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Comparing Police Eyewitnesses and Lay Eyewitnesses: The Effect of Eyewitness Reputation and Procedural Justice on Juror Verdict Decisions

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COMPARING POLICE EYEWITNESS AND LAY EYEWITNESSES: THE EFFECT OF EYEWITNESS REPUTATION AND PROCEDURAL JUSTICE ON JUROR VERDICT DECISIONS

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DEDICATION

This dissertation is dedicated to my family and friends who have helped to get me to this point in my career. Mom, Dad, Katie, Nate, I could not have made it here without you. Thank you for all of your love and support! This dissertation is also dedicated to myself, as a memento that you can never really know what you are capable of until you push yourself beyond what you think is possible. This is for all of us; we made it!

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By

Lindsey M. Cole

University of New Hampshire, May, 2015

Verdict decisions can have potentially severe consequences for defendants including incarceration or even capital punishment. Previous researchers have identified many factors that can influence these decisions. One of the most influential aspects of juror decisions identified by researchers is witness testimony; however, there has been little empirical research on police officers as witnesses. Jurors may have pre-existing attitudes about the police that may influence how they view police officer witnesses on the stand. Furthermore, special rules govern the admission of credibility evidence against a police officer witness in the state of New Hampshire. The purpose of the study was threefold: the first purpose was to determine if there was an effect of witness type (lay, police officer) on juror decisions; the second purpose was to determine if there was an effect of police officer eyewitness reputation manipulation (good, bad, control) on evaluations of the eyewitness and juror decisions; and the third purpose was to examine the role of the procedural justice model of legal socialization on juror decisions. Results indicated that participants presented with a lay eyewitness were significantly more likely to render a guilty verdict than participants presented with a police officer eyewitness. Furthermore, participants

presented with a police officer eyewitness with a good reputation or a police officer eyewitness with no reputation information provided were significantly more likely to acquit the defendant than participants presented with a police officer eyewitness with a bad reputation. These effects only emerged following group deliberation suggesting an effect of group discussion of the case. Results also provided partial support for the procedural justice model of legal socialization in predicting juror decisions. The findings from the current study advance the existing eyewitness research to include police officers as eyewitnesses and have policy implications for the rules governing police officer witnesses in the state of New Hampshire.

INTRODUCTION

Eyewitness testimony is one of the most important factors in juror verdict decisions (Bell & Loftus, 1988; McGuire, 1985; Wells, Lindsay, & Ferguson, 1979). In many ways, jurors can view eyewitnesses as authorities in the courtroom because they possess knowledge about the crime unknown to jurors. In other words, they may be viewed as authorities on the information they convey in their testimony regarding the case in question. This may be especially true when the eyewitness is already viewed as an authority figure, such as in the case of a police officer eyewitness. Previous research on authorities using the procedural justice model of legal socialization (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero, Fagan, Mulvey, Steinberg, & Odgers, 2005; Trinkner & Cohn, 2014) suggests that specific interactions with authorities lead to perceptions of trust, obligation to obey, and normative alignment, collectively known as legitimacy, towards those authorities. The perception of the legitimacy of those authorities has been shown to ultimately affect various behavioral outcomes such as compliance with the law.

The procedural justice model of legal socialization has only been examined within the context of behavioral outcomes related to direct interactions with the law, such as engagement in rule/law violations (Cohn, Trinkner, Rebellon, Van Gundy, & Cole, 2012; Fagan & Piquero, 2007; Jeleniewski, 2014; Piquero et al., 2005; Trinkner & Cohn, 2014) and compliance with legal authorities (Fagan & Tyler, 2005). The procedural justice legal socialization theory has never been applied to more indirect socio-legal outcomes, such as judgments of others' behavior, or to juror judgment in the courtroom setting (Cole & Cohn, 2015). For example, jurors form

perceptions of eyewitnesses that involve trust in the eyewitness to provide accurate information and an obligation to listen and consider the eyewitness' testimony in making their verdict decision (Cole & Cohn, 2015). If the eyewitness is also a legal authority, like a police officer, then juror perceptions of the legitimacy of police authority may influence the degree to which they trust the testimony of the police officer eyewitness and feel obligated to consider his or her testimony in making decisions about the case. Because of the role police officer eyewitnesses have in the courtroom as legal authorities and the likelihood that jurors have pre-existing attitudes about the police, jurors may view police officer eyewitnesses very differently than lay eyewitnesses. However, few researchers have examined the effect that police officer eyewitnesses have on juror decisions (Cole & Cohn, 2015; Yarmey, 1986).

The purpose of the proposed dissertation research was threefold. The first was to examine differences in juror perceptions and decisions when presented with a layperson or police officer eyewitness. The second purpose was to apply the procedural justice legal socialization theory to juror decision-making in the courtroom setting. The last purpose was to determine if credibility information impacted juror perceptions of a police officer eyewitness and verdict decisions.

