The Effects of Defendant Nonverbal Behavior in the Courtroom on Jury Perception of Guilt

Katrina L. Hodgson

A Dissertation Submitted to the Faculty of
The Chicago School of Professional Psychology
In Partial Fulfillment of the Requirements
For the Degree of Doctor of Psychology

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2014

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Abstract

The Effects of Defendant Nonverbal Behavior in the Courtroom
on Jury Perception of Guilt

Katrina L. Hodgson

Research indicates that many extralegal factors influence jury decision making, although the effect of defendant nonverbal behavior specifically has been under researched. The aim of the present study was to examine the impact of defendant nonverbal courtroom behavior on jury guilt perception and verdict decisions. Participants (N = 96) were assigned to one of four experimental manipulations: avoidance of eye contact (n = 22), fidgeting (n = 21), sweating (n = 22), or control (n = 31). In each condition participants viewed one of four videos, in which a "defendant" displayed one of the four behaviors in response to a prosecuting attorney's witness testifying. Although the experimental conditions did not differ significantly from the control condition on level of guilt or verdict decisions, mean scores across conditions trended in the expected direction. Confidence ratings were also analyzed and were found to play a significant role in verdict decisions, with additional analyses revealing that level of confidence was particularly discrepant in the sweating condition. The findings of this study can assist attorneys with witness preparation, as they direct defendants on how to behave throughout the trial process. However, these results also demonstrate the need to further investigate the role that nonverbal behavior plays in jury decision making and perception of guilt.

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CHAPTER 1: NATURE OF THE STUDY

How an individual behaves in any given situation is often judged by others. This judgment can affect a variety of decisions and can have serious implications when involved in judicial affairs. During each phase of the legal process a suspected criminal is judged; whether it is during the investigation, trial, or sentencing phase, the way in which the defendant behaves is closely monitored and evaluated. In many cases it is the individual's overt, but often uncontrollable behavior that can influence others' decisions about that person. Is this fair? Is an individual's behavior always deserving of the consequences caused by these uncontrollable behaviors?

The competency and impartiality of the jury is often the subject of debate (Elwork, Sales, & Suggs, 1981). Empirical research has demonstrated that numerous extralegal factors, described as variables that should have no legal bearing on a defendant's determined guilt or innocence (Izzett & Sales, 1981), influence jurors' decision making. Defendant characteristics in particular have been found to influence verdict and sentencing decisions (Izzett & Sales, 1981). Many studies have focused their attention on the defendant in an attempt to better understand factors influencing legal decisions. For example, past research has examined the effects of defendant **gender** (e.g., Auerhahn, 2007; Greatrix & Enright, 2006), **age** (e.g., Pozzulo, Dempsey, Maeder, & Allen, 2010**), sexual orientation** (e.g., Harris & Cook, 1994; Hill, 2000), **socioeconomic status** (e.g., Esqueda, Espinoza, & Culhane, 2008; Perez, Hosch, Ponder, & Trejo, 1993), **race** (e.g., Demuth & Steffensmeier, 2004; Mitchell, Haw, Pfeifer, & Meissner, 2005), **ethnicity** (e.g., Cowan, Martinez, & Mendiola, 1997; Thomson, 1997), **juror-defendant**

similarity (e.g., Ahola, Hellström, & Christianson, 2010; Griffitt & Jackson, 1973), **religion** (e.g., Miller & Bornstein, 2006; Pfeifer, 1999), **physical attractiveness** (e.g., Gunnell & Ceci, 2010; Sigall & Ostrove, 1975), **emotion** (e.g., Heath, 2009; Jehle, Miller, & Kemmelmeier, 2009), and **behavior** (e.g., Boccaccini & Brodsky, 2002; Pryor & Buchanan, 1984) on jury perception of guilt. Although such factors should not play a role in a jury's choice of verdict, as this decision should be based solely on the facts of the case, research has indicated that a significant relationship exists (Izzett & Sales, 1981). Considering defendants have the right to a fair and unbiased trial, these findings cause concern in the American legal system (Elwork et al., 1981; Schniederjans & Hollcroft, 2005).

One factor that has not been thoroughly researched is the effect of a defendant's nonverbal behavior on jury decision making. Nonverbal behavior can consist of the following observable features: body position (e.g., hunched shoulders); frequency of ability to maintain eye contact; and displays of nervousness (e.g., sweating and fidgeting). Given that anxiety symptoms, such as sweating and fidgeting, are exacerbated during times of stress, for instance during a criminal trial (Miller et al., 1981), it is possible that such behaviors may be misread by jury members as guilt.

The effects of defendant nonverbal behavior, specifically throughout the trial, have been significantly under researched, and only studies on the effects of defendant characteristics while testifying have been conducted. Although testifying is an anxiety-provoking situation, many defendants do not testify at their own trial (Eisenberg & Hans, 2007). The defendant is more likely to encounter other anxiety-provoking situations

throughout a trial, such as listening to the prosecuting attorney's witnesses testify against him. The jury may be observing the defendant's reaction during this time, and if his behavior exemplifies symptoms of stress and anxiety, then it is possible that jurors will misperceive this as guilt. As a result, these inaccurate inferences may negatively affect verdict decisions.

Present Research

Factors not relevant to a trial should not impact its outcome; however, past research has identified several extralegal variables that inappropriately influence decisions made by the jury (Izzett & Sales, 1981), indicating a significant problem in the American legal system (Elwork et al., 1981; Schniederjans & Hollcroft, 2005). One area that has been under researched is the effect of nonverbal behavior in the courtroom. The current study sought to examine the effects of defendant nonverbal behavior, throughout the trial, on jury perception of guilt. The aim of the present study was to build upon previous research that has examined the effects of extralegal factors on jury decision making, and to examine behaviors in a context that has not been previously studied. The results of the present study are more generalizable to actual jury trials, as attorneys can use this information to direct the defendant on how to behave throughout the trial process.

Thus, the purpose of this document is to explore the impact that nonverbal anxious behavior has on jury perception of guilt. First, this document will review previous research on the effects of various extralegal factors within the context of jury decision making and perception – specifically, how different anxious behaviors may

impact a jury's decision will be examined. Next, an experiment investigating the effects of extralegal factors on jury decision making was conducted and will be discussed. This experiment sought to address the following research questions:

1. Are there differences in guilt ratings when the defendant is exhibiting nonverbal behaviors associated with anxiety (avoidance of eye contact, fidgeting, sweating) compared to when the defendant is not exhibiting these behaviors (control)?
2. Are there differences in guilt ratings when the defendant is avoiding eye contact and fidgeting compared to sweating?
3. Are there differences in guilt ratings when the defendant is avoiding eye contact compared to fidgeting?
4. Is there an association between dichotomous verdict decisions and situations in which the defendant is exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating) and situations in which the defendant is not exhibiting these behaviors?
5. Are there differences in confidence ratings when the defendant is determined to be guilty versus not guilty?

Last, this document will endeavor to explain the results of this study in relation to the implications for defendants who have a jury trial, as well as address potential future directions and limitations.

Anxiety

According to the *Diagnostic and Statistical Manual of Mental Disorders*

(DSM-IV-TR), individuals diagnosed with an anxiety disorder regularly present with symptoms such as restlessness, irritability, difficulty concentrating, and muscle tension, which may include shakiness, twitching, muscle aches or soreness, and trembling (American Psychiatric Association [APA], 2000). Somatic symptoms, including sweating and nausea, are also common (APA, 2000). A diagnosis of social phobia is expected to be even more damaging to a defendant because individuals with this disorder fear social or performance situations and are also afraid of displaying physiological symptoms of anxiety, such as blushing or sweat. Individuals will often use safety behaviors to minimize feelings and noticeable signs of anxiety (Clark & Wells, 1995). Safety behaviors are defined as behaviors carried out in social situations in order to reduce the risk of negative evaluation (Pinto-Gouveia, Cunha, & do Ceu Salvador, 2003), and may include such acts as avoiding eye contact, becoming withdrawn, nervous laughter, or other avoidance behaviors (Wells et al., 1995).

Nonpathological anxiety occurs when an individual experiences symptoms of anxiety, but does not meet the necessary criteria to be diagnosed with an anxiety disorder (*DSM-IV-TR*; APA, 2000). Symptoms are often precipitated by an event that the individual finds anxiety-provoking. Involvement in a criminal trial is expected to produce stress and often increases anxiety (Miller et al., 1981). Anxiety symptoms, often in conjunction with safety behaviors, as well as behaviors that are believed to be representative of deceit, are often experienced by anxious trial participants and are typical reactions to situational stress; however, inaccurate attributions are still assigned when such inferences are made (Brown, 1961). Therefore, defendants with anxiety disorders,

such as social phobia, as well as defendants who naturally experience anxiety symptoms due to the stress of the trial are at a disadvantage in the courtroom. Nonverbal behaviors, such as the avoidance of eye contact, fidgeting, and sweating may be perceived as guilt when they are truly just representative of the anxiety and nervousness that the individual is experiencing.

Only one study to date has examined the effects of defendant behavior (eye contact, nervousness/fidgeting, speech errors), as a function of anxiety, on juror perceptions of credibility and guilt (Pryor & Buchanan, 1984). Results demonstrated a significant relationship between behavioral manifestations of anxiety and jury perception of credibility and guilt as the defendant who displayed little or no anxiety received the highest credibility ratings and least number of guilty verdicts. Symptoms commonly associated with deceit, nervousness, and anxiety often lead to erroneous attributions about the individual in question; however, there is a significant lack of research that has examined the effects of nonverbal behavior in the courtroom (Boccaccini & Brodsky, 2002; Bothwell & Jalil, 1992; Brown, 1961; Pryor & Buchanan, 1984). The studies that have been conducted have not fully examined many of the relevant behaviors displayed during trial (Devine, Clayton, Dunford, Seying, & Pryce, 2001). Furthermore, the small number of studies that have examined the effects of behavior on jury decision making have only focused on the defendant's behavior while he is testifying (e.g., Boccaccini & Brodsky, 2002; Hemsley & Doob, 1978; Pryor & Buchanan, 1984). This is problematic since many defendants do not testify at their own trial, approximately 60% of defendants without a criminal record and 45% with a criminal record testify (Eisenberg & Hans,

2007). For that reason there is a strong need for further research on the effects of defendants' nonverbal behavior throughout the trial on jury perception of guilt.

Definition of Terms

The avoidance of eye contact and fidgeting behaviors have been identified as signs of nervousness (Vrij, 2000). These behaviors, with the addition of sweating, have also been described as symptoms of anxiety (APA, 2000). Therefore, it is very likely that a defendant will exhibit these behaviors when experiencing an anxiety-provoking situation, such as participating in a jury trial. The specific behaviors that were examined in this study were the avoidance of eye contact, fidgeting, and sweating. The following provides a brief background and definition of each of these variables.

Eye contact. Amount of eye contact, as measured by frequency and duration of eye contact per glance, has been determined to significantly influence impression formations (e.g., Meskin, 1974; Wheeler, Baron, Mitchell, & Ginsburg, 1979). Avoidance of direct eye contact has been found to elicit perceived personality traits of submissiveness and guilt (Tomkins & McCarter, 1964), and situational factors involved in a courtroom setting often affect visual behavior (Hemsley & Doob, 1978). Defense witness credibility, and therefore defendant guilt ratings, has also been determined to be negatively affected by the avoidance of eye contact (Hemsley & Doob, 1978).

In the present study, amount of eye contact was defined as the amount of time reciprocal gaze was maintained (duration) and the number of times reciprocal gaze was initiated (frequency) (Knapp, Hart, & Dennis, 1974). Brooks, Church, and Fraser (1986) conducted a study in which the main goal was to systematically manipulate eye contact to

measure their dependent variable. They used 60-second videotapes in which the model maintained eye contact with an alleged interviewer for a total of 5, 30, or 50 seconds. The model shifted eye contact when signaled to do so by a prompter off camera. When averting gaze the model occasionally looked downward and to either side. This ensured that the duration of eye contact remained constant across conditions. Their manipulation of eye contact was successful as they observed a difference in perceived personality characteristics as eye contact increased (Brooks et al., 1986).

Neal and Brodsky (2008) also examined the effects of eye contact and used ratios established by Brooks and colleagues (1986) to manipulate this variable (e.g., ~10%, ~50%, and ~80%). They examined eye contact exhibited by an expert witness during a 5-minute video, and replicated the ratios of eye contact in the study by Brooks et al. (1986) to ensure that within each 60-second period the witness was maintaining eye contact for approximately 5, 30, or 50 seconds. The length of each eye contact (duration) between moments of averting gaze (frequency) was totaled to provide an overall measurement of eye contact. The low eye contact condition was defined as eye contact occurring for a total of 30 seconds throughout the 5-minute video, whereas the medium eye contact condition consisted of 2.5 minutes of eye contact, and the high eye contact condition included 4 minutes of eye contact. Neal and Brodsky conducted a manipulation check and found that their manipulation of eye contact was successful.

Given that previous research has successfully manipulated eye contact, the present study defined and measured this variable in the same way as Neal and Brodsky (2008). In the avoidance of eye contact condition the defendant was instructed to

maintain eye contact for a total of 30 seconds during the 5-minute video. While avoiding eye contact, the defendant was instructed to look downward or to the right or left of the camera. In the control condition the defendant was instructed to maintain eye contact for at least 4 minutes of the 5-minute video.

Fidgeting behavior. In their study examining defendant behavior, Pryor and Buchanan (1984) looked at self-manipulation (nervous, fidgety) behaviors, which they operationalized as the rubbing and squeezing of one's hands together, scratching one's forehead, rubbing one's chin, cracking one's knuckles, and other nervous behaviors involving the hands. In their high anxiety condition the videotape was 249 seconds long and the defendant presented as fidgeting for a total of 190 seconds. In the moderate anxiety condition, which included a 181-second videotape, the defendant displayed fidgeting behaviors for 30 seconds. In the low anxiety condition the defendant exhibited fidgeting behaviors for 2 seconds of the 156-second videotape (Pryor & Buchanan, 1984).

The present study adapted Pryor and Buchanan's (1984) definition and measurement of fidgeting behavior. The definition of fidgeting for this study was expanded to include shifting in one's chair, which has also been identified as a nonverbal behavior commonly associated with deception (Pryor & Leone, 1981). Given that the present study included video recordings that were all five minutes in length, the fidgeting condition presented the defendant displaying fidgeting behaviors for a total of 230 seconds; the control condition displayed the defendant fidgeting for a total of 4 seconds.

Sweating. No study to date has examined the effects of sweating behavior on jury decision making. Therefore, the present study defined sweating as observable perspiration, or clear liquid, on the surface of one's skin. In the sweating condition the defendant had clear liquid and baby oil, representing sweat, on his forehead and hands. The defendant's hairline also appeared wet, and there were obvious wet spots in the armpit areas. Additionally, the defendant exhibited behaviors associated with sweating, such as wiping his forehead and the back of his neck with his hand(s).

Jury perception of guilt. Perception of guilt was defined as how guilty the mock juror believed the defendant to be after viewing the video recordings. This was measured in two ways. First, the participant was asked to produce a rating of guilt on a 7-point Likert scale, ranging from 1 (definitely not guilty) to 7 (definitely guilty). Second, the participant was asked to decide if the defendant was guilty or not guilty on a dichotomous scale by checking one of two boxes (guilty or not guilty).

Confidence ratings. Confidence ratings are similar to an individual's propensity to convict, which Nagel, Lamm, and Neef (1981) defined as the threshold probability of guilt that jurors personally require in order to convict or acquit the defendant. A juror may feel that it is highly probable that the defendant is guilty, and when asked to provide a rating of guilt, they may provide a relatively high guilt rating. However, when determining a verdict the juror may find the defendant not guilty because their probability threshold for conviction was not met. Therefore, participants were asked to rate how confident they were in their verdict decision on a 7-point Likert scale, ranging from 1 (strongly unconfident) to 7 (strongly confident).

CHAPTER 2: REVIEW OF THE LITERATURE

The following chapter discusses previous research in regard to four main topics. First, anxiety is examined via pathological and nonpathological terms, as well as its impact in the courtroom. Next, the trial process is described in detail, beginning with the jury selection and all the way through to post deliberation. Research on jury decision making, with special regards to jury accuracy and extralegal factors, is discussed. Last, defendant characteristics that affect jury perception are explored.

Anxiety

Anxiety disorders. As previously mentioned, anxiety disorders are characterized by excessive worry, restlessness, irritability, unwarranted fatigue, difficulty concentrating, sleep disturbances, and muscle tension, which may include shakiness, twitching, muscle aches or soreness, and trembling; somatic symptoms, including sweating and nausea, are also common (*DSM-IV-TR*; APA, 2000). Some individuals experience depressive symptoms, an exaggerated startle response, and autonomic hyperarousal symptoms, such as an increase in heart rate, dizziness, and shortness of breath, depending on the type of anxiety experienced (*DSM-IV-TR*; APA, 2000). Anxiety symptoms may fluctuate or be chronic, and are often exacerbated in times of stress (*DSM-IV-TR*; APA, 2000). Anxiety disorders are fairly common within our society, ranging from a lifetime prevalence rate of 2.5% for Obsessive Compulsive Disorder to as high as 13% for Social Phobia (*DSM-IV-TR*; APA, 2000).

Individuals diagnosed with anxiety disorders have difficulty controlling the worry they experience, which causes impairment in social, occupational, or other key areas of

functioning (*DSM-IV-TR*; APA, 2000). The *DSM-IV-TR* (APA, 2000) stipulates that in order for a diagnosis to be made, the intensity, duration, or frequency of anxiety symptoms experienced must be far greater than what would be expected under normal circumstances. Anxiety can be caused by a number of situations and can range in intensity from everyday minor events (e.g., finances), to competence related tasks (e.g., school and/or work), to intense anxiety caused by an extremely traumatic event (*DSM-IV-TR*; APA, 2000).

Social phobia is the most common anxiety disorder and third most prevalent psychological disorder, surpassed only by depression and alcohol use disorders (Hofmann & Bögels, 2006). Social Phobia is defined in the *DSM-IV-TR* as "a marked and persistent fear of social or performance situations in which embarrassment may occur" (p. 450) and exposure to such situations "almost invariably provokes an immediate anxiety response" (APA, 2000, p. 450). Individuals with social anxiety have an intense fear of negative evaluation and acting inappropriately in social situations. They also fear potentially exhibiting obvious physiological symptoms of anxiety, such as blushing or sweating. The accumulation of these fears creates a tendency for individuals with social phobia to avoid social situations that may be anxiety-provoking, which may cause severe distress (*DSM-IV-TR*; APA, 2000).

In an attempt to minimize feelings of anxiety and negative evaluation, socially anxious individuals use safety behaviors, which in turn assist in the maintenance of negative beliefs and anxiety (Clark & Wells, 1995). Safety behaviors can be defined as behaviors carried out in social situations in order to reduce the risk of negative evaluation

(Pinto-Gouveia et al., 2003). Safety behaviors may include such acts as avoiding eye contact, becoming withdrawn, nervous laughter, or other avoidance behaviors (Wells et al., 1995).

Nonpathological anxiety. These safety behaviors are not only used by individuals who have been diagnosed with an anxiety disorder, but can also be observed in the general public. If an individual is experiencing symptoms of anxiety, but does not meet the necessary criteria to be diagnosed with an anxiety disorder, they are likely suffering from nonpathological anxiety (*DSM-IV-TR*; APA, 2000). In these cases everyday worries are considered more controllable compared to symptoms associated with an anxiety disorder, and typically do not significantly interfere with overall functioning. Symptoms may not be as prominent, persistent, and distressing, and may not last as long. Precipitating events are often the cause of nonpathological anxiety, and symptoms experienced are frequently common and to be expected for the given situation. Anxiety disorders differ from nonpathological anxiety in that individuals with anxiety disorders are considered to be experiencing *trait anxiety*, which is defined as the consistent presence of anxiety across various settings and times (Spielberger, 1966). In contrast, nonpathological anxiety, or anxiety experienced in many of the situations that will be described below, may be considered *state anxiety*, which is defined as anxiety that occurs in a specific situation at a particular time (Spielberger, 1966).

Everyday stressful situations can cause one to experience symptoms of anxiety, without meeting the criteria for an anxiety disorder. Because one key component of an anxiety disorder is that the worry and anxiety experienced is excessive of what would be

expected for the situation (*DSM-IV-TR*; APA, 2000), a diagnosis is not appropriate for many people in the general public who naturally face a variety of anxiety-provoking circumstances that elicit symptoms representative of anxiety. For example, anxiety symptoms may occur when an individual believes his/her self-esteem is being threatened (Miceli & Castelfranchi, 2005). Although events eliciting these feelings may seem insignificant or harmless, such as having difficulty solving a puzzle or being approached by an acquaintance, they may trigger anxiety in some individuals. One phenomenon that has been thoroughly studied is the prevalence of dental anxiety. Studies all over the world have demonstrated that most people experience some form of anxiety when visiting the dentist (Armfield, Spencer, & Stewart, 2006; Hakeberg, Berggren, & Carlsson, 1992; Mellor, 1992). Test anxiety is also commonly experienced by most people, and has even been found to cause functional impairment in 20-35% of college students (Naveh-Benjamin, Lavi, McKeachie, & Lin, 1997; Zeidner, 1998). Test anxiety can lead to difficulty concentrating, oversensitivity, and memory problems (Huberty & Dick, 2006; Rothman, 2004; Zeidner, 1998), as well as physiological and behavioral disturbances including sweating, nausea, rapid heartbeat, fidgeting, and avoidance behaviors (Huberty & Dick, 2006).

The most common form of anxiety experienced in America is caused by a fear of public speaking, according to Gallup's annual poll of "things Americans fear most," described in the Washington Business Journal (Taking the fear and boredom out of public speaking, 2004). When an individual suffers from public speaking anxiety they experience physiological stimulation, such as an increased heart rate and self-focused

cognitions that are primarily negative, as well as behavioral symptoms, such as trembling (Daly, McCroskey, Ayres, Hopf, & Ayres, 1997). Fears associated with public speaking may consistently be at the top of society's list of apprehensions, but also included in this list is anxiety associated with heights, flying, confined spaces, crowds, mice, spiders, needles, thunderstorms, and death (Taking the fear and boredom out of public speaking, 2004).

The above examples of anxiety-provoking circumstances may be considered frequently encountered situations, which research has indicated reduce feelings of distress as the particular situation is repeatedly encountered (Olah, Törestad, & Magnusson, 1989; Törestad, Olah, & Magnusson, 1989). Infrequently encountered situations, on the other hand, such as being involved in a court trial, are associated with greater anxiety. This finding might be explained by the fact that during infrequent situations one is less able to predict, and therefore control, expectancies and behaviors based on a lack of previous experience (Törestad et al., 1989). It is also possible that the relationship between the frequency of an anxiety-provoking situation and intensity of anxiety symptoms are due to conditioning and extinction (Törestad et al., 1989).

Anxiety in the courtroom. The trial process and courtroom surroundings are expected to be perceived as stressful and often increase anxiety among its participants (Miller et al., 1981). As Brown (1961) described, behaviors thought to exemplify deceit are often those expected of, and experienced by, an anxious or highly motivated witness. Erroneous attributions are often delegated when such inferences are made, despite the fact that these behaviors are typical reactions to situational stress. In some cases attorneys

will purposefully use this to their advantage, knowing that intense anxiety is manifested in behaviors that are typically believed to be associated with lying (Miller et al., 1981). By increasing a witness' or defendant's anxiety, it is to be expected that the individual will demonstrate an increase in nonverbal behaviors, such as inaudible speech, hesitancy, nervous fidgeting, uncertainty, and the avoidance of eye contact (Miller et al., 1981). In heightening anxiety, and subsequently the nonverbal behaviors associated with anxiety, the attorney attempts to discredit the individual's testimony by creating presumptions of deceit in the jurors' minds, even though the individual might be truthful and innocent, and only displaying these anxiety symptoms because of the extreme situational stress he is under (Miller et al., 1981). This is also one reason why criminal defendants regularly meet with a trial consultant as witness preparation is employed to teach the defendant specific techniques to reduce levels of anxiety and stress (Boccaccini, 2002; Brodsky, 1999; Myers & Arena, 2001).

The Trial Process

The goal of the American legal system is to prosecute the guilty and spare the innocent, therefore it is imperative that irrelevant factors do not significantly influence the jury's decisions. If extralegal factors are influencing jury decision making, then the public must be educated on these biases in an attempt to ensure that only those who are truly guilty of a crime are found guilty in a court of law.

A trial may serve one of two purposes: (1) the issue may be legal, where the defendant is arguing against such things as language used and constitutional rights; or (2) factual, where the defendant is arguing against facts of the crime, such as guilt (Elwork et

al., 1981). Civil cases occur when parties are disputing one another, whereas criminal cases include charges against the defendant(s) due to violations against the general public, in addition to the specific victim(s) involved. The goal of civil cases is often to compensate the injured party, whereas criminal cases strive to protect the public and punish and/or rehabilitate the guilty party (Elwork et al., 1981). Criminal trials will be the focus of this review.

Before a criminal trial occurs the defendant, usually with the aid of his lawyer, must choose a plea (Elwork et al., 1981). Based on the probability of acquittal, evidence, and severity of the potential penalty, the defendant will choose to plead guilty or not guilty. In many cases a plea bargain is made between the prosecutor and defense attorney, which often results in a guilty plea to a lesser charge. If the defendant chooses to plead not guilty, however, he must then decide upon whether or not to have a jury trial or trial by judge (bench trial) (Elwork et al., 1981).

The Bill of Rights establishes that citizens have the right to a jury. Criminal defendants have the right to a jury trial in federal and state jurisdictions in cases that have a possible punishment of more than six months imprisonment (Elwork et al., 1981). The sixth amendment of the United States Constitution states that defendants in criminal cases have a right to a jury, while the seventh amendment states that under certain conditions defendants in civil cases also have this right (Schniederjans & Hollcroft, 2005). The Constitution also states that all individuals are entitled to a fair and impartial trial, therefore the selection of jury members must adhere to these standards. This is one of the most costly and time consuming events involved in a trial (Schniederjans & Hollcroft,

2005). The time it takes for jury selection and deliberation to be completed is often far greater than the time required to complete a bench trial (Elwork et al., 1981). Additionally, trials involving a jury cost taxpayers significantly more in comparison to bench trials.

Jury selection. If a jury trial is chosen, jurors must be selected; this process is called the voir dire and it is often a lengthy and ambiguous process that may be conducted by the judge, lawyers, or both (Elwork et al., 1981). Juries typically consist of twelve members; however, several states have implemented laws allowing six-member juries in an attempt to save time and financial resources. Despite controversy over this decision, the United States Supreme Court has deemed the use of a six-member jury as constitutionally permissible (Elwork et al., 1981).

Jurors are randomly selected from the general population to attain fairness and impartiality (Schniederjans & Hollcroft, 2005). During this process the judge and attorneys attempt to eliminate unqualified or biased individuals. To ensure that these standards are met, jurors are evaluated based on adequate representation of the public, lack of potential biases and preconceived notions about the defendant, and the ability to make adequate judgments. If any of these criteria are not met, the individual should be removed from the pool of potential jurors (Schniederjans & Hollcroft, 2005). Although the judge or attorneys excuse potential jurors based on statutory prohibitions, referred to as "excusing for cause," attorneys also have the ability to eliminate individuals without disclosing their reasoning for doing so, known as "exercising one's peremptory challenges," although their ability in this respect is limited (Elwork et al., 1981, p. 5).

Removal for cause includes 14 selection-screening cause criteria, such as the inability to read or write, a prior theft or felony conviction, or evidence of bias or prejudice for the prosecution or defendant (Schniederjans & Hollcroft, 2005). An unlimited number of jurors can be removed using this method, although the judge must agree to these exclusions. The peremptory challenge is another exclusion method whereby the prosecutor and defense attorney may remove potential jurors for unspecified reasons. In misdemeanor cases each side may use this method three times, while in felony cases each typically has 10 challenges they may use, and in capital cases each side has 15 peremptory challenges available (Schniederjans & Hollcroft, 2005). Although the reasons for these exclusions are not pronounced, some rules do exist, for instance jurors may not be removed based solely on their race or gender.

During the voir dire attorneys will attempt to exclude jurors not in their favor and keep jurors who will be favorable to their side (Schniederjans & Hollcroft, 2005). Jurors are screened by their answers to verbal questions about such factors as their interests, attitudes, opinions, lifestyle, background, religious and social affiliations, and experiences. In some cases potential jurors may be given a questionnaire to assess their suitability before being questioned directly by the judge and attorneys. Jury consultants, often consisting of psychologists and lawyers, may also be involved in the selection of jurors (Schniederjans & Hollcroft, 2005). These consultants use their knowledge and intuition to analyze potential jurors and then select a jury. However, this service is not always used because it can be expensive and therefore unreasonable for the specific case.

The overall goal is to create an ideal jury using objective information, although the attorneys' goal is to select a jury that is likely to achieve a verdict in their favor.

The process of selecting the jury has been highly criticized (Elwork et al., 1981). Voir dire may be ineffective for many reasons, including incompetence at evaluating prospective jurors by the attorneys, the restricted time provided to select jurors, the limited extent of questioning, and the high occurrence of dishonesty from potential jurors. Conformity amongst potential jurors and a lack of self-disclosure, caused by sociopsychological factors, such as peer pressure and the setting of the courtroom, may negatively influence voir dire as well. Individuals may be uncomfortable answering personal questions honestly in front of the judge, attorneys, witnesses, other jurors, and the public, which is often the case (Elwork et al., 1981).

The trial. Once a jury has been selected the trial begins. In some cases the judge provides preliminary instructions to the jury members, which include descriptions of the roles of those participating in the trial, such as the judge, jury, prosecutor, defense lawyer, and expert witnesses; however, many judges do not provide instructions to the jury until after all of the evidence is presented (Elwork et al., 1981). Preliminary instructions may also include expected juror conduct and behavior during the trial, juror duties, the need for impartiality, and appropriate conduct outside of the courtroom, such as their responsibility to avoid media outlets. The substantive law relevant to the case, which should guide the jury in their decision making, may also be discussed at this time (Elwork et al., 1981).

Opening statements are then given, starting with the prosecuting attorney, who will summarize the evidence that will be discussed during the trial. This is followed by the presentation of evidence, including witness testimony. Upon completion of the prosecution's case, the defense presents its evidence. Once both sides have pronounced their closing arguments, including factual evidence, attorney opinions and inferences, and emotionally-charged tactics to sway the jury, the judge provides the jury with legal instructions that outline the legal criteria they must abide by during deliberation to interpret the facts of the case and ultimately reach a verdict (Elwork et al., 1981).

Jury deliberation. During deliberation jury members share information and testimony they believe to be significant (Kaplan & Scherscing, 1981). The reliability of testimony and witnesses, the validity and relevance of the evidence, and any preferential beliefs are discussed. Participants are instructed to use the information presented during trial to reach a verdict; however, research has found that jurors often do not listen to these instructions if they are given after the evidence has been presented (Diamond, 1993; Smith, 1993). Several studies have indicated that jury instructions are more effective if provided at the beginning of the trial (Bourgeois, Horowitz, ForsterLee, & Grahe, 1995; ForsterLee, Horowitz, & Bourgeois, 1993; Kassin & Wrightsman, 1979). This could be due to the finding that pre-deliberation opinions significantly impact post-deliberation verdicts (Carlson & Russo, 2001; Davis, Kerr, Atkin, Holt, & Meek, 1975; Foss, 1976; Stone, 1969). If case evidence is distorted as it is processed, it may be challenging for jurors to later evaluate the evidence in an unbiased manner (Carlson & Russo, 2001). Also, because jurors are often unaware of the impact that their pre-deliberation opinions

have on their processing of the evidence, it may be beneficial to provide instructions before the presentation of evidence commences in an attempt to reduce this effect (Carlson & Russo, 2001).

Davis and colleagues (1975) argue that if a majority of the jurors enter deliberation with a predisposition toward a verdict, the minority will typically be persuaded towards this predisposition and acquiesce with the decision of the majority. Deliberation has also been shown to increase verdict leniency, which could be due to the greater ease of convincing outliers to vote not guilty rather than guilty (Davis et al., 1975). This finding demonstrates that not guilty verdicts may not always be as unanimous and as confident as they appear.

Juror confidence. Nagel, Lamm, and Neef (1981) have discussed the importance of juror confidence ratings by examining the propensity to convict, which they defined as the threshold probability of guilt that jurors personally require in order to convict or acquit the defendant. Simon (1970) surveyed judges about what they believed to be an appropriate probability threshold, based on what guilt "beyond a reasonable doubt" implies, and found that the judges' responses tended to be more than .90. This probability threshold indicates that a juror should be approximately 90% convinced that the defendant is guilty in order to produce a guilty verdict. Furthermore, the Blackstone conviction standard states that "it is better to let ten guilty persons go free than to convict one innocent person" (Nagel et al., 1981, p. 366), which translates into a .91 probability threshold. However, the analyses conducted by Nagel and colleagues found that the average threshold probability produced by respondents was .55, even though most of the

respondents previously indicated that the law should require a probability threshold of close to .90. Although, the authors indicated that their sample sizes were small, therefore their findings should be considered general tendencies rather than conclusive findings.

Kalven and Zeisel (1966) argued that juries have a higher probability rate than this; in fact, they believed it is even higher than what is to be expected from judges. They explained that jurors tend to empathize with the defendant more than judges do, which provokes a higher probability threshold. A juror's probability threshold can vary depending on a number of factors, including gender, political views, career aspirations, and other characteristics of the juror, defendant, and the case facts, including the specific crime with which the defendant is being charged (Nagel et al., 1981). Some jurors may have strong feelings about particular crimes, which can significantly increase or decrease the probability of guilt required for them to acquit or convict the defendant. For example, Nagel and colleagues (1981) found that males have much larger conviction threshold probabilities in rape cases compared to females.

A juror may feel that it is highly probable that the defendant is guilty, and if asked to give a rating of guilt, they may provide a relatively high guilt rating. Nevertheless, when determining a verdict the juror may find the defendant not guilty because their probability threshold for conviction was not met. This demonstrates that the juror's propensity to convict, also known as their confidence rating, is an important component in jury decision making.

Post deliberation. Once a decision has been reached, the trial reconvenes and the jury pronounces its verdict to the court. However, the judge possesses the confined right

to overturn a jury's verdict in some circumstances (Elwork et al., 1981). If the verdict reached is one of guilt, most jurisdictions require the judge to conclude the trial by providing the sentence. The sentence should be customized for the particular defendant involved as it is based on the nature of the offense, the defendant's character, and public interest involved in the case (Elwork et al., 1981).

Jury Decision Making

The mechanisms involved in jury decision making are not only important for trial purposes, but are also essential because of the influence that jury trials can have on plea bargaining and settlements agreed upon out-of-court (Nagel et al., 1981). Therefore, despite the fact that most cases do not go to trial, specifically jury trial (Chen, 1991; Greenberg & Ruback, 1982), information about jury decision making can still play a significant role in the outcome of a case (Nagel et al., 1981).

Throughout a trial the jury must process information about the defendant's character, motives, capability, and courtroom demeanor, as well as evaluate witness testimony and the technical facts about the case in order to arrive upon a decision regarding culpability (Kaplan & Schersching, 1981). Sometimes a priori judgmental dispositions based on transient states, such as pretrial publicity or events that alter mood, and enduring personality traits also affect decision making (Kaplan & Schersching, 1981). This pretrial bias causes concern in the legal system because juries are expected to remain impartial and unbiased (Elwork et al., 1981; Schniederjans & Hollcroft, 2005).

Jury accuracy. Although the effectiveness and accuracy of juries is frequently the subject of debate, and many studies have demonstrated that extralegal factors

inappropriately play a significant role in the outcome of jury trials, little research has been conducted on actual juries to determine if they are a valuable component of the legal system, or if they do in fact suffer from the weaknesses described in research using simulated juries (Young, Tinsley, & Cameron, 2000).

One study examined 48 actual jury trials that occurred in New Zealand in 1998 using a variety of methods, including semi-structured questionnaires to interview jurors about a multitude of issues after each trial was completed (Young et al., 2000). Issues addressed included the process jurors used to arrive at their decisions, the reasons for their verdict, and the differences between judges' and juries' decisions. The researchers compared what the judge's verdict would have been, obtained before the jury provided their verdict, and the jury's final verdict decision. The judge and jury only agreed upon the appropriate verdict in 24 of the 48 trials (Young et al., 2000). In 11 of the trials there was a disagreement between the judge and jury, and it was determined that the judge's view would have been more appropriate, based on the evidence. In five of the court cases the judge and researchers believed that the defendant should have been convicted on all of the charges brought forth, but was only convicted on some because the jury decided to compromise during deliberation. In three of the trials the verdicts delivered were questionable and five of the trials ended in fully hung juries (Young et al., 2000).

Despite these daunting findings, the researchers concluded that juries face major difficulties that negatively affect their ability to perform their duties effectively and efficiently (Young et al., 2000). They do not believe that their research supports the notion that juries are inherently incompetent, or that they lack value in the legal system,

but rather state that jurors need to be given the proper tools to be successful in their role. Arkes and Mellers (2002) also have not argued against the use of juries, despite insisting that jury error rates are probably high and likely exceed the percentage of errors expected by the public, which is approximately 10%.

Extralegal factors affecting jury perception. Jurors' competency and efficiency, as well as their ability to remain impartial and unbiased, are commonly questioned (Elwork et al., 1981). A plethora of extralegal factors have been found to play an inappropriately significant role in the determination of guilt in our legal justice system (Izzett & Sales, 1981). Characteristics of the **victim** (e.g., Baumer, Messner, & Felson, 2000; Vrij & Firman, 2001; Williams & Holcomb, 2001), **witness** (e.g., Bothwell & Jalil, 1992; Hemsley & Doob, 1978; Lindsay, Wells, & Rumpel, 1981), **expert witness** (e.g., Memon & Shuman, 1998; Neal & Brodsky, 2008), **judge** (e.g., Blanck, 1993; Burnett & Badzinski, 2005; Givens, 1980; Hart, 1995), **attorney** (e.g., Cohen & Peterson, 1981; Hahn & Clayton, 1996; Young et al., 2000), **juror** (e.g., Bray & Noble, 1978; Forgas & Bower, 1987; Pozzulo, Dempsey, Maeder, & Allen, 2010), and **defendant** (e.g., Boccaccini & Brodsky, 2002; Gunnell & Ceci, 2010; Jehle et al., 2009; Mazzella & Feingold, 1994; Pryor & Buchanan, 1984) can influence verdict and sentencing determinations, even when such characteristics are not pertinent to the trial.

Much of the research to date has demonstrated a significant relationship between extralegal factors and jury perception, as will be discussed below. However, it should be noted that some researchers have argued against this finding, stating that jurors rely mostly on the evidence of the case and not extraneous variables (e.g., Bridgeman &

Marlowe, 1979). Kaplan and Miller (1978) have argued that juror bias may exist prior to jury deliberation, but after trial information is discussed between the jurors these biasing effects are reduced.

Victim. Even though victim credibility is expected to be judged based on objective and relevant factors, several additional factors pertinent to the victim have been found to affect jury perception of guilt. For example, victim race has an effect on the outcome of a case as black defendants are two to three times more likely to be convicted of an average felony homicide against a white victim compared to a black victim (Sorensen & Wallace, 1995). Several studies have determined that black defendants who murder a white victim, in comparison to a black victim, are more likely to receive a death sentence (e.g., Sorensen & Wallace, 1995; Thomson, 1997; Williams & Holcomb, 2001). A death sentence is also more likely if the victim is female rather than male (e.g., Baumer et al., 2000; Williams, Demuth, & Holcomb, 2007; Williams & Holcomb, 2001). The likelihood of receiving the death penalty increases the most when the victim is white and female in comparison to a black female, white male, and black male victim (Holcomb, Williams, & Demuth, 2004). Williams et al. (2007) also found that defendants are treated more severely when the victim is white and female, while more leniencies are granted when the victim is black and male. Although Baumer and colleagues (2000) found that defendants in murder cases are more likely to receive a reduction in the charge against them when the victim is nonwhite, they also discovered that the racial composition of the county in which the case is being held is of statistical importance. They found that the

discrimination associated with murdering a nonwhite victim decreases as the proportion of nonwhite individuals in the county increases (Baumer et al., 2000).

Vrij and Firman (2001) discovered, through their research on victims of rape, that physical attractiveness of the victim can influence jury decision making. In their study, victims who were considered more attractive were thought to be more credible and less responsible for the crime in comparison to victims who were unattractive. When the victim was beautiful the evidence against the defendant was also considered to be stronger. Kerr (1978) also found that defendants were treated differently depending on whether the victim was perceived to be physically attractive or unattractive. More generally, Landy and Aronson (1969) found that defendants were given a more severe punishment when the victim was described positively in comparison to when negative descriptions of the victim were provided.

Witness. Displays of emotion can play an influential role in the determination of guilt. The final verdict is not only affected by the defendant's level of emotion, as will be discussed in the next section, but can also be affected by the victim's perceived emotion (Kaufmann, Drevland, Wessel, Overskeid, & Magnussen, 2003). If a witness, such as a victim, does not display the expected emotions (e.g., smiling instead of crying), credibility and guilt ratings are significantly affected.

Behavioral displays produced by a witness, such as verbal hesitancy and uncertainty, face rubbing, playing with one's hair, and nervous body movements, can impact jury perception as they are often believed to be signs of deceit; however, research has shown minimal differences between deceivers and non-deceivers in this regard

(Miller et al., 1981). Knapp, Hart, and Dennis (1974) found that the only two nonverbal factors that were statistically different between deceivers and non-deceivers were: (1) adaptor duration, which referred to the use of one's hands to manipulate foreign objects, clothing, or parts of the body; and (2) the duration of eye contact, which referred to the amount of time reciprocal gaze was maintained. Factors such as speech errors, leg movements, verbal repetitions, or frequency of eye contact (i.e., the number of times reciprocal gaze was initiated) were not determined to be statistically significant (Knapp et al., 1974).

Research has indicated that ratings of witness accuracy are affected by the perceived confidence of the witness (Lindsay, Wells, & Rumpel, 1981; Wells, Lindsay, & Ferguson, 1979). Bothwell and Jalil (1992) discovered that witness behavioral style also affects how the witness is viewed; a nervous witness in their study was deemed less confident and accurate compared to a calm witness. It has been argued, however, that making inferences about truthfulness based on witnesses' verbal and nonverbal behavioral displays may not be effective considering the nature of the courtroom, as well as the importance attached to trial testimony, which often increases stress levels and anxiety (Miller et al., 1981).

Communicator credibility can be negatively affected based on level of eye contact (Brooks, Church, & Fraser, 1986; Hemsley & Doob, 1978; Kleinke, 1986). Hemsley and Doob (1978) studied the effects of visual behavior displayed by an alleged defense witness on judgments of witness credibility and defendant guilt by manipulating looking behavior in a simulated videotaped testimony of an alibi witness. The witness either

maintained eye contact with his target audience or looked slightly downward while testifying. Results indicated that participants believed the defense witness to be less credible, and subsequently provided higher guilt ratings to the defendant, when the witness avoided direct eye contact (Hemsley & Doob, 1978).

Expert witness. Neal and Brodsky (2008) examined the effects of an expert witness' eye contact on credibility ratings and found that experts in the high eye contact condition produced significantly higher credibility ratings compared to experts in the medium and low eye contact conditions. Although, further investigation discovered that this difference only occurred with male expert witnesses. Credibility ratings for the female expert witness were not significantly affected by level of eye contact (Neal & Brodsky, 2008). This finding is consistent with other research indicating that an increase in amount of eye contact only leads to an increase in positive perceptions with men (Aguinis & Henle, 2001; Brooks et al., 1986). Neal and Brodsky also found that a significant relationship did not exist between sentencing ratings and level of eye contact of the expert witness, as measured by participants' ratings of the likelihood of defendant recidivism. Memon and Shuman (1998) have argued that jurors generally view male experts as more credible in comparison to female experts.

Judge. Judges influence trial outcomes in several ways, such as through facial expressions and body movements exhibited during trial (Givens, 1980). Jurors are not oblivious to these nonverbal behaviors and often react to these cues (Badzinski & Pettus, 1994) and make decisions that they believe the judge expects of them (Hart, 1995). Guilty verdicts have been associated with judges perceived as lacking professionalism

and competence, as well as those believed to be less strict and wise (Blanck, 1985). Research has also found that the judge's communicative behaviors, including frequency of smiling and judicial behavior, affect verdict decisions (Blanck, 1993; Blanck, Rosenthal, Hart, & Bernieri, 1990). Behaviors that are perceived as negative and indicate that the judge has low involvement in the trial are the most salient, which tend to create negative impressions (Blanck, 1993). Burnett and Badzinski (2005) have argued that there is a significant relationship between judge nonverbal behavior and juror perception and verdicts. In their study on judge nonverbal communication they found that the judge was a topic of discussion during deliberation, signifying that the judge's behavior is influential during the trial. Burnett and Badzinski also stated that jurors might be influenced by the judge's nonverbal behavior and choose a verdict with which they believe the judge would agree. If the judge appears uninvolved, the jury may feel as though he has already made up his mind about the case, which could increase guilty verdicts as well (Burnett & Badzinski, 2005). However, they also suggested that a judge's low involvement could decrease guilty verdicts as the jurors try to overcompensate for the noticeable bias of the judge. Overall, the results from their study confirm that jurors often detect a judge's level of involvement and apparent bias; however, the implications of this relationship need to be further examined (Burnett & Badzinski, 2005).

Attorney. Cohen and Peterson (1981) examined the effect of attorney race and sex on jury verdicts and found that race played a noteworthy role. Defendants represented by black attorneys tended to receive more guilty verdicts compared to defendants represented by white attorneys. Attorney sex, on the other hand, was not determined to be

influential. Campbell and colleagues (1992) also studied the effect of attorney gender on verdict outcome and did not find it to be significant, nor did they find the presentation style of the attorney (aggressive/dominant versus nonaggressive/neutral) to substantially affect verdict decisions; although, they did find that a dominant presentation style led jurors to have greater confidence in their verdicts. Conversely, Hahn and Clayton (1996) found that presentation style has a significant impact on trial outcomes as aggressive attorneys received an acquittal for the defendant more often than passive attorneys. They also found gender to play an important role as male attorneys received more favorable outcomes than female attorneys.

Kaplan and Miller (1978) discovered that annoyance behaviors (i.e., obnoxious, badgering, and repetitive behavior) produced by the defense attorney increased pre-deliberation guilt ratings against the defendant, whereas the least amount of guilt was assigned when the prosecutor's behavior was offensive, or when no annoyance behaviors were displayed by the attorneys. However, following deliberation they found that guilt ratings moved toward greater extremity of response. The defendant in the guilt-appearing trial was given more guilty ratings, while the defendant in the innocent-appearing trial was given less guilty ratings after deliberation. Furthermore, it has been argued that the perceived prestige of the attorney also influences juror verdicts (Weld & Danzig, 1940). Perhaps this is related to the finding that a death sentence is more likely in capital murder cases when the defendant is represented by an appointed counsel rather than a privately retained attorney (Beck & Shumsky, 1997).

Research in general has concluded that an attorney's credibility is affected by his facial expressions, amount of eye contact with participants throughout the trial, and movement in the courtroom (Pryor & Buchanan, 1984). Young and colleagues (2000) completed post-trial interviews with juries and found that jurors responded negatively to attorneys who appeared uncertain, apprehensive, arrogant, unresponsive or incredulous of their case, and those who lacked energy and avoided eye contact. The jurors' judgments were also negatively affected if the lawyer was perceived as disorganized, unprepared, or confused (Young et al., 2000). It was evident that attorney performance had an effect on jury decision making as a substantial proportion of jurors in 14 of the 48 cases included in the study openly admitted that one or both attorneys' performances had a significant impact on their opinions. Despite the fact that the variety and strength of responses presented by many of the jurors implied that the performance of the prosecuting and defense attorneys had, at the very least, some impact on their decisions, most jurors denied any considerable influence (Young et al., 2000).

Juror. Characteristics of the juror often influence jury decision making as well. For example, one study found that juror gender plays a role in how the victim is perceived as female mock jurors gave higher guilt ratings, and perceived the victim to be more credible, as well as gave higher ratings of responsibility to the defendant, when compared to male mock jurors (Pozzulo et al., 2010). Male jurors, on the other hand, found the defendant to be more credible and attributed more blame to the victim for causing the crime compared to female jurors. Numerous studies have supported the finding that female jurors tend to attribute more blame to the defendant compared to male

jury members (e.g., Feather, 1996; Lyons & Regina, 1986; Schutte & Hosch, 1997). Research has also found that jury racial composition affects decision making as the jury tends to be more punitive towards nonwhite defendants as the proportion of white jury members increases (Bowers, Steiner, & Sandys, 2001; Daudistel, Hosch, Holmes, & Graves, 1999). All-white juries are also more likely to convict when the defendant is Latino or Indian compared to racially diverse juries (Chadee, 1996; Perez et al., 1993).

Jurors' decisions may also be influenced by personality style (Bray & Noble, 1978). Individuals with authoritarian personalities, defined as embracing conservative values, yielding to strong leadership, acting forcefully against deviant individuals and out-group members, and believing in rigidity in terms of power and control, both personally and in society (Narby, Cutler, & Moran, 1993), tend to reach guilty verdicts more often compared to those who do not possess these traits (Bray & Noble, 1978; Narby et al., 1993); although, some studies have not found this relationship to be significant (e.g., Sue, Smith, & Pedroza, 1975). These mixed results could be due to the student samples utilized, as students may have less extreme authoritarian attitudes overall compared to the general public. Studies using the general population have found that high authoritarians are consistently more punitive; however, such studies have frequently examined punishment decisions and not guilty verdicts (Centers, Shomer, & Rodrigues, 1970; Snortum & Ashear, 1972). Therefore, these results cannot be made to indicate that high authoritarians are also more likely to convict a defendant.

A juror's mood has the ability to influence decisions as research has found that individuals tend to remember information that is similar to the mood they were in at the

time the information was presented, which in turn causes mood-congruent judgments (Kuvaas & Kaufmann, 2004; Schwarz, 2000). In a trial situation, jurors are more likely to recall positive information about the defendant when in a good mood, and negative material when in a bad mood (Forgas & Bower, 1987), which can have a significant impact on verdict decisions.

Defendant Characteristics Affecting Jury Perception

A wealth of research has been conducted on various characteristics of the defendant that can influence jury verdict and sentencing decisions, including gender, age, sexual orientation, socioeconomic status, race, ethnicity, juror-defendant similarity, religion, physical attractiveness, emotion, and behavior. Many studies have concluded that defendants are treated more leniently when they are described in terms of positive traits, rather than negative traits (Kaplan & Kemmerick, 1975; Nemeth & Sosis, 1973). Although, some research has found that in certain situations defendants characterized by positive features will be judged more severely compared to defendants described using negative characteristics (Izzett & Fisherman, 1976). Izzett and Fisherman (1976) determined that socially attractive defendants, without a justification for their behavior, are sentenced more strictly in comparison to socially unattractive defendants in the same situation. Person perception research states that a variety of factors influence the impressions individuals form of others, including nonverbal cues such as eye contact (Ellsworth & Carlsmith, 1968), body posture and gestures (Ekman, 1965; Ekman & Friesen, 1969), body orientation (Mehrabian, 1967), and paralinguistic signs (Leginski & Izzett, 1976). Research has also found that jurors are more attracted to individuals who

are attitudinally similar to themselves in comparison to individuals who are attitudinally dissimilar, specifically for high authoritarian subjects (Griffitt & Jackson, 1973). All of these factors influence the affective evaluations one constructs about others (Izzett & Sales, 1981).

Research conducted by Pozzulo and colleagues (2010) demonstrated a significant relationship between gender and jury perception of guilt as male defendants received higher guilt ratings in comparison to females. In fact, several studies have found that female defendants are treated more leniently compared to male defendants (e.g., Auerhahn, 2007; Greatrix & Enright, 2006; Rodriguez, Curry, & Lee, 2006). Although, Mazzella and Feingold (1994) have argued that while defendant gender affects jury sentencing decisions, it does not have a statistically significant effect on guilt determinations. Age of the defendant may also play a role in jury decision making as blame is more often attributed to the victim when the defendant is older rather than younger; however, this finding was only significant when the victim was female (Pozzulo et al., 2010).

Several studies have revealed that sexual orientation plays an undue role in the criminal justice system as research has indicated that homosexual defendants are treated unfairly (e.g., Harris & Cook, 1994; Hill, 2000; Seelau, Seelau, & Poorman, 2003). Crimes committed by or against homosexual defendants are thought to be less serious and violent compared to crimes committed by or against heterosexuals, and intervention is not believed to be as necessary (Harris & Cook, 1994; Hill, 2000; Seelau et al., 2003). Ragatz and Russell (2010) found that heterosexual female defendants received lower

guilt ratings and more lenient sentences compared with other defendants, and the heterosexual defendants in their study were convicted of a less serious offense compared to homosexual defendants, despite the fact that crime details remained the same in all conditions. One study examining the effects of defendant sexual orientation in a child sexual assault case found that jurors produced more guilty verdicts when the defendant was homosexual versus heterosexual, particularly when a male victim was described (Wiley & Bottoms, 2009).

Mazzella and Feingold (1994) conducted a meta-analysis on mock juror judgments and found that jurors are less likely to infer guilt if the defendant is physically attractive and of high socioeconomic status (SES); however, these findings were dependent on crime type. For instance, the defendant did not have this advantage in cases of swindling or negligent homicide. Despite the fact that race did not have an overall effect on verdict decisions in their research, race interacted with other factors to influence jury decisions. For example, in some cases it was advantageous to be white (e.g., in negligent homicide cases), whereas other times the defendant benefited from being black, such as in embezzlement and fraud cases (Mazzella & Feingold, 1994).

Perez and colleagues (1993) have asserted that the SES of a defendant can influence jurors' perception of guilt. Punishment decisions are also affected as more severe sentences have been given to defendants with a low SES compared to defendants from a high SES (Osborne & Rappaport, 1985). Esqueda et al. (2008) found that the defendant's SES not only had an effect on culpability assigned, but it also increased confidence in guilt for low SES defendants compared to defendants with a high SES.

However, this finding is controversial as many studies have not found the relationship between defendant income level/status and verdict decisions to be significant (e.g., Bray, Struckman-Johnson, Osborne, McFarlane, & Scott, 1978; Gleason & Harris, 1976; Gordon & Jacobs, 1969). In fact, Bray and colleagues (1978) examined the decisions of mock jurors from a sample of students, as well as a sample of individuals from the community, and did not find a significant relationship between social status (high- and low-status) of the defendant and verdict decision. This finding did not change when the researchers compared the decisions that mock jurors made individually with decisions made by six-person mock juries.

Several studies have concluded that the defendant's race has an impact on jury decision making. For instance, research on noncapital sentencing outcomes has found that harsher sentences are given to young black men compared to other defendants (Demuth & Steffensmeier, 2004; Steffensmeier, Ulmer, & Kramer, 1998). However, research regarding the effects of defendant race on jury decision making has produced inconsistent results. Some studies have concluded that the race of the defendant does not significantly affect jury decisions (Mazzella & Feingold, 1994; McGuire & Bermant, 1977), while other studies have found that jurors are more punitive toward out-group defendants (DeSantis & Kayson, 1997; Hymes, Leinart, Rowe, & Rogers, 1993). Some studies have contradicted this finding and found that jurors are more lenient toward out-group defendants (McGowen & King, 1982; Poulson, 1990). A meta-analysis examining the effects of race on verdict and sentencing decisions concluded that a small, but

significant, effect of racial bias on jury decision making exists (Mitchell, Haw, Pfeifer, & Meissner, 2005).

Ethnicity has also been found to bias jury's decisions. Thomson (1997) found that Hispanics were more likely to receive the death penalty compared to European Americans, although in communities with a high Hispanic population this bias may not occur. Other studies have also declared that culpability biases exist against Hispanics (Bodenhausen, 1990; Cowan et al., 1997). Esqueda and colleagues (2008) discovered an interaction effect between SES and ethnicity as a Mexican American defendant described as having a low SES was determined to be more culpable, found guilty, and given a more severe punishment more often compared to high SES Mexican Americans and European Americans with either low or high SES. However, they found that this bias did not occur when Mexican Americans participated as mock jurors. The Mexican American subjects also did not demonstrate a bias against the European American defendant presented, regardless of SES (Esqueda et al., 2008). It should also be noted that one study on noncapital felony cases did not find a significant relationship between ethnicity and jury verdicts (Daudistel et al., 1999).

In one study legal practitioners, such as judges, law students, and police officers, were asked to determine culpability, guilt, and other personality traits of the defendant relevant to the crime, and were then asked to decide on imprisonment sentences (Ahola, Hellström, & Christianson, 2010). A "same-sex penalty effect" was revealed where sentencing evaluators, such as judges and jurors, evaluated defendants of the same gender as themselves more harshly compared to defendants of the opposite gender. A "male

penalty effect" was also observed, where non-sentencing evaluators, such as police officers and law students, judged a male defendant more severely than a female defendant. This effect was enhanced for the more attractive defendants with female non-sentencing evaluators (Ahola et al., 2010).

The inclusion of a defendant's religion during trial has been studied and found to affect jury decision making (Miller & Bornstein, 2006). Verdict decisions were affected by the use of religion by the defense attorney in one study examining the effect of religion in death penalty trials; a conversion to Christianity resulted in less punitive decisions by mock jurors. These researchers argued that a conversion is more influential than other uses of religion because describing simple religious acts, or providing evidence to suggest that the defendant has always been religious, does not require as much effort (Miller & Bornstein, 2006). Also, a conversion to Christianity may create a greater sense of sincerity and remorse on the part of the defendant. Contrary to this finding, religious appeals by the prosecutor did not significantly affect verdict decisions (Miller & Bornstein, 2006).

There is much negativity associated with minority religions, sometimes referred to as "cults", which has been witnessed in mock jury trials (Pfeifer, 1999). This research has shown that strong anti-cult biases impinge on ratings of defendant guilt when involvement in a satanic cult is merely mentioned, regardless of whether the defendant admitted to his involvement or it was just alleged. Pfeifer (1999) attributed this bias to the negative perceptions held by many individuals about minority religions and the perceived threat of satanic cults.

The degree of physical attractiveness of a defendant should have no bearing on a jury's decision of whether or not he is guilty. However, several studies have found that physical attractiveness can persuade the jury (e.g., Gunnell & Ceci, 2010; Sigall & Ostrove, 1975). In a study conducted by Efran (1974) male jurors judged an attractive female defendant as less guilty, and recommended a lighter sentence, compared to an unattractive female defendant.

Gunnell and Ceci (2010) examined the influence of processing information rationally (R-processor group) versus experientially (E-processor group) on an individual's susceptibility to extralegal biases, such as defendant attractiveness. Individuals in the R-processor group relied on analysis, fact, and logical argument, whereas individuals in the E-processor group emphasized emotional and personal experience. Results indicated that individuals from both groups convicted attractive defendants similarly; however, the E-processor group was more likely to render a guilty verdict for less attractive defendants. E-processors also gave less severe sentences to attractive defendants and were harsher in their sentencing of less attractive defendants. The R-processor group did not differ in their sentencing of attractive versus less attractive defendants. These researchers concluded that an "unattractive harshness" effect exists during guilt determination, as well as an attraction leniency effect during sentencing, and those who process information experientially have an increased susceptibility to extralegal factors.

Sigall and Ostrove (1975) predicted an interaction effect between the physical attractiveness of a criminal defendant and the nature of the crime. They hypothesized that

"when the crime was unrelated to attractiveness (burglary), subjects would assign more lenient sentences to the attractive defendant than to the unattractive defendant; when the offense was attractiveness related (swindle), the attractive defendant would receive harsher treatment" (Sigall & Ostrove, 1975, p. 410). Results were in favor of the predictions, therefore indicating that attractiveness in relation to the nature of the crime does in fact influence term of imprisonment.

Defendant emotion. Emotions are a key ingredient in many human experiences, especially in decision making (Forgas, 1995; Kuvaas & Kaufmann, 2004). Research has demonstrated that emotional display can affect how individuals are perceived (Heath, 2009). Recent research has concluded that expectations exist regarding the strength and type of emotions that should be displayed by the defendant (Warner & Shields, 2007). Level of emotion may affect several aspects of the legal process, including the police investigation, interrogation of a suspect, jury perception during the trial, guilty verdicts, and sentencing.

Inbau, Reid, Buckley, and Jayne (2001) have argued that there are two types of offenders: emotional offenders and nonemotional offenders. Offenders who feel remorseful after committing an offense are labeled as emotional offenders. These are the individuals who may cry during questioning. Nonemotional offenders typically do not feel remorse and may appear detached throughout questioning (Inbau et al., 2001). The defendant's presentation of emotion, or lack thereof, can have a strong influence on the jury's perception of whether or not he is guilty (Heath, 2009). A display of remorse can lead the jury to believe that the defendant is less deviant compared to someone who is not

remorseful (Robinson, Smith-Lovin, & Tsoudis, 1994), and therefore less likely to reoffend (Gold & Weiner, 2000; Proeve & Howells, 2006). These factors may lead the jury to conclude that the defendant is not guilty. Rumsey (1976) also found that defendants are treated more leniently when they verbally express remorse.

One study found that sadness and distress, expressed through the defendant's voice and expression, resulted in less guilty verdicts and shorter sentences (Heath, Grannemann, & Peacock, 2004). However, Savitsky and Sim (1974) discovered that subjects gave increasingly more severe judgments when defendants appeared sad/distressed, neutral, happy, and angry, as expressed through nonverbal behaviors such as facial expressions, demeanor, and vocal intonations. Another study examining the influence of emotion found that the defendant was perceived as more guilty when exhibiting high affect, such as excessive crying, or flat affect, and less guilty when displaying moderate affect (Salekin, Ogloff, McFarland, & Rogers, 1995).

Some research has indicated that displays of remorse may negatively affect the defendant's outcome, depending on the account provided (Jehle et al., 2009; Niedermeier, Horowitz, & Kerr, 2001). Jehle and colleagues (2009) examined the impact of displays of remorse on verdict decisions based on the type of account the defendant provided; an excuse for his actions, justification, denial, or no explanation. They found that more guilty verdicts were given to the defendant who showed remorse compared to the defendant who was remorseless when an excuse or no explanation for the victim's death was provided. Defendants who denied responsibility were found not guilty more so than any other condition, regardless of the level of remorse displayed. Verdicts provided

in the justification condition were not impacted by remorse expressions. The researchers concluded that it is more beneficial for a defendant to appear remorseless than remorseful (Jehle et al., 2009). These results were consistent with research conducted by Niedermeier and colleagues (2001), who additionally found that guilty verdicts were more likely when the defendant appeared remorseful and provided a justification. They concluded that accounts which lessen responsibility should not be combined with displays of remorse, as this can increase negative outcomes for the defendant in comparison to defendants who appear remorseless (Niedermeier et al., 2001).

In addition to empirical research, evidence from actual jurors has also indicated that defendant remorse can influence juror decision making, specifically in regards to sentencing (Heath, 2009). Antonio (2006) found that emotional involvement, such as perceived regret and sincerity, during the trial led to more lenient sentences compared to a defendant who appeared emotionally uninvolved. Several real cases have also been documented in which defendants were found guilty and sentenced to crimes based on a lack of appropriate emotion and remorse (Heath, 2009). However, a lack of perceived remorse does not necessarily indicate guilt, or even a lack of remorse, as the person may be under such extreme stress that they experience and portray feelings of numbness and emotional detachment; a phenomenon referred to as the "freeze response" (Inbau et al., 2001). Emotional evanescence is also a possible explanation for a lack of emotion (Wilson, Gilbert, & Centerbar, 2003). Because the trial often occurs long after the crime was committed, the defendant's emotional reaction may not be as strong as it was at the beginning of the legal process. The defendant may also be concerned about appearing

sincere during the trial, causing an innocent defendant to refrain from showing remorse (Sundby, 1998).

Personality differences could cause a perceived lack of emotion, for example, if the defendant is generally passive in nature (Gohm, 2003). Flat affect may be caused by the use of certain medications (Perlin, 1994) or the presence of a psychological disorder (APA, 2000). Also, being accused of a crime can be a stressful experience, especially when innocent; therefore, a lack of emotion may be one's reaction to the stress (Ortony, Clore, & Collins, 1988). Considering the display or lack of emotion by the defendant can be attributed to a variety of reasons, it should not be a contributor in determinations of guilt; however, several studies have shown that the defendant's level of emotion is influential throughout the legal process.

Defendant behavior. There are some common behaviors that may elicit a determination of guilt by the jury. For example, the avoidance of eye contact is commonly associated with deception (The Global Deception Research Team, 2006); however, research has indicated that those who deceive do not avoid eye contact (Sporer & Schwandt, 2007). People expect that deceiving individuals will appear nervous (The Global Deception Research Team, 2006), exemplified through behaviors signifying stress, which could inappropriately be read as deception. Behaviors such as shrugging, shifting one's feet and legs, and posture have also been associated with deception (Zuckerman, Koestner, & Driver, 1981). These stereotypes of liars exist around the world, as The Global Deception Research Team (2006) discovered in their exploration of commonly held beliefs about deception, carried out in 75 different countries. Most

notable were the results that: 71.5% of respondents reported that they believed liars avoid eye contact; 65.2% believed that people unnaturally shift their posture while lying; 64.8% stated that liars touch and scratch themselves while deceiving; and 54.9% of respondents believed that liars appear nervous (The Global Deception Research Team, 2006). Research has also demonstrated that individuals who are motivated to be believed, regardless of whether or not they are lying, appear deceitful (Bond & DePaulo, 2006). This could be fueled by their strong fear of being disbelieved, and determination to make others believe that they are innocent, causing them to display stereotypical behaviors of a liar. However, the accuracy of humans to detect lies is fairly low – approximately 54% on average (Bond & DePaulo, 2006). Considering the detection of deception is similar to the detection of guilt, it is possible that the ability of individuals to detect guilt based on behaviors, such as the avoidance of eye contact, would also be low.

The ability to detect deception is less accurate when the observer is witnessing a live interview (Maier & Thurber, 1968). In their research, Maier and Thurber (1968) found that observers demonstrated a greater accuracy in detecting deception after hearing an audiotape of the interview (77%), and reading a transcript of the interview (77.3%), compared to observing the interview live (58.3%). Maier and Thurber argued that visual cues may have distracted observers from verbal and paralinguistic cues that signify lying. As Miller and colleagues (1981) have discussed, it is possible that in a courtroom setting jurors may also be influenced by visual cues, and this additional information could negatively affect their ability to detect deception. It could also affect jurors' ability to

objectively and accurately arrive at a verdict using only the facts provided during the trial.

Ekman and Friesen (1969) emphasized the influence of bodily nonverbal cues on the ability to detect deception. They believed that although the face provides the greatest clues, individuals are more aware of their faces and therefore maintain better control over the nonverbal information radiating from their facial expressions (Ekman & Friesen, 1969). Consequently, other bodily behaviors from such areas as the legs, feet, and hands, which people do not monitor as closely, are better sources of deception signs. The results of their research on this topic supported this hypothesis, as observers were better able to detect deception after viewing a silent videotape of only an individual's body (58.8%) in comparison to other conditions where only the head, or head and body, were shown (Ekman & Friesen, 1974). These results have been generalized to the courtroom; however, it is important to consider the fact that the videotapes did not include sound, while in a courtroom setting the jury observes both verbal and behavioral cues. The videotapes including only the head and only the body of the individual evaluated are also not representative of what occurs in a courtroom. Also important is the fact that even the most accurate condition only elicited an accuracy rating of 58.8%, which is not much greater than chance (Ekman & Friesen, 1974). Some research has found that nonverbal behaviors displayed by witnesses do not significantly negatively interfere with the evaluation of the factual content of testimony, although this research still supports the finding that jurors' ability to detect deception is low (e.g., Miller et al., 1981).

Additionally, it is important to consider that research has found that individuals are more likely to consider deceptive statements to be truthful than truthful declarations as deceptive (Bond & DePaulo, 2006). Extending these results to perceptions of guilt, it may be true that guilty defendants will more commonly be deemed not guilty rather than not guilty defendants determined to be guilty. The literature has revealed that individuals who attempt to appear truthful are often rewarded for their efforts (Bond & DePaulo, 2006), which can be explained by the existence of social norms that discourage skepticism, as well as techniques used by liars to prevent suspicion and the disruption of "cognitive lethargy" (i.e., lack of cognitive energy or enthusiasm) through critical inquiry (Levine, Park, & McCornack, 1999).

It is possible that signs of nervousness and anxiety, normally produced in stressful situations, such as during one's court trial, could also be misread as guilt. A defendant may appear nervous for a multitude of reasons, unassociated with feelings of guilt. Stressful situations, such as police interrogation or questioning during trial, may cause defendants to display stress emotions, such as anxiety, anger, guilt, sadness, fright, and shame, which can be misread as deception (Lazarus, 1999). Inbau and colleagues (2001) wrote that signs of nervousness are commonly exhibited by both guilty and innocent individuals during questioning. They differentiated displays of nervousness between innocent and guilty individuals by indicating that those who are innocent are frequently more relaxed near the beginning of police questioning. This is because the questions are not accusatory at this point. The guilty suspect, on the other hand, appears nervous throughout the entire interview.

Mann, Vrij, and Bull (2002) examined 16 suspects' behavior during police interrogations in real-life cases. The researchers had information regarding whether or not the suspect was telling the truth and compared this with truthful and deceptive behaviors. Results indicated that during moments of deceit, the suspects took longer pauses and blinked less frequently in comparison to moments of truth. The amount of eye contact did not vary between moments of deceit and truthfulness. These findings derail the popular belief that individuals will display symptoms of nervousness, such as avoiding eye contact and fidgeting, when they are lying (Mann et al., 2002). Additionally, the mere thought of potentially being found guilty when truly innocent can produce emotional displays of anxiety and nervousness (Inbau et al., 2001). These researchers also stated that deceptive behavior is subjective and can vary from one person to the next, which is yet another reason why conclusions should be made with caution.

Research has been conducted on the behavioral and emotional manifestations of stress and the perception of deception (Mann et al., 2002); however, there is minimal research on how such manifestations affect jury perception of guilt. Boccaccini and Brodsky (2002) conducted a statewide telephone survey of 488 adults in Alabama regarding the expectations and believability of expert witnesses and criminal defendants during the delivery of their testimony. Responses indicated that defendants are expected to appear at least slightly nervous while testifying (86%) and that 62% of participants presumed that they would most likely believe defendants who presented as "somewhat" or "a little" nervous (Boccaccini & Brodsky, 2002). However, eye contact was still deemed to be an important factor in defendant believability, as 65% of the survey

respondents stated that they were most likely to believe a defendant who maintains eye contact with both the attorney and jury members while testifying (Boccaccini & Brodsky, 2002).

Only one study to date has examined the effects of defendant behavior, as a function of anxiety, on juror perceptions of credibility and guilt (Pryor & Buchanan, 1984). These researchers studied the effects of three behaviors commonly attributed to deception, eye contact, nervousness/fidgeting, and speech errors, on juror's perceptions of a defendant. Nervousness/fidgeting included such behaviors as rubbing and squeezing hands together, scratching forehead, rubbing chin, cracking knuckles, and other nervous behaviors with the hands. Speech errors included such verbal behaviors as word repetitions, stuttering, and verbal pauses. These behavioral displays differed across conditions, which included high, moderate, and low anxiety experimental conditions, and a control condition, in which the defendant did not display the targeted behaviors. 164 actual jury members were assigned to one of the four conditions and asked to read a case summary of a black defendant charged with breaking and entering. Jurors in the experimental conditions were then shown a brief black and white videotape with audio of the defendant's testimony. Participants in the control condition based their judgments solely upon the written case summary provided. Results demonstrated a significant relationship between behavioral manifestations of anxiety and jury perception of credibility and guilt (Pryor & Buchanan, 1984). When the defendant displayed little or no anxiety during his testimony, he received the highest credibility ratings and jurors gave less guilty verdicts compared to all other conditions. When the defendant appeared

moderately anxious he received the highest proportion of guilty verdicts. The high anxiety and control conditions did not differ significantly from one another in terms of credibility or guilty verdicts. Overall, results indicated that no anxiety or high anxiety presentations result in less guilty verdicts compared to moderate anxiety displays. Therefore, Pryor and Buchanan (1984) concluded that defendants should present as calm and confident, since those who appear moderately anxious during their deposition are evaluated more harshly.

Witness preparation is used to reduce signs of anxiety and stress (Boccaccini, 2002; Brodsky, 1999; Myers & Arena, 2001) and research has concluded that during training it is especially important to instruct defendants to make at least occasional eye contact, if not more, with the questioning attorney and jury members (Boccaccini & Brodsky, 2002). However, one study's responses suggested that not all of the behavioral manifestations of genuine nervousness should be removed while the defendant is testifying, because some level of nervousness is to be expected (Boccaccini & Brodsky, 2002). If defendants do not display any signs of anxiety, there is the potential that they will be considered glib or uncaring. Boccaccini and Brodsky (2002) concluded that more research needs to be done on the effects of defendant nervousness. It is possible that individuals' expectations and thoughts about appropriate levels of nervousness are not representative of how they would react in a real trial situation when faced with behavioral manifestations of anxiety.

Summary

Anxiety disorders are fairly common within our society (*DSM-IV-TR*; APA, 2000), specifically social phobia, which is the most prevalent anxiety disorder (Hofmann & Bögels, 2006). In an attempt to minimize feelings of anxiety, individuals may use safety behaviors (Clark & Wells, 1995), which include behaviors such as avoiding eye contact, becoming withdrawn, nervous laughter, or other avoidance behaviors (Wells et al., 1995). Safety behaviors may also be used by individuals experiencing nonpathological anxiety, which includes the presentation of anxiety symptoms that do not meet the necessary criteria for a diagnosis (*DSM-IV-TR*; APA, 2000). Nonpathological anxiety may be precipitated by a variety of events, such as going to the dentist (e.g., Armfield et al., 2006), public speaking (Taking the fear and boredom out of public speaking, 2004), or test taking (e.g., Zeidner, 1998), and can result in behavioral disturbances including sweating, nausea, rapid heartbeat, fidgeting, and avoidance behaviors (Huberty & Dick, 2006). Involvement in a criminal trial is expected to produce stress and often increases anxiety as well (Miller et al., 1981). Behaviors that are believed to be representative of deceit are often experienced by anxious trial participants and are typical reactions to situational stress, but erroneous attributions are still delegated when such inferences are made (Brown, 1961). Therefore, not only are individuals with anxiety disorders at a disadvantage in the courtroom, but individuals who experience anxiety symptoms due to the stress of the situation are also negatively affected.

If a defendant chooses to plead not guilty, the decision of whether to have a jury trial or bench trial must be made (Elwork et al., 1981). If the potential punishment

exceeds six months imprisonment, criminal defendants have the right to a jury trial in federal and state jurisdictions (Elwork et al., 1981). If a jury trial is selected, the voir dire process commences, in which the judge and attorneys select jury members to ensure that the defendant receives a fair and impartial trial (Schniederjans & Hollcroft, 2005). Although the overall goal of the voir dire is to create an ideal jury using objective information, to ensure that the defendant receives an unbiased trial, the attorneys' goal is to create a jury that is likely to produce a verdict in their favor. Once the jury is selected and the trial begins the judge may provide jurors with preliminary instructions; however, many judges do not instruct the jury until after all of the evidence is presented (Elwork et al., 1981). After the jury has heard the prosecutor and defense attorney's cases, jury deliberation begins. Once the jury has reached a decision the court reconvenes and the jury announces its verdict. If the verdict agreed upon is one of guilt, most jurisdictions require the judge to conclude the trial by providing the sentence (Elwork et al., 1981).

The goal of the legal system is to prosecute only defendants who are truly guilty; therefore, it is crucial that extralegal factors do not significantly influence the jury's decisions. However, jurors' ability to remain impartial and unbiased is commonly questioned (Elwork et al., 1981). This is likely due to research findings indicating that numerous extralegal variables frequently impact various components of the legal system, such as verdict and sentencing decisions. As previously mentioned in this chapter, characteristics of the victim, witness, expert witness, judge, attorney, juror, and defendant have all been found to influence verdict and sentencing determinations, even when such characteristics are not pertinent to the trial. Because the defendant is such an influential

figure during a criminal trial, it is especially concerning to learn that a wide range of defendant characteristics often influence jury verdict and sentencing decisions, including gender, age, sexual orientation, socioeconomic status, race, ethnicity, juror-defendant similarity, religion, physical attractiveness, emotion, and behavior.

Behavioral displays of nervousness and anxiety, normally produced in stressful situations, such as during one's court trial, may be misread as guilt. Research has been conducted on the behavioral and emotional manifestations of stress and the perception of deception (Mann et al., 2002); however, there is a lack of research on how such manifestations affect jury perception of guilt. Through a telephone survey Boccaccini and Brodsky (2002) found that 62% of respondents reputed that they would most likely believe defendants who presented as "somewhat" or "a little" nervous. Amount of eye contact was also an important factor in defendant believability, as 65% of the survey respondents stated that they were most likely to believe a defendant that maintains eye contact while testifying (Boccaccini & Brodsky, 2002). Only one study to date has examined the effects of defendant behavior (eye contact, nervousness/fidgeting, speech errors), as a function of anxiety, on juror perceptions of credibility and guilt (Pryor & Buchanan, 1984). Results demonstrated a significant relationship between behavioral manifestations of anxiety and jury perception of credibility and guilt, as the defendant who displayed little or no anxiety received the highest credibility ratings and least number of guilty verdicts.

Symptoms commonly associated with deceit (Brown, 1961), nervousness (Boccaccini & Brodsky, 2002; Bothwell & Jalil, 1992), and anxiety (Pryor & Buchanan,

1984) often lead to erroneous attributions about the individual in question. Because behaviors associated with deceit and anxiety, such as avoiding eye contact, fidgeting, and sweating are comparable to the behaviors expected of a guilty defendant, it may be the case that inaccurate inferences, drawn from behavioral manifestations of anxiety, are also made in the determination of guilt by jury members, thereby producing an inapt guilty verdict.

The effects of nonverbal behavior in the courtroom have been greatly disregarded (Pryor & Buchanan, 1984) and the studies that have been completed in this area have not fully examined many of the relevant behaviors displayed during trial (Devine et al., 2001). Especially concerning is the fact that the small number of studies that have been conducted have only examined the effect of variables, such as behavior, while the trial participant is testifying (e.g., Boccaccini & Brodsky, 2002; Hemsley & Doob, 1978; Pryor & Buchanan, 1984). Considering many defendants do not testify (Eisenberg & Hans, 2007), the research that has been conducted may not be as generalizable to the majority of criminal cases. Therefore, there is an apparent need for research focusing on the behavior of the defendant throughout the trial, while on and off of the witness stand, to determine if defendant behavior has an effect on jury decision making.

CHAPTER 3: RESEARCH DESIGN AND METHOD

Problem Statement

The purpose of the present study was to examine the effects of one specific extralegal factor, defendant nonverbal behavior, on jury perception of guilt. Factors that are not relevant to a trial, such as defendant nonverbal behavior, should not impact its outcome; however, past research has identified that such factors play an inappropriately influential role in decisions made by the jury (Izzett & Sales, 1981). This poses significant problems in the American legal system (Elwork et al., 1981; Schniederjans & Hollcroft, 2005).

One area that has been under researched is the effect of nonverbal behavior, and more specifically defendant nonverbal behavior, in the courtroom. To date, research has only been conducted examining the effects of defendant characteristics while testifying. Therefore, the aim of the present study was to determine if a defendant's nonverbal behavior in the courtroom, throughout the duration of his trial, would significantly impact jurors' perception of guilt. In addition to building upon previous research on the effects of extralegal factors on jury decision making, the present study examined behaviors in a context that has not been previously studied. Thus, the findings of this research are also more generalizable to actual jury trials as attorneys can use this information to direct the defendant on how to behave throughout the trial process.

Research Questions

Overall, five research questions and hypotheses were formulated.

1. Are there differences in guilt ratings when the defendant is exhibiting nonverbal behaviors associated with anxiety (avoidance of eye contact, fidgeting, sweating) compared to when the defendant is not exhibiting these behaviors (control)?
2. Are there differences in guilt ratings when the defendant is avoiding eye contact and fidgeting compared to sweating?
3. Are there differences in guilt ratings when the defendant is avoiding eye contact compared to fidgeting?
4. Is there an association between dichotomous verdict decisions and situations in which the defendant is exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating) and situations in which the defendant is not exhibiting these behaviors?
5. Are there differences in confidence ratings when the defendant is determined to be guilty versus not guilty?

Research Hypotheses

Hypothesis 1. It was hypothesized that there would be a statistically significant difference in guilt ratings between the experimental conditions, in which the defendant was exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating), and the control condition, in which the defendant was not exhibiting these behaviors.

In particular, it was expected that participants in the experimental groups would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact, fidgeting, or sweating compared to guilt ratings obtained in the

control condition. Guilt ratings were measured by the first question on the Jury Verdict Questionnaire. The hypothesis that defendant nonverbal behavior would significantly impact level of guilt ratings was based on an abundance of previous research indicating that a variety of extralegal factors often affect jury perception of guilt (Izzett & Sales, 1981). Research has also found that defendant demeanor and nonverbal behavior significantly affect jury verdict decisions (Pryor & Buchanan, 1984).

It was also hypothesized that there would be significant differences in guilt ratings amongst the conditions. Based on the four levels of the independent variable, two additional hypotheses were included as planned comparisons.

Hypothesis 2. It was hypothesized that there would be a statistically significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions, and the sweating condition. In particular, it was expected that participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact or fidgeting compared to the defendant who appeared to be sweating. Guilt ratings were measured by the first question on the Jury Verdict Questionnaire. The hypothesis that amount of eye contact and fidgeting behaviors would affect guilt ratings more so than sweating behavior was due to the fact that previous research (e.g., Pryor & Buchanan, 1984) has examined these two variables, but no research to date has examined the impact of sweating behavior on perception of guilt.

Hypothesis 3. It was hypothesized that there would be a statistically significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions. In particular, it was expected that participants would attribute significantly higher levels

of guilt to the defendant when he was noticeably avoiding eye contact compared to the defendant who was displaying fidgeting behavior. Guilt ratings were measured by the first question on the Jury Verdict Questionnaire. The hypothesis that level of eye contact would affect guilt ratings more so than fidgeting behavior was based on the wealth of research that has been conducted in the past on the effects of eye contact in various settings, including the courtroom (e.g., Hemsley & Doob, 1978; The Global Deception Research Team, 2006; Tomkins & McCarter, 1964). Also, eye contact of other members involved in judicial trials, such as the expert witness, has been previously studied and found to significantly impact jury decision making (e.g., Neal & Brodsky, 2008). Fidgeting behavior, on the other hand, has not been thoroughly investigated.

Hypothesis 4. It was hypothesized that there would be a statistically significant association between dichotomous verdict decisions (guilty vs. not guilty) and condition (avoidance of eye contact, fidgeting, sweating, control). In particular, it was expected that the number of guilty verdicts compared to not guilty verdicts would be significantly higher in the three experimental conditions, in which the defendant was exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating) compared to the control condition, in which the defendant was not exhibiting these behaviors. Dichotomous verdict decisions were measured by the second question on the Jury Verdict Questionnaire. It was believed that defendant nonverbal behavior would elicit more guilty verdicts than not guilty verdicts based on the results of prior research indicating that this relationship is statistically significant (Pryor & Buchanan, 1984). This hypothesis was also included because jurors in a real trial setting are only given the

option to choose a guilty or not guilty verdict; therefore, this finding is more generalizable outside of the simulated research environment.

Hypothesis 5. It was hypothesized that there would be a statistically significant difference in confidence ratings based on participants' verdict decision. In particular, it was expected that participants who indicated that the defendant was guilty would rate their confidence in their verdict decision significantly higher than participants who indicated that the defendant was not guilty. Dichotomous verdict decisions were measured by the second question on the Jury Verdict Questionnaire, and confidence ratings were measured by the third question on the Jury Verdict Questionnaire. Previous research has found that verdict decisions may be influenced by a juror's confidence in his or her verdict decision (Nagel et al., 1981). Therefore, it was believed that jurors who provided guilty verdicts would also provide higher confidence ratings in their decision, and jurors who provided not guilty verdicts would have lower confidence ratings. See Figure 1 for a comparison of the research questions and hypotheses.

Participants

A total of 96 participants were recruited for this study. These participants consisted of male (n = 23) and female (n = 73) undergraduate (n = 35) and graduate (n = 61) psychology students at Brandman University campuses throughout Southern California. Participants were between the ages of 18-64 years old. The largest age group consisted of 25-34 year olds (36.5%), followed by 35-44 year olds (27%). Caucasian/Anglo-American participants made up the majority of the sample (60%), followed by 19% of participants who identified as Latino/Hispanic. Forty-five percent of

Figure 1.

Research Questions and Hypotheses.

Research Question	Research Hypothesis
1. Are there differences in guilt ratings when the defendant is exhibiting nonverbal behaviors associated with anxiety compared to when the defendant is not exhibiting these behaviors?	• Hypothesized significant difference in guilt ratings between the experimental and control conditions, and amongst the four conditions ➢ Participants would attribute significantly higher levels of guilt to the defendant in the three experimental conditions (avoidance of eye contact, fidgeting, sweating) compared to the control condition
2. Are there differences in guilt ratings when the defendant is avoiding eye contact and fidgeting compared to sweating?	• Hypothesized significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions, and the sweating condition ➢ Participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact or fidgeting compared to the defendant who appeared to be sweating *planned comparison based on results from Hypothesis 1
3. Are there differences in guilt ratings when the defendant is avoiding eye contact compared to fidgeting?	• Hypothesized significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions ➢ Participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact compared to the defendant who was displaying fidgeting behavior *planned comparison based on results from Hypothesis 1
4. Is there an association between dichotomous verdict decisions and condition?	• Hypothesized significant association between verdict decisions and condition (avoidance of eye contact, fidgeting, sweating, control) ➢ The number of guilty verdicts compared to not guilty verdicts would be significantly higher in the three experimental conditions (avoidance of eye contact, fidgeting, sweating) compared to the control condition
5. Are there differences in confidence ratings when the defendant is determined to be guilty versus not guilty?	• Hypothesized significant difference in confidence ratings based on verdict decision ➢ Participants who indicated that the defendant was guilty would rate their confidence in their verdict decision significantly higher than participants who indicated that the defendant was not guilty

participants were married and 43% were single. Ninety-five percent of the sample was born in the United States. Democrats represented 37.5% of the sample, while 29% of participants identified as Republican, and 33% indicated that their political orientation was "other". Most of the participants were employed full-time (44%) or were full-time students (28%). Twenty-six percent of the sample made a current annual income of $15,000 - $29,999, followed by 19% of participants earning over $105,000. Most participants had completed some graduate school (47%), 22% had completed some college or university, and 16% had earned an undergraduate degree. Participants enrolled in psychology classes were randomly assigned to one of four conditions: avoidance of eye contact (n = 22), fidgeting (n = 21), sweating (n = 22), and control (n = 31). See Table 1 for demographics information.

Instrumentation

Demographics questionnaire. A self-report demographics questionnaire consisting of nine questions was administered to participants, asking for information regarding gender, age, current marital status, ethnic background, country of birth, political affiliation, occupational status, current annual income, and highest education level achieved, in a closed-ended format. This questionnaire took participants approximately 5-10 minutes to complete. See Appendix B.

Jury verdict questionnaire. A paper-and-pencil questionnaire consisting of three questions was created to measure level of guilt assigned to the defendant, verdict decision, and confidence ratings. This questionnaire was designed to be used with any population and took participants approximately 5-10 minutes to complete. Responses

Table 1

Demographics Information

	Eye Contact (n = 22) **%**	**Fidgeting** (n = 21) **%**	**Sweating** (n = 22) **%**	**Control** (n = 31) **%**
Gender				
Male	18.2	19	27.3	29
Female	81.8	81	72.7	71
Age				
18-24	13.6	23.8	13.6	35.5
25-34	40.9	42.9	45.5	22.6
35-44	18.2	33.3	27.3	29
45-54	22.7	0	9.1	6.5
55-64	4.5	0	4.5	6.5
Ethnicity				
Anglo-American/ White	81.8	52.4	72.7	41.9
Mexican/ Mexican-American/Chicano/Latino/ Hispanic	4.5	23.8	18.2	29
Black/ Afro-American	9.1	4.8	4.5	9.7
Mixed-Multiracial	4.5	14.3	4.5	12.9
Asian-American	0	0	0	3.2
Other	0	4.8	0	0
Education				
High School	0	0	0	3.2
Some College/ University	0	28.6	0	48.4
College Degree Program	0	4.8	0	16.1
Undergraduate Degree	18.2	23.8	18.2	6.5
Some Graduate School	77.3	38.1	77.3	9.7
Master's Degree	0	4.8	4.5	12.9
Doctoral Degree	4.5	0	0	0
Other Professional Degree	0	0	0	3.2
Annual Income				
$0 - $14,999	4.5	19	13.6	22.6
$15,000 - $29,000	31.8	33.3	18.2	22.6
$30,000 - $44,999	22.7	14.3	9.1	9.7
$45,000 - $59,000	18.2	4.8	13.6	9.7
$60,000 - $74,999	4.5	9.5	0	3.2
$75,000 - $89,000	0	4.8	9.1	3.2
$90,000 - $104,999	0	4.8	9.1	6.5
Over $105, 000	18.2	9.5	27.3	19.4

were scored by assigning a value to each response option for all questions and adding the values from the participants in each condition together to compare responses across conditions. Reliability and validity statistics are not available for this measure because it was created for use in the present study. This instrument was created and used in the current study given that previous research has asked similar questions of its participants, and a validated measure of jury perception of guilt does not exist. See Appendix C.

Video recordings. Four video recordings were created, one for each of the four conditions. All videos were filmed in color and in an actual courtroom to add authenticity, although the video recordings did not include sound. The camera angle remained stationary and focused on the head and torso of the defendant. The defendant was an actor who underwent training by the researcher to ensure that the behaviors exhibited in each condition matched the operational definitions provided for each behavior. Picture quality was sharp to ensure that the behavioral manipulations were easily observed.

Design

A quasi-experimental design was used in the present study. Data was collected through self-report questionnaires outlined above. Each participating class was assigned to one of the four conditions. Independent variables included defendant nonverbal behavior (avoidance of eye contact, fidgeting, sweating) and verdict decision, and dependent variables included jury perception of guilt (measured using guilt ratings), verdict decision, and confidence ratings.

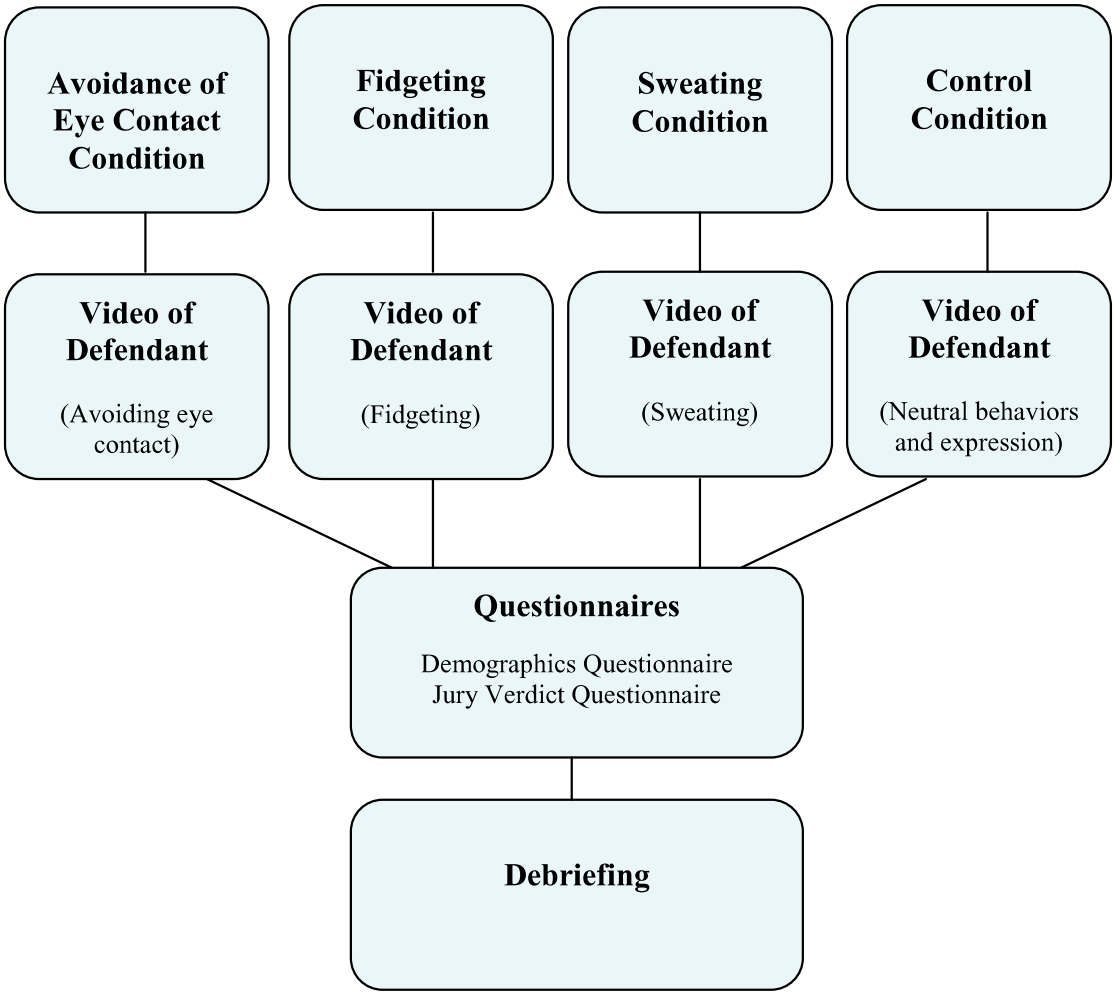
Procedure

The procedures of this study adhered to the standards set forth by the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (2010). The study also complied with the ethical guidelines established by The Chicago School of Professional Psychology's Institutional Review Board. See Figure 2 for a procedural diagram outlining each component of the study.

Psychology classes at Brandman University were randomly selected to participate in this study by the program coordinator, Dr. Judy Matthews. Instructors were notified by Dr. Matthews at the beginning of the term that students would have the opportunity to participate in the present study. However, Dr. Matthews did not disclose any of the details of the study, nor did instructors inform students about the study in advance. Students learned about the study from the experimenter, on the day that the study was conducted. All students were eligible to participate; however, one student chose not to participate, at which time she was asked to leave the classroom while the study was conducted. Each class was assigned to one of the four conditions (avoidance of eye contact, fidgeting, sweating, control). Upon entering the classroom, the experimenter provided each student with the informed consent statement (see Appendix A). The experimenter explained the informed consent to all participants and they were asked to read and sign this document. The experimenter then told the class that they would be watching a 5-minute silent video recording of a defendant in response to a prosecuting attorney’s witness testifying. Participants were told that the purpose of the study was to examine jury decision making. They were also told that after the video was finished they

Figure 2.

Procedural Diagram of the Study.



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would be asked to complete a questionnaire booklet, consisting of the demographics questionnaire and Jury Verdict Questionnaire. The experimenter then played the 5-minute video recording at the front of the classroom for all participants to easily see.

Once the video recording was finished, the experimenter collected the informed consent forms and distributed the questionnaire booklets. All questionnaires were anonymous with only a participant number appearing at the top of each booklet. Participants completed the questionnaires and then overturned their booklets at the front of their desks. Once all booklets were collected the experimenter distributed the debriefing form to all participants and read the form aloud (see Appendix D). The participants then had time to ask questions, which were answered by the experimenter.

Data Analysis

Analyses of all variables included in the tests of the research hypotheses were completed to determine the pattern and volume of missing data and the potential presence of outlier scores (defined as extreme scores that fall three or more standard deviations above or below the mean). The pattern of missing data was found to be relatively random and the volume of missing data was found to be relatively small (less than 10% of participants). Therefore, the remaining participants were sufficient to test the research hypotheses. A pairwise exclusion of missing data was used to exclude cases that were missing data for each specific analysis conducted. Analyses of the variables determined that no outlier scores for the research hypotheses existed.

Bivariate statistics were conducted to determine if the demographic variable gender was significantly related to the continuous dependent variables level of guilt and level of confidence ratings. A Chi-square test for independence was also conducted to determine if gender was associated with the categorical dependent variable verdict decision. Gender was not found to be significantly correlated with level of guilt, r (93) =

-.06, $p = .56$, or level of confidence, $r\ (93) = .06$, $p = .55$. A chi-square test for independence (with Yates Continuity Correction) indicated no significant association between gender and verdict decision, $X^2\ (1, N = 89) = 0.03$, $p = .87$.

Tests of the statistical assumptions of the variables underlying the research hypotheses were conducted. Normality was tested using the Kolmogorov-Smirnov statistic. The dependent variable level of guilt violated the assumption of normality (p = .000). In particular, the fidgeting, sweating, and control groups violated the assumption of normality, while the avoidance of eye contact group did not violate this assumption (p = .20). The dependent variable level of confidence also violated the assumption of normality (p = .000). For the research hypothesis indicating verdict decision as the independent variable, level of confidence for the not guilty group did not violate this assumption (p = .059); however, in the guilty group level of confidence violated the assumption of normality (p = .008). For the research hypothesis indicating condition as the independent variable, the assumption of normality was violated in the control group (p = .000); however, this assumption was not violated for the avoidance of eye contact (p = .20), fidgeting (p = .145), and sweating (p = .20) groups. Data transformations were computed to correct for the violation of the assumption of normality for each of the dependent variables; however, the assumption of normality was still violated. Parametric techniques, including analyses of variance, were still conducted as this is considered to be a robust test and should tolerate the violations of the assumption of normality.

Homogeneity of variance was tested using Levene's test for equality of variances. The dependent variable level of guilt did not violate this assumption (p = .52). The

dependent variable level of confidence also did not violate the assumption of homogeneity of variance ($p = .33$). All hypotheses in the present study were tested at the $p = .05$ level of significance.

CHAPTER 4: RESULTS

Hypothesis 1: Level of Guilt Based on Condition

It was hypothesized that there would be a statistically significant difference in guilt ratings between the experimental conditions, in which the defendant was exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating), and the control condition, in which the defendant was not exhibiting these behaviors. In particular, it was expected that participants in the experimental groups would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact, fidgeting, or sweating compared to guilt ratings obtained in the control condition. The independent variable was defendant nonverbal behavior (avoidance of eye contact, fidgeting, sweating, control) and the dependent variable was jury perception of guilt. The dependent variable was computed from the guilt ratings produced on the first question of the Jury Verdict Questionnaire. A one-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of condition (experimental versus control) on perception of guilt. Table 2 presents the level of guilt ratings for the experimental versus control groups, as well as the guilt ratings by condition. Results did not support the original hypothesis as the experimental conditions did not differ from the control condition on level of guilt ($F_{(1, 93)} = 1.19$, $p = .28$).

A one-way between-groups analysis of variance (ANOVA) was then conducted to determine if there were differences amongst all four conditions on level of guilt ratings. It was hypothesized that there would be significant differences amongst the groups, with hypotheses 2 and 3 postulating the differences. Results did not support this hypothesis, as

Table 2

Level of Guilt by Condition (N = 95)

	Level of Guilt Ratings				
Condition	*n*	*M*	*SD*	*F*	*P*
Experimental Conditions	**65**	**4.78**	**1.29**	**1.19**	**.28**
Avoidance of Eye Contact	22	5.05	1.36		
Fidgeting	21	4.76	1.45		
Sweating	22	4.55	1.06		
Control	**30**	**4.47**	**1.38**		

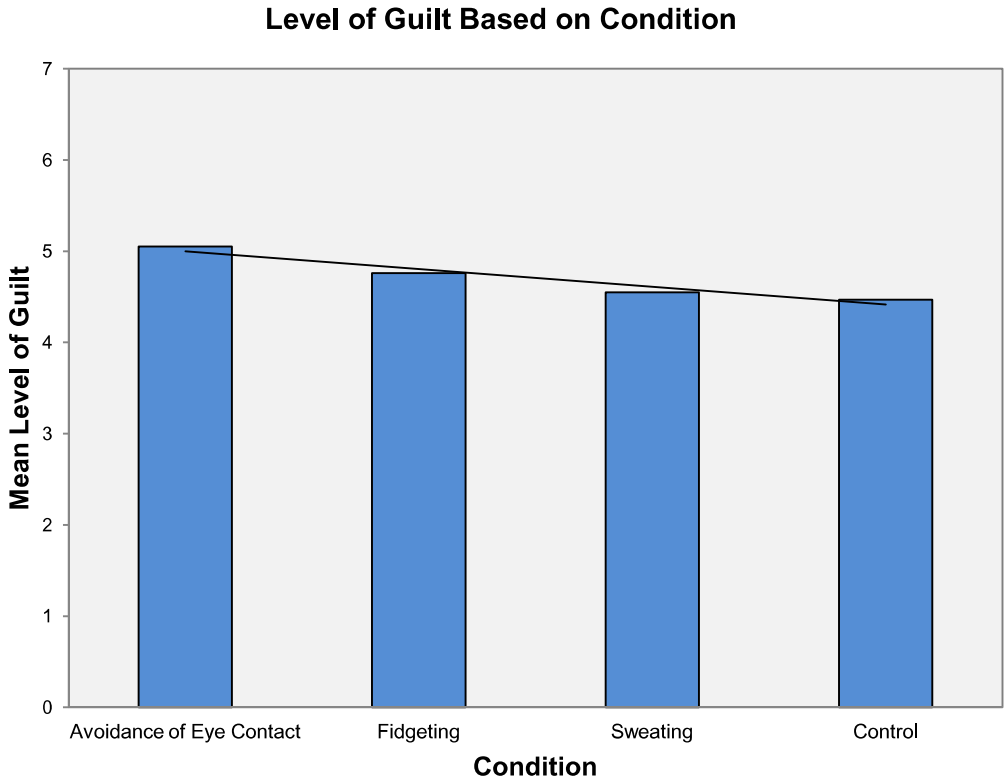
none of the conditions appeared to be statistically different on level of guilt ratings ($F_{(3, 91)} = .92$, $p = .44$). Although a statistically significant difference did not emerge, Figure 3 presents the trend observed for the mean scores across conditions.

Hypotheses 2 & 3: Planned Comparisons

Hypothesis 2 stated that there would be a statistically significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions, and the sweating condition. In particular, it was expected that participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact or fidgeting compared to the defendant who appeared to be sweating. Hypothesis 3 stated that there would be a statistically significant difference in guilt ratings between the avoidance of eye contact and fidgeting conditions. In particular, it was expected that participants would attribute significantly higher levels of guilt to the defendant when he

Figure 3.

Level of Guilt Ratings: Bivariate Analysis of Level of Guilt Ratings Across Conditions.



was noticeably avoiding eye contact compared to the defendant who was displaying fidgeting behavior. Guilt ratings for hypotheses 2 and 3 were measured by the first question on the Jury Verdict Questionnaire. However, because these hypotheses were planned comparisons based on hypothesis 1, which was rejected ($F_{(3, 91)} = .92$, $p = .44$), further analyses of hypotheses 2 and 3 were not conducted.

Hypothesis 4: Verdict Decision Based on Condition

It was hypothesized that there would be a statistically significant association

between dichotomous verdict decisions (guilty vs. not guilty) and condition (avoidance of eye contact, fidgeting, sweating, control). In particular, it was expected that the number of guilty verdicts compared to not guilty verdicts would be significantly higher in the three experimental conditions, in which the defendant was exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating) compared to the control condition, in which the defendant was not exhibiting these behaviors. For this hypothesis the independent variable was defendant nonverbal behavior (avoidance of eye contact, fidgeting, sweating, control) and the dependent variable was verdict decision. Dichotomous verdict decisions were measured by the second question on the Jury Verdict Questionnaire. A Chi-square test for independence indicated no significant association between condition and verdict decision, X^2 (1, N = 89) = 0.06, p = .81, as shown in Table 3.

Hypothesis 5: Confidence Ratings Based on Verdict Decision

It was hypothesized that there would be a statistically significant difference in confidence ratings based on participants' verdict decisions. In particular, it was expected that participants who indicated that the defendant was guilty would rate their confidence in their verdict decision significantly higher than participants who indicated that the defendant was not guilty. For this hypothesis, the independent variable was verdict decision and the dependent variable was level of confidence. The independent variable was measured by the second question on the Jury Verdict Questionnaire and the dependent variable was computed from ratings on the third question of the Jury Verdict Questionnaire. An independent samples *t*-test was conducted to determine if participants

Table 3

Verdict Decision by Condition (N = 89)

		Verdict Decision			
Condition	*n*	*Guilty*	*Not Guilty*	X^2	*P*
Experimental Conditions	**61**	**31**	**30**	**0.06**	**.81**
Avoidance of Eye Contact	21	15	6		
Fidgeting	19	10	9		
Sweating	21	6	15		
Control	**28**	**15**	**13**		

who voted not guilty significantly differed in their level of confidence compared to participants who voted guilty. Table 4 presents the level of confidence ratings based on verdict decision. Results supported the hypothesis as participants' confidence ratings differed significantly based on their verdict decision ($t_{(87)} = 2.96$, $p = .004$). A Chi-square test for independence was also conducted to explore the association between verdict decision and confidence ratings. Results indicated that this association was approaching significance, X^2 (6, $N = 89$) = 12.02, $p = .06$. Figure 4 displays the pattern observed. It appears as though participants who indicated that the defendant was guilty were slightly, moderately, or strongly confident in their verdict decision, whereas participants who indicated that the defendant was not guilty were slightly, moderately, or strongly unconfident, or neutral, in terms of their confidence rating. Only eight participants who stated that the defendant was not guilty were slightly or moderately confident in this

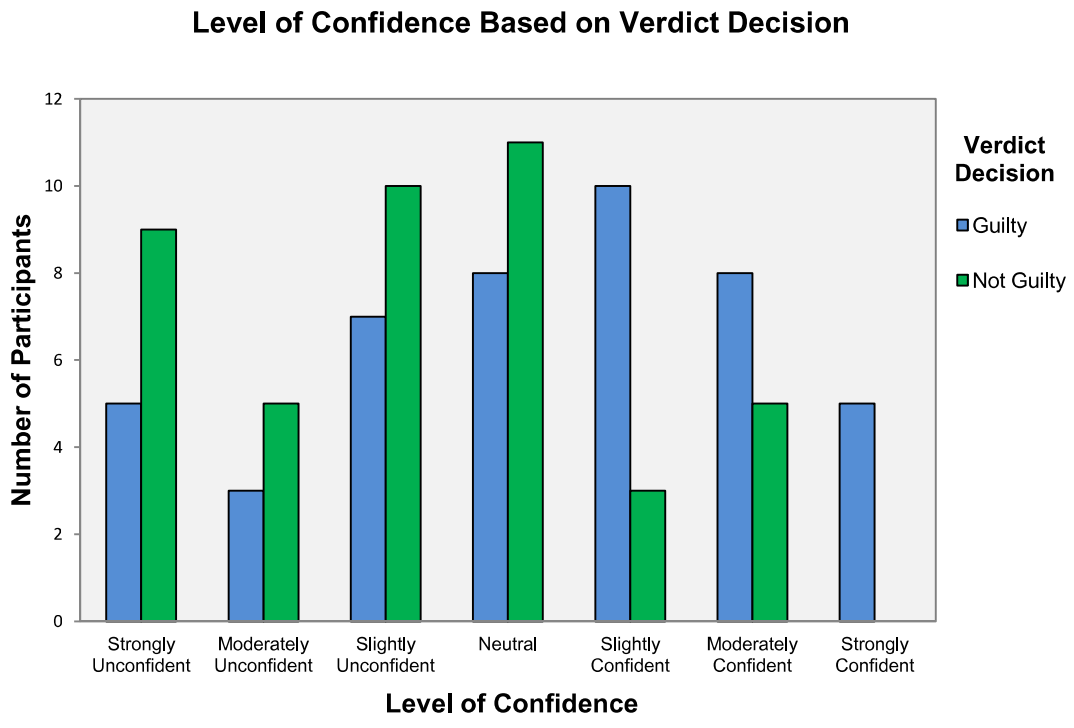
Table 4

Level of Confidence by Verdict Decision (N = 89)

	Level of Confidence Ratings				
Verdict Decision	*n*	*M*	*SD*	*T*	*P*
Guilty	46	4.28	1.81	2.96	.81
Not Guilty	43	3.21	1.60		

Figure 4.

Level of Confidence Ratings: Chi-square Analysis of Level of Confidence Ratings Based on Verdict Decision.



decision, and no participants stated that they were strongly confident if they determined that the defendant was not guilty.

Additional Analyses

A one-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of condition (experimental versus control) on level of confidence. A statistically significant difference in confidence ratings between the experimental conditions, in which the defendant was exhibiting nonverbal behavior associated with anxiety (avoidance of eye contact, fidgeting, sweating) and the control condition, in which the defendant was not exhibiting these behaviors, was anticipated. In particular, it was expected that participants in the experimental groups would provide higher levels of confidence in verdict decisions when the defendant was noticeably avoiding eye contact, fidgeting, or sweating compared to confidence ratings obtained in the control condition. The independent variable was defendant nonverbal behavior (avoidance of eye contact, fidgeting, sweating, control) and the dependent variable was level of confidence in the verdict decision. The dependent variable was computed from the confidence ratings produced on the third question of the Jury Verdict Questionnaire. Results did not indicate that level of confidence differed between the experimental conditions and the control condition ($F_{(1, 93)} = .10$, $p = .76$) (see Table 5). A one-way between-groups analysis of variance (ANOVA) comparing all conditions in terms of confidence ratings was also not significant ($F_{(3, 91)} = .66$, $p = .58$).

A Chi-square test for independence was conducted to determine if the participants' level of education was significantly associated with verdict decision. The

Table 5

Level of Confidence by Condition (N = 95)

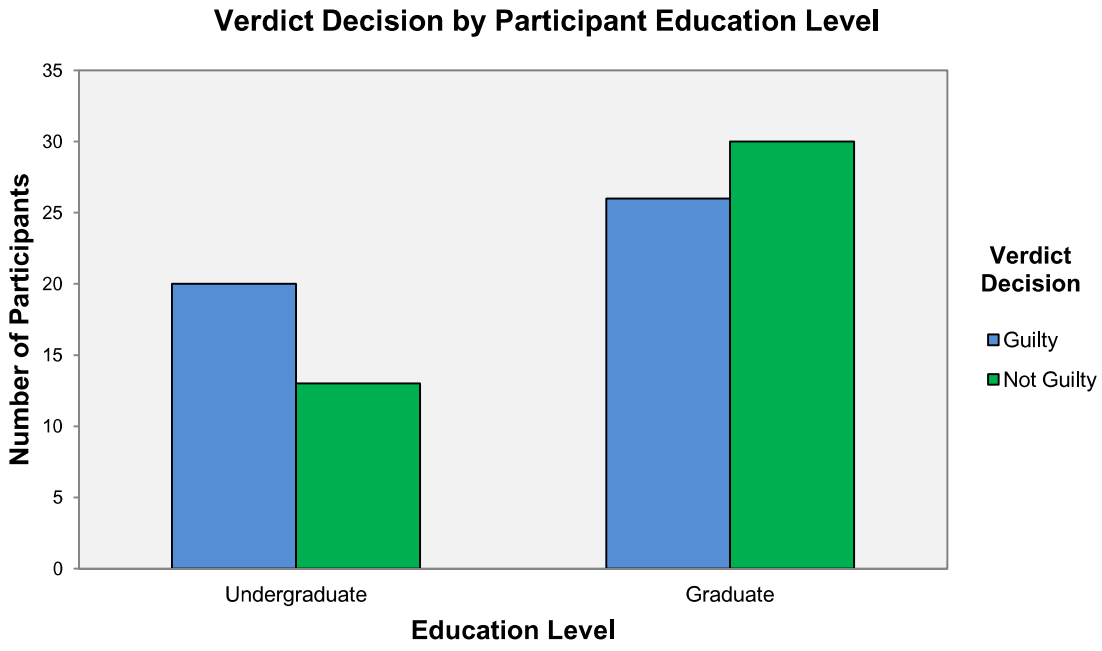
	Level of Confidence Ratings				
Condition	*n*	*M*	*SD*	*F*	*P*
Experimental Conditions	**64**	**3.80**	**1.80**	**.10**	**.76**
Avoidance of Eye Contact	22	3.86	1.91		
Fidgeting	20	4.15	1.66		
Sweating	22	3.41	1.82		
Control	**31**	**3.86**	**1.68**		

independent variable was verdict decision and the dependent variable was level of education (undergraduate or graduate). Results indicated no significant association existed (X^2 (1, N = 89) = 1.86, p = .17). However, an interesting trend emerged as undergraduate students provided more guilty verdicts while graduate participants gave more not guilty verdicts, as shown in Figure 5.

A 2 Verdict Decision (guilty vs. not guilty) X 4 Experimental Condition (avoidance of eye contact vs. fidgeting vs. sweating vs. control) analysis of variance (ANOVA) was conducted to explore the impact of condition and verdict decision on level of confidence in verdict decision. The independent variables in this analysis were condition and verdict decision, and the dependent variable was confidence ratings. The independent variable verdict decision was computed from the second question on the Jury Verdict Questionnaire and the dependent variable was computed from the confidence

Figure 5.

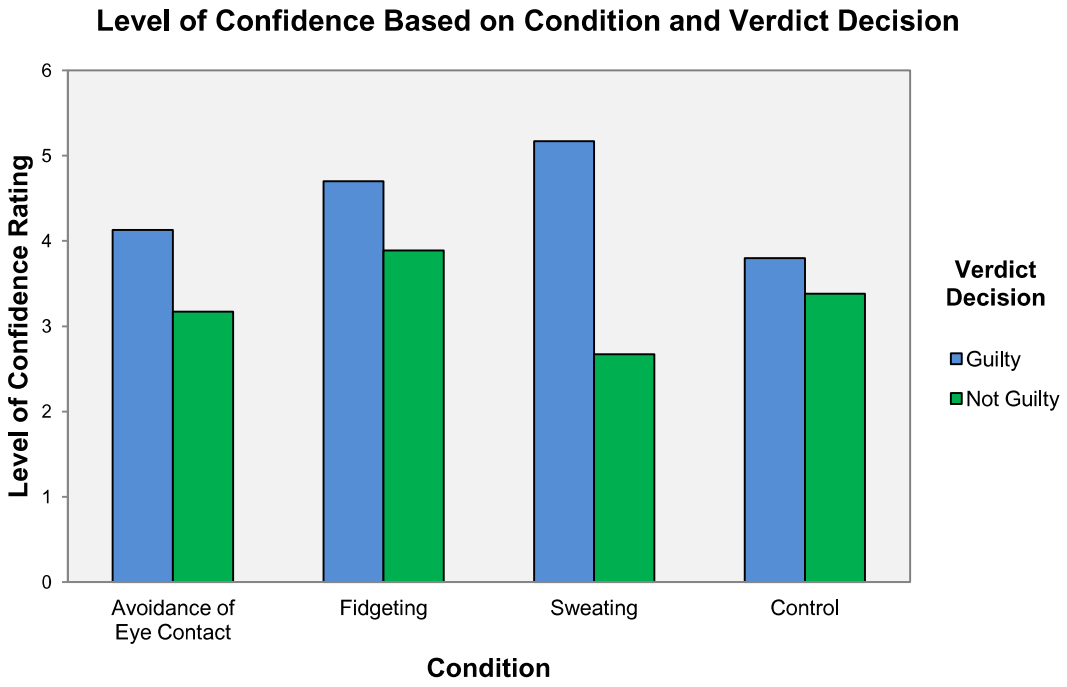
Verdict Decisions: Chi-square Analysis of Verdict Decision Based on Participants' Level of Education.



ratings produced on the third question of the Jury Verdict Questionnaire. There was a significant main effect for verdict decision ($F_{(1, 81)} = 9.24$, $p = .003$). However, the main effect for condition was not statistically significant ($F_{(3, 81)} = .73$, $p = .54$), nor was there a significant interaction ($F_{(3, 81)} = 1.39$, $p = .25$). Figure 6 displays level of confidence ratings based on condition and verdict decision. The main effect for verdict decision demonstrates that confidence ratings were higher when participants found the defendant guilty, and confidence ratings were lower when the defendant was determined to be

Figure 6.

Confidence Ratings: Multivariate Analysis of Level of Confidence Based on Condition and Verdict Decision.



not guilty. Although no significant interaction was found between verdict decision and condition, there appears to be a trend where the level of confidence in verdict decision is more discrepant in the sweating condition. Specifically, participants in the sweating condition were the most confident when they provided a guilty verdict and the least confident when they provided a not guilty verdict. Sweating behavior appears to impact level of confidence in a different way than avoidance of eye contact and fidgeting behaviors.

CHAPTER 5: DISCUSSION

Summary

The purpose of the present study was to examine the effects of defendant nonverbal behavior on jury perception of guilt. Factors not relevant to a trial should not impact its outcome; however, past research has identified that this is a significant problem in the American judicial system (Elwork et al., 1981; Schniederjans & Hollcroft, 2005). Many factors have been found to play an inappropriately influential role in decisions made by the jury. One area that has been under researched is the effect of nonverbal behavior in the courtroom. The effects of defendant nonverbal behavior specifically have been significantly under researched, and only studies on the effects of defendant characteristics while testifying have been conducted. The aim of the present study was to determine if a defendant's nonverbal behavior in the courtroom, throughout the duration of his trial, would significantly impact jurors' perception of guilt and verdict decisions. Therefore, five hypotheses were tested: 1) Participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact, fidgeting, or sweating compared to the control condition; 2) Participants would attribute significantly higher levels of guilt to the defendant when he was noticeably avoiding eye contact or fidgeting compared to the defendant who appeared to be sweating; 3) Participants would attribute higher levels of guilt to the defendant when he was noticeably avoiding eye contact compared to the defendant who was displaying fidgeting behavior; 4) The number of guilty verdicts compared to not guilty verdicts would be significantly higher in the three experimental conditions (avoidance of eye

contact, fidgeting, sweating) compared to the control condition; and 5) Participants who indicated that the defendant was guilty would rate their confidence in their verdict decision significantly higher than participants who indicated that the defendant was not guilty.

Discussion of Results

Hypotheses 1, 2, & 3. Only one study to date has examined the effects of defendant behavior, as a function of anxiety, on juror perceptions of credibility and guilt (Pryor & Buchanan, 1984). These researchers found a significant relationship between behavioral manifestations of anxiety and jury perception of guilt. However, the present study did not find a significant relationship between the presence of nonverbal behaviors associated with anxiety and jury perception of guilt. Hypothesis 1 postulated that there would be a significant difference in guilt ratings between the experimental and control conditions. It was expected that participants would assign higher levels of guilt to the defendant when he was noticeably avoiding eye contact, fidgeting, or sweating compared to guilt ratings obtained in the control condition. However, the level of guilt ratings obtained in the three experimental conditions did not significantly differ from the guilt ratings obtained in the control condition. It was also hypothesized that there would be significant differences in guilt ratings amongst the conditions, with hypotheses 2 and 3 included as planned comparisons; however, results did not indicate that level of guilt differed when comparing all of the conditions together. Although analyses for hypotheses 2 and 3 were not conducted due to the lack of significance found in the first hypothesis, and the difference in guilt ratings amongst conditions was not significant, results appear

to be trending in the expected direction. The trend consisted of the avoidance of eye contact condition receiving the highest level of guilt ratings, followed by the fidgeting condition, then the sweating condition, and last the control condition. It is also beneficial to note that the mean guilt ratings obtained in all conditions were higher than expected, as they were all greater than 4.0, indicating a higher than neutral guilt rating. This indicates that in all conditions the participants leaned toward ratings associated with guilt rather than ratings indicating non-guilt. The control condition obtained the lowest guilt rating, a score of 4.47, which is halfway between the neutral and slightly guilty indicators on the rating scale. Research conducted on the behavioral and emotional manifestations of stress on the perception of deception has found that individuals are more likely to consider deceptive statements to be truthful than truthful declarations as deceptive (Bond & DePaulo, 2006). Extending these results to perceptions of guilt, it would be expected that guilty defendants would more commonly be deemed not guilty, rather than not guilty defendants determined to be guilty. Therefore, it was unexpected to find results indicating that participants provided higher than neutral guilt ratings across all conditions. It is possible that there was something about the defendant, and/or his behavior, that led participants to believe he was more guilty than not guilty, regardless of condition. It is also possible that these results were influenced by participant bias, as participants were aware that the study was about jury decision making, and therefore may have been hyper-vigilant to any possible signs of guilt.

Hypothesis 4. Although Pryor and Buchanan (1984) found that the defendant in their study received less guilty verdicts when he displayed little to no anxiety during his

testimony, and received the highest proportion of guilty verdicts when he appeared moderately anxious, the present study did not find a significant association between condition and verdict decision. The number of participants who chose the guilty verdict, compared to the not guilty verdict, was not significantly higher in the avoidance of eye contact, fidgeting, and sweating conditions compared to the control condition. One possible reason for this finding could be based on previous research that has found that guilty verdicts in the high anxiety and control conditions did not differ significantly – displays of extreme levels of anxiety (i.e., high anxiety or no anxiety) result in less guilty verdicts, compared to displays of moderately anxious behavior (Pryor & Buchanan, 1984). Thus, it is possible that the defendant in the present study was perceived as highly anxious in the three experimental conditions (avoidance of eye contact, fidgeting, and sweating), which could explain why a significant difference in verdict decisions was not found between the experimental and control conditions.

Interestingly, the number of guilty versus not guilty verdicts were very similar in the fidgeting and control conditions; however, an apparent trend emerged in the avoidance of eye contact condition as the number of guilty verdicts (n = 15) was larger than the number of not guilty verdicts (n = 6). A trend was also observed in the sweating condition, as the number of not guilty verdicts (n = 15) was larger than the number of guilty verdicts (n = 6). Thus, it appears that the mere avoidance of eye contact is more highly associated with guilt, and sweating behavior on its own is less likely to result in a guilty verdict. These results, coupled with other results from this study, suggest that sweating is a unique anxious behavior, and is further discussed in subsequent sections.

Hypothesis 5. Nagel, Lamm, and Neef (1981) have argued that jurors' confidence ratings, or propensity to convict, which they defined as the threshold probability of guilt that jurors personally require in order to convict or acquit the defendant, is important in jury decision making. A juror may feel that it is highly probable that the defendant is guilty, however, when determining a verdict the juror may find the defendant not guilty because their probability threshold for conviction was not met. Results from the present study supported the hypothesis that jurors' level of confidence plays a significant role in jury decision making, as there was a statistically significant difference in confidence ratings based on participants' verdict decisions. The present study found that participants who chose a guilty verdict were confident in this decision, whereas participants who chose a not guilty verdict were not confident in their decision. As Figure 2 demonstrated, participants who indicated that the defendant was guilty were slightly, moderately, or strongly confident in their verdict decision, whereas participants who indicated that the defendant was not guilty were slightly, moderately, or strongly unconfident, or neutral, in terms of their confidence rating. Only eight participants who stated that the defendant was not guilty were slightly or moderately confident in this decision, and no participants stated that they were strongly confident if they determined that the defendant was not guilty. This finding supports Nagel et al.'s (1981) argument that more confidence in the verdict decision is required in order for a juror to determine that the defendant is guilty. Even if jurors believe that the defendant might be guilty, they need to feel confident in this decision in order to provide a guilty verdict. Because a defendant is supposed to be found guilty "beyond a reasonable doubt," which Nagel and colleagues determined means

that jurors should be approximately 90% convinced that the defendant is guilty in order to produce a guilty verdict, this result is encouraging. There are many variables that may influence a juror's propensity to convict, or confidence in their verdict decision. It is possible that a verdict decision, and level of confidence in this decision, is related to a juror's confidence in the evidence presented. For example, participants in the present study may have provided a guilty verdict and felt confident in this decision because they believed that they had sufficient evidence to support their guilty verdict, whereas individuals who provided a not guilty verdict were not confident in this decision because they required more substantial evidence for their probability threshold for conviction to have been met.

The finding that jurors' confidence plays a significant role in jury decision making is also important as it can be applied to jury deliberations. If jurors enter the deliberation room unconfident in their verdict decision, although they have individually determined the defendant to be not guilty, they may be more easily persuaded by confident jurors who believe the defendant is guilty. As Davis et al. (1975) have argued, if a majority of the jurors enter deliberation with a predisposition toward a verdict, the minority will typically be persuaded towards this predisposition and acquiesce with the decision of the majority. Therefore, if those jurors who are confident in their guilty verdict decision enter the deliberation room with this in mind, they may be more likely to convince those jurors who are not confident, and who may be leaning towards a not guilty verdict, to find the defendant guilty. However, it should also be noted that Davis and colleagues found that deliberation has also been shown to increase verdict leniency, which could be due to the

greater ease of convincing outliers to vote not guilty rather than guilty. This result demonstrates that not guilty verdicts may not always be as unanimous and as confident as they appear. This finding is supported by the results of the present study, as those participants who provided a not guilty verdict were, on average, unconfident in this decision. It is possible that confidence ratings were related to the defendant's nonverbal behavior observed in the present study; thus, to determine if this relationship existed further analyses were conducted.

Additional analyses. Additional analyses were conducted to gather more information about the relationship between defendant nonverbal behavior and jury perception of guilt. The first additional analysis was conducted to determine if there was a significant relationship between condition and level of confidence ratings. Based on the main hypotheses of the present study, it was expected that participants would provide higher levels of confidence in verdict decisions when the defendant was noticeably avoiding eye contact, fidgeting, or sweating compared to confidence ratings obtained in the control condition. However, results did not indicate that level of confidence differed between the experimental conditions and the control condition, nor did it differ when comparing all of the conditions together. This finding indicates that nonverbal behaviors of the defendant were not related to how confident the participants were in their verdict decision, and is discussed in more depth below.

Further analyses also did not find a significant association between participants' level of education and their verdict decision. However, Figure 3 demonstrates an interesting trend as undergraduate participants provided more guilty verdicts, while

graduate participants gave more not guilty verdicts. This finding provides information about how representative the sample is of the target population of potential jurors. Because graduate students are likely to have more education than a typical juror, they may not be as representative of the target population as desired. Undergraduate participants may be more representative of the target population in comparison to graduate participants, although a sample consisting of individuals from the general public may more accurately represent the average juror. Because undergraduate participants are likely more representative than graduate participants, and they provided more guilty verdicts, this trend may continue with a sample of individuals from the general public and the number of guilty verdicts might increase. This apparent trend may also grow considering the sample in the present study was comprised of psychology students who generally learn about nonverbal behavior during their education and may therefore be more cognizant of the influence of the defendant's nonverbal behaviors in the video recordings displayed.

The impact of condition (avoidance of eye contact, fidgeting, sweating, control) and verdict decision (guilty vs. not guilty) on level of confidence ratings was also explored as an additional analysis. As expected, based on the results obtained for the main hypotheses, confidence ratings were significantly related to verdict decision, and not related to condition. Similar to the results of hypothesis five, confidence ratings were higher when participants found the defendant guilty, and confidence ratings were lower when the defendant was determined to be not guilty. However, an interesting finding emerged as participants in the sweating condition were found to be the most confident of

all conditions when they provided a guilty verdict, and the least confident of all conditions when providing a not guilty verdict. This trend indicates that level of confidence in the verdict decision is more discrepant in the sweating condition. Sweating behavior appears to impact level of confidence in a different way than avoidance of eye contact and fidgeting behaviors. It is possible that sweating behavior triggers an internal reaction by the juror. Those participants who associated sweating with guilt may have been more confident in their guilty verdict because they believed that the sweating behavior was not due to any reason other than guilt. Those participants who determined that the defendant was not guilty may have also believed that the defendant's sweating was related to guilt, but this behavior alone did not meet their probability threshold for conviction. Therefore, even though they stated that the defendant was not guilty, they were not as confident in this decision, especially in comparison to the other conditions. Because the impact of sweating behavior on jury perception of guilt has not been examined in previous research, more research needs to be conducted on this novel variable to further explore its influence on jury decision making.

Explanation of Findings

The non-significant results found in the present study could be due to the small sample size available to the researcher. If the sample size was larger, and each condition included a greater number of participants, it is possible that more of the results would be significant. Considering that results were trending in the expected direction, the difference in guilt ratings between the experimental conditions and the control condition could become significant with a larger sample. It is also possible that the trend indicating

more guilty verdicts compared to not guilty verdicts in the avoidance of eye contact condition would become significant. If these hypotheses were found to be significant with a larger sample size, a significant relationship between confidence ratings and condition may also emerge, which would indicate that jurors' confidence ratings are related to defendant nonverbal behavior. For example, participants may be less confident about their verdict decision, and therefore provide a not guilty verdict, when the defendant displays nonverbal behaviors associated with anxiety. It is also possible that with a more representative sample, for example, participants from the general public rather than psychology students, guilty verdicts would increase, following the trend observed in Figure 3.

Research conducted by Pozzulo and colleagues (2010) demonstrated a significant relationship between gender and jury perception of guilt as male defendants received higher guilt ratings in comparison to females. Several studies have also found that female defendants are treated more leniently compared to male defendants (e.g., Auerhahn, 2007; Greatrix & Enright, 2006; Rodriguez et al., 2006). These findings may help to explain why all conditions elicited higher than expected guilt ratings, given that the defendant in the present study was male. Pozzulo and colleagues also found that participants attributed blame to the victim more often when the defendant was older rather than younger. Based on this finding, it is possible that participants in the present study attributed more blame to the young defendant, resulting in higher guilt ratings across conditions.

The main concern with the results of the present study is that the level of guilt ratings obtained in the control condition were higher than expected. The average guilt rating produced in the control condition was 4.47, which is halfway between neutral and slightly guilty on the guilt ratings scale. Rather than being conservative due to the limited information presented in the video recordings of the defendant, and therefore providing low guilt ratings, all conditions produced average guilt ratings on the higher end of the scale. Because the video recordings were silent and did not include verbal cues, there was a significant lack of evidence for which the participants could use to base their decisions. In the experimental conditions, the defendant engaged in behaviors associated with anxiety (avoidance of eye contact, fidgeting, sweating), however, in the control condition the defendant did not engage in any type of behavior; he looked directly at the screen and rarely moved. The finding that participants still provided higher than neutral guilt ratings, and a similar number of guilty and not guilty verdicts, may indicate that the non-significant results in the present study were related to an issue with the control condition. In the control condition the defendant maintained a neutral expression. However, previous research has found that defendants received more severe judgments from participants when they appeared neutral, as expressed through nonverbal behaviors such as facial expressions and demeanor (Savitsky & Sim, 1974). This finding could relate to the control condition used in the present study, indicating that it did not truly act as a control condition. Furthermore, Salekin and colleagues (1995) also found that the defendant is perceived as more guilty when exhibiting flat affect, and Antonio's (2006) research demonstrated that defendant's receive more punitive sentences when they appear

emotionally uninvolved. Several real cases have also been documented in which individuals were found guilty and sentenced to crimes based on a lack of appropriate emotion and remorse (Heath, 2009). Therefore, the neutrality of the defendant in the control condition may have resulted in participants believing that he was emotionally uninvolved and that he exhibited inappropriate emotion, regardless of whether or not he was guilty. This may be the reason for the higher than expected guilt ratings and guilty verdicts observed in the control condition, indicating that the control condition did not serve the purpose intended.

The defendant in the control condition was perceived to be similar to the defendant in the avoidance of eye contact, fidgeting, and sweating conditions in terms of level of guilt and verdict decision. This finding provides support to Boccaccini and Brodsky's (2002) argument that during witness preparation not all of the behavioral manifestations of genuine nervousness should be removed while the defendant is testifying, given that respondents expect some level of nervousness. If defendants do not display any signs of anxiety there is the potential that they will be considered glib or uncaring (Boccaccini & Brodsky, 2002). Because the control condition in the present study removed all behavioral manifestations of genuine nervousness, it is possible that participants believed that the defendant was glib and uncaring, and therefore assigned higher guilt ratings and more guilty verdicts than were expected for a control condition.

The results of the present study did not find support for the hypothesis that defendant nonverbal behavior associated with anxiety significantly impacts jury perception of guilt and verdict decisions. This research provides more information on the

effects of extralegal factors on jury decision making and examines behaviors in an anxiety-provoking situation that occurs during the trial, rather than during testimony, which has not been previously studied. The findings are applicable to witness preparation, as they support Boccaccini and Brodsky's (2002) argument that during witness preparation not all of the behavioral manifestations of genuine anxiety should be removed, since respondents expect some level of nervousness. Flat affect, a neutral expression, and a lack of emotional involvement, as displayed by the defendant in the control condition, may lead jurors to believe that the defendant is guilty. The trend observed in the present study indicating that the highest level of guilt was attributed to the defendant when he was avoiding eye contact, followed by when he was fidgeting, sweating, and last the control condition, also indicates that these nonverbal behaviors may result in a guilty verdict when combined with more information, evidence, or other extralegal variables found to affect jury perception of guilt. The results of this research can aid attorneys in directing the defendant on how to behave throughout the trial process, as it is recommended that he appear natural while reducing, but not completely eliminating, signs of anxiety. The results specifically related to the sweating condition indicate that this extralegal variable should be controlled for when possible.

Limitations and Future Research

As discussed above, the small sample size included in the present study is a significant limitation. An a priori power analysis was not conducted prior to data collection, and it is possible that the sample size obtained per condition was not sufficient to find an effect that may be existent. Also, it is possible that the sample was not truly

representative of the target population, due to the level of education of most of the participants and the fact that all participants were psychology students who may be more cognizant of the influence of nonverbal behavior on perception. Additionally, the present study was unable to randomly assign participants to conditions. Instead, preexisting classes of students were randomly assigned to the conditions. Future research could include a larger sample size, and more participants per condition, to potentially achieve significant results. The inclusion and random assignment of participants from the general public would also allow for a more representative sample, and potentially significant results. Although additional analyses did not find a significant association between participants' level of education and their verdict decision, an interesting trend emerged as undergraduate participants provided more guilty verdicts, while graduate participants gave more not guilty verdicts. Therefore, it may be beneficial for future research to further examine the influence of education on perception of guilt, as well as verdict and sentencing decisions, as this could be valuable information for jury selection.

Given the male gender and young age of the defendant may have affected the results of the present study, and video recordings with a female and/or older defendant were not created, this lack of available comparison may be considered a limitation of the present study. Future research could include videos of both a male and female defendant to compare the possible influence of gender in relation to defendant nonverbal behavior and jury perception of guilt. Including videos of both a young and older defendant may also assist in examining the effect of defendant age and nonverbal behavior on jury perception of guilt.

If participants believed that the defendant was expressing flat affect, or felt he was emotionally uninvolved, glib, or uncaring, it is possible that the control condition did not serve the purpose for which it was intended. Because guilt ratings were higher than average in all conditions, it is believed that there was something about the defendant that may have persuaded participants to believe he was guilty, despite a significant lack of evidence, especially in the control condition. Future research could include a control condition in which the defendant appears more natural rather than neutral. Including more than one defendant in the study, and then comparing the results across two or more defendants, may also allow for further explanation of the results.

In their research Pryor and Buchanan (1984) found a significant relationship between behavioral manifestations of anxiety and jury perception of credibility and guilt. However, guilty verdicts in their high anxiety and control conditions did not differ significantly from one another. They concluded that no anxiety or high anxiety situations result in less guilty verdicts compared to moderate anxiety displays. It is possible that the defendant in the present study was perceived as highly anxious in the avoidance of eye contact, fidgeting, and sweating conditions, which could explain why a significant difference in verdict decisions was not found. In future research the frequency of the experimental behaviors (avoidance of eye contact, fidgeting, sweating) could be reduced in an attempt to make the defendant appear moderately anxious, rather than potentially highly anxious.

Research on the effects of defendant nonverbal behavior on jury perception of guilt is limited. As Boccaccini and Brodsky (2002) concluded, more research needs to be

conducted on the effects of defendant behavioral manifestations of anxiety. Although defendant nonverbal behavior related to anxiety was not found to significantly affect jury perception of guilt in the present study, there were several limitations to the present research that could be addressed in future research. It may also be beneficial to conduct research on the effects of defendant nonverbal behavior using a variety of research designs. For example, a repeated measures design could be utilized, in which participants view the video recordings for all of the conditions. If the videos were counterbalanced and participants were exposed to all of the anxious behaviors (avoidance of eye contact, fidgeting, sweating), it is possible that different results may emerge. It may also be beneficial to conduct research in this area using video recordings that are scripted rather than silent. In an attempt to make the videos appear more realistic, the defendant could be listening to the prosecuting attorney's witness testify, which could remain consistent across all conditions. The videos could also include a partial view of the defendant's attorney to increase realism and make the defendant and courtroom situation appear more natural.

Conclusion

The purpose of the present study was to examine the effects of defendant nonverbal behavior on jury perception of guilt. Factors not relevant to a trial should not impact its outcome; however, past research has identified several extralegal variables that inappropriately influence decisions made by the jury (Izzett & Sales, 1981), indicating a significant problem in the American legal system (Elwork et al., 1981; Schniederjans & Hollcroft, 2005). One area that has been under researched is the effect of nonverbal

behavior in the courtroom. Therefore, the aim of the present study was to build upon previous research that has examined the effect of numerous extralegal factors on jury decision making, and to supplement the lack of research exploring the effects of defendant nonverbal behavior on jury perception of guilt.

The current research has the ability to increase awareness of the inappropriate effect of extralegal variables on jury decision making. It also provides information indicating that level of confidence plays a significant role in jury decision making, which may be noteworthy during jury deliberation. Considering the present study examined behaviors in a context that has not been previously studied, in the courtroom throughout the trial, the results of the present study are also more generalizable to actual jury trials. For example, this research can assist attorneys with witness preparation, not only for the defendant's testimony, but also throughout the duration of the trial.

Based on the results of the present study that were specifically related to the sweating condition, it is evident that more research should be conducted on this novel variable to determine how and why sweating is affecting participants' confidence in their verdict decisions differently in comparison to avoidance of eye contact and fidgeting behavior. Overall, the results of this study demonstrate the significant need to further investigate the role that behavioral manifestations of anxiety plays in jury perception of guilt and jury decision making.

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Appendix A: Informed Consent Form

Informed Consent

TITLE: Jury Decision Making

Investigator: Katrina Hodgson

We are asking you to participate in a research study. Please take your time to read the information below and feel free to ask any questions before signing this document.

Purpose: The purpose of this study is to investigate certain characteristics of a defendant and jury decision making. Jury decision making includes the study of what information has an influence on jurors' verdict and sentencing decisions. The principal researcher is Katrina Hodgson, doctoral dissertation student, and the dissertation chair is Dr. Dean Rishel.

Procedures: Your participation in this study will involve watching a 5-minute video recording of a defendant and then completing a questionnaire booklet consisting of two questionnaires. All questionnaires will be anonymous and no identifiable information will be asked of you. Only a participant number will appear on the top of each booklet. Once you have completed the questionnaire booklet you will be asked to place it in a box at the front of the classroom. This study will take approximately 25 minutes to complete.

Risks: There are no physical risks associated with this study. Foreseeable psychological risks may include feelings of discomfort that may arise from watching the video and/or completing the questionnaires. To minimize discomfort you may omit any of your answers on the questionnaires or you may withdraw from the study at any time.

Benefits: You will not directly benefit from this study. However, we hope the information obtained from your participation may benefit society and lead to a better understanding of jury decision making.

Confidentiality: All information that is obtained from you during the course of this research is completely confidential and will not be shared with anyone other than the principal investigator (Katrina Hodgson). This consent form will be given a research identification number. All raw data (i.e., questionnaires) will be anonymous and only identified by a research identification number. This number will match the ID number on your consent form. The code sheet identifying each participant and their research identification number, along with the raw data, will be kept in a locked file cabinet that

can only be accessed by the principal investigator. All electronic information (i.e., answers to questions) in a database will be anonymous and only identified by the same research identification number in a password-protected computer file. Your name will not appear in this file. There will be no personal identifying information linked to the data. All raw data will be retained for five years, as per American Psychological Association (APA) guidelines, at which point all raw materials will be shredded and discarded. Although the results of this study may be published, they will be reported in a way that makes it impossible to identify individual participants. All personal identifying information, such as demographic information and school name, will be omitted from published materials. Only aggregate data will be presented. As such, your specific scores will not be made available to you, though a general report of the study's findings will be made available.

Questions/Concerns: If you have questions at any time about the study or the procedures, or you experience adverse effects as a result of participating in this study, you may contact the researcher, Katrina Hodgson, at klh5619@ego.thechicagoschool.edu or the dissertation chair, Dr. Dean Rishel, at drishel@thechicagoschool.edu. If you have questions concerning your rights in this research study you may contact the Institutional Review Board (IRB), which is concerned with the protection of subjects in research projects. You may reach the IRB office Monday-Friday by calling 312-467-2343 or writing: Institutional Review Board, The Chicago School of Professional Psychology, 325 N. Wells, Chicago, Illinois, 60654.

Participation: Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty. If you withdraw from the study before data collection is completed your data will be destroyed. You have the right to omit any question(s)/procedure(s) you choose.

Consent

> The research project and the procedures have been explained to me. I agree to participate in this study. My participation is voluntary and I do not have to sign this form if I do not want to be part of this research project. I will receive a copy of this consent form for my records.
>
> Participant's signature _____
>
> Date _____
>
> Investigator's signature _____
>
> Date _____

Appendix B: Demographics Questionnaire

The following questions are designed to obtain information about your background. Please read each question carefully and provide your response by placing an **X** in the spaces provided. There are no correct or incorrect answers; we simply would like some information about your background. Thank you for taking the time to complete this brief questionnaire.

1. What is your gender?
   ____ a. Male
   ____ b. Female

2. What is your age?
   ____ a. 18-24
   ____ b. 25-34
   ____ c. 35-44
   ____ d. 45-54
   ____ e. 55-64

3. What is your **current** marital status (please check only one answer)?
   ____ a. Single
   ____ b. Married
   ____ c. Separated
   ____ d. Divorced
   ____ e. Widow(er)

4. What is your ethnic background (please check only one answer)?
   ____ a. Anglo-American/White
   ____ b. Mexican/Mexican-American/Chicano/Latino/Hispanic
   ____ c. Black/Afro-American
   ____ d. Asian-American
   ____ e. Mixed-Multiracial (Please specify: _____)
   ____ f. Other (Please specify: _____)

5. In what country were you born?
   ____ a. United States
   ____ b. Canada
   ____ c. Mexico
   ____ d. Other (Please specify: _____)

6. What is your political affiliation?
   ____ a. Republican
   ____ b. Democrat
   ____ c. Other (Please specify: _____)

7. What is your occupational status? (please check only one answer)
   ____ a. Unemployed
   ____ b. Employed part-time
   ____ c. Employed full-time
   ____ d. Student part-time
   ____ e. Student full-time
   ____ f. Other (Please specify: _____)

8. What is your **current** approximate **annual** income from all sources (including wages, tips, alimony, child support, unemployment insurance, retirement pension, scholarships, etc.)?
   ____ a. $0 to $14,999
   ____ b. $15,000 to $29,999
   ____ c. $30,000 to $44,999
   ____ d. $45,000 to $59,999
   ____ e. $60,000 to $74,999
   ____ f. $75,000 to $89,000
   ____ g. $90,000 to $104,999
   ____ h. Over $105,000

9. What is the highest level of education that you have completed? (please check only one answer)
   ____ a. Completed high school
   ____ b. Completed some college or university
   ____ c. Completed a college degree program
   ____ d. Completed an undergraduate degree
   ____ e. Completed some graduate school
   ____ f. Completed a masters degree
   ____ g. Completed a doctoral degree
   ____ h. Completed other professional degree (e.g., medical, law)

Appendix C: Jury Verdict Questionnaire

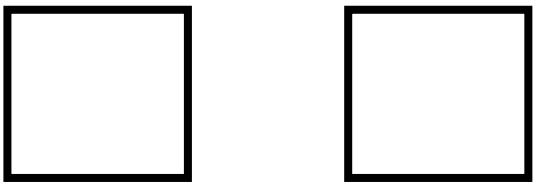
Please answer the following questions based on the video recording you just watched.

If you were serving as a member of the jury, please rate the degree to which you would find the defendant guilty.

*Please circle **one** value on the scale below.*

1	2	3	4	5	6	7
Definitely Not Guilty	*Moderately Not Guilty*	*Slightly Not Guilty*	*Neutral*	*Slightly Guilty*	*Moderately Guilty*	*Definitely Guilty*

If you were serving as a member of the jury, please choose whether you would find the defendant guilty or not guilty by placing an **X** in the box above your response.



Guilty Not Guilty

How confident are you in your verdict decision (Guilty or Not Guilty)?

*Please circle **one** value on the scale below.*

1	2	3	4	5	6	7
Strongly Unconfident	*Moderately Unconfident*	*Slightly Unconfident*	*Neutral*	*Slightly Confident*	*Moderately Confident*	*Strongly Confident*

Appendix D: Debriefing Form

The Effects of Defendant Nonverbal Behavior in the Courtroom on Jury Perception of Guilt

The overall goal of this research is to examine the effects of defendant nonverbal behavior on jury perception of guilt. Extralegal factors should not impact the outcome of a trial, including verdict and sentencing decisions, however, past research has identified that this is a significant problem in our legal system. Many factors have been found to play an inappropriately influential role in decisions made by the jury; however, one area that has been under researched is the effect of nonverbal behavior in the courtroom.

The aim of the present study is to determine if a defendant's nonverbal behavior in the courtroom, throughout his trial, will significantly impact jury perception of guilt and verdict decisions.

Psychology classes at Brandman University were randomly selected to participate in the present study. All students in these classes were eligible to participate. The classes were then assigned to one of the four conditions: avoidance of eye contact, fidgeting, sweating, or control. In each condition participants viewed one of four videos, in which a defendant displayed one of four behaviors in response to a prosecuting attorney's witness testifying.

After watching the video, you completed a demographics questionnaire and a questionnaire to measure the level of guilt you assigned to the defendant, a verdict, and the level of confidence you had in your verdict decision. It is expected that the three conditions depicting avoidance of eye contact, fidgeting, and sweating behaviors will elicit higher guilt ratings, and more guilty verdicts, in comparison to the control condition.

Previous research has found that a wide range of extralegal variables influence jury decision making; however, research on the effects of a defendant's nonverbal behavior is limited. It is hoped that the findings of this research will improve our understanding of the extralegal influences on decision making in our legal system. The findings may also provide valuable information to attorneys, which can be used to better direct defendants on how to behave throughout the trial process.

Thank you for your participation in this study. Please contact Katrina Hodgson if you would like to receive a copy of the research results. Specific scores will not be made available, though a general report of the study's findings will be available upon request.

If you have any questions about your participation in this study or about the study itself, please contact:

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If you have questions concerning your rights in this research study you may contact:

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