEA=0.08, CFI=0.97, NFI=0.93). The significant pathways in this model were the paths from PREMED to INSTRUMENTAL (β= 0.977, t = 5.56, p< 0.05), PREMED to REACTIVE (β= -0.624, t = - 4.63, p< 0.05), and PREMED to OUTCOME (β= 0.307, t = 2.72, p< 0.05). The pathway between PREMED to INJURY became insignificant with model 4 (β= -0.183, t = 1.75, p> 0.05). Further, the paths between PSYCHO and PREMED (β= -0.092, t = -0.90, p> 0.05), PSYCHO and OUTCOME (β= -0.048, t = -0.51, p> 0.05) and INJURY and OUTCOME (β= 0.154, t = 1.57, p> 0.05) were non-significant.

	Chi-Square	Df	RMSEA	NFI	CFI	
Model 3	20.425	10	0.10	0.90	0.95	
Model 4	4.763	3	0.08	0.93	0.97	

Table 5. Indices of fit for Model 3 and Model 4 of the SEM analyses.

CHAPTER V

DISCUSSION

This study examined the role of several factors on the outcome of criminal insanity defense cases. The factors under investigation included reactive aggression (indicated by the defendant's perception of provocation and defendant's emotional arousal at the time of the crime), instrumental aggression (indicated by level of planning and goal-directedness displayed by the defendant), level of psychosis (measured by presence of psychotic symptoms at the time of the crime), and injury to victim (ranging from no assault to extreme homicide). The importance of these factors in determinations of criminal responsibility has been strongly supported in the literature (e.g. Dodge & Coie, 1987; Day et al, 1992; Cornell et al, 1996; Poulin & Boivin, 2000; Fontaine, 2007; 2009a; 2009b).

The data for the study were based on police reports of violent incidents in the state of Wisconsin and were collected during pre-trial competency to stand (CTS) trial hearings. The police reports were coded by advanced psychology students who were trained according to the Cornell Coding Guide for Violent Incidents (Cornell et al, 1996). The data were analyzed using Structural Equation Modeling (SEM) which was followed by Exploratory Factor Analysis (EFA) and Multiple Regression (MR).

Considering how rare the insanity defense truly is, this study was able to tap into an extremely rare population. As mentioned, the insanity defense is only used in about 1% of criminal cases. This means that it is difficult to find any sample of defendants who are pleading insanity at any given time and it makes it all that much more amazing that this study was able to examine 101 cases. From a psycholegal standpoint, a sample size of

101 defendants pleading insanity is a major strongpoint and adds to the importance of the current study. Thus, even though the results of the study fell short of the predictions originally made, the findings of the current study still have important implications for the fields of psychology and law.

5.1. Indicators of Reactive and Instrumental Aggression

Results of the SEM indicated that the paths between indicators of instrumental aggression, namely level of planning and goal-directedness, and the latent factor of instrumental aggression were significant. Similarly, the paths between the indicators of reactive aggression, perceived provocation and arousal, and the latent factors of reactive aggression were significant. Furthermore, there were also significant paths between planning and premeditation, goal-directedness and premeditation, provocation and premeditation, and arousal and premeditation in model 2. This finding suggests that, as has been shown by previous research, combining these variables is a wise statistical decision as the mentioned variables are strong indicators of reactive and instrumental aggression.

5.2. The Effects of Reactive and Instrumental Aggression

It was hypothesized that higher levels of instrumental aggression would cause a more severe sentence. However, model 1 revealed that there was no significant relationship between police officers' attributions of instrumental aggression and the outcome of the defendant's case. Statistically, the lack of significance can be due to a small sample size compared to the number of parameters in the model. This possibility is further

strengthened by the dramatic increase in the path's t-value with the removal of pathways. The second hypothesis, that high levels of reactive aggression would lead to a less severe sentence was also rejected and unlike instrumental aggression, there was no improvement with further restriction of the models.

The Effect of Instrumental Aggression on Outcome

From a theoretical standpoint, the results may be suggestive of several possibilities. First, it is possible that judges and jurors assume that a defendant who is able to plan by setting goals and following them, must be rational, aware of right and wrong, and/or able to control his actions. Such effects have been found in previous research (Howard & Clark, 1985; Roberts et al, 1987). Furthermore, it may suggest that jurors and judges deem instrumental aggression, which is unprovoked, calm and planned more dangerous than impulsive, emotional acts of aggression. This possibility is supported both by the empirical literature (Mitchell, 1986; Coie et al, 1991; Kremnitzer, 1998; LaFave, 2009, p.789) and how the legal system views instrumental aggression under other defenses (Fontaine 2009b).

The Effect of Reactive Aggression on Outcome

In this study, reactive aggression was indicated by level of perceived provocation and level of emotional arousal. There may be several reasons reactive aggression did not have a significant effect on the outcome of the case. For instance, it is possible that there is a discrepancy in evaluations of provocation. According to Cornell and colleagues (1996), provocation should be measured from the actor's perspective. Thus, a situation that might

seem ambiguous, or even neutral, to one person might be perceived as a significant provocation by another. Empirical studies have shown that some people have attributional biases which might lead them to perceive an ambiguous situation as provocative. An interpretation that affects the behavior they choose to engage in (Crick, & Dodge, 1994; Fontaine, 2009b). Based on this empirical work, scholars have argued that perceived provocation should be considered in the law (e.g. Fontaine 2009a) but that, all other things being equal, a perceived provocation from an otherwise ambiguous situation will most likely not meet the requirements of provocation for legal purposes (Fontaine, 2009b). Given this research it is possible that what the defendant considered provocative, and researchers to code as provocation, is not considered provocation in jurors and judges' eyes.

Of course, it is also possible that jurors and judges were aware of the perceived provocations as well as the emotional arousal but choose not to have it affect their decisions. After all, the insanity defense does not include any requirements of provocation or anger. Though reactive aggression has been linked to other criminal defenses, it may be too great of a leap to assume it would have the same relationship with the insanity defense.

Finally, it is possible that jurors and judges consider reactive aggression to be dangerous and do not want to condone it by punishing the offender less just because he, having the capacity to do so, did not control himself. Not controlling your emotions and reaction to a provocation (reactive aggression) is not the same thing as not being *unable* (as required by the insanity defense) to control your actions (Stanford, & Felthous, 2008) and it is possible that jurors were aware of and operated under this distinction.

Reactive and Instrumental Aggression As One Factor – Hierarchical Factor Analysis

When the indicators of instrumental aggression were combined with the indicators of reactive aggression into one factor, premeditation, there was a significant causal relationship between premeditation and outcome of the case. This relationship suggests that the two forms of aggression have predictive value only when they are combined into a single factor. In fact, reactive and instrumental aggression where highly correlated, as has been shown in previous studies (Dodge & Coie, 1987; Day et al, 1992; Poulin & Boivin, 2000) but the correlation found in the current study was a negative one. In other words, close to 80% of cases with high levels of planning and goal-directedness (indicators of instrumental aggression) where reported to have low levels of provocation and emotional arousal (indicators of reactive aggression) and vice versa.

A negative correlation between planning/provocation and planning/arousal reveals that when there were high levels of planning preceding the aggressive act, the act was less likely to be caused by a perceived provocation and the actor was less likely to be angry while committing the aggressive act. Furthermore, the negative correlation between goal-directedness/provocation and goal-directedness/arousal reveals that when there was a perceived provocation, the primary goal of he actor was more likely to involve harming the provocateur and that the actor was more likely to be angry during the aggressive act.

Previous studies (e.g. Poulin & Boivin, 2000) have found a high correlation between instrumental and reactive aggression, which has been cause for some doubt regarding whether the two constructs should in fact be separated. However, the same studies have shown support for a two-factor model. The initial analyses for the current study indicated a high negative correlation between reactive and instrumental aggression but also

supported a single-factor model. Moreover, correlational analyses indicated two pairs of constructs causing the latent factor rather than four independent constructs. Given these different results, a fourth model was created in which the measures for planning and goal-directedness were averaged into the latent factor of instrumental aggression, the measures of provocation and arousal were averaged into the latent factor of reactive aggression, and the factors of instrumental and reactive aggression are set as indicators of a premeditation factor.

This fourth model does an excellent job of supporting the reactive/instrumental model as a dichotomy while still accounting for their correlation and the support for existence of a single-factor of premeditation. The negative correlation between the indicators for instrumental aggression and the indicators for reactive aggression as well as the high positive correlation between the indicators for instrumental aggression and between the indicators for reactive aggression support such a model.

Thus, results indicated that police officers tended to report one general dimension of premeditation (containing latent factors of reactive and instrumental aggression) which is contrary to how teachers, peers and parents have conceptualized aggression in previous studies (Dodge & Coie, 1987; Coie et al, 1991; Poulin & Boivin, 2000). However, despite the discrepancy between teacher/parent/peer ratings and the current police ratings, these results should not be surprising. Police officers are members of law enforcement agencies which operate under the same legal system as courts do and, as such, share a philosophical basis for judgment of behavior. This legal system punishes people according to their culpability so an officer who is reporting factors that are relevant to that judgment may very well be operating with a similar mindset. The link between

police officers' observations and jurors and judges emphasis on culpability is further supported by the above-mentioned finding that sentence severity is increased with reports of premeditation. In sum, results indicate that police officers tend to observe and report aggressive behavior according to a general premeditation dimension which is influenced by the levels of reactive and instrumental aggression, and jurors and judges tend to make guilt and sentence determinations based on the same process of premeditation.

As previously mentioned, these findings can be potentially alarming. The Wisconsin (and many other) insanity law asks jurors to make a judgment of the defendant's ability to distinguish right from wrong, to control his actions, and whether he suffered from a mental disease or defect at the time of the crime which might have interfered with his ability to do so. Unlike other defenses, such as the heat of passion defense, the insanity defense do not ask jurors to judge the defendant's criminal behavior based on how well planned it was, what his ultimate goal was, whether he was provoked or angry. Yet, these seem to be factors that influence how jurors make decisions regarding insanity. While using these factors as a means by which to evaluate the defendant's abilities, they can also be misleading. There is a risk of courts punishing defendants who are delusional and confused about what is right or wrong, based on the degree of planning and calm manner they might have displayed during the crime. It is important that attorneys are aware of how jurors evaluate sanity both at the stage of jury selection and as they present their client's case.

The Effects of Reactive and Instrumental Aggression on Victim Injury

Results of this study revealed that there was no significant casual link between reactive aggression and injury to victim in either causal model. However, the results were different for instrumental aggression and injury to victim from one model to the next. The results of model 1 indicated a negative relationship between instrumental aggression and injury to victim that approached significance, which may suggest that acts of instrumental aggression may cause less injury to the victim but since the results were non-significant, no such conclusions can be drawn. In the second model, however, the relationship between instrumental aggression and injury to victim is significant and we can draw the conclusion that, at least in these cases, level of instrumental aggression does have an effect on the severity of harm done to the victim. This supports the argument that instrumental aggression causes of harm, partly because it is easier to control and prevent and partly because, unlike reactive aggression, the primary goal of instrumental is not to harm the victim (Lorenz, 1966; Dodge & Coie, 1987; Coie et al, 1991).

5.3. The Effect of Psychosis

The Effect of Psychosis on Outcome

Contrary to predictions, the findings of this study did not support an effect of psychosis on the outcome of insanity cases. The relationship between psychosis and the insanity defense is a complicated one. There are many studies indicating a link between psychotic offenders and success of the insanity defense (Satsumi & Oda, 1995; Novak et al, 2007), but there are also studies which show that it is necessary for a defendant to display major psychoses for there to be an effect of psychosis on his chances at the

insanity defense (Warren & Murrie, 2004) and that irrationality does not automatically remove the defendant's criminal responsibility (Mitchell, 1986). It is, therefore, fully possible that the psychotic symptoms displayed in the crimes of this study were not severe enough to reveal a significant effect.

Yet another possibility for these results is that peoples' misconceptions regarding the insanity defense are still alive and well, despite jury instruction on the consequences of being found NGRI. Additionally, jurors and judges might be hesitant to find a defendant NGRI or to mitigate his sentence based on psychotic symptoms because of the public outcry that followed famous cases such as *U.S. v. Hinckley* and *Clark v. Arizona*.

Finally, this study assumed that any psychotic symptoms displayed in these cases were involuntary but it is possible that the defendant was experiencing drug and/or alcohol-induced psychotic symptoms. If this were the case in any of the incidents, it would make good sense that jurors and/or judges were not willing to excuse the aggressive behavior. This question can be answered by examining the relationship between the intoxication variable and psychosis. However, one must be careful to make too broad of an assumption since various drugs have different effects on different people and it is not certain if a person is psychotic because of his intoxication, intoxicated because of his psychotic symptoms, or if the psychosis is a combination of mental illness and intoxication.

The Effect of Psychosis on Reactive and Instrumental Aggression

This study hypothesized that there would be a casual relationship between a defendant's psychotic symptoms and the degree of instrumental aggression he engaged in. It was predicted that the more psychotic the offender was, the less he would be able to

plan his actions in order to attain a specific goal (i.e. display low levels of instrumental aggression). This prediction was based on previous studies which have shown that mock jurors tend to associate planning behavior, as well as the use of aggression for personal gain, with rationality and psychosis with irrationality (Howard & Clark, 1985; Roberts et al, 1987). However, results did not reveal a significant relationship between the two variables. These findings could indicate that, as discussed, psychotic individuals are capable of planning out criminal acts for personal gain. These acts may be motivated by certain delusions or hallucinations, but planned and calmly enacted all the same.

This study further predicted a casual relationship between reactive aggression and a defendant's level of psychosis. It was expected that a high level of psychosis would lead to highly reactive acts of aggression. This expectation was based on research showing that psychotic individuals tend to act impulsively (a characteristic of reactive aggression) and that crimes of passion have been associated with low rationality (a psychotic symptom). However, results of the current study did not indicate a significant relationship between reactive aggression and psychosis. The lack of significance for this hypothesis may be due to the complexity and variety of psychotic symptoms. Psychotic symptom can differ from one another and irrational behavior does not necessarily have to be manifested through aggression. It is further possible that the degree of psychosis in the present population was not high enough to create a significant effect.

The Effect of Psychosis on Victim's Injury

Despite the mixed findings regarding psychosis and severity and violence found in the literature (e.g. Verma et al, 2005; Coid et al, 2006), the present study hypothesized that a high degree of psychosis would cause greater injury to the victim of the aggressive act.

Psychotic people are often seen as being impulsive, irrational and unorganized. This lack of control and awareness of what is real can cause great risk to the people who these psychotic offenders target. However, despite the current study's predictions, there was not a significant relationship between level of psychosis and injury caused to the victim. Due to the varied outcomes of previous studies, these findings are not all that surprising. While many violent offenders tend to have psychotic symptoms (Satsumi & Oda, 1995), that does not necessarily mean that the reverse is true. In other words, simply because a high percentage of violent people may be psychotic, does not mean that a high percentage of psychotic people are violent.

5.4. The Effect of Victim's Injury on Outcome

Finally, this study predicted that the severity of violence displayed by the defendant as measured by the injury caused to the victim would have an effect on the outcome of these cases. The rationale was that greater injury to victim (e.g. serious injury, rape, homicide) would lead to more severe sentence because assault, rape and homicide are more serious crimes. Despite the predicted link, the relationship between victim injury and sentence severity was not found to be significant. At first glance, this finding might seem odd but a deeper look at the available outcomes clarifies the results.

The possible outcomes for the cases analyzed in this study were: dismissal, NGRI, guilty with less than one year in jail, guilty with one to five years in prison, and guilty with more than five years in prison. While the severity of violence toward the victim may have a significant effect on the sentence given to defendants who are found guilty, it would make sense that victim's injury would matter if the defendant's case is dismissed

or he is acquitted. There are many factors that play into whether a defendant's case is dismissed or whether he is found NGRI but the harm caused is not necessarily one of them. In fact, defense attorney's can argue that severe violence might even be a manifestation of the mental disease or defect displayed by the defendant.

Psychological Implications

The current study provides further support for the reactive/instrumental dichotomy and adds the possibility that different groups of people may vary in how they rate aggressive behavior. Reactive and instrumental aggression were highly correlated and loaded on a single factor but the negative correlation suggests that aggressive acts are described as primarily instrumental or primarily reactive, not instrumental and reactive at the same time. Having said this, there is still validity to claims in the literature that there are cases which are high in both reactivity and instrumentality. For example, acts of revenge are often characterized by both types of aggression. Tough it is possible that the majority of aggressive acts are mainly reactive or instrumental and that the incidence of multiple motives is the exception to the rule.

The present paper highlights the importance of distinguishing between reactive and instrumental aggression in a legal setting, but at the base of this distinction lies implications for mental health policy. After all, judging and sentencing these aggressive individuals is only a part of the greater scheme of treating those who can be treated and managing those offenders who are not suitable for treatment. The distinction between these aggressive subtypes serves a crucial part in the treatment and management of these offenders. As mentioned in this paper, it makes little sense and would be ineffective, to

only offer incarceration for an offender whose aggressive tendencies are of a reactive nature. As has been revealed in previous literature, many offenders who display reactive aggression share some level of cognitive bias (Fontaine, 2009a; 2009b). Thus, if these offenders are committing crimes largely based on a cognitive distortion, which leads them to misconstrue social stimuli, it would make sense to treat them by targeting those distortions. More specifically, if an offender's reactive aggression is due to cognitive distortions, he might be a perfect candidate for cognition-based therapies such as e.g. cognitive behavioral therapy (CBT).

On the other hand, if an offender's crime is mainly a product of instrumental aggression and he is willing to commit a crime for the purposes of a material gain, punishment, rather than treatment, would be more effective. For instance, an offender who decides to stab a victim in order to take his money would generally not be a good candidate for traditional mental health treatment. Assuming such an individual does not have a mental disorder, he would be better suited for punishment.

Legal Implications

The finding of potential biases among jurors is by no means a new concept but valuable, nonetheless. It may be useful to attorneys to be aware of how jurors judge insanity and how those judgments affect their client's cases at successfully pleading insanity. According to the results of this study, even in the presence of psychotic symptoms such as delusions, hallucinations and irrational behavior, jurors and judges considered defendants' instrumentally aggressive acts more culpable. This knowledge may be helpful in jury selection, strategy planning and/or presentation of the case.

Furthermore, the finding that instrumental aggression may be less harmful to victims than reactive aggression is an interesting one. The law punishes premeditated crimes more severely based on the assumption that he who planned his crime without being provoked is more culpable. However, the results of this study, as well as previous research indicate that instrumental aggression generally causes less harm to the victim. This discrepancy is alarming and raises questions of whether we are punishing offenders in proportion to their crimes or in proportion to their premeditation.

As noted earlier in this paper, the current study did not aim to offer an opinion or empirical support for or against the insanity defense as a doctrine. Discussions of the validity of the insanity defense and arguments regarding the potential abolishment of the insanity defense are both important and interesting but such grand arguments should only be based on substantial data aimed at examining the effectiveness of the defense, something this study does not claim. The current study investigated the attributions of police officer and judgments made by jurors and judges and can, therefore, only make inferences based on the result of such data.

Limitations of Current Study

For the current project, it is important to remember three things, (a) the data are based on attributions of reactive and instrumental aggression which means that police and witnesses reported their judgments of the defendant's planning, goal-directedness, provocation and emotional arousal, (b) the provocation variable was based on perceived provocation which means that the level of provocation is judged by what the defendant subjectively might have viewed as a provocation, and (c) police are not trained on what psychotic symptoms are and how to look for them.

These three conditions mean that police and witnesses have to make assumptions of the defendant's mental state which is often difficult to do. While the motive behind crimes such as robbery are somewhat easier to distinguish, there were cases where the goal of the offender was not clear. Furthermore, judgments regarding an offender's perceived provocation are difficult to make due to their subjective nature. Cases where the aggression is preceded by an altercation could be seen as provocative but even then one cannot be sure of who provoked whom first. Police officers often arrive at the scene well after any potential provocation has taken place and witnesses can be confused or simply lie about what happened.

A further limitation is that police officers are not trained on what constitutes psychotic symptoms. Officers may be able to report that the offender complained of hearing voices or appearing irrational but it would be difficult for them to know if a person is delusional and how severe that delusion is.

Moreover, due to the use of archival data, the results of this study should be carefully considered when generalizing to other populations. The data were collected in Milwaukee County in Wisconsin, which means that one should be cautious when generalizing the results to other populations in other states. First, it is possible that other defendants will show a different pattern of aggression, or that police officers in other jurisdictions evaluate behavior differently. Second, since states differ in their versions of the insanity defense, it is possible that this study would yield very different results if conducted in other states.

It is also important to note that cases which were dismissed naturally did not go through the same evaluation as cases that were tried in court. Thus, most of the

characteristics of the crime would not be up for judgment and could, therefore, not have an effect on the outcome.

Finally, when doing any form of research involving criminal trials, it is of utmost importance to realize that the image presented by the data is only a partial reflection of what actually happens in a criminal case. The current study had data from the police reports and the outcome of the case (including verdict and sentence). These two sources of information provide great insight into how police officers evaluate and report criminal behavior and aggressive tendencies. The data further provided jurors' and judges' evaluations of each defendant's culpability.

While the data from this study, and the subsequent data analyses, offer a rare and intriguing insight into the trial process, it must be noted that the data do not tell us anything about what actually happened during the trial itself. Presenting a case is an art form in itself and a large part of the outcome of a criminal case depends on how it is argued in a court of law. Defense attorneys and prosecutors each have their own way of presenting a case and there are several factors, including what evidence is presented and how witnesses are questioned, which can influence the jury in their determinations of a defendant's culpability. The current paper does not have, and it would quite time-consuming to gather, court transcripts or a list of the presented evidence in each case and can, therefore, not speculate about the effect the details of the trial itself may have had on the verdicts or sentences in these cases.

Furthermore, the specifics of the crime have to travel through an additional filter created by the judge. Criminal cases often have slew of evidence with the police reports only being a part of what might potentially be presented in court. The judge can rule

certain evidence admissible while keeping other evidence out of the courtroom. Thus, though the current data are based on complete police reports, it is possible that jurors only hear a fraction of what was reported by the police officers. Moreover, there might be plenty of additional evidence presented in the case which were not included in the current study. These things are important because they can account for a great deal of variability from one case to the next. Thus, while the results of the current study are interesting and provide a greater understanding of the effects of aggressive subtypes on criminal cases, it is important to keep in mind that they do not give the whole picture of what happens during a defendant's trial.

Future Directions

This study was an important and interesting basis for research linking the reactive/instrumental aggression to the insanity defense. Future research on the area could include rating type of aggression based on personal interviews with the defendants. Such interviews, if conducted by psychologists or psychiatrists familiar with psychotic symptoms as well as the reactive/instrumental dichotomy, would be of great value in further understanding the relationship between these forms of aggression and the insanity defense. Moreover, conducting similar studies in other states with the same as well as with different insanity standards might add to the generalizability of the present results.

CONCLUSION

Findings from the current study revealed that police officers attributions of reactive and instrumental aggression in violent criminal offenders differ from that of teachers, parents and peers of adolescent boys. The study did, however, suggest that there might be a link between the way police officer's report criminal behavior and the way jurors and judges evaluate it. Officers tended to report aggressive behavior as either calm, unprovoked, well-planned and goal-directed or angry, provoked, impulsive and with the goal of causing harm to the victim. These patterns were coded into a premeditation variable which results revealed was predictive of the outcome of the case as well as the sentence severity. Thus, when aggressive acts were premeditated (high level of instrumental aggression), the defendant was less likely to be found insane and more likely to receive a higher sentence even though results indicated that premeditation was associated with less injury to the victim. Other variables such as psychosis and injury to victim were not predictive of outcome and not predictive of each other.

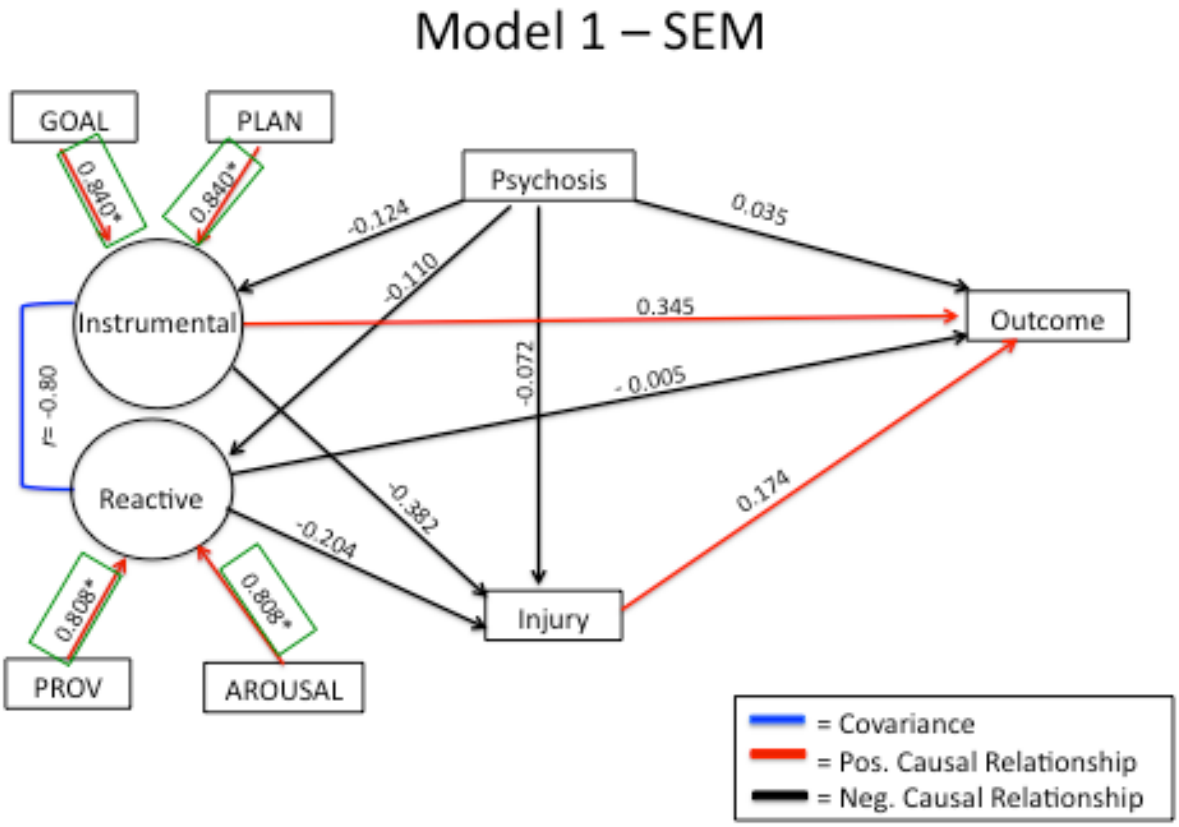

Figure 1. The first proposed model based on a priori inference predictions where reactive and instrumental aggression are hypothesized to be separate factors.

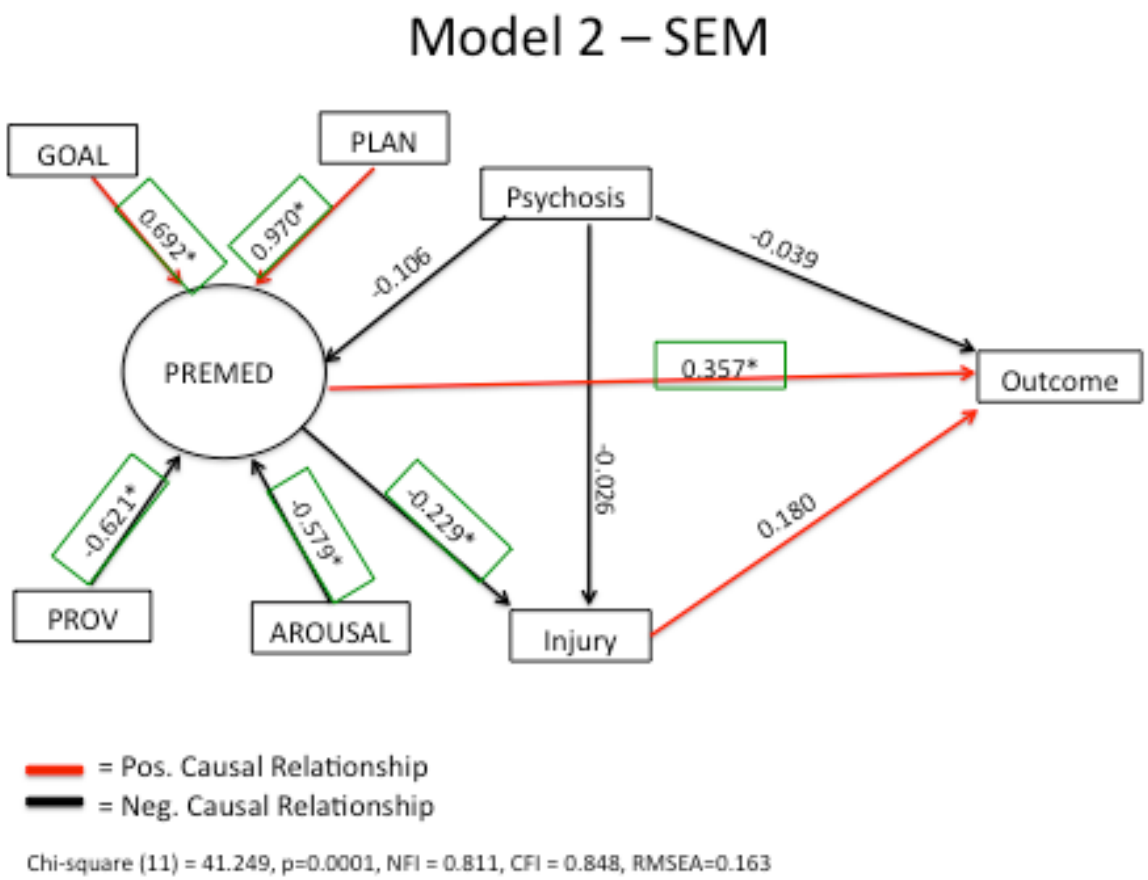

Figure 2. An alternative model based on a priori inference predictions where the independent variables of GOAL, PLAN, PROV and AROUSAL are hypothesized to be manifest variables of the latent factor, PREMED.

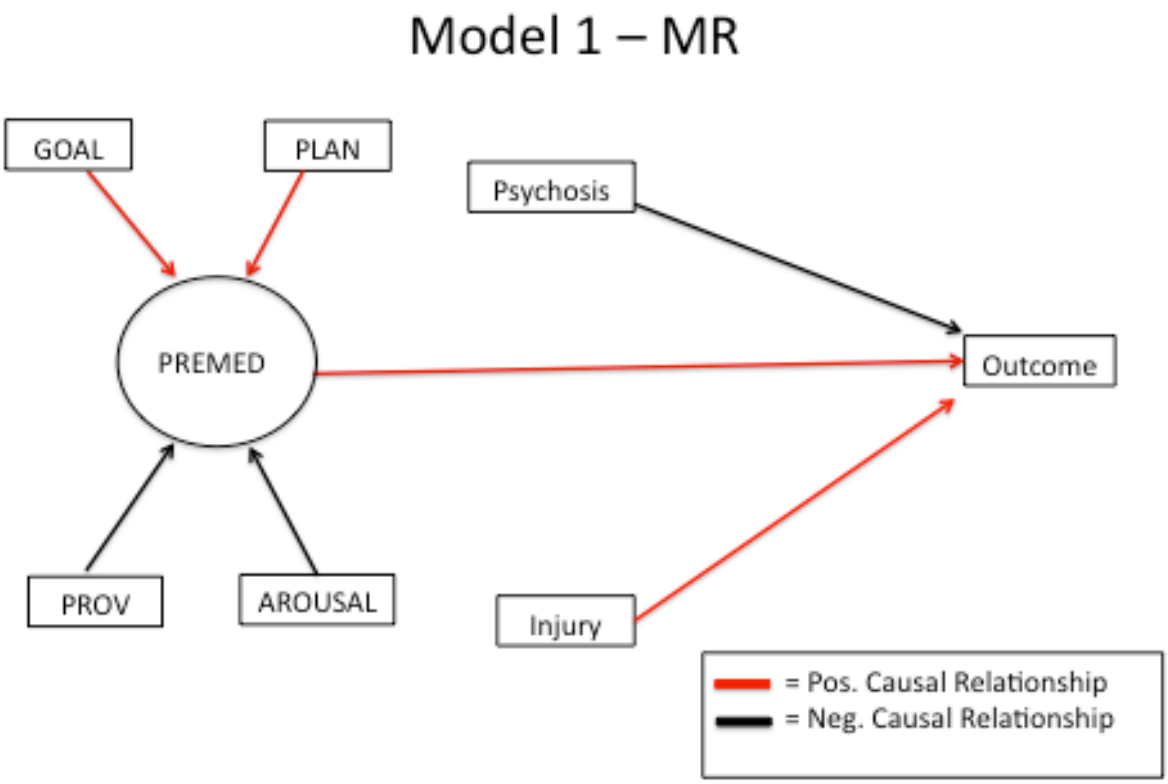

Figure 3. A model established after running factor analysis. The model represents a three variable multiple regression.

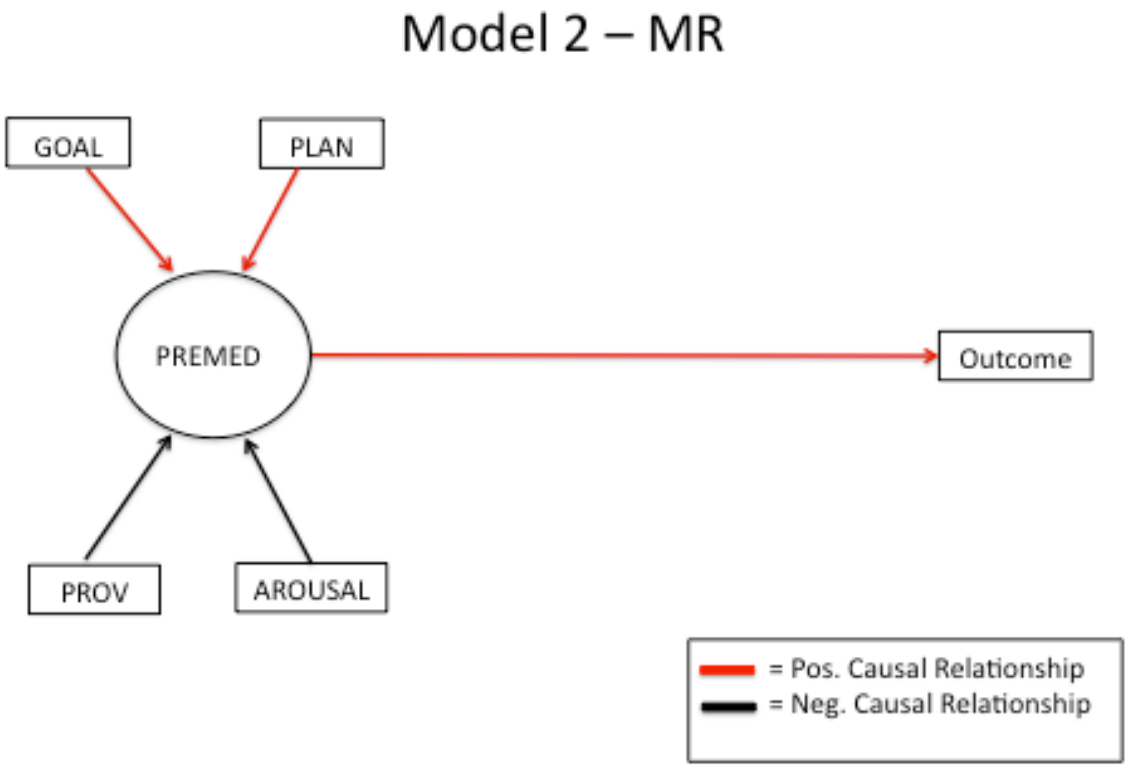

Figure 4. The second model tested in with multiple regression. This model is more parsimonious and, thus, accepted.

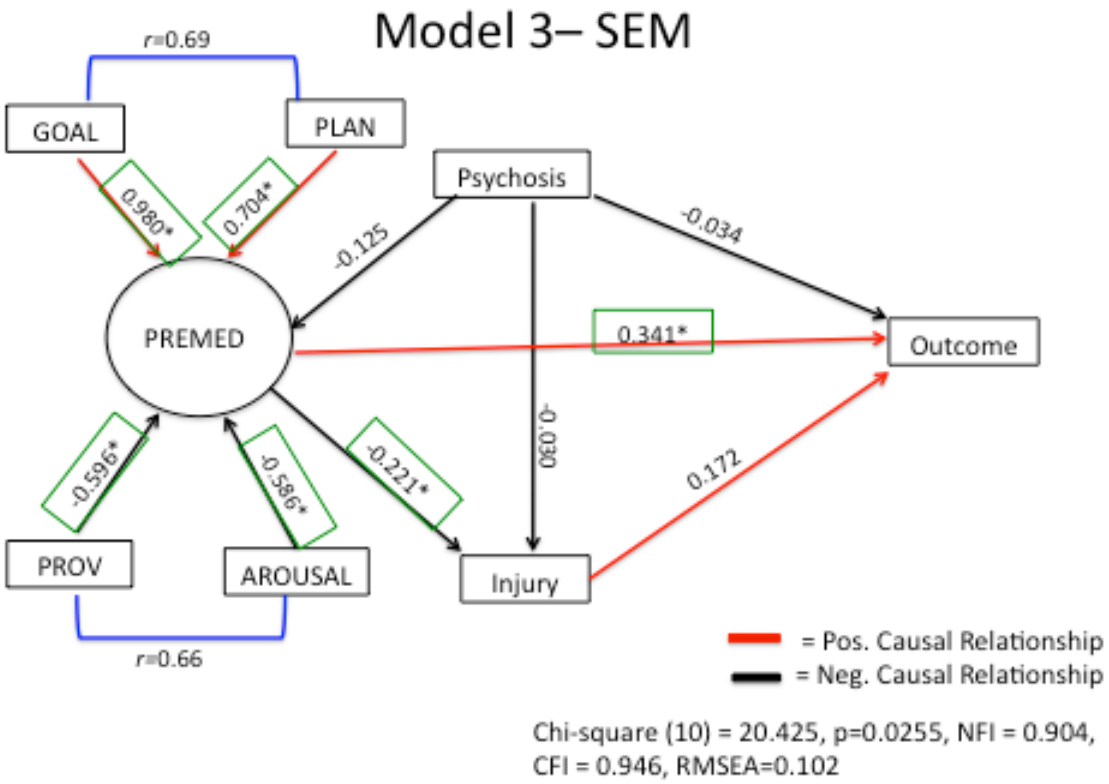

Figure 5. Model 3 of the SEM analyses. In this model GOAL and PLAN as well as PROV and AROUSAL were allowed to co-vary.

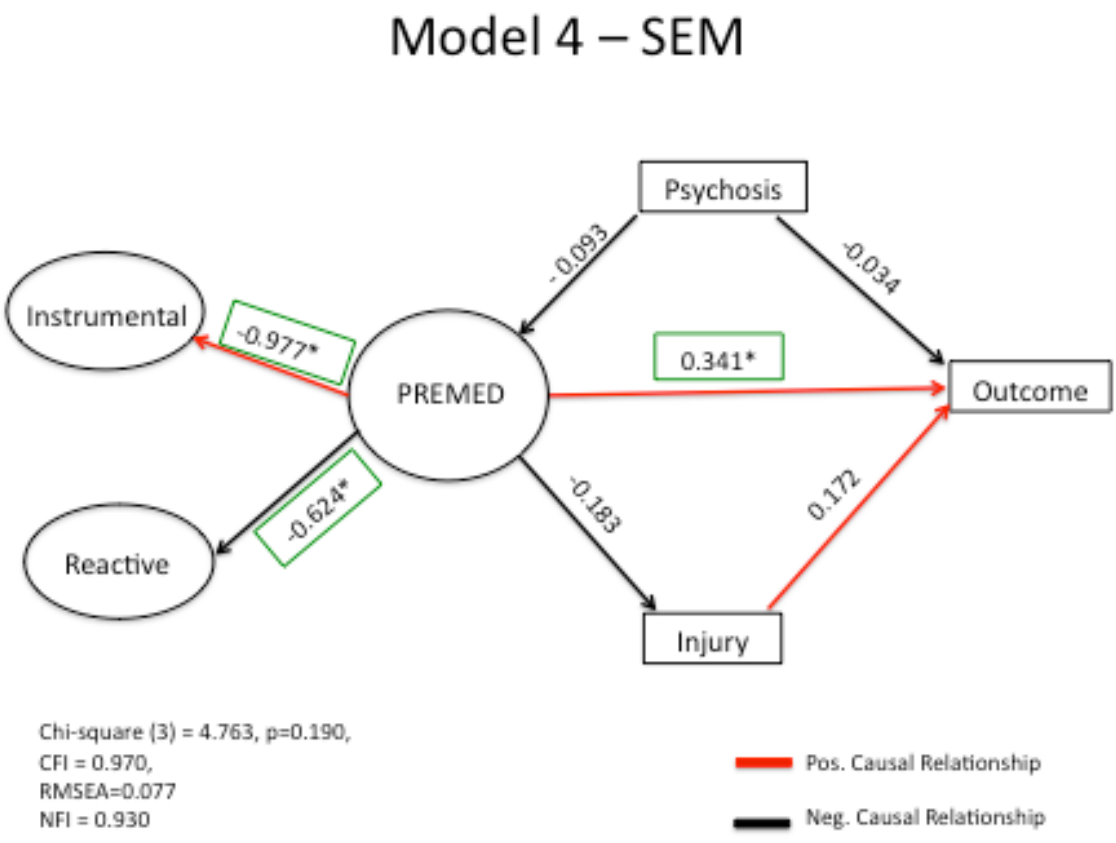

Figure 6. Model 4 of the SEM analyses. This model is a hierarchal factor analysis where instrumental and reactive aggression are set as indicators of premeditation.

APPENDIX A
IRB DETERMINATION

ARIZONA

FORM: Human Research Determination		
NUMBER	DATE	PAGE
HRP-309	10/01/10	5 of 6

SECTION 3: SIGNATURES

It is against Federal regulations to conduct research involving human subjects without prior IRB approval. Projects that do not require IRB/HSPP oversight may still have other requirements.

- Projects involving **Native Americans,** including the use of existing information or specimens, require review and approval by the tribe(s) involved, prior to beginning your project.
- Projects involving deceased persons and involve Protected Health Information may fall under HIPAA regulations. Contact the **HIPAA Privacy Officer, Jeniece Poole at (520) 621-1465.**

If you have any questions or are unsure how to answer these questions, please **contact the HSPP office at (520) 626-6721 BEFORE** beginning your project. Violating Federal regulations is a serious matter and may result in the suspension of your research and/or loss of federal funding.

Please note: if you determine that this activity is not considered human research and, therefore, does not require IRB review, such determination **cannot for any reason** be reversed or revoked at a later date for **any** part of the project. Further, data derived from this project may not in any way be presented as research. ****Note that any changes made to this protocol after receiving HSPP confirmation will need to be re-submitted and reviewed.****

1. PRINCIPAL INVESTIGATOR

By signing below, I, the Principal Investigator, certify that I have accurately answered the items listed and believe that the proposed activity does not constitute engagement in Human Research according to DHHS or FDA regulations.

[signature] 11/02/10 Marich Tansha, Psychology

Principal Investigator Signature — Date — Print Name & Department

[signature] 10/27/10 Psychology

Advisor Signature — Date — Print Name & Department

2. UNIT REVIEW

Based on the information provided by the Principal Investigator, I have determined that this project does not constitute Human Research.

[signature] — AJ Figueredo

Departmental/Unit/Authorized Authority Reviewer (Signature) — Print Name

Professor — 11/9/10

Title — Date

3. HSPP REVIEW

Based on the information provided by the Principal Investigator, I have determined that this project does not constitute Human Research.

[signature] — Sheryl Wurl

HSPP Reviewer (Signature) — Print Name

Director, Human Subject Protection Program — 11/22/10

Title — Date

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