CHAPTER II

THE AMERICAN LEGAL SYSTEM

The American legal system is intended to be a fair, just, and impartial arena in which those who have committed crime are found guilty and punished for their actions, while those who are innocent are vindicated. Despite these good intentions, innocent persons are incarcerated every year for crimes they did not commit. Organizations like the Innocence Project have fought to overturn hundreds of wrongful convictions (Kassin, Bogart, & Kerner, 2012), highlighting how pervasive the issue continues to be. A majority (75%) of these wrongful convictions are due to inaccurate eyewitness testimony (Doyle, 2010).

Imagine an individual is charged with a crime he/she did not commit and his/her fate will be determined by the accusation of an eyewitness who testifies to what he/she "thought he/she saw." Previous eyewitness identification and testimony researchers find that eyewitness accounts are weighed heavily in juror decisions and are often the major evidence presented at trial (Bell & Loftus, 1988; McGuire, 1985; Wells et al., 1979). Researchers also find, however, that eyewitnesses are notoriously inaccurate, even when eyewitnesses are highly confident about their memory for the event (Bradfield, Wells, & Olsen, 2002; Cramer, Brodsky, & DeCoster, 2009).

In recent years, steps have been taken to attempt to educate jurors on the inaccuracies of eyewitness recollections and testimony portrayals (Cutler & Penrod, 1995; Devenport, Kimbrough, & Cutler, 2009; Leippe & Eisenstadt, 2009; Martire & Kemp, 2011). For example,

the New Jersey Supreme Court recently adopted a new structure for assessing eyewitness identification and how it is presented to jurors. This restructuring was undertaking in an effort to enhance juror understanding of possible issues in eyewitness identification and mitigate occurrences of wrongful convictions based on inaccurate testimony (*State v. Henderson*, 2011). Despite these efforts, jurors may be more likely to believe the account of certain types of witnesses with certain characteristics over others, even though they may be equally as likely to provide errors (Leippe & Romanczyk, 1987; Saks & Hastie, 1978). For example, jurors may be more likely to accept the testimony of police officer eyewitnesses over lay eyewitnesses, simply because they are viewed as legal authorities and perceived to have heightened abilities in the legal arena due to their profession (Cutler & Penrod, 1995; Yarmey, 1986). However, few researchers have examined the difference in juror perceptions between police and lay eyewitnesses in the courtroom (Cole & Cohn, 2015); instead they have focused on lay people.

Perhaps the most important question to ask is to what degree these factors ultimately affect the jury's decision of guilt. Eyewitness researchers find that trustworthiness of lay eyewitness accounts has a large effect on juror decision-making (Wells & Olsen, 2003). For example, many wrongful conviction cases were based on lay eyewitness testimony in which the witnesses conveyed confidence and certainty in identifying the accused as the perpetrator, even though they were mistaken (Pedzek, 2012). However, juries are comprised of a variety of different people. Although some members may have very strong opinions regarding the case, everyone in the group does not always share these opinions. Despite differing opinions and reasoning, jurors must work together in order to reach a decision.

The importance of jury deliberations in juror decision-making has been overlooked and/or undervalued in previous research until recently (Cornwell & Hans, 2011; Dahl et al.,

2007; Devine, Clayton, Dunford, Seying, & Pryce, 2001; Finkelstein & Bastounis, 2010; Salerno & Diamond, 2010). Contemporary research findings in this area have suggested that interactions and deliberations with other jury members can cause changes in juror opinions and decisions from pre deliberation to post deliberation (Dahl et al., 2007; Finkelstein & Bastounis, 2010; MacCoun & Kerr, 1988; Salerno & Diamond, 2010). As a result, many researchers are advocating for the value of obtaining individual measures both pre and post deliberation in addition to group decisions, as the group discussion has been shown to attenuate the effect of some predictors of pre-deliberation decisions at the group and post deliberation level (Karpowitz & Mendelberg, 2007).

Witnesses in the Courtroom

Witness testimony is one of the most compelling and influential pieces of evidence in juror decisions in a trial (McGuire, 1985; Wells et al., 1979). Many cases based predominantly on witness testimony end in conviction, demonstrating the degree to which jurors rely on witness testimony when making verdict decisions (Pezdek, 2012). Jurors must make appraisals of the quality and believability of the witnesses' testimony before deciding if, and to what degree, they will utilize that information in their verdict decision (Brodsky, Griffin, & Cramer, 2010). The most important factor in this appraisal is related to the perception of the witnesses' credibility. Credibility has two key components; how trustworthy and how knowledgeable the witness is perceived to be (McGuire, 1985). Witnesses perceived to be credible by jurors could have a great degree of influence over juror opinions and decisions, while witnesses perceived to be not credible may be disregarded entirely (Wells et al., 1979). Therefore, credibility is immensely important for all witnesses to establish with jurors and other members of the court in order to be

effective (Brodsky et al., 2010). How credibility is established, however, differs for each type of witness.

There are two different types of witnesses in court cases: lay witnesses and expert witnesses. Each type of witness serves a different function in the scope of the trial; however, both lay witnesses and expert witnesses testify in order to share their knowledge about a case with the court (Kassin, Williams, & Saunders, 1990; Nemeth, 2010). The most common type of lay witness is an eyewitness. An eyewitness testifies about his/her own experience related to the event (Bell & Loftus, 1988; Lempert et al., 2013; Nemeth, 2010; Wells et al., 1979). In many cases, an eyewitness' testimony may be related to what he/she saw or heard in relation to the purported crime. In contrast, an expert witness is a qualified individual who presents information about a technical aspect of the crime that is not known to or easily understood by the general public (Kassin et al., 1990; Lempert et al., 2013; Nemeth, 2010). Unlike lay witnesses, expert witnesses are allowed to speculate on the case and include his/her own personal opinion and commentary.

Eyewitnesses

A considerable amount of attention has been directed towards the study of witness testimony and its effect on juror decision-making, especially eyewitness testimony (Bell & Loftus, 1988; Devine et al., 2001; Pezdek, 2012; Spellman & Tenney, 2010; Wells & Olson, 2003; Wrightsman, Willis, & Kassin, 1987). Eyewitnesses are generally lay individuals who have witnessed the crime or have some knowledge of the crime that is then shared with the court through presentation of their testimony. In the case of lay eyewitness accounts, no opinions or speculation are allowed to be rendered by the witness (Lampert et al., 2013; Nemeth, 2010). The general consensus among researchers is that jurors are willing to accept the accuracy of

eyewitness testimony despite the fact that these individuals are lay people with no specialized training and the overwhelming empirical evidence in existence that indicates a myriad of ways in which eyewitness accounts can be mistaken (Goodman & Loftus, 1992; Spellman & Tenney, 2010; Whitley, 1987). The reason for this error in judgment often is related to the credibility assessment rendered by the jurors and how these perceptions of credibility are established for eyewitnesses on the witness stand.

There are several prominent ways in which jurors assess credibility for lay eyewitnesses. For example, providing specific details about the event compared to general or vague information is more convincing to jurors and provides cues as to the eyewitnesses' level of credibility as witnesses (Bell & Loftus, 1989). Those eyewitnesses who are able to provide more detail are perceived as more credible than those who are unable to provide specific details about the crime or event (Bell & Loftus, 1989). This effect would seem reasonable except that specificity or detail does not necessarily equate with accuracy. Detail is often viewed as a meter of veracity; the more detail included in the statement, the more truthful one is being in their account of the event (Borckardt, Sprohge, & Nash, 2003). Therefore, when eyewitnesses are asked to provide specific details about a scene, oftentimes they will rely on schemas about what would likely have been present or to have taken place at the time to fill in any vague pieces in their memory (Brewer & Treyens, 1981). For example, when recalling the scene of a convenience store robbery, one might include such stereotypical elements as food or beverage displays, surveillance cameras, or a cashier behind the counter, even if these specific elements were not present at the time. Although this process may be helpful in conserving cognitive resources in everyday life, it is inherently problematic in the legal system where eyewitness testimony is concerned. Specifically, incorporating schemas when recalling events misrepresents

the actual knowledge and memory the eyewitness has for the event to jurors. Therefore, jurors may base their decisions on information about the case or the eyewitnesses' appearance to accurately portray the occurrence of the incident that is potentially incorrect. Again, the focus for previous researchers has been on lay individuals with no consideration of other types of eyewitnesses.

Another important, yet commonly misconstrued area in witness credibility assessments is the area of deception cues. Like most people, jurors rely on common stereotypical cues to determine when someone is attempting to be deceitful (Zuckerman, Koestner, & Driver, 1981). These cues include behaviors like fidgeting, shifting, lack of eye contact, and/or specific speech patterns like inconsistent narrative, uncertainty, and self-correction (DePaulo et al., 2003; Granhag & Strömwall, 2002; Hartwig, Granhag, Strömwall, & Vrij, 2005). Unfortunately, many of these cues are actually not indicative of deception and are often displayed by individuals who are telling the truth (DePaulo et al., 2003; Zuckerman et al., 1981). Many jurors (Zuckerman et al., 1981) and even legal professionals like police officers (Mann, Vrij, & Bull, 2004) rely on these cues in order to make credibility judgments, often mistaking the veracious for the deceptive. In fact, most people, professionals included, perform no better than chance in detecting deception when using these stereotypical cues (Vrij, 2000). However, individuals still attempt to avoid these overt behavioral cues because of these stereotypes (Spellman & Tenney, 2010). In the case of witnesses, a witness would avoid these cues in order for their testimony to be viewed as truthful and accepted by jurors and other members of the court.

One of the most compelling factors in eyewitness testimony is the degree of certainty the eyewitness exhibits for his/her memory of the event (Pezdek, 2012; Read, Lindsay, & Nicholls, 1997). Jurors construe eyewitnesses as more believable when they convey high degrees of

certainty when presenting their testimony than eyewitnesses who are less certain (Read, Lindsay, & Nicholls, 1997). Unfortunately, previous researchers have found that certainty is not always highly correlated with accuracy in eyewitness recollection (Tenney, MacCoun, Spellman, & Hastie, 2007; Tenney, Spellman, & MacCoun, 2008). Even when an eyewitness is very certain for what they saw or heard, it does not mean that his/her memory for the event is any better than an eyewitness who is less certain. Therefore, jurors are relying on aspects of eyewitness characteristics to make veracity judgments that are not necessarily the most representative of accuracy.

The examples illustrated above are all related to characteristics that witnesses exhibit while on the witness stand that influence juror perceptions. There are other factors that influence juror perceptions that do not necessarily occur within the course of the trial, but can be brought into the case as relevant information. For example, character or reputation accusations can also persuade juror opinions about the witness (Kassin et al., 1990). For lay eyewitnesses however, once one's character or veracity is called into question in court, there are strict evidentiary procedures in place to protect the witness from undue tainting that may directly alter juror perceptions (see rule 608, Lampert et al., 2013). Attorneys are not allowed to attack a witness' character directly without substantial evidence to support such accusations. For example, if the witness has a prior conviction, then it is open to scrutiny during cross-examination and may be used as a means of discrediting the witness' character (see rule 609, Lampert et al., 2013). However, other forms of misconduct are not typically allowed to be used as evidence to impeach the witness' character or credibility. Furthermore, a witness' credibility may be challenged in lieu of specific instances of misconduct only when the witness provides biasing information during cross examination him/herself or through the testimony of an additional witness called to

testify on the character of the principal witness (i.e. character witness) (see rule 608, Lampert et al., 2013). In short, factors external to the trial that must be brought into the proceedings to influence witness credibility are convoluted at best and often difficult to navigate in practical application in the courtroom setting. Because the rules of character and credibility evidence are not the same for all types of witnesses, the way in which credibility is established differs for these other types of witnesses as well.

Expert Witnesses

Expert witness testimony, the second type of witness testimony that occurs in court cases, is also highly influential in juror decision-making. Unlike a lay eyewitness, an expert witness testifies on a technical aspect of the crime that requires explanation or a knowledgeable expert's opinion (Lempert et al., 2013; Nemeth, 2010). Expert witnesses usually include forensic technicians, medical professionals, psychologists, psychiatrists, economists, etc. Expert witnesses are also allowed to speculate on the case in a way that is not permitted for any other type of witness (Lempert et al., 2013; Nemeth, 2010). Expert witnesses who are brought in to explain the evidence to jurors often leave the physical evidence in a case open to interpretation. Therefore, jurors will put more weight in the testimony of the expert witness and his/her interpretation of the evidence than the physical evidence alone (Leippe, 1994).

Jurors commonly view the testimony of expert witnesses as factual simply because experts are perceived as authorities on the subject in question (Boccaccini & Brodsky, 2002; Leippe, 1994). The degree to which jurors trust the testimony of an expert witness is established differently than that of a lay witness. The most important factor in the appraisal of expert witness credibility for jurors is the expert witness' professional credentials (Boccaccini & Brodsky, 2002; Brewer, 1998; Champagne, Shuman, & Whitaker 1992; Goodman, Greene, &

Loftus, 1985; Kassin et al., 1990; Shuman, Whitaker, & Champagne, 1994). Professional degrees, titles, training, experience, knowledge, positions, and other professional accomplishments are all important considerations in assessing the credibility of an expert witness (Champagne et al., 1992; Goodman et al., 1985; Kassin et al., 1990; Shuman et al., 1994). Jurors perceive a witness with poor professional credentials less credible than a witness with good professional credentials. In some cases, jurors have been known to consider professional credentials a more important factor in their verdict decision than the actual information presented by the expert witness about the evidence/case. For example, Goodman and colleagues (1985) found that jurors relied on their personal perceptions of the expert witness based on his/her outstanding credentials in the field instead of the information he/she presented at trial in making their decision.

Jurors also take professional reputation into consideration in weighing the credibility of an expert witness. For example, Kassin and colleagues (1990) found that mock jurors presented with an expert witness with a poor professional reputation rated the witness significantly less credible than those presented with an expert witness with a good professional reputation. Having a poor professional reputation likely invalidates any professional credentials that would lend credibility to the witness as an expert in the field/subject. A poor reputation may also raise concerns among jurors about the character of the witness, similarly to that of lay witnesses. If a witness is deemed to be of poor character, the veracity of his/her testimony is also more likely to be called into question (Nadler & McDonnell, 2012). Therefore, it is important to ensure that one is portrayed as having a good reputation in the field in order to be an effective expert witness.

Although these two kinds of witnesses are typically very distinct from one another and serve different functions within the courtroom, there are some individuals who are called as

witnesses who can encompass both roles. The police are a unique group of individuals who can represent both eyewitness and expert witness roles simultaneously. Police officers can bring their technical expertise as legal authorities to the court, knowledge about the crime by having witnessed it first-hand, or provide information about the case by having been the first to encounter a victim or crime scene following the incident. Therefore, the police have a perspective unlike any other type of witness that may lie somewhere in between eyewitness and expert witness in the eyes of jurors. In fact, the police likely comprise their own class of witness in the court because of their unique role as both observer in the field and legal authority. The circumstances that may affect how jurors perceive either eyewitness or expert witness testimony may not necessarily function similarly for police officer witnesses because of this special role they encompass.

Police officer witnesses

Police officers often have to testify as eyewitnesses in the same capacity as many lay individuals who witness violations of the law. However, police are viewed as authorities in the community (Tyler, 2006b) and may be viewed as authorities, even when called as an eyewitness in the court. A juror may view police eyewitnesses very differently than lay eyewitnesses, because police eyewitnesses have a perspective unlike any other type of eyewitness. People in general are very susceptible to others in positions of authority (Milgram, 1963; Tyler 2006a, 2006b). Outside of the courtroom, jurors may feel a sense of duty or obligation to obey police officers, because of their position of authority in the community (Tyler, 2006b). This perception of authority may not dissipate in the courtroom when police officers are called as eyewitnesses, despite the fact that jurors should view them on equal footing as any other lay eyewitness. Perceptions of the police may have changed due to recent events that have gained national

attention such as the incident involving a fatal shooting by police in Ferguson Missouri. These recent events have resulted in protests across the nation and a heightened awareness of policing policy and police-community interactions in the cultural climate of the United States. The media coverage, public outcry, and protests regarding such incidents may have influenced the way that American citizens across the nation not only view the police in their own communities, but may view police officers in other legal settings as well, like as witnesses in court.

Eyewitnesses in general, regardless of whether they are laypeople or police officers, may be viewed as authorities by jurors to some degree simply because of their role as conveyors of knowledge in the courtroom. What may distinguish police officer eyewitnesses from lay eyewitnesses is that police officers are also in positions of authority outside of the courtroom. Furthermore, the rules governing treatment of police officers as witnesses in the courtroom (*Stave v. Laurie,* 1995) are different than those of lay witnesses (see rule 608, Lampert et al., 2013), even when police officers are testifying in an eyewitness capacity. For police officer eyewitnesses, the evidentiary rules that protect undue and unjust attacks on credibility are greatly diminished (*State v. Laurie,* 1995). Therefore, it is clear that police officers as witnesses fall into a unique category unlike any other type of witness, mainly as a function of their profession.

For example, previous researchers indicate that witness credibility is an important element in witness testimony to establish with jurors in order to influence both juror perceptions and verdict decisions (Brodsky et al., 2010). However, credibility is established and manipulated differently for different types of witnesses, like lay eyewitnesses and expert witnesses. A police officer witness, however, has an entirely different set of rules and challenges when testifying in the state of New Hampshire. Due to a court ruling in the state of New Hampshire in 1995, no prior conviction or character witness need be presented in court as evidence to challenge a police

officer's credibility when there is documented evidence in his/her professional file suggesting potential credibility issues (*State v. Laurie,* 1995). Unlike a lay witness, a conviction is not required to present this evidence directly in court as long as it is pertinent to the officer's credibility, even when he/she is testifying as an eyewitness. It may even be as minor an offense as falsifying time cards or log records. This difference in evidentiary procedure has caused some controversy in the court and legislature in the state of New Hampshire when police officers serve as witnesses in the court. For example, there are several pending lawsuits over purported law enforcement career damage that the Laurie rule has caused. Despite the controversy, this rule came in to being for a reason; police officers are often called as important witnesses in court.

Previous researchers have found that witnesses with records suggesting poor character (Hunt & Budesheim, 2004; Nadler & McDonnell, 2012), consistent capacity for dishonesty (Tanford & Cox, 1987), and poor professional reputation (Kassin et al., 1990) have effects on juror perceptions of the witness' credibility and the final verdict decision for the defendant. Despite this clear divergence from legal precedence with other types of witnesses, police officer witness credibility under this rule has never been examined empirically (Cole & Cohn, 2015). Furthermore, jurors may have higher expectations for legal authorities who are charged with upholding the law. When presented with a police officer witness who has violated that obligation and broken the law or rules him/herself, that may affect juror perceptions of the witness' credibility differently than if the witness had been a layperson or an expert of another profession. Jurors may have higher expectations for the police in these situations because of their pre-existing attitudes towards the police.

Juror Attitudes

Jurors' perceptions, opinions, biases, beliefs, and attitudes can affect their individual verdict decisions (Chapdelaine & Griffin, 1997; Cohn, Bucolo, Pride, & Sommers, 2009; Dane & Wrightsman, 1982). Having strong attitudes can bias the way an individual views the different aspects of the case. Whether those attitudes are positive or negative, they can alter the way the individual perceives the defendant, witnesses, victim, or even the evidence presented (Devine et al., 2001; Hastie, 1993). In instances where these attitudes have influenced the way jurors have viewed the information in a case, jurors have been shown to ignore (Carlson & Russo, 2001) or be skeptical of information from sources against which they are negatively biased (Chapdelaine & Griffin, 1997).

In contrast, jurors who have strong positive biases are more accepting of information from the sources for which they have a positive bias (Chapdelaine & Griffin, 1997; Dane & Wrightsman, 1982). For example, a juror who believes that a person with a prior record is more likely to commit further crime would be more apt to accept the prosecution's information as the truth, while discounting any information conveyed by the defendant. The majority of research on juror attitudes and bias has primarily focused on bias against the defendant (Devine et al., 2001). Few researchers have examined the effects of juror attitudes towards and biases against witnesses in a trial. This may be particularly interesting in cases with witnesses that may elicit strong pre-existing attitudes among jurors, like in the case of police officer witnesses.

Jurors have also had a lifetime of experiences and exposure to police officers as authority figures in the community that have created perceptions and attitudes about the police (Tyler, 2006b) before having ever stepped into the courtroom. For example, the procedural justice model of legal socialization suggests that the perception of fair treatment by police affect

individuals' trust in the police (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jackson & Bradford, 2009; Jeleniewski, 2014; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b; Tyler & Jackson, 2014). If a juror already views the police as generally trustworthy, then a police officer eyewitness may have enhanced credibility from the start over a regular lay eyewitness for that juror.

It is likely that jurors have more salient attitudes towards police officer eyewitnesses than lay eyewitnesses because of the interactions they have had with police, their role as legal authorities, and the societal occurrences surrounding the police. It is also likely that jurors would view police witnesses as having much more of a compounded authority role in and out of the courtroom as the lay eyewitnesses. However, few researchers have attempted to examine police officer eyewitnesses specifically, despite the unique position and perspective they may have in the courtroom (Cutler & Penrod, 1995; Yarmey, 1986) or have attempted to apply the procedural justice model of legal socialization to the courtroom setting (Cole & Cohn, 2015; Tyler, 2006b).

CHAPTER III

THE PROCEDURAL JUSTICE MODEL OF LEGAL SOCIALIZATION

The interactions that individuals have with various legal authority figures help to shape their perceptions of the law and legal system. Those perceptions then affect those individuals' decisions to engage in rule/law violating behavior (Sunshine & Tyler, 2003; Tyler, 2006a, 2006b). The Procedural Justice model of Legal Socialization helps to explain the relation between individuals' interactions with the law and legal authorities through perceptions of fair treatment, and how they influence obedience to authority, compliance with the law, and engagement in rule/law violating behaviors (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Trinkner & Cohn, 2014). Procedural justice can be described as the degree to which authority figures are perceived as *fair* and *just* (Thibault & Walker, 1975; Tyler, 2006b). The important distinction between procedural justice and other types of interactional theories of justice is the focus on perceptions of fair treatment by authority figures (Lind & Tyler, 1988) and not on the outcome of the interactions (i.e. punishment, etc.). There are three primary components to the procedural justice model of legal socialization: procedural justice, legitimacy, and legal cynicism.

Procedural Justice

The aspects specifically related to interactions with authority figures that shape subsequent attitudes towards those authorities are collectively known as the procedural justice portion of the model. There are four factors that comprise procedural justice: voice, impartiality,

benevolence, and respect (Lind & Tyler, 1988; Tyler, 1987; 2000, 2006b). Voice is the degree to which an individual is given an opportunity to voice his/her position to the authority and feels the authority listens and acknowledges his/her perspective. Impartiality is the perception of consistency of treatment across different individuals and situations. Benevolence refers to the authority figure having good intentions, being just, and having the individual's best interests at heart. Lastly, respect is the degree of politeness and respect the individual is shown by the authority figure. Every interaction with an authority figure from the time an individual is a child through the adolescent period and into adulthood shapes his/her experience of procedural justice (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b). Furthermore, each component of the procedural justice model has a direct and important effect on perceptions of the legitimacy of that authority (Tyler, Rasinski, & Spodick, 1985).

Within the context of legal authorities specifically, the nature of these interactions can vary immensely due to non-legally oriented circumstances like socio-economic status, race, age, or gender (Carr, Napolitano, & Keating, 2007; Sampson & Bartusch, 1998). Individuals living in lower income and/or high crime neighborhoods often report unfair treatment by police, judges, and other legal authorities perpetuating a general sense of mistrust in the legal system in these communities. In response, many individuals in these neighborhoods fail to call the authorities or report crimes when they occur (Carr et al., 2007; Sampson & Bartusch, 1998). Community members become cynical of the police and courts, because they are no longer viewed as legitimate authorities or institutions that protect the community's interests. Regardless of how these interactions occur, the result affects both perceptions of the legitimacy of that authority (Fagan & Piquero, 2007; Sunshine & Tyler, 2003) and cynicism towards the legal system (Carr

et al., 2007; Sampson & Bartusch, 1998). These perceptions then mediate the relation between the process of procedural justice and behaviors like compliance with the authority or engagement in rule/law violation (Sunshine & Tyler, 2003).

Legitimacy of Authority

Legitimacy is the perception of an authority as being appropriate, proper, and just given his/her position (Tyler, 2006b). In terms of a legal authority, it would be analogous to an upstanding police officer who is known to be procedurally fair and honest, but is also recognized as an individual in a position of power in the community. When an authority is viewed as legitimate, one trusts that authority and feels an obligation to obey the authority (Tyler, 2006b; Tyler & Huo, 2002). In other words, that police officer may be viewed as having other community members' best interests at heart, thereby instilling a sense of trust in those individuals. Consequently, those community members feel an obligation to obey that police officer's directives, because they recognize his/her authority as legitimate.

In the procedural justice model of legal socialization, legitimacy is comprised of three factors or dimensions: obligation to obey police authority, trust and/or confidence in the police, and normative alignment with the police (Tyler & Jackson, 2014). When police are viewed as legitimate, individuals feel an obligation to obey the authority and their directives. Moreover, individuals will feel that the authority is trustworthy and will have confidence in their ability to perform their prescribed duties in the community. Individuals who view authorities as legitimate also tend to feel that those authorities closely share the same values and goals as they do, known as normative alignment.

In the procedural justice model, legitimacy mediates the relation between procedural justice and behavioral outcomes like compliance with authorities or rule/law violation (Fagan &

Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Sunshine & Tyler, 2003). A significant amount of research in this area, particularly with legal authorities, has focused on interactions with the police (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Paternoster, Brame, Bachman, & Sherman, 1997; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b; Tyler & Huo, 2002). Previous researchers have found that individuals who have had positive interactions with the police resulting in higher perceptions of police legitimacy tended to engage in rule/law violating behavior less often (Fagan & Tyler, 2005; Jeleniewski, 2014; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014) and complied with the authorities more often (Fagan & Piquero, 2007; Tyler & Jackson, 2014). However, few researchers have studied how the perceptions of the police affect judgments about others' rule/law violating behavior in the community, despite the importance these decisions have in upholding the integrity of the social structure (Carr et al., 2007; Cole & Cohn, 2015; Sampson & Bartusch, 1998). The structure of the legal system would collapse and become essentially ineffective if community members in all facets of society failed to report crimes or refused to find defendants guilty simply because they did not trust legal authorities.

Perceptions of legitimacy may be important in other areas of the legal system as well. For example, the procedural justice model may lend itself naturally to the courtroom setting when eyewitness testimony is of concern. Jurors trust that the eyewitness is being truthful and accurate when making verdict decisions and feel obligated to listen and to consider the testimony of the eyewitness. In a sense, the jurors form a perception of legitimacy for the eyewitness and his/her testimony that may then influence the verdict decision. Furthermore, certain types of eyewitnesses may elicit perceptions of more legitimacy of authority than that related specifically

to the function of a witness in the court. For example, police are viewed as legal authorities outside of the courtroom with jurors likely already having previous interactions with and perceptions of legitimacy for the police as authorities (Tyler, 2006b). Therefore, when a police officer is called as an eyewitness in court, jurors may have perceptions of legitimacy for the police officer witness both from pre-existing perceptions of legitimacy based on his/her role as an officer of the law and current perceptions as an eyewitness called to testify on the witness stand. With the additional role as a legal authority outside of the context of an eyewitness, jurors may view police officer eyewitnesses differently than lay eyewitnesses. However, few researchers have attempted to examine the role of legitimacy on juror decision-making or even in the courtroom setting in general (Cole & Cohn, 2015).

Legal Cynicism

A more general set of attitudes towards the legal system and underlying structures is known as legal cynicism (Durkheim, 1897/1997; Hickman, Piquero, & Piquero, 2004). When individuals are cynical about the rules/laws set forth by their society, they no longer feel an obligation to obey those rules set by the norms dictated by their society (Kapsis, 1978). In a sense, when the members of a society become cynical, the society and social structures lose the power to exert a binding social contract amongst its citizens that help to perpetuate law and order. The theoretical underpinnings of legal cynicism are derived from Durkheim's (1897/1997) theory of anomie, which argues that individuals become deviant when society fails to provide the necessary social structures that give rise to order and realistically obtainable goals. If the social structures are dysfunctional or nonexistent, then the result is a state of anomie and social cynicism amongst the populace (Agnew, 1997). The legal system, as an organ of the social

structure, can create a sense of legal cynicism specifically directed at this institution when a state of anomie is perpetuated (Sampson & Bartusch, 1998).

In the context of the procedural justice model of legal socialization, legal cynicism mediates the relation between procedural justice and outcomes like compliance and engagement in deviant behavior like rule/law violation (Tyler, 2006b; Tyler & Huo, 2002). Legal cynicism also tends to be negatively related to procedural justice, legitimacy, and compliance, but positively related to rule/law violating behavior (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014). However, unlike the other components of the procedural justice model, legal cynicism is sparsely researched, lacking the breadth of understanding that both procedural justice (fair treatment, etc.) and legitimacy of authority have benefitted from the last few decades of focused attention (Tyler, 2006a; 2006b; Carr et al., 2007; Sampson & Bartusch, 1998). As such, the oversight in in-depth examination of legal cynicism both in the procedural justice model and in relation to various outcomes has left a gap in the existing literature to date. Therefore, there is an obvious need for further study of legal cynicism in relation to the traditional legal socialization outcomes. However, this also leaves open an opportunity to expand the study of legal cynicism into new territories as well, because there is an obvious lack of research in all areas on this topic.

The limited research conducted on legal cynicism suggests that those who are cynical about the law are more likely to engage in transgressive behaviors like rule/law violation (Sunshine & Tyler, 2003). However, other researchers have suggested that legal cynicism may also have an effect on the perceptions and judgments of others' rule/law violating behavior indirectly (Carr et al., 2007; Sampson & Bartusch, 1998). For example, it has been theorized that individuals who are cynical about the law and legal system may be generally more accepting

of transgressive behavior (Agnew, 1997; Sampson & Bartusch, 1998). Unfortunately, like many areas in legal cynicism research, few researchers have empirically tested the effect of legal cynicism on perceptions of and judgments for others' rule/law violating behaviors.

To date, there have been few researchers who have examined other important outcomes that may be affected by legal socialization factors, such as perceptions of and decisions for other individuals' rule/law violating behavior (Cole & Cohn, 2015). As members of social structures and communities, we are not only concerned for the consequences of our own behavior, but also the behavior of others as well. How we are able to reason about the rules/laws of our society, our moral and ethical principles, and our attitudes about those rules/laws may affect how we perceive individuals who choose to transgress. This process in turn may affect how we decide to seek justice against those who transgress. Furthermore, participation in community legal interactions and decision-making may stimulate legal reasoning development (Levine & Tapp, 1977). Therefore, the study of decisions for other individuals' engagement in rule/law violating behavior may not only be a tremendous oversight in the existing literature but may also demonstrate a reciprocal effect on the legal socialization process itself.

The procedural justice model may lend itself naturally to the courtroom setting for eyewitness testimony. Jurors trust that the eyewitness is being truthful and accurate when making verdict decisions and feel obligated to listen and to consider the testimony of the eyewitness. Perceptions of legitimacy, by definition, are very similar to juror perceptions of witness credibility, or how trustworthy a witness is perceived to be by jurors (McGuire, 1985). In a sense, the jurors form a perception of legitimacy for the eyewitness and his/her testimony that may then influence the verdict decision. Furthermore, certain types of eyewitnesses may elicit additional perceptions of legitimacy of authority than that related specifically to the

function of a witness in the court. For example, jurors perceive police as legitimate as legal authorities outside of the courtroom because of previous interactions with police officers (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Piquero et al, 2005; Tyler, 2006b). Therefore, when a police officer is called as an eyewitness in court, jurors may have perceptions of legitimacy for the police officer witness based on both his/her role as an officer of the law and as an eyewitness called to testify on the witness stand. However, individual jurors do not decide the fate of defendants on their own. An individual's personal experiences may influence their individual decision about a case, but the group decision may be more complex as individual group members have different attitudes and experiences from which to draw.

CHAPTER IV

JURY DