

Spring 5-19-2014

# Juror Bias in a Mock Case Involving a Defendant With Kleptomania

Ally Reeves

[ally.reeves@student.shu.edu](mailto:ally.reeves@student.shu.edu)

Follow this and additional works at: <http://scholarship.shu.edu/dissertations>



Part of the [Social and Behavioral Sciences Commons](#)

---

## Recommended Citation

Reeves, Ally, "Juror Bias in a Mock Case Involving a Defendant With Kleptomania" (2014). *Seton Hall University Dissertations and Theses (ETDs)*. 1944.

<http://scholarship.shu.edu/dissertations/1944>

Juror Bias in a Mock Case Involving a Defendant With Kleptomania  
by  
Ally Reeves

Psychology and Justice Studies- B.A.  
College of Saint Elizabeth, 2011

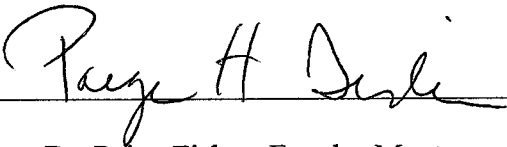
A Thesis Submitted In Partial Fulfillment of the Requirements for the  
Master of Science in Experimental Psychology

In

The Department of Psychology  
Seton Hall University  
May, 2014

Juror Bias in a Mock Case Involving a Defendant With Kleptomania  
by  
Ally Reeves

Approved by:



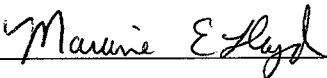
---

Dr. Paige Fisher, Faculty Mentor



---

Dr. Susan Teague, Committee Member



---

Dr. Marianne Lloyd, Committee Member



---

Dr. Kelly Goedert, Director of Graduate Studies

## Acknowledgements

This thesis is by no means a one-person effort and I am so happy to acknowledge those individuals who played a role in making this thesis a reality. I cannot begin to thank my thesis advisor, Dr. Paige Fisher, enough for her guidance and encouragement throughout this process. She believed in my abilities and challenged me to exceed my own expectations of what I could accomplish. I am also grateful to my committee members, Dr. Marianne Lloyd and Dr. Susan Teague, for their helpful suggestions and feedback. In addition, I want to thank Dr. Janine Buckner for the unyielding support she has provided me since my first day in this program.

I especially need to thank my family and friends for always being supportive, even though most of them still do not really understand my thesis. Specifically, I want to thank my mom for always allowing me to pursue my dreams. I also want to thank my dad for his encouragement and humor when I needed it most.

## Table of Contents

Approved by: .....	i
Acknowledgements .....	ii
Table of Contents .....	iii
List of Figures.....	iv
List of Tables.....	v
Abstract .....	vi
Introduction .....	1
Method.....	13
Results .....	18
Discussion.....	34
References .....	48
Appendix A .....	55
Appendix B.....	56
Appendix C.....	62
Appendix D .....	64

## List of Figures

Figure 1. *Interaction for likelihood to reoffend ratings based on defendant diagnosis and defense* ..... 31

## List of Tables

Table 1.....	18
Table 2.....	21
Table 3.....	23
Table 4.....	24
Table 5.....	26
Table 6.....	27
Table 7.....	28
Table 8.....	29
Table 9.....	30
Table 10.....	31
Table 11.....	32
Table 12.....	33

## **Abstract**

Jurors are instructed to only consider legal factors when making verdict and sentencing recommendations, but research has shown that biases can still affect these decisions. For instance, research has found that jurors can be influenced by both the type of defendant mental illness (Higgins, Heath, & Grannemann, 2007) and causal attributions regarding the mental illness (Rendell, Huss, & Jensen, 2010), even if jurors have not explicitly been told to consider this information. Although individuals with kleptomania often experience legal troubles (Grant, Odlaug, Davis, & Kim, 2009), this mental illness has not received attention in the mock juror literature. The current study employed a mock jury paradigm to investigate both the impact of a kleptomania diagnosis and related causal attributions (biological vs. psychological) on the legal outcome for a defendant arrested for shoplifting. Results suggest that a defendant with kleptomania was more likely to receive a not-guilty verdict and less likely to receive a criminal justice intervention than a defendant without mental illness. Causal attribution did not affect verdict choice, but a defendant whose situation was explained with the biological causal attribution was more likely to receive a mental health intervention than a defendant with the psychological causal attribution. The interaction between diagnosis and defense did not affect verdict or sentencing recommendations. These findings suggest that similar to other defendants with mental illness, jurors either view defendants with kleptomania as less guilty for their crimes or as less deserving of punishment from the criminal justice system than defendants without mental illness.



## Introduction

Jurors are an integral part of the criminal justice system. They view evidence and listen to testimony for days, weeks, months, or even years and then are given the responsibility to render a verdict. Studies with mock jurors have investigated the factors juries consider in making their decisions. Variables such as defendant age (Bergeron & McKelvie, 2004; Smith & Hed, 1979), attractiveness (Abwender & Hough, 2001; Smith & Hed, 1979), ethnicity (Abwender & Hough, 2001; ForsterLee, ForsterLee, Horowitz, & King, 2006; Wuensch, Campbell, Kesler, & Moore, 2002), and gender (Ahola, Hellström, & Christianson, 2010; McCoy & Gray, 2007; Pozzulo, Dempsey, Maeder, & Allen, 2010) can affect verdict choice and/or sentencing recommendations in mock juries. These studies demonstrate that although juries are instructed to only consider legally relevant information pertaining to a case (Bergeron & McKelvie, 2004), they are prone to bringing their biases into the deliberation room (Devine, Clayton, Dunford, Seying, & Price, 2001).

Bias may also occur when jurors hear cases involving defendants with mental illness. The law specifies when jurors should consider a defendant's mental illness in their decision-making (i.e. the insanity defense). But, in the numerous instances when the criteria for such defenses cannot be met, jurors may have difficulty ignoring the defendant's mental state, especially when the mental illness seems to be a contributory factor to the criminal act.

### **Empirical Investigations of Mental Illness and Criminal Behavior**

Jurors can be inconsistent in their consideration of mental health when making verdict/sentencing decisions. Mock juror studies suggest that juror decision-making relates to the type of mental illness and/or the causal attribution behind the mental illness.

One of the earliest investigations into juror decision-making regarding mental health assessed how jurors interpret the illegal actions of individuals with general mental illness but no specific diagnosis. Monahan and Hood (1976) presented potential jurors with a short passage about a man who murdered another man after a short altercation in a diner. Participants in the control condition did not receive any other information about the defendant. In the experimental conditions, participants were either provided background regarding the man's problematic mental health history or background regarding his past legal troubles with no mention of mental health problems. After reading the passage and background information, they answered a series of questions regarding their opinion of the man and his actions as well as their endorsement of treatment or punishment. Endorsement of treatment did not vary among conditions, but endorsement of punishment was less likely in the mental health condition compared to the control condition. Furthermore, researchers found that the defendant described as having mental health problems was seen as least responsible for his actions and as having the smallest level of free will among the three conditions.

More recent studies have investigated outcomes related to specific mental health diagnoses. Whittemore and Ogloff (1995), for example, had participants read actual case information from two trials where expert testimony during the trial portrayed the defendant as either 1) mentally stable at the time of trial, 2) experiencing some minor problems with depression, or 3) having psychotic depression with hallucinations and delusions. After reading the cases, participants had the option of three possible verdicts: guilty, not guilty, or not criminally responsible on account of mental disorder. The "not criminally responsible on account of mental disorder" verdict was most commonly given in the depression with hallucinations and delusions condition. The investigators asked participants what they considered most important in

making such a verdict and found that the defendant's mental condition prior to the criminal act ranked as the top concern, with the expert testimony during the trial as the second concern.

Although the studies outlined so far seem to support the notion that defendants with mental illness are treated more leniently than other defendants, this is not a consistent trend. For instance, jurors have not looked favorably on defendants with psychopathy. Psychopathy is a mental illness that shares similar features with Anti-Social Personality Disorder (American Psychiatric Association, 2013). In one such study involving psychopathy, Edens, Colwell, Desforges, and Fernandez (2005) described a male defendant in a death penalty case in one of three ways: as a psychopath, psychotic, or as not having mental health problems. Regardless of condition, they also read two opposing testimony statements. The first statement was from a defense expert saying the defendant was unlikely to be a future danger to society. By contrast, the second statement from a prosecution expert stressed that the defendant was likely to be a future danger. Participants were then asked to fill out questionnaires regarding sentencing recommendations, predictions regarding the defendant's future dangerousness, and ratings of how many psychopathic and schizophrenic traits the defendant possessed. Participants were most likely to endorse the death penalty over a life sentence when the defendant was portrayed as a psychopath, followed by the defendant without any mental health problems, with the lowest death penalty endorsement for the psychotic defendant. The researchers also found that jurors were likely to recommend the death penalty if they attributed psychopathic traits to the defendant, even when the defendant was described as being psychotic or without any mental health problems. With regard to the defendant's future dangerousness, the defendant with no mental health problems was believed to be the least dangerous, but dangerousness ratings for the other two conditions were the same.

In another study contrasting mental health diagnoses, Higgins, Heath, and Grannemann (2007) wanted to determine if mock jurors viewed a defendant differently based on whether the defense involved a diagnosis of Post-Traumatic Stress Disorder (PTSD) or Cocaine Dependency Disorder. Participants read case information about a defendant on trial for assault along with the defendant's statement about what had occurred based on his diagnosis (the defendant with PTSD described the event as occurring during a flashback and the Cocaine defendant blamed his history of drug abuse) and a psychologist's statement verifying the diagnosis. Then, they answered a series of questions regarding the defense and the defendant, along with verdict choice and recommendation for punishment. Participants in the Cocaine Dependency Disorder condition were more likely to choose a guilty verdict, place greater certainty in their verdict choice, recommend a longer prison sentence, feel less badly for the defendant, and to attribute a greater amount of guilt, responsibility and control over actions to the defendant. With regard to the expert testimony, participants attributed more credibility, persuasiveness, and acceptability to the PTSD defense. Overall, the results of these studies seem to indicate the importance of the type of defendant mental illness, rather than just simply the presence of a mental illness.

Aside from manipulating the type of mental illness, researchers have explored the effect of varying the causal attributions related to mental health issues. In a study investigating the causal attributions associated with schizophrenia, Bennett, Thirlaway, and Murray (2008) gave participants information about a man with schizophrenia; in one condition, the development of his disorder is explained as stemming from a significant loss in his life, and in the other condition his family genetics are implicated as the explanation. Although the man was not portrayed as having committed a crime, participants responded to a small subset of hypothetical statements regarding how he would be perceived if he did commit a crime (e.g. "If Simon obeyed voices

that told him to steal from somebody, it would be unfair to treat him as if he had purposefully done something wrong”). There was no significant difference between the two groups in their responses to these questions, which suggests that the explanation for why the individual had schizophrenia did not impact participant views on his culpability.

By contrast, Monterosso, Royzman, and Schwartz (2005) obtained differences based on explanations for the illness. They presented participants with a passage about a defendant who either committed arson resulting in a death of an innocent person or murder following a heated argument with a stranger. They were then given an explanation for the behavior based on a mental health expert’s opinion. One explanation stated that the defendant had chemical abnormalities in his brain and the other explanation placed the blame on childhood abuse. Participants were more lenient toward the defendant when his behavior was caused by chemical abnormalities regardless of type of crime.

Based on the findings from studies investigating diagnosis type and studies investigating causal attributions for mental illness, Rendell, Huss, and Jensen (2010) combined both factors. Every participant in their study regardless of condition read a statement from the defense that argued the defendant in a second degree murder trial had schizophrenia, a view that was either supported by evidence of brain abnormalities or by psychological test results. Then, participants were randomly assigned one of three statements from the prosecution asserting that the defendant was either a psychopath, had a personality disorder, or did not have any psychological problems. Like Edens and colleagues (2005), the guilty verdict was most often given to the defendant the prosecution portrayed as a psychopath. Additionally, when comparing explanations based on the defense evidence, Rendell and colleagues (2010) found that the brain

abnormality evidence was more associated with obtaining a not-guilty verdict than the psychological test evidence.

Like Rendell and colleagues (2010), studies outside of mock jury research have also found that people are easily influenced by arguments supported with biological or brain evidence. For instance, McCabe and Castel (2008) found that participants were more likely to rate arguments from fictional cognitive neuroscience research studies (some articles had true arguments and other articles had faulty arguments) as credible when a brain image was included with the information compared to when the same information was presented with a bar graph, topographical map, or no image. Similarly, Weisberg, Keil, Goodstein, Rawson, and Gray (2008) also looked at the effect of neuroscience information on good and bad explanations. However, they did not include brain images or other visual displays with the information. Instead, they were interested in determining if credibility ratings would differ based on whether participants were experts in neuroscience (individuals who had an advanced degree in cognitive psychology or were currently pursuing such a degree) or non-experts (one group included participants without any background in neuroscience and a second group consisted of students in an intermediate cognitive neuroscience course). Weisberg and colleagues (2008) found that the two non-expert groups rated explanations with neuroscience information as credible, especially when they were given bad explanations. Experts, on the other hand, were not influenced by such information.

### **Kleptomania**

Aside from mental disorders such as schizophrenia and psychopathy that have been examined in mock juror studies, another disorder that can commonly lead to involvement in the legal system is kleptomania (Grant, Odlaug, Davis, & Kim, 2009). Kleptomania, a disorder where individuals steal to reduce internal tension, is included in the DSM-5 under the impulse

control disorders section. These disorders involve difficulty preventing oneself from participating in a criminal or socially undesirable act, possibly leading to distress. Oftentimes, the distress is only alleviated by completing the forbidden act (American Psychiatric Association, 2013). Examples of such disorders include intermittent explosive disorder, pyromania, pathological gambling, trichotillomania, and kleptomania. The DSM-5 criteria for kleptomania are

...The recurrent failure to resist impulses to steal items even though the items are not needed for personal use or for their monetary value (Criterion A). The individual experiences a rising subjective sense of tension before the theft (Criterion B) and feels pleasure, gratification, or relief when committing the theft (Criterion C). The stealing is not committed to express anger or vengeance, is not done in response to a delusion or hallucination (Criterion D), and is not better accounted for by Conduct Disorder, a Manic Episode, or Antisocial Personality Disorder (Criterion E). (American Psychiatric Association, 2013, p. 478-479)

The DSM-5 also stresses that kleptomania and typical shoplifting are not synonymous; unlike shoplifters, individuals with kleptomania are only concerned with symptom relief, do not plan their thefts, and do not care about the stolen object itself (American Psychiatric Association, 2013).

Kleptomania is believed to affect a small percentage of people (about .6%; Talih, 2011), but Goldman (1998) stresses that the actual number may be much greater, as many individuals with this disorder do not usually come forward by their own volition. With regard to gender, kleptomania is more prevalent in females than males (American Psychiatric Association, 2013).

The earliest attempts at understanding kleptomania came from the psychoanalytic school of thought. The focus was primarily on explaining the act of stealing in terms of childhood trauma and/or the sexual meaning of the object stolen (Durst, Katz, Teitelbaum, Zislin, & Dannon, 2001; Fullerton, 2007). Over time, these viewpoints gradually faded out with the emphasis on cognitive-behaviorism (Durst et al., 2001). Cognitive-behaviorism focuses on how the stealing behaviors associated with kleptomania are both positively and negatively reinforced; positive reinforcement relates to the pleasure from successfully stealing an item and the negative reinforcement stems from the release of tension stealing provides (Grant, Odlaug, & Kim, 2011). Additionally, because people with kleptomania cope by rationalizing and minimizing the negative consequences of their disorder (Grant et al., 2011), clinicians utilizing cognitive-behavioral techniques also focus on changing the thoughts that permit the behavior (Durst et al., 2001; Kohn, 2006).

Based on this explanation for kleptomania, considerable scholarly debate has arisen as to whether kleptomania is properly classified as an impulse control disorder. For instance, some authors (Dannon, 2002; Durst et al., 2001) have pointed out that kleptomania and obsessive-compulsive disorder (OCD) share many similarities, with the main difference being that stealing is the tension-relieving act in kleptomania as opposed to hand-washing or checking rituals in OCD. For this reason, SSRI's, often used to treat OCD, are routinely suggested as a treatment recommendation for kleptomania (Dannon, 2002; Durst et al., 2001; Goldman, 1998).

Other researchers argue that research on brain or neuronal differences (Durst et al., 2001; Grant, Odlaug, & Kim, 2010) suggests that kleptomania can be viewed in much the same way as substance abuse disorders such as drinking or drug abuse (Grant et al., 2010). For instance, the neurotransmitters serotonin and dopamine along with the opioid system have been implicated in



both disorders (Grant et al., 2010). Furthermore, a treatment for substance abuse disorders known as naltrexone has been found to reduce kleptomania symptoms (Grant et al., 2009). Although such treatment is promising, classifying kleptomania as a substance abuse disorder may make juries more likely to find a defendant with kleptomania liable for his/her actions (as was found for the Cocaine Dependency Disorder condition in the Higgins and colleagues 2007 study) instead of less liable when the focus is strictly on brain abnormalities (like the finding for the brain abnormalities evidence in the Rendell and colleagues 2010 study).

### **Empathy and juror decisions**

Another factor that has been shown to impact juror decision-making is empathy. Empathy is described as “the drive or ability to attribute mental states to another person/animal, and entails an appropriate affective response in the observer to the other person’s mental state” (Baron-Cohen & Wheelwright, 2004, p. 168). Therefore, empathy involves the ability to infer and understand other people’s thoughts, emotions, and motives and to use this knowledge to regulate one’s emotional response.

Empathy can affect juror decision-making either with regard to how the defendant or their illegal behavior is viewed, though the findings are inconsistent. For instance, Sulzer and Burglass (1968) found that participants who scored high on a trait empathy measure were less likely to hold someone accountable for acts resulting in someone else’s death (like causing an explosion in which a family dies or running over a man with a car who later dies from his injuries), especially those done unintentionally or caused by coercion.

Two other studies manipulated testimony to create empathy for victims who killed their abusers; this manipulation only affected the trial outcome for one of these studies. Haegrich and Bottoms (2000) created empathy by having some participants write about how they would feel

and think if they were the defendant in a patricide trial. Jurors in the empathy condition voted guilty less often and viewed the defendant as less responsible for the killing. By contrast, Plumm and Terrance (2009) created empathy for a woman on trial for killing her husband in self-defense after he threatened to kill her. Participants in the empathy condition were told to place themselves in the defendant's shoes during the crime; participants in the non-empathy condition were not given such instructions. Participants were also randomly assigned to one of three conditions where they received either no expert testimony (control condition), expert testimony indicating that she had Battered Women Syndrome (BWS), or expert testimony stressing that society does not provide enough resources for women to leave abusive relationships (Social Agency Framework: SAF). Empathy had no bearing on the choice to convict or how guilty they deemed her to be, but did make participants more likely to believe the defendant was mentally stable (meaning that her mental health was not deteriorating as a result of the abuse). This effect was most pronounced when participants received the combination of empathy and the BWS testimony. In comparing types of testimony, the SAF expert testimony was most effective in reducing guilt ratings.

### **Current Study**

Despite the connection between kleptomania and the legal system, the disorder has not been studied in the mock jury literature. Therefore, the current study investigated how kleptomania affected the outcome in a shoplifting case. Participants served as mock jurors and were randomly assigned to read one of four vignettes about a woman arrested for shoplifting. In two of the vignettes (diagnosis conditions), she had kleptomania and in the other two vignettes (no-diagnosis conditions) she did not have a mental illness but either life stressors or biology were provided as a reason for her behavior. After reading the vignettes, participants were asked to determine verdict and sentencing recommendations along with other questions to reveal

participants' rationales for choosing a particular outcome. They also completed a measure of trait empathy, as research indicates that trait empathy can affect juror decision-making (Sulzer & Burglass, 1968).

The current study had six hypotheses: 1) Based on Monahan and Hood's (1976) finding that mentally ill defendants are viewed as less responsible and deserving of criminal justice interventions than defendants without a mental illness, the first hypothesis was that there would be a main effect of diagnostic condition. Therefore, participants in the two kleptomania conditions would be more likely to vote not guilty or recommend a mental health intervention (therapy, medication, or a combination of the two) than participants in either of the no-diagnosis conditions. 2) Based on prior research (e.g., Rendell et al., 2010; Monterosso et al., 2005) indicating that biological explanations are more effective than other explanations in reducing defendant culpability for criminal acts, I expected the biological testimony to be more effective than the psychological testimony in reducing guilty verdicts and recommendations for criminal justice system interventions (community service, probation and fines, or jail time). 3) For the questions regarding participants' opinions of the expert testimony, I expected participants in the kleptomania conditions to find the expert testimony more persuasive and to indicate that the expert testimony had a greater impact on their decision; this pattern would be more likely in the biological condition based on past research (e.g., Rendell et al., 2010; Monterosso et al., 2005) indicating that biological explanations are more effective than other types of explanations in reducing defendant culpability for criminal acts. 4) For the questions regarding participants' certainty in their verdict choice and their opinions of the defendant, I expected participants in the kleptomania conditions to be less certain in their verdict choice, attribute less responsibility to the defendant, and feel worse for the defendant. Also, although kleptomania involves a pattern of

recurring behavior (American Psychiatric Association, 2013), results from Higgins and colleagues (2007) suggest that participants might view individuals with a mental health disorder as less likely to reoffend. In fact, all of the predictions for the expert testimony, verdict certainty, and defendant questions were based on the findings for the PTSD condition in Higgins and colleagues (2007). 5) With regard to empathy, I expected a main effect in that participants with higher levels of trait empathy would be more likely to vote not guilty or give a mental health intervention than participants with lower levels of trait empathy; the prediction for the main effect of empathy was based on Sulzer and Burglass's (1968) finding that participants with high levels of trait empathy are less likely to hold people accountable for their illegal actions. 6) Also, I expected participants with higher levels of trait empathy to rate the defendant as less responsible for her actions than those with lower levels of trait empathy based on Haegerich and Bottoms (2000). Although Haegerich and Bottoms (2000) used induced (state) empathy, I expected the high trait empathy participants in this study to be similar to their induced (state) empathy group. Because empathy studies had not included the other questions used in the current study (the defendant and testimony questions, like persuasiveness of testimony, etc.), exploratory analyses were done to determine if participant trait empathy affected responses to these questions. Additionally, past research had not investigated the interaction between trait empathy and causal attributions based on psychological and biological explanations, so exploratory analyses were conducted to assess possible interactions.

## Method

### Participants

According to a power-analysis conducted using G\*Power (Erdfelder, Faul, & Buchner, 1996), 158 participants were needed for this study assuming a medium effect of .25 and power of .80. The final study sample consisted of 163 participants, with 105 females and 58 males. The age range of the sample was 18 to 57 ( $M = 19.32$ ,  $SD = 3.66$ ). The race/ethnicity of the study sample was 49.1% Caucasian, 19.6% Hispanic (Latino), 15.3% African American, 9.2% Asian, 3.7% Multiracial, and 3.1% Asian or Pacific Islander. Participants were students from Seton Hall University who signed up for the study online through the SONA research system and received course credit for their participation. Participants had to be a least eighteen years of age, with no other exclusions.

### Materials and Measures

**Demographic questionnaire.** Participants completed a demographic questionnaire (see Appendix A) regarding their age, gender, and race/ethnicity.

**Vignettes and defense testimony.** Participants were randomly assigned to read one of four vignettes (see Appendix B). All four vignettes were derived from an actual case, *Public Prosecutor v. L. Y. Goh* (2007). Every vignette described a woman with a prior history of shoplifting who was arrested for shoplifting a watch and bag from a Fossil store. Following the initial description was one of four types of defense testimony. The “no diagnosis psychological” condition mentioned the case information without any indication of a psychological disorder. The accompanying defense testimony was meant to mimic a defense that an actual defense lawyer might use and included information about how the defendant had been dealing with major financial troubles since losing her job and how her taking of these objects was done impulsively during a moment of distress. The “no diagnosis biological” condition also did not include any

indication of a mental disorder. The accompanying defense testimony described a biological basis for stealing not caused by kleptomania; this testimony was provided to exclude the possibility found in previous studies (e.g., Weisberg et al., 2008) that participants would accept a bogus explanation simply due to the inclusion of neuroscientific information. The “kleptomania psychological” condition stated that the defendant has kleptomania. The accompanying defense testimony by an expert witness described how distressing kleptomania is for those who suffer from the condition, as well as how the motives for stealing differ from those of a typical shoplifter. The “kleptomania biological” condition also indicated that the defendant has kleptomania. The expert defense testimony, however, explained how people with kleptomania differ biologically from people without the disorder in terms of brain functioning and neurotransmitters. The testimony also mentioned how kleptomania might have biological similarities to other disorders like obsessive-compulsive disorder and substance abuse.

**Defendant and testimony questions.** After reading the vignette and the accompanying defense testimony, participants were asked to respond to a series of questions as though they were actual jury members on the case deciding this defendant’s legal fate (see Appendix C). The first question involved making a determination as to a guilty or not guilty verdict. For those who indicated a guilty verdict, they chose one sentencing option from the following list: therapy, medication, therapy and medication, community service, probation and fines, or jail time in months.

To provide further understanding of participants’ verdict and sentencing recommendations, six additional questions with a 7-point scale of response options were also included. These questions were derived from Higgins and colleagues (2007) and involve certainty in verdict choice (ranging from 1- not at all certain to 7- extremely certain) the impact

of the expert testimony (ranging from 1- did not affect at all to 7- very much affected), the persuasiveness of the expert testimony (ranging from 1- not at all persuasive to 7- extremely persuasive), the likelihood of the defendant reoffending (ranging from 1- very unlikely to 7- very likely), degree of defendant responsibility for actions (ranging from 1- not at all responsible to 7- very responsible), and how badly the participant felt for the defendant (ranging from 1- don't feel bad at all to 7- feel very bad).

The final set of questions examined certain participant experiences that could have impacted the experimental manipulations. These questions involved experiences serving on a jury, working in retail and having customers shoplift, and experiences with those with mental illness and kleptomania, with dichotomous yes/no response options.

**The Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004).** The EQ measures empathy as a unified concept without making any distinctions between the thought processes and emotional processes involved (Baron-Cohen & Wheelwright, 2004; see Appendix D). The EQ was chosen over the more established Interpersonal Reactivity Index (IRI; Davis, 1980) as a measure of empathy because the authors of the EQ argue that items on fantasy and personal distress subscales of the IRI does not actually assess empathy (Baron-Cohen & Wheelwright, 2004). The EQ contains 60 statements, 40 of which actually measure empathy (“I can easily tell if someone else wants to enter a conversation”) and 20 statements that have nothing to do with empathy (“I dream most nights”). Participants indicated the extent to which they agreed with the statements on a four-point scale that ranged from strongly agree to strongly disagree without a neutral point. For the 40 empathy statements, each was scored and combined to comprise a total score, which ranged from 0 to 80. The EQ has a test-retest reliability of .84 (Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). Concurrent validity has been established between the EQ

and two of the IRI subscales: the “empathic concern” subscale ( $r = .42$ ) and the “perspective taking” subscale ( $r = .49$ ) (Lawrence et al., 2004).

### **Procedure**

The study was administered in groups of one to six individuals ( $M = 2.11$ ) at a time. Participants completed all measures individually. Assignment to one of the four conditions was determined by a computerized randomization procedure. In all conditions, participants first read and signed an informed consent form. Next, they filled out the demographic questionnaire. They then read the vignette and accompanying expert testimony before choosing a verdict. Those participants who chose a guilty verdict were also asked to choose a sentence recommendation. After making a verdict and sentence recommendation (if applicable), all participants responded to the defendant and testimony questions. The Empathy Quotient was the last measure completed. Before leaving, participants were verbally debriefed with an explanation of the study procedures and purpose.

### **Data analysis**

Four binary logistic regression analyses were conducted to assess predictors of verdict and sentence recommendation. To make sentence recommendation a dichotomous variable, the six sentencing options were collapsed into two categories: mental health interventions (therapy, medication, combination of therapy and medication) and criminal justice interventions (community service, probation and fines, and jail time). The dichotomous independent variables for all four regression equations were diagnosis (no diagnosis or kleptomania diagnosis), defense (psychological testimony or biological testimony), and an interaction term for diagnosis and defense. The continuous predictors were verdict certainty, impact of testimony, persuasiveness of



testimony, likelihood to reoffend, defendant responsibility for actions, feeling badly for the defendant, and empathy.

The first set of binary logistic regression analyses focused on verdict as the dependent variable. All of the previously mentioned continuous and dichotomous predictors were included in this analysis. The significant independent variables were then used in a second binary logistic regression with verdict again as the dependent variable. The second set of binary logistic regression analyses were conducted in the same manner with sentence recommendation as the dependent variable: the first analysis included all of the aforementioned independent variables with sentence recommendation as the dependent variable. In the final binary logistic regression, significant predictors from the prior analysis were included as predictors with sentence recommendation as the dependent variable. Participants who chose not-guilty verdicts were not included in these second set of analyses as they were not asked to make a sentence recommendation.

The final set of analyses consisted of six separate two-way ANOVAs to assess predictors for the defendant and testimony questions. Each of the six continuous variables for the questions regarding the defendant and expert testimony served as the dependent variables (certainty in verdict, impact of testimony, persuasiveness of testimony, likelihood to reoffend, responsible for actions, and feeling badly for the defendant). Diagnosis (no diagnosis, kleptomania diagnosis) and defense (psychological testimony, biological testimony) were the two independent variables for these analyses.

## Results

### Descriptive Statistics

The frequency counts and percentages for the dichotomous study variables are presented in Table 1. The dichotomous study variables included verdict and sentence recommendation as well as the series of questions regarding participant experiences (experience with people with mental illness, etc.) that could have affected the study results. The majority of participants either did not report having these experiences or these experiences were evenly distributed among the four conditions. Table 1 also contains the means and standard deviations of the seven continuous predictor variables for the entire study sample and by condition.

Table 1.

#### *Descriptive Statistics*

	Total Sample <i>n</i> = 163	No Diag-P <i>n</i> = 41	No Diag-B <i>n</i> = 41	Klept-P <i>n</i> = 41	Klept-B <i>n</i> = 40
	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)	<i>f</i> (%)
<b>Verdict</b>					
Guilty	130 (79.8)	37 (22.7)	39 (23.9)	30 (18.4)	24 (14.7)
Not guilty	33 (20.2)	4 (2.5)	2 (1.2)	11 (6.7)	16 (9.8)
<b>Sentence<sup>a</sup></b>					
Therapy	27 (21.3)	9 (7.1)	8 (6.3)	6 (4.7)	4 (3.1)
Medication	2 (1.6)	0 (0.0)	0 (0.0)	1 (0.8)	1 (0.8)
Therapy and medication	45 (35.4)	2 (1.6)	13 (10.2)	15 (11.8)	15 (11.8)

Community service	23 (18.1)	14 (11)	6 (4.7)	2 (1.6)	1 (0.8)
Probation and fines	25 (19.7)	8 (6.3)	11 (8.7)	4 (3.1)	2 (1.6)
Jail time	5 (3.9)	3 (2.4)	1 (0.8)	0 (0.0)	1 (0.8)
Jury					
Yes	2 (1.2)	1 (0.6)	1 (0.6)	0 (0.0)	0 (0.0)
No	161 (98.8)	40 (24.5)	40 (24.5)	41 (25.2)	40 (24.5)
Retail					
Yes	53 (32.5)	16 (9.8)	12 (7.4)	11 (6.7)	14 (8.6)
No	110 (67.5)	25 (15.3)	29 (17.8)	30 (18.4)	26 (16)
Shoplifting					
Yes	25 (47.2)	8 (15.1)	7 (13.2)	6 (11.3)	4 (7.5)
No	28 (52.8)	8 (15.1)	5 (9.4)	5 (9.4)	10 (18.9)
Mental Illness					
Yes	110 (67.5)	30 (18.4)	29 (17.8)	25 (15.3)	26 (16)
No	53 (32.5)	11 (6.7)	12 (7.4)	16 (9.8)	14 (8.6)
Kleptomania					
Yes	8 (7.3)	3 (2.8)	3 (2.8)	1 (0.9)	1 (0.9)
No	101 (92.7)	27 (24.8)	26 (23.9)	24 (22)	24 (22)

---

	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Verdict certainty	5.72 (1.03)	5.90 (1.11)	5.98 (.85)	5.46 (.87)	5.53 (1.20)
Impact of testimony <sup>b</sup>	4.70 (1.64)	4.40 (2.06)	4.39 (1.51)	5.03 (1.29)	5.00 (1.54)
Persuasiveness of testimony	4.53 (1.50)	4.05 (1.82)	4.34 (1.39)	4.88 (1.27)	4.88 (1.32)

Likelihood to reoffend	5.60 (1.34)	4.71 (1.66)	5.56 (1.05)	6.39 (.77)	5.73 (1.18)
Responsible for actions	5.15 (1.54)	5.73 (1.50)	5.66 (1.02)	4.56 (1.57)	4.65 (1.64)
Badly for defendant	3.96 (1.71)	4.68 (1.81)	3.54 (1.82)	4.12 (1.45)	3.50 (1.52)
Empathy	45.32 (8.80)	44.59 (9.30)	46.50 (10.06)	45.17 (7.83)	45.01 (8.00)

*Note.* No Diag-P = no diagnosis psychological; No Diag-B = no diagnosis biological; Klept-P = kleptomania psychological; Klept-B = kleptomania biological; Jury = served on a jury; Retail = experience working in retail; Shoplifting = experience of having a customer shoplift; Mental Illness = personal or professional experiences with people with mental illness; Kleptomania = personal or professional experiences with people with kleptomania.

<sup>a</sup>Participants who chose a not-guilty verdict ( $n = 33$ ) did not choose a sentence recommendation. Three participants indicating a guilty verdict erroneously did not choose a sentence recommendation.

<sup>b</sup>Three participants did not answer this question.

## Inferential Statistics

A series of seven independent samples *t*-tests were conducted to investigate possible gender differences among the continuous independent variables. Females had higher trait empathy scores, on average, than males,  $t(161) = -2.64, p = .009, [-6.53, -.94]$ . There was a trend toward a gender difference in participant ratings of defendant likelihood to reoffend,  $t(161) = -1.91, p = .058, [-.85, .01]$ , with females rating the defendant as more likely to reoffend, on average, than males.

The intercorrelations among the continuous independent variables are presented in Table 2. Several variables were moderately related to one another, but impact and persuasiveness of testimony were strongly related ( $r = .82$ ). Responsibility for actions was positively related to certainty in verdict and negatively related to persuasiveness of testimony. Feeling badly for the defendant was positively related to both impact and persuasiveness of testimony and negatively

related to both certainty in verdict and likelihood to reoffend. Empathy score was positively related to impact of testimony.

Table 2.

*Intercorrelations among Continuous Independent Variables*

	1	2	3	4	5	6	7
1. Verdict certainty	--	-.08	.01	-.09	.25**	-.17*	.04
2. Impact of testimony <sup>a</sup>		--	.82**	.05	-.12	.31**	.17*
3. Persuasiveness of testimony			--	.10	-.19*	.28**	.11
4. Likelihood to reoffend				--	-.01	-.17*	-.04
5. Responsible for actions					--	-.12	-.02
6. Badly for defendant						--	.04
7. Empathy							--

<sup>a</sup>Three participants did not answer this question.

\* $p < .05$ . \*\* $p < .01$ .

**Verdict binary logistic regression analyses.** A binary logistic regression analysis was conducted to determine whether the continuous and dichotomous independent variables were predictors of verdict. As mentioned previously, the dichotomous independent variables for these analyses were diagnosis (no diagnosis or kleptomania diagnosis), and defense (psychological testimony or biological testimony), as well as an interaction term for diagnosis and defense. The overall model with all of the predictors included was significant in distinguishing between guilty

and not-guilty verdicts,  $\chi^2(10, N = 160) = 69.21, p < .001$ . The model correctly classified 87.5% of cases. Table 3 includes the regression coefficients for each of the predictors in this analysis. With regard to the dichotomous predictors, diagnosis was trending toward significance, while defense and the interaction between diagnosis and defense were not significant predictors. Therefore, the defendant with a kleptomania diagnosis was more likely to receive a not-guilty verdict (trend) compared to the defendant with no diagnosis. By contrast, verdict choice did not differ based on whether participants were presented with psychological or biological testimony or based on the interaction between diagnosis and defense. For the continuous predictors, Wald statistics indicated that several variables significantly predicted verdict, while responsibility for actions was trending toward significance. Certainty in verdict choice and responsibility for actions (trend) were predictive of a guilty verdict. Persuasiveness of testimony and feeling badly for defendant were predictive of a not-guilty verdict. Empathy was not a significant predictor of verdict choice.

Table 3.

*Verdict Binary Logistic Regression (all predictors)*

Predictor	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>OR</i>
Diagnosis	1.82	3.06	1	.08	6.17
Defense	.13	.01	1	.91	1.14
Defense X Diagnosis	.62	.21	1	.65	1.85
Verdict certainty	-1.46	16.46	1	<.001	.23
Impact of testimony <sup>a</sup>	.24	.49	1	.49	1.27
Persuasiveness of testimony	.93	4.65	1	.03	2.52
Likelihood to reoffend	-.20	.67	1	.41	.82
Responsible for actions	-.34	2.90	1	.09	.71
Badly for defendant	.42	3.92	1	.05	1.52
Empathy	-.03	.51	1	.48	.98
Constant	1.06	.13	1	.72	2.88

*Note.* OR = odds ratio.

<sup>a</sup>Three participants did not answer this question.

A second binary logistic regression analysis was conducted to determine whether the significant predictors from the first binary logistic regression analysis (certainty in verdict, persuasiveness of testimony, and feeling badly for the defendant) remained significant when non-significant variables were excluded from analyses. Diagnosis served as the dichotomous predictor for this analysis because it was the only dichotomous predictor trending toward significance in the first binary logistic regression analysis. The overall model with these

predictors was again significant in distinguishing between guilty and not-guilty verdicts,  $\chi^2(4, N = 163) = 62.63, p < .001$ . The model correctly classified 84.7% of cases. Table 4 includes the regression coefficients for each of the predictors in this analysis.

In comparing the two verdict binary logistic regressions, the value of the beta coefficients remained similar for certainty in verdict, increased for persuasiveness of testimony and diagnosis, and decreased slightly for feeling badly for the defendant. All of the Wald statistics for this analysis increased except for one (feeling badly for the defendant) which decreased slightly, but these statistics still indicated that all of the predictors significantly predicted verdict in the same manner as the previous binary logistic regression. The most noteworthy difference was that diagnosis became a significant predictor in this analysis ( $p = .001$ ), whereas in the previous analysis it was trending toward significance ( $p = .08$ ).

Table 4.

*Second Verdict Binary Logistic Regression with just significant predictors*

Predictor	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>OR</i>
Diagnosis	2.20	10.85	1	.001	9.01
Verdict certainty	-1.42	18.33	1	< .001	.24
Persuasiveness of testimony	1.08	12.63	1	< .001	2.95
Badly for defendant	.36	3.82	1	.05	1.43
Constant	-2.23	1.53	1	.22	.12

*Note.* OR = odds ratio.



**Sentence recommendation binary logistic regression analyses.** A third binary logistic regression analysis was conducted to determine whether the continuous and dichotomous independent variables were predictors of sentence recommendation. As mentioned previously, the six sentence recommendations that served as the dependent variable for these analyses were collapsed into two categories: mental health interventions and criminal justice interventions. The overall model with all of the predictors included was significant in distinguishing mental health interventions and criminal justice interventions,  $\chi^2(10, N = 125) = 53.55, p < .001$ . The model correctly classified 77.6% of cases. Table 5 includes the regression coefficients for each of the predictors in this analysis. Both diagnosis and defense significantly predicted sentence recommendation, but the interaction of diagnosis and defense was not a significant predictor. Therefore, the defendant with the kleptomania diagnosis was less likely to be given a criminal justice intervention (community service, probation and fines, or jail time) compared to the defendant with no diagnosis. The defendant using the biological testimony was less likely to receive a criminal justice intervention compared to the defendant using the psychological testimony. Wald statistics indicated that responsibility for actions was the only significant continuous predictor which was predictive of a criminal justice intervention for the defendant. Empathy was not a significant predictor of sentence recommendation.

Table 5.

*Sentence Recommendation Binary Logistic Regression (all predictors)*

Predictor	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>OR</i>
Diagnosis	-1.76	5.31	1	.02	.17
Defense	-1.33	4.17	1	.04	.26
Defense X Diagnosis	.05	.00	1	.96	1.05
Verdict certainty	.22	.61	1	.44	1.24
Impact of testimony <sup>a</sup>	-.36	2.10	1	.15	.70
Persuasiveness of testimony	-.18	.46	1	.50	.84
Likelihood to reoffend	-.04	.05	1	.82	.96
Responsible for actions	.51	6.63	1	.01	1.66
Badly for defendant	-.22	2.01	1	.16	.80
Empathy	-.03	1.60	1	.21	.97
Constant	1.82	.53	1	.47	6.14

*Note.* OR = odds ratio. Participants who chose not-guilty verdicts were not asked to choose a sentence recommendation. Three participants indicating a guilty verdict erroneously did not choose a sentence recommendation.

<sup>a</sup>Three participants did not answer this question.

A fourth binary logistic regression analysis was conducted to determine whether the significant predictors from the third binary logistic regression (responsibility for actions, diagnosis, and defense) remained significant predictors of sentence recommendation. The overall model with these predictors included was again significant in distinguishing between mental health interventions and criminal justice interventions,  $\chi^2(3, N = 127) = 30.52, p < .001$ . The

model correctly classified 70.1% of cases. Table 6 includes the regression coefficients for each of the predictors in this analysis.

In comparing the two sentence binary logistic regressions, the beta coefficients decreased for responsibility for actions and defense and increased for diagnosis. Wald statistics indicated that all of these predictors significantly predicted sentence recommendation in the same manner as the previous binary logistic regression analysis and the value of the Wald statistics remained similar except for diagnosis which increased in the second analysis. The *p* values were relatively similar.

Table 6.

*Second Sentence Binary Logistic Regression (just significant predictors)*

Predictor	<i>B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>OR</i>
Diagnosis	-1.68	13.95	1	< .001	.19
Defense	-.82	3.86	1	.05	.44
Responsible for actions	.41	6.79	1	.009	1.50
Constant	-1.57	2.87	1	.09	.21

*Note.* OR = odds ratio. Participants who chose not-guilty verdicts were not asked to choose a sentence recommendation. Three participants indicating a guilty verdict did not choose a sentence recommendation.

**Two-way ANOVA analyses.** As mentioned previously, the final set of analyses consisted of six separate two-way ANOVAs to determine if participants' responses to the questions regarding the defendant and expert testimony differed based on the defendant's

diagnosis (no diagnosis or kleptomania diagnosis) and defense (biological testimony or psychological testimony).

***Certainty in verdict choice.*** A two-way ANOVA analysis was conducted with certainty in verdict choice as the dependent variable. Table 7 contains the results for the variables in this analysis. There was a main effect for diagnosis. Participants in the two kleptomania diagnosis conditions were less certain in their verdict choice, on average, than participants in the two no-diagnosis conditions. The effect size for this variable was approaching a medium effect. There was no main effect for defense, indicating that participants did not differ in how certain they were in their verdict choice based on whether participants received the psychological or biological testimony. There was no interaction between diagnosis and defense.

Table 7.

*Certainty in Verdict- Two-way ANOVA Summary Table*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>ES</i>
Between treatments	8.26	3	2.75			
Diagnosis	8.06	1	8.06	7.78	.006	.05
Defense	.19	1	.19	.18	.67	.001
Diagnosis X Defense	.00	1	.00	.00	.97	.000
Within treatments	164.76	159	1.04			
Total	5,502.00	163				

***Impact of testimony.*** Table 8 contains the results for a two-way ANOVA assessing diagnosis and defense on the impact of testimony. There was a main effect for diagnosis. Participants in the two kleptomania diagnosis conditions rated the expert testimony as having a

greater impact on their decision, on average, than participants in the two no-diagnosis conditions. The effect size for this variable was between a small and medium effect. There was no main effect for defense, indicating that one type of testimony (psychological or biological) was not considered more impactful than the other. There was no interaction between diagnosis and defense.

Table 8.

*Impact of Testimony- Two-way ANOVA Summary Table*

Source	SS	df	MS	F	p	ES
Between treatments	15.27	3	5.09			
Diagnosis	15.24	1	15.24	5.77	.02	.04
Defense	.01	1	.01	.01	.95	.00
Diagnosis X Defense	.002	1	.002	.001	.98	.00
Within treatments	412.33	156	2.64			
Total	3,962.00	160				

***Persuasiveness of testimony.*** Table 9 contains the results for a two-way ANOVA assessing diagnosis and defense on the persuasiveness of testimony. There was a main effect for diagnosis. Participants in the two kleptomania diagnosis conditions rated the expert testimony as more persuasive, on average, than participants in the two no-diagnosis conditions. The effect size for this variable was approaching a medium effect. There was no main effect for defense, indicating that one type of testimony (psychological or biological) was not considered more persuasive than the other. There was no interaction between diagnosis and defense.

Table 9.

*Persuasiveness of Testimony- Two-way ANOVA Summary Table*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>ES</i>
Between treatments	20.68	3	6.89			
Diagnosis	18.92	1	18.92	8.80	.003	.05
Defense	.86	1	.86	.40	.53	.002
Diagnosis X Defense	.89	1	.89	.41	.52	.003
Within treatments	341.89	159	2.15			
Total	3,713.00	163				

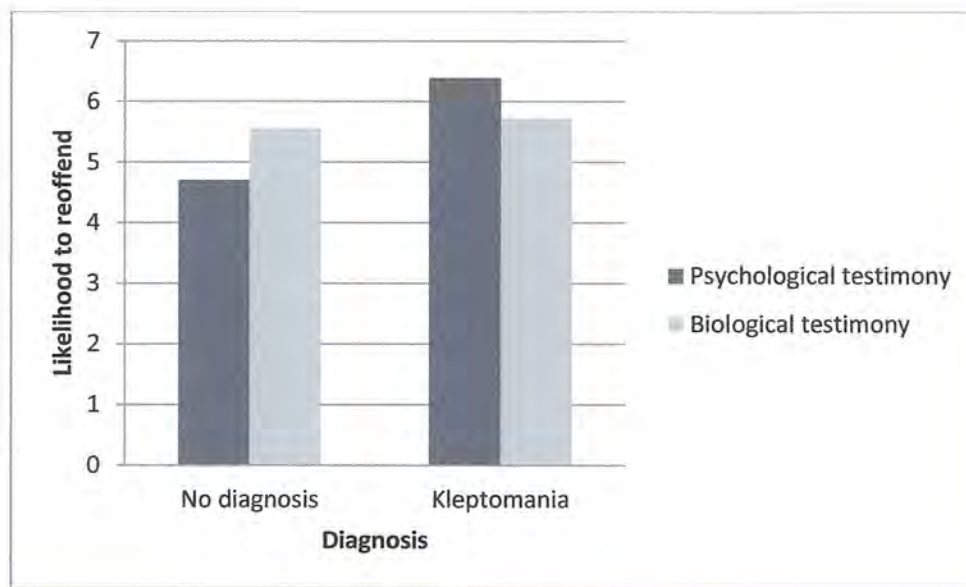
***Likelihood to reoffend.*** Table 10 contains the results for a two-way ANOVA assessing diagnosis and defense on defendant likelihood to reoffend. There was a main effect for diagnosis. Participants in the two kleptomania diagnosis conditions rated the defendant as more likely to reoffend, on average, than participants in the two no-diagnosis conditions. The effect size for this variable was approaching a large effect. There was no main effect for defense, indicating that one type of testimony (psychological or biological) did not affect the expectation of the defendant reoffending more than the other. However, there was an interaction between diagnosis and defense. Participants in the “kleptomania psychological” condition had the highest expectation for the defendant to reoffend, while participants “no-diagnosis psychological” condition had the lowest expectations. See Figure 1 for a graph of the interaction. The effect size for the interaction was between a medium and large effect.

Table 10.

*Likelihood to Reoffend- Two-way ANOVA Summary Table*

Source	SS	df	MS	F	p	ES
Between treatments	58.96	3	19.65			
Diagnosis	34.75	1	34.75	23.78	< .001	.13
Defense	.36	1	.36	.25	.62	.002
Diagnosis X Defense	23.50	1	23.50	16.08	< .001	.09
Within treatments	232.32	159	1.46			
Total	5,394.00	163				

Figure 1. *Interaction for likelihood to reoffend ratings based on defendant diagnosis and defense*



**Responsibility for actions.** Table 11 contains the results for a two-way ANOVA assessing diagnosis and defense on defendant responsibility for actions. There was a main effect for diagnosis. Participants in the two kleptomania diagnosis conditions rated the defendant as less responsible for her actions, on average, than participants in the two no-diagnosis conditions. The effect size for this variable was approaching a large effect. There was no main effect for defense, indicating that one type of testimony (psychological or biological) did not affect how responsible participants viewed the defendant for her actions more than the other. There was no interaction between diagnosis and defense.

Table 11.

*Responsible for Actions- Two-way ANOVA Summary Table*

Source	SS	df	MS	F	p	ES
Between treatments	48.70	3	16.23			
Diagnosis	48.38	1	48.38	23.00	< .001	.13
Defense	.003	1	.003	.001	.97	.00
Diagnosis X Defense	.27	1	.27	.13	.72	.001
Within treatments	334.47	159	2.10			
Total	4,712.00	163				

**Feeling badly for the defendant.** Table 12 contains the results for a two-way ANOVA assessing diagnosis and defense on how badly participants felt for the defendant. There was no main effect for diagnosis. Participants did not differ in how badly they felt for the defendant based on whether they were in the one of the kleptomania diagnosis conditions or in one of the no-diagnosis conditions. However, there was a main effect for defense. The psychological



testimony affected how badly participants felt for the defendant more than the biological testimony. The effect size for this variable is a medium effect. There was no interaction between diagnosis and defense.

Table 12.

*Feeling Badly for the Defendant- Two-way ANOVA Summary Table*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>ES</i>
Between treatments	38.32	3	12.77			
Diagnosis	3.64	1	3.64	1.32	.25	.008
Defense	31.85	1	31.85	11.58	.001	.07
Diagnosis X Defense	2.80	1	2.80	1.02	.32	.006
Within treatments	437.46	159	2.75			
Total	3,036.00	163				

## Discussion

The purpose of this study was to investigate whether a kleptomania diagnosis and the causal attribution (psychological vs. biological) affected mock jurors' verdict choice and sentence recommendation for a defendant arrested for shoplifting. Participants read one of four vignettes before choosing a verdict and sentence recommendation and responding to an additional set of questions regarding the defendant and expert testimony.

### **Hypothesis #1: Impact of Diagnosis on Verdict and Sentence Recommendation**

The first hypothesis—participants in the two kleptomania conditions would be more likely to choose a not-guilty verdict or recommend a mental health intervention for the defendant—was supported.

**Verdict.** For the first binary logistic regression analysis, there was no difference in guilty or not-guilty verdicts based on whether the defendant did or did not have a kleptomania diagnosis, but the finding was trending toward significance. The second and more focused analysis, however, did find that the defendant with kleptomania was more likely to receive a not-guilty verdict.

One possible explanation for why this finding was not clearly significant in the first binary logistic regression could have to do with how participants viewed the defendant/trial information. To clarify, participants may not have been biased by the mental illness information and strictly focused on whether the defendant actually committed the act she was accused of committing. This explanation falls in line with what the legal system expects of jurors—that they will only focus on legal factors in their decisions (Bergeron & McKelvie, 2004). Likewise, participants may not have considered kleptomania to be a compelling mental illness deserving of leniency for illegal behavior. Another explanation for the finding could have to do with the

statistical analysis. Defendant diagnosis may always have been important in juror decision-making, but this was not apparent until the non-significant predictors were removed in the second binary logistic regression analysis.

**Sentence recommendation.** The defendant with kleptomania was also less likely to receive a criminal justice intervention than the defendant without mental illness; this finding was stronger than the finding for verdict choice as defendant diagnosis was a significant predictor in both binary logistic regression analyses for sentence recommendation. Prior research (e.g. Monahan and Hood, 1976; Higgins, Heath, & Grannemann, 2007) has also found jurors treat defendants with mental illness more leniently in their sentence recommendations than for similar defendants without mental illness. Furthermore, this provides additional evidence for Monahan and Hood's (1976) assertion that the public feels defendants with mental illness should not end up in the criminal justice system.

**Implications.** These findings have implications for the legal system. If a client is experiencing mental health symptoms, lawyers could consider providing their client with a kleptomania diagnosis to better ensure leniency during verdict and sentencing determinations. However, the implications for verdict should be taken with caution as the finding was not as strong.

The fact that the finding for verdict was not as strong has implications as well. This reveals that although jurors are not as certain which verdict to give to a defendant with kleptomania, they believe that when such a defendant is found guilty, he/she should receive a mental health intervention.

## **Hypothesis #2: Impact of Defense on Verdict and Sentence Recommendation**

For the second hypothesis, I expected the biological testimony to be more effective than the psychological testimony in reducing guilty verdicts and recommendations for criminal justice system recommendations. This hypothesis was partially supported, as the biological testimony was only effective in reducing recommendations for criminal justice interventions.

**Verdict.** The prediction that the biological testimony would be more effective than the psychological testimony in reducing guilty verdicts was not supported, as verdict choice did not differ based on which type of testimony participants received. As mentioned previously, the “no diagnosis-biological” condition using an untrue scientific explanation was included in this study as Weisberg and colleagues (2008) found that participants were swayed by neuroscientific information regardless of whether the information was presented with a true scientific explanation. Therefore, unlike Weisberg and colleagues (2008), participants are not swayed by untrue scientific explanations when considering their verdict choice. A possible explanation for this finding could be that participants felt the defendant’s guilt was too obvious to ignore.

**Sentence recommendation.** By contrast, the prediction that participants in the biological testimony conditions would be less likely to recommend a criminal justice intervention for the defendant was supported. As participants in both biological conditions were less likely to recommend a criminal justice intervention for the defendant, this provides additional evidence that participants can be swayed by neuroscientific explanations regardless of whether the explanations are true scientifically. Therefore, the findings from Weisberg and colleagues (2008) do apply in the context of a shoplifting case, but only for sentence recommendation. Furthermore, this finding also supports results from previous mock jury studies (e.g. Rendell et al., 2010 investigating verdict and sentence recommendation; Monterosso et al., 2005

investigating sentence recommendation) that biological testimony is more effective in reducing defendant culpability than other types of testimony. With regard to this study, participants may have found that the defendant using the biological explanation was less likely to be able to control her behavior and thus was less deserving of punishment through the criminal justice system.

This finding is important as it reveals that although participants do not consider biological testimony when determining verdict, they do consider such testimony during sentence determinations. This suggests that biological testimony does not affect how participants view a defendant's guilt, but it does affect participants' determinations of what should happen to a defendant when he/she is found guilty. This is an interesting finding, as it seems to imply that participants are only concerned with explanations for criminal behavior when determining how the defendant should be held accountable for his/her actions. Additionally, as the interaction between defendant diagnosis and defense was not significant, this indicates that the biological testimony may have been so compelling for making a sentence recommendation that it did not matter whether or not the defendant had kleptomania.

**Implications.** This finding has implications for the criminal justice system. During sentencing, lawyers could consider providing a biological explanation for their client's behavior to reduce the likelihood their client will receive a criminal justice intervention. This finding should be taken with caution, however, as judges rather than juries typically provide sentencing recommendations (Weiten & Diamond, 1979). Therefore, future studies should explore whether judges' determinations of sentencing recommendations would be similar to the sentencing recommendations participants made in this study.

### **Summary (Hypotheses #1 and #2)**

As mentioned previously, participants were asked to choose a sentence recommendation only if they first chose a guilty verdict for the defendant. Among these participants, the defendant with kleptomania was less likely to receive a criminal justice intervention compared to the defendant without a mental illness. Also, the defendant using a biological defense was less likely to receive a criminal justice intervention than the defendant using a psychological defense. Participants seem to view both defendants with kleptomania and defendants using a biological defense as less deserving of punishment for their actions.

In comparing the findings for both verdict and sentence recommendation, however, the findings for sentence recommendation were more conclusive. Therefore, it appears that defendants view verdict and sentence recommendation differently in that a defendant's mental illness and expert testimony seem to be more important when considering the sentence recommendation for a guilty defendant rather than for determining whether a defendant should be found guilty.

### **Hypothesis #3: Impact of Diagnosis and Defense (Expert Testimony)**

For the questions regarding the expert testimony, I predicted for the third hypothesis that participants in the two kleptomania conditions would find the expert testimony more persuasive and indicate that the expert testimony had a greater impact on their decision. Additionally, this pattern would be more likely in the biological condition. This hypothesis was partially supported.

Similar to the participants in the PTSD condition in Higgins and colleagues (2007), participants in the two kleptomania conditions did rate the expert testimony as more persuasive and as having a greater impact on their decision. However, unlike past studies that found biological explanations to be more effective than other types of explanations (e.g., Rendell et al.,

2010; Monterosso et al., 2005), participants' ratings regarding the persuasiveness and impact of testimony did not differ between the biological and psychological conditions.

**Implications.** These findings provide additional support for using expert testimony regarding kleptomania when appropriate, as jurors do seem to consider this information in their decision-making.

#### **Hypothesis #4: Impact of Diagnosis and Defense (Questions Regarding the Defendant)**

The fourth hypothesis covered the remaining questions (i.e., the questions regarding the defendant). For this hypothesis, I made predictions regarding how participants in the two kleptomania conditions would respond to each of these questions. I expected participants in the two kleptomania conditions to be like the participants in the PTSD condition in Higgins and colleagues (2007): they would be less certain in their verdict choice, less likely to indicate the defendant would reoffend, attribute less responsibility to the defendant, and feel badly to a greater extent for the defendant. This hypothesis was partially supported, as not all of the predictions were supported.

Like the PTSD condition in Higgins and colleagues (2007), participants in the two kleptomania conditions were less certain in their verdict choice and attributed less responsibility to the defendant. However, unlike the PTSD condition in Higgins and colleagues (2007), participants rated the defendant with kleptomania as more likely to reoffend than the defendant without a mental illness. A possible explanation for this finding could be that although all four vignettes indicate that the defendant had a previous history of shoplifting, the two kleptomania vignettes indicate that shoplifting is her typical coping mechanism possibly suggesting that she will continue these behaviors, while the vignettes for the defendant without mental illness portray the shoplifting behavior as less frequent and predictable. Furthermore, having a formal

mental health diagnosis such as kleptomania could lead participants to view the defendant's behavior as a permanent condition.

Although no specific predictions were made for this study regarding the effect of type of testimony on these questions, this factor was included in the analyses to reveal if this variable affected participants' responses. Although the defendant's diagnosis did not affect ratings of how badly participants felt for the defendant, participants did feel worse for the defendant with a psychological explanation for her behavior than the defendant with the biological explanation. Perhaps participants focused on the defendant's distress in the two vignettes with the psychological causal attributions (the defendant without mental illness was worrying about paying her bills after losing her job and the defendant with kleptomania was upset by her stealing behavior), whereas this was not the case for the two vignettes with the biological causal attributions that were more scientific and less personal. In addition to the main effect of diagnosis on likelihood to reoffend mentioned previously, there was also an interaction in that the highest ratings on likelihood to reoffend were given to the defendant with kleptomania using a psychological defense. A possible way to explain this finding could be that participants feel that the combination of a kleptomania diagnosis along with a stressor conveyed in the psychological expert testimony provide evidence of future stealing behavior.

**Implications.** Although these findings regarding participants' opinions of the expert testimony and defendant do not have direct implications for the legal system, they are valuable as they provide some insight into how participants view a defendant with kleptomania, such as how responsible such a defendant is for his/her actions and how likely such a defendant is to reoffend.



## **Participant Experiences**

As mentioned previously, participants responded to questions regarding experiences that could have affected the study's results such as experiences working in retail or with people with kleptomania. As participants either did not report having these experiences or the experiences were evenly distributed among the four study conditions, no determinations can be made as to how these experiences affect juror decision-making.

## **Hypotheses #5 and #6: Impact of Empathy**

The only significant finding regarding empathy was a gender difference in which female participants had higher trait empathy compared to male participants. This finding supports past research that has found females typically have higher empathy than males (Baron-Cohen & Wheelwright, 2004). Besides this finding, none of the predictions for hypotheses five and six were supported.

For instance, I predicted that participants with higher levels of trait empathy would be more likely to vote not guilty or give a mental health intervention than participants with lower levels of trait empathy. This prediction was not supported, as verdict and sentence recommendation did not differ based on juror empathy. By contrast, Sulzer and Burglass (1968) did find a difference in that participants with high trait empathy were more lenient toward the defendant than participants with low trait empathy. One reason for differences between the two studies could be because Sulzer and Burglass (1968) used criminal acts in their study that involved the defendant causing harm to other people. The defendant in this study was arrested for shoplifting, but she did not harm anyone in the commission of her crime. So, maybe high trait empathy is only indicative of leniency toward a defendant when his/her crime involves harm to

other people. Also, the empathy measure Sulzer and Burglass (1968) used may have been better at capturing participant empathy than the empathy measure used in this study.

In addition, I expected participants with higher levels of trait empathy to rate the defendant as less responsible for her actions than participants with lower levels of trait empathy. I also planned to perform exploratory analyses to determine if participant empathy affected responses to the questions regarding the defendant and expert testimony, as well as to explore any interactions between empathy and causal attributions. However, as empathy was not a significant predictor in any of the binary logistic regressions, these additional analyses were not performed.

### **Summary of Major Study Findings**

With regard to verdict, participants were more likely to choose a not-guilty verdict if the defendant had kleptomania, if the expert testimony was rated as more persuasive, or they felt worse for the defendant. By contrast, certainty in verdict was higher when participants chose a guilty verdict. With regard to sentence recommendation, participants were less likely to recommend a criminal justice intervention for the defendant with kleptomania and for the defendant using biological testimony. By contrast, participants who found the defendant more responsible for her actions were more likely to recommend a criminal justice intervention.

In looking at the impact of diagnosis (no diagnosis, kleptomania diagnosis) and defense (psychological testimony, biological testimony) on the questions regarding the defendant and expert testimony, the defendant's diagnosis affected the responses to a majority of these questions. To clarify, participants in the two kleptomania conditions were less certain in their verdict choice, found the expert testimony more impactful and persuasive, and viewed the defendant as less responsible for her actions compared to the defendant with no diagnosis. These

participants also viewed the defendant with kleptomania as more likely to reoffend, especially for the defendant with kleptomania using psychological testimony. By contrast, the type of defense only mattered for participant ratings of how badly they felt for the defendant in that participants felt worse for the defendant using psychological testimony compared to the defendant using the biological testimony.

Participant empathy did not affect verdict or sentence recommendation. Only a gender difference in empathy was found.

### **Limitations of Study**

These findings should be interpreted in light of the study's limitations, especially those relevant to external validity. In their review of jury research, Weiten and Diamond (1979) identify "problems" prevalent in mock jury studies that bring into question whether findings from these studies can be generalized to actual juries and their experiences in the courtroom.

First, Weiten and Diamond (1979) do not agree with using college students instead of actual jurors, as these groups may differ in their decisions. In an early investigation of this possibility, Bornstein's (1999) review found no differences between college students and actual jurors. However, this idea was explored once again in the June 2011 issue of *Behavioral Sciences and the Law*, with a very different conclusion. In summarizing the findings of the seven studies that were featured in this issue, Weiner, Krauss, and Lieberman (2011) noted that college students were often more lenient in their verdict and sentence recommendations than actual jurors, but sometimes the opposite was true. Taking these conflicting findings into consideration, future researchers should examine whether the findings from this study would be replicated with actual jurors.

Having mock jurors make both verdict and sentence recommendations is another “problem” Weiten and Diamond (1979) discuss. In the legal system, jurors only make verdict determinations, not sentence recommendations (but there are some exceptions, like in a death penalty case where jurors would be making both decisions). Although Weiten and Diamond (1979) do have a valid point, excluding sentence recommendation would have meant losing some valuable insights from this study, such as the finding that participants were more likely to endorse a mental health intervention over a criminal justice intervention for the defendant with kleptomania. This finding supports Monahan and Hood’s (1976) hypothesis that the public believes the proper place for criminals with mental illness is in the mental health system, not the criminal justice system. Although Weiten and Diamond (1979) do not address using sentence recommendation in any way, allowing participants in future studies to choose more than one sentence recommendation may be worthwhile, as defendants in the legal system can receive more than one or a combination of punishments. To summarize, even if including sentence recommendation in mock juror studies is not relevant for the legal system, it is nonetheless valuable in that it can provide further perspective on participants’ decision-making and how they view a defendant.

Weiten and Diamond (1979) also mention that mock jurors are simply pretending to be jurors and thus may not make their decisions with as much consideration and seriousness as actual jurors would in similar circumstances. For instance, these studies are often conducted in a research lab instead of a courtroom (Weiten & Diamond, 1979). Although this is an issue that is difficult to overcome, Weiten and Diamond (1979) stress that researchers conducting these studies in the lab often do not create conditions within their studies that at the very least adequately simulate the trial process. For instance, they stress that participants should be viewing

the trial as actual jurors would do instead of reading about the trial. If this is not possible, then participants should be reading actual trial transcripts that are longer and more complex than the short and simplified vignettes often used in these types of studies. In addition, they argue that participants should be given judge's instructions. These authors would also probably note the omission of prosecution statements in this study. Another important aspect of trials, deliberation, is often missing from mock jury studies as well (Weiten & Diamond, 1979). Another difference between this study and a real jury experience is, although the participants took this study in groups, every participant filled out the measures without interacting with the other participants. Comparing individual to group decisions would be valuable to investigate in future studies, as Kerr, MacCoun, and Kramer (1996) have found that individuals can be more biased in their decisions than groups and vice versa. All of the aforementioned aspects that Weiten and Diamond (1979) discuss were missing from the current study.

### **Directions for Future Research**

In addition to the suggestions above, future studies could build on the current study in a number of ways. For instance, this study used a female defendant because kleptomania is more common in females (American Psychiatric Association, 2013). However, future studies should compare both a male and female defendant with kleptomania to determine if juror verdict choices and sentencing recommendations differ based on defendant gender. This possibility should be explored especially in light of the finding from a meta-analysis by Mazzella and Feingold (1994) that female defendants were given more lenient sentences for theft offenses (including shoplifting) than male defendants. Other defendant characteristics that have been found to bias juror decision-making such as race (Abwender & Hough, 2001; ForsterLee,

ForsterLee, Horowitz, & King, 2006; Wuensch, Campbell, Kesler, & Moore, 2002) and age (Bergeron & McKelvie, 2004; Smith & Hed, 1979) could be considered as well.

Researchers could also consider different manipulations of the vignettes. For example, the vignettes in this study included an indication of the defendant's prior criminal history as Grant and colleagues (2009) found that individuals with kleptomania often have a history of legal troubles. However, future research could manipulate including versus excluding prior criminal history. Varying the dollar amount of items stolen is another option. The defendant in this study stole items of considerable value, but this is not typical for individuals with kleptomania who usually steal trivial items of little value (American Psychiatric Association, 2013). Also, future studies could use a more ambiguous case in which the defendant's guilt is less obvious compared to the more obvious indication of the defendant's guilt in this study. Changing the vignettes in these ways would be valuable to determine if a kleptomania diagnosis would always ensure leniency for a defendant or if this is only true in certain circumstances surrounding shoplifting cases.

The final set of suggestions concerns the study predictors. For instance, trait empathy was not a significant predictor in any of the analyses, so it could be excluded from future studies or a different empathy measure could be used. If excluding empathy is not desirable, then researchers could create or induce empathy for the defendant within the vignettes as was done in Haegerich and Bottoms (2000). Or, the interaction between trait empathy and juror gender could be explored, as this study did find a gender difference in empathy.

Just as empathy was not a significant predictor, most of the other predictors for the binary logistic regression analyses were also not significant. Based on this finding, other juror characteristics found to be good predictors of verdict and sentence recommendation could also

be explored, such as legal authoritarianism. Legal authoritarianism refers to the established attitudes regarding various legal issues that each individual juror brings to the courtroom before the trial even begins, including whether defendant characteristics should be considered in the decision-making process (Myers, 2008). Past researchers have found that legal authoritarianism is a good predictor of both verdict (Bray & Noble, 1978; Narby, Cutler, & Moran, 1993) and sentence recommendations (Bray & Noble, 1978). Therefore, it may be valuable to investigate this variable to determine if juror legal authoritarianism would be predictive of verdict and sentence recommendation for a defendant with kleptomania.

### **Implications and Conclusions**

Past research has found that mock jurors are more lenient toward defendants with mental illness. This study supports and extends this line of research by including a defendant with kleptomania. The kleptomania diagnosis was associated with both a not-guilty verdict and a mental health intervention. The biological causal attribution was associated with a mental health intervention, but there was no difference in verdict choice based on causal attribution. Additionally, there was no difference in verdict or sentence recommendation based on the interaction between diagnosis and type of defense (biological testimony or psychological testimony).

The results from this study have implications for the legal system. If the client is experiencing mental health problems, lawyers could consider introducing a kleptomania diagnosis to better ensure a not-guilty verdict. If their client is found guilty, then lawyers could stress both the kleptomania diagnosis and a biological causal attribution to better ensure a mental health intervention.

## References

- Abwender, D. A., & Hough, K. (2001). Interactive effects of characteristics of defendant and mock juror on U. S. participants' judgment and sentencing recommendations. *Journal of Social Psychology, 141*(5), 603-615. Retrieved from <http://www.tandfonline.com/toc/vsoc20/current#.UztA5qhdVg0>
- Ahola, A. S., Hellström, A., & Christianson, S. A. (2010). Is justice really blind? Effects of crime descriptions, defendant gender and appearance, and legal practitioner gender on sentences and defendant evaluations in a mock trial. *Psychiatry, Psychology & Law, 17*(2), 304-324. doi: 10.1080/13218710903566896
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: An investigation of adults with asperger syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorders, 34*(2), 163-175. Retrieved from <http://link.springer.com/journal/10803>
- Bennett, L., Thirlaway, K., & Murray, A. J. (2008). The stigmatizing implications of presenting schizophrenia as a genetic disease. *Journal of Genetic Counseling, 17*, 550-559. doi: 10.1007/s10897-008-9178-8
- Bergeron, C. E., & McKelvie, S. J. (2004). Effects of defendant age on severity of punishment for different crimes. *The Journal of Social Psychology, 144*(1), 75-90. Retrieved from <http://www.tandfonline.com/toc/vsoc20/current#.UztA5qhdVg0>



- Bornstein, B. H. (1999). The ecological validity of jury simulations: Is the jury still out?. *Law & Human Behavior*, 23(1), 75-91. Retrieved from <http://www.springer.com/psychology/psychology+%26+law/journal/10979>
- Bray, R. M., & Noble, A. M. (1978). Authoritarianism and decisions of mock juries: Evidence of jury bias and group polarization. *Journal of Personality and Social Psychology*, 36(12), 1424-1430. Retrieved from <http://www.apa.org/pubs/journals/psp/>
- Dannon, P. N. (2002). Kleptomania: An impulse control disorder?. *International Journal of Psychiatry in Clinical Practice*, 6, 3-7. doi: 10.1080/136515002753489353
- Davis, M. (1980). A multidimensional approach to individual differences in empathy. *Catalog of Selected Documents in Psychology*, 10, 85. Retrieved from <http://www.worldcat.org/title/catalog-of-selected-documents-inpsychology/oclc/2255629>
- Devine, D. J., Clayton, L. D., Dunford, B. B., Seying, R., & Price, J. (2001). Jury decision making: 45 years of empirical research on deliberating groups. *Psychology, Public Policy, and Law*, 7(3), 622-727. doi: 10.1037/1076-8971.7.3.622
- Durst, R., Katz, G., Teitelbaum, A., Zislin, J., & Dannon, P. N. (2001). Kleptomania: Diagnosis and treatment options. *CNS Drugs*, 15(3), 185-195. Retrieved from <http://link.springer.com/journal/40263>
- Edens, J. F., Colwell, L. H., Desforges, D. M., & Fernandez, K. (2005). The impact of mental health evidence on support for capital punishment: Are defendants labeled psychopathic considered more deserving of death?. *Behavioral Sciences and the Law*, 23, 603-625. doi:10.1002/bsl.660

- Erdfelder, E., Faul, F., & Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments & Computers*, 28, 1-11. Retrieved from <http://link.springer.com/journal/13428>
- Forsterlee, R., Forsterlee, L., Horowitz, I. A., & King, E. (2006). The effects of defendant race, victim race, and juror gender on evidence processing in a murder trial. *Behavioral Sciences & the Law*, 24(2), 179-198. doi: 10.1002/bsl.675
- Fullerton, R. A. (2007). Psychoanalyzing kleptomania. *Marketing Theory*, 7(4), 335-352. doi: 10.1177/1470593107083160
- Goldman, M. J. (1998). *Kleptomania: The compulsion to steal – What can be done?*. New Jersey: New Horizon Press.
- Grant, J. E., Kim, S. W., & Odlaug, B. L. (2009). A double-blind, placebo-controlled study of the opiate antagonist, naltrexone, in the treatment of kleptomania. *Biological Psychiatry*, 65, 600-606. doi: 10.1016/j.biopsych.2008.11.022
- Grant, J. E., Odlaug, B. L., Davis, A. A., & Kim, S.W. (2009). Legal consequences of kleptomania. *Psychiatric Quarterly*, 80, 251-259. doi: 10.1007/s11126-009-9112-8
- Grant, J. E., Odlaug, B. L., & Kim, S. W. (2011). Assessment and treatment of kleptomania. In J. Grant & M. Potenza, *The Oxford handbook of impulse control disorders* (pp. 334-343). Retrieved from [http://books.google.com/books?id=CBdug0jFwkQC&pg=PA339&lpg=PA339&dq=kleptomania+negative+reinforcement&source=bl&ots=hp3UZpuYCa&sig=jAzyB7M\\_tRzVZWP\\_NtcsDIm6slc&hl=en&sa=X&ei=LymrT\\_-PB-e16AHt2Z2vBA&ved=0CE4Q6AEwAA#v=onepage&q=kleptomania%20negative%20reinforcement&f=false](http://books.google.com/books?id=CBdug0jFwkQC&pg=PA339&lpg=PA339&dq=kleptomania+negative+reinforcement&source=bl&ots=hp3UZpuYCa&sig=jAzyB7M_tRzVZWP_NtcsDIm6slc&hl=en&sa=X&ei=LymrT_-PB-e16AHt2Z2vBA&ved=0CE4Q6AEwAA#v=onepage&q=kleptomania%20negative%20reinforcement&f=false)

- Grant, J. E., Odlaug, B. L., & Kim, S. W. (2010). Kleptomania: Clinical characteristics and relationship to substance abuse disorders. *The American Journal of Drug and Alcohol Abuse*, 36, 291-295. doi: 10.3109/00952991003721100
- Haegerich, T. M., & Bottoms, B. L. (2000). Empathy and jurors' decisions in patricide trials involving child sexual assault allegations. *Law and Human Behavior*, 24(4), 421-448. Retrieved from <http://www.springer.com/psychology/psychology+%26+law/journal/10979>
- Higgins, P. L., Heath, W. P., & Grannemann, B. D. (2007). How type of excuse defense, mock juror age, and defendant age affect mock jurors' decisions. *The Journal of Social Psychology*, 147(4), 371-392. Retrieved from <http://www.tandfonline.com/toc/vsoc20/current#.Uzwwj8ahdVg0>
- Kohn, C. S. (2006). Conceptualization and treatment of kleptomania behaviors using cognitive and behavioral strategies. *International Journal of Behavioral and Consultation Therapy*, 2(4), 553-559. Retrieved from <http://www.baojournal.com/IJBCT/past-issues.html>
- Lawrence, E. J., Shaw, P., Baker, D., Baron-Cohen, S., & David, A. S. (2004). Measuring empathy: Reliability and validity of the Empathy Quotient. *Psychological Medicine*, 39, 911-924. doi: 10.1017/S0033291703001624
- Mazzella, R., & Feingold, A. (1994). The effects of physical attractiveness, race, socioeconomic status, and gender of defendants and victims on judgments of mock jurors: A meta-analysis. *Journal of Applied Social Psychology*, 24(15), 1315-1344. Retrieved from [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1559-1816](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1559-1816)

- McCabe, D. P., & Castel, A. D. (2008). Seeing is believing: The effect of brain images on judgments of scientific reasoning. *Cognition, 107*, 343-352. doi:10.1016/j.cognition.2007.07.017
- McCoy, M. L., & Gray, J. M. (2007). The impact of defendant gender and relationship to victim on juror decisions in a child sexual abuse case. *Journal of Applied Social Psychology, 37*(7), 1578-1593. doi: 10.1111/j.1559-1816.2007.00228.x
- Monahan, J., & Hood, G. L. (1976). Psychologically disordered and criminal offenders: Perceptions of their volition and responsibility. *Criminal Justice and Behavior, 3*(2), 123-134. Retrieved from <http://cjb.sagepub.com/>
- Monterosso, J., Royzman, E. B., & Schwartz, B. (2005). Explaining away responsibility: Effects of scientific explanation on perceived culpability. *Ethics & Behavior, 15*(2), 139-158. doi: 10.1207/s15327019eb1502\_4
- Myers, B. (2008). Legal authoritarianism. In B. L. Cutler (Ed.). *The encyclopedia of psychology & law: Vol. 2* (pp. 445-447). Los Angeles, CA: SAGE Publications.
- Narby, D. J., Cutler, B. L., & Moran, G. (1993). A meta-analysis of the association between authoritarianism and jurors' perceptions of defendant culpability. *Journal of Applied Psychology, 78*(1), 34-42. Retrieved from <http://www.apa.org/pubs/journals/apl/>
- Plumm, K. M., & Terrance, C. A. (2009). Battered women who kill: The impact of expert testimony and empathy induction in the courtroom. *Violence Against Women, 15*(2), 186-205. doi: 10.1177/1077801208329145
- Pozzulo, J. D., Dempsey, J., Maeder, E., & Allen, L. (2010). The effects of victim gender, defendant gender, and defendant age on juror decision making. *Criminal Justice and Behavior, 37*(1), 47-63. doi: 10.1177/0093854809344173

*Public Prosecutor v. L. Y. Goh.* (2007). Retrieved from [http://www.ipsofactoj.com/highcourt/2008/Part01/hct2008\(01\)-015.htm](http://www.ipsofactoj.com/highcourt/2008/Part01/hct2008(01)-015.htm)

Rendell, J. A., Huss, M. T., & Jensen, M. L. (2010). Expert testimony and the effects of a biological approach, psychopathy, and juror attitudes in cases of insanity. *Behavioral Sciences and the Law*, 28, 411-425. doi: 10.1002/bsl.913

Smith, E. D., & Hed, A. (1979). Effects of offenders' age and attractiveness on sentencing by mock juries. *Psychological Reports*, 44, 691-694. doi: 10.2466/pr0.1979.44.3.691

Sulzer, J. L., & Burglass, R. K. (1968). Responsibility attribution, empathy, and punitiveness. *Journal of Personality*, 36(2), 272-282. doi: 10.1111/1467-6494.ep8935359

Talih, F. R. (2011). Kleptomania and potential exacerbating factors: A review and case report. *Innovations in Clinical Neuroscience*, 8(10), 35-39. Retrieved from <http://innovationscns.com/>

Weisberg, D. S., Keil, F. C., Goodstein, J. Rawson, E., & Gray, J. R. (2008). The seductive allure of neuroscience explanations. *Journal of Cognitive Neuroscience*, 20(3), 470-477. Retrieved from <http://www.mitpressjournals.org/loi/jocn>

Weiten, W., & Diamond, S. S. (1979). A critical review of the jury simulation paradigm. *Law and Human Behavior*, 3(1/2), 71-93. Retrieved from <http://www.springer.com/psychology/psychology+%26+law/journal/10979>

Whittemore, K. E., & Ogloff, J. R. P. (1995). Factors that influence jury decision making: Disposition instructions and mental state at the time of the trial. *Law and Human Behavior*, 19(3), 283-303. Retrieved from <http://www.springer.com/psychology/psychology+%26+law/journal/10979>

Wiener, R. L., Krauss, D. A., & Lieberman, J. D. (2011). Mock jury research: Where do we go from here?. *Behavioral Sciences and the Law*, 29, 467-479. doi: 10.1002/bsl.989

Wuensch, K. L., Campbell, M. W., Kesler, F. C., & Moore, C. H. (2002). Racial bias in decisions made by mock jurors evaluating a case of sexual harassment. *Journal of Social Psychology*, 142(5), 587-600. Retrieved from <http://www.tandfonline.com/toc/vsoc20/current#.Uz1m56hdWJk>

## Appendix A

### Demographic Questionnaire

Please answer the following questions as accurately as you can.

1. Age: \_\_\_\_\_

2. Gender: \_\_\_\_\_ male    \_\_\_\_\_ female

3. Race/ethnicity:

\_\_\_\_\_ Asian (including Indian Subcontinent)

\_\_\_\_\_ African American (Non-Hispanic)

\_\_\_\_\_ Hispanic (Latino)

\_\_\_\_\_ Caucasian (Non-Hispanic)

\_\_\_\_\_ Asian or Pacific Islander

\_\_\_\_\_ Multi-racial

\_\_\_\_\_ Other (please write in a response below):

---

## Appendix B

### Vignettes

#### *“No diagnosis psychological” condition vignette and defense testimony*

You will be reading a case of a person arrested for shoplifting. For the purposes of this activity, please pretend that you are on the jury deciding the outcome for this individual. After reading the brief case information, you will be asked to answer questions regarding what you think the legal outcome should be for this individual.

#### *Case facts*

A thirty-five-year-old female was arrested at a Fossil store. These are the facts of the case:

Around 1:20pm, the defendant entered the store. She started looking through some of the bags and watches on display. A sales associate noticed that the defendant was holding onto one of the bags for quite some time. Believing that the defendant’s behavior was suspicious, the sales associate decided to keep an eye on her.

A short time later, the sales associate noticed the defendant leaving the store rather quickly. The associate checked the display panel and saw that the bag the defendant had been holding was missing. The sales associate caught up with the defendant outside the store and confronted her about the bag. The defendant then immediately handed the bag over to the sales associate. The sales associate informed the store manager, who then called the police. Upon arrest, police also found a watch from the same store in the defendant’s possession and this item was later confirmed as stolen.

In the past, the defendant had been accused of shoplifting by two other stores, but charges were never filed.

#### *Testimony*

According to the case summary, the defendant worked in a kitchen supply store for five years. Five months ago, she was laid off because the company she worked for was having



financial problems. She has been actively searching for a new job, but had been unsuccessful thus far. Meanwhile, her bills had been stacking up and she did not have the money to pay them. She had been feeling very overwhelmed by her financial situation and worrying constantly.

In an attempt to take her mind off her problems, she decided to go shopping at the mall. She went into a Fossil store. As she looked at the price tags of the bags and watches on display, she was once again reminded of her current financial situation and the accompanying feelings of overwhelming anxiety and stress returned. During this time, she picked up a bag, wondering if she would ever be able to afford such an item. Impulsively, she took the bag along with a watch sitting nearby and walked out of the store.

*“No diagnosis biological” condition vignette and defense testimony*

You will be reading a case of a person arrested for shoplifting. For the purposes of this activity, please pretend that you are on the jury deciding the outcome for this individual. After reading the brief case information, you will be asked to answer questions regarding what you think the legal outcome should be for this individual.

*Case facts*

A thirty-five-year-old female was arrested at a Fossil store. These are the facts of the case:

Around 1:20pm, the defendant entered the store. She started looking through some of the bags and watches on display. A sales associate noticed that the defendant was holding onto one of the bags for quite some time. Believing that the defendant’s behavior was suspicious, the sales associate decided to keep an eye on her.

A short time later, the sales associate noticed the defendant leaving the store rather quickly. The associate checked the display panel and saw that the bag the defendant had been holding was missing. The sales associate caught up with the defendant outside the store and

confronted her about the bag. The defendant then immediately handed the bag over to the sales associate. The sales associate informed the store manager, who then called the police. Upon arrest, police also found a watch from the same store in the defendant's possession and this item was later confirmed as stolen.

In the past, the defendant had been accused of shoplifting by two other stores, but charges were never filed.

### *Testimony*

According to experts, specific genes might be involved in stealing behaviors perhaps those linked to substance abuse disorders (since both involve participating in undesirable behavior). Medications that have been used to treat substance abuse disorders have shown promising results in reducing stealing behavior.

Several theories relate to a possible biological basis for stealing 1) some research suggests that there is a difference in brain functioning between people who steal and those who do not steal. For instance, several neurotransmitters (chemicals in the brain that regulate behavior) commonly connected to depression, anxiety, and addiction might be involved in stealing. 2) Stealing might involve the opiate system, which controls feelings of pleasure after doing things well and is activated when someone takes drugs such as heroin. If this were the case, stealing might release chemicals in the brain of these people in the same way that drugs like heroin do. 3) People who steal might have brain damage in the part of the brain that controls decision-making and the ability to control their impulses.

### *"Kleptomania psychological" condition vignette and defense testimony*

You will be reading a case of a person arrested for shoplifting. For the purposes of this activity, please pretend that you are on the jury deciding the outcome for this individual. After reading

the brief case information, you will be asked to answer questions regarding what you think the legal outcome should be for this individual.

### *Case facts*

A thirty-five-year-old female was arrested at a Fossil store. These are the facts of the case:

Around 1:20pm, the defendant entered the store. She started looking through some of the bags and watches on display. A sales associate noticed that the defendant was holding onto one of the bags for quite some time. Believing that the defendant's behavior was suspicious, the sales associate decided to keep an eye on her.

A short time later, the sales associate noticed the defendant leaving the store rather quickly. The associate checked the display panel and saw that the bag the defendant had been holding was missing. The sales associate caught up with the defendant outside the store and confronted her about the bag. The defendant then immediately handed the bag over to the sales associate. The sales associate informed the store manager, who then called the police. Upon arrest, police also found a watch from the same store in the defendant's possession and this item was later confirmed as stolen.

In the past, the defendant had been accused of shoplifting by two other stores, but charges were never filed.

Two psychiatric experts interviewed the defendant and have concluded that she has kleptomania, an impulse control disorder.

### *Testimony*

According to expert testimony, the defendant suffers from kleptomania, a psychological disorder where a person experiences intense urges to steal. Sometimes when shopping, individuals with kleptomania experience an overwhelming sense of anxiety and tension that

seems impossible to ignore; stealing provides the only relief from these unpleasant feelings. This relief is always temporary and becomes replaced by guilt and shame for giving into their illegal urges, even if they do not get caught.

Like other individuals with kleptomania, the defendant is different from a typical shoplifter because her motivation to steal is not for money or personal use. The objects she steals usually have little value and most of the time she gives them away or puts them in her attic. This incident was unusual because the urge came when she was in a store with expensive items.

*“Kleptomania biological” condition vignette and testimony*

You will be reading a case of a person arrested for shoplifting. For the purposes of this activity, please pretend that you are on the jury deciding the outcome for this individual. After reading the brief case information, you will be asked to answer questions regarding what you think the legal outcome should be for this individual.

*Case facts*

A thirty-five-year-old female was arrested at a Fossil store. These are the facts of the case:

Around 1:20pm, the defendant entered the store. She started looking through some of the bags and watches on display. A sales associate noticed that the defendant was holding onto one of the bags for quite some time. Believing that the defendant’s behavior was suspicious, the sales associate decided to keep an eye on her.

A short time later, the sales associate noticed the defendant leaving the store rather quickly. The associate checked the display panel and saw that the bag the defendant had been holding was missing. The sales associate caught up with the defendant outside the store and confronted her about the bag. The defendant then immediately handed the bag over to the sales associate. The sales associate informed the store manager, who then called the police. Upon

arrest, police also found a watch from the same store in the defendant's possession and this item was later confirmed as stolen.

In the past, the defendant had been accused of shoplifting by two other stores, but charges were never filed.

Two psychiatric experts interviewed the defendant and have concluded that she has kleptomania, an impulse control disorder.

### *Testimony*

According to experts, the defendant suffers from kleptomania- a psychological disorder where a person experiences intense urges to steal, but not for financial gain. Kleptomania might be caused by specific genes, perhaps those also linked to substance abuse disorders (since both involve resisting some urge or craving) and obsessive-compulsive disorder (since both involve a release of tension or anxiety following a compulsive act). Medications that have been used to treat substance abuse disorders and obsessive-compulsive disorder have also shown promising results with kleptomania.

Several theories relate to a possible genetic basis for kleptomania 1) some research suggests that there is a difference in brain functioning between people with kleptomania and those without the disorder. For instance, several neurotransmitters (chemicals in the brain that regulate behavior) commonly connected to depression, anxiety, and addiction might be involved in kleptomania. 2) Kleptomania might involve the opiate system, which controls feelings of pleasure after doing things well and is activated when someone takes drugs such as heroin. If this were the case, stealing might release chemicals in the brain of a person with kleptomania in the same way that drugs like heroin do. 3) People with kleptomania might have brain damage in the part of the brain that controls decision-making and a person's ability to control their impulses.

## Appendix C

### Defendant and testimony questions

Please answer the following questions as if you were a jury member for the case you just read.

1) As a member of the jury, how would you vote on this case?

Guilty  
 Not guilty

2) How certain are you in your verdict choice?

1	2	3	4	5	6	7
Not at all certain			Neutral			Extremely certain

3) *If you answered "not guilty" in question 1, skip to question 4*

Please choose the ONE option you think would be the most appropriate for this defendant.

Therapy  
 Medication  
 Therapy and medication  
 Community service  
 Probation and fines  
 Jail time (Please write in the amount of jail time in months)  
\_\_\_\_\_

4) How much did the expert testimony impact your decision?

1	2	3	4	5	6	7
Did not impact my decision at all			Neutral			Fully impacted my decision

5) How persuasive was the expert testimony?

1	2	3	4	5	6	7
Not at all persuasive			Neutral			Extremely persuasive

6) How likely do you think this person would be to reoffend?

1	2	3	4	5	6	7
Very unlikely			Neutral			Very likely

7) How responsible do you feel this person is for her actions?

1	2	3	4	5	6	7
Not at all responsible			Neutral			Completely responsible

8) How badly do you feel for this person?

1	2	3	4	5	6	7
Don't feel bad at all			Neutral			Feel very badly

9) Have you ever served on a jury?

yes  
 no

10) Have you ever worked in a retail store?

yes  
 no

If yes, did you ever have an experience of a customer shoplifting?

yes  
 no

11) Have you had personal or professional experiences with individuals with mental illness?

yes  
 no

If yes, have any of these experiences been with individuals who have kleptomania?

yes  
 no

## Appendix D

### The Empathy Quotient (EQ)

#### The Cambridge Behaviour Scale

##### How to fill out the questionnaire

*Below are a list of statements. Please read each statement very carefully and rate how strongly you agree or disagree with it by circling your answer. There are no right or wrong answers, or trick questions.*

- |  |                |                |                   |                   |
|--|----------------|----------------|-------------------|-------------------|
| 1. I can easily tell if someone else wants to enter a conversation.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 2. I prefer animals to humans.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 3. I try to keep up with the current trends and fashions.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 4. I find it difficult to explain to others things that I understand easily, when they don't understand it the first time. | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 5. I dream most nights.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 6. I really enjoy caring for other people.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 7. I try to solve my own problems rather than discussing them with others.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 8. I find it hard to know what to do in a social situation.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 9. I am at my best first thing in the morning.   | strongly agree | slightly agree | slightly disagree | strongly disagree |



10. People often tell me that I went too far in driving my point home in a discussion.	strongly agree	slightly agree	slightly disagree	strongly disagree
11. It doesn't bother me too much if I am late meeting a friend.	strongly agree	slightly agree	slightly disagree	strongly disagree
12. Friendships and relationships are just too difficult, so I tend not to bother with them.	strongly agree	slightly agree	slightly disagree	strongly disagree
13. I would never break a law, no matter how minor.	strongly agree	slightly agree	slightly disagree	strongly disagree
14. I often find it difficult to judge if something is rude or polite.	strongly agree	slightly agree	slightly disagree	strongly disagree
15. In a conversation, I tend to focus on my own thoughts rather than on what my listener might be thinking.	strongly agree	slightly agree	slightly disagree	strongly disagree
16. I prefer practical jokes to verbal humor.	strongly agree	slightly agree	slightly disagree	strongly disagree
17. I live life for today rather than the future.	strongly agree	slightly agree	slightly disagree	strongly disagree
18. When I was a child, I enjoyed cutting up worms to see what would happen.	strongly agree	slightly agree	slightly disagree	strongly disagree
19. I can pick up quickly if someone says one thing but means another.	strongly agree	slightly agree	slightly disagree	strongly disagree
20. I tend to have very strong opinions about morality.	strongly agree	slightly agree	slightly disagree	strongly disagree
21. It is hard for me to see why some things upset people so much.	strongly agree	slightly agree	slightly disagree	strongly disagree
22. I find it easy to put myself in somebody else's shoes.	strongly agree	slightly agree	slightly disagree	strongly disagree

23. I think that good manners are the most important thing a parent can teach their child.	strongly agree	slightly agree	slightly disagree	strongly disagree
24. I like to do things on the spur of the moment.	strongly agree	slightly agree	slightly disagree	strongly disagree
25. I am good at predicting how someone will feel.	strongly agree	slightly agree	slightly disagree	strongly disagree
26. I am quick to spot when someone in a group is feeling awkward or uncomfortable.	strongly agree	slightly agree	slightly disagree	strongly disagree
27. If I say something that someone else is offended by, I think that that's their problem, not mine.	strongly agree	slightly agree	slightly disagree	strongly disagree
28. If anyone asked me if I liked their haircut, I would reply truthfully, even if I didn't like it.	strongly agree	slightly agree	slightly disagree	strongly disagree
29. I can't always see why someone should have felt offended by a remark.	strongly agree	slightly agree	slightly disagree	strongly disagree
30. People often tell me that I am very unpredictable.	strongly agree	slightly agree	slightly disagree	strongly disagree
31. I enjoy being the center of attention at any social gathering.	strongly agree	slightly agree	slightly disagree	strongly disagree
32. Seeing people cry doesn't really upset me.	strongly agree	slightly agree	slightly disagree	strongly disagree
33. I enjoy having discussions about politics.	strongly agree	slightly agree	slightly disagree	strongly disagree
34. I am very blunt, which some people take to be rudeness, even though this is unintentional.	strongly agree	slightly agree	slightly disagree	strongly disagree
35. I don't tend to find social situations confusing.	strongly agree	slightly agree	slightly disagree	strongly disagree

- |  |                |                |                   |                   |
|--|----------------|----------------|-------------------|-------------------|
| 36. Other people tell me I am good at understanding how they are feeling and what they are thinking. | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 37. When I talk to people, I tend to talk about their experiences rather than my own.                | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 38. It upsets me to see an animal in pain.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 39. I am able to make decisions without being influenced by people's feelings.                       | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 40. I can't relax until I have done everything I had planned to do that day.                         | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 41. I can easily tell if someone else is interested or bored with what I am saying.                  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 42. I get upset if I see people suffering on news programs.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 43. Friends usually talk to me about their problems as they say that I am very understanding.        | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 44. I can sense if I am intruding, even if the other person doesn't tell me.                         | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 45. I often start new hobbies but quickly become bored with them and move on to something else.      | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 46. People sometimes tell me that I have gone too far with teasing.                                  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 47. I would be too nervous to go on a big rollercoaster.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 48. Other people often say that I am insensitive, though I don't always see why.                     | strongly agree | slightly agree | slightly disagree | strongly disagree |

- |   |                |                |                   |                   |
|---|----------------|----------------|-------------------|-------------------|
| 49. If I see a stranger in a group, I think that it is up to them to make an effort to join in.     | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 50. I usually stay emotionally detached when watching a film.                                       | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 51. I like to be very organized in day to day life and often make lists of the chores I have to do. | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 52. I can tune into how someone else feels rapidly and intuitively.                                 | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 53. I don't like to take risks.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 54. I can easily work out what another person might want to talk about.                             | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 55. I can tell if someone is masking their true emotion.  | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 56. Before making a decision I always weigh up the pros and cons.                                   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 57. I don't consciously work out the rules of social situations.                                    | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 58. I am good at predicting what someone will do.   | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 59. I tend to get emotionally involved with a friend's problems.                                    | strongly agree | slightly agree | slightly disagree | strongly disagree |
| 60. I can usually appreciate the other person's viewpoint, even if I don't agree with it.           | strongly agree | slightly agree | slightly disagree | strongly disagree |

***Thank you for filling this questionnaire in.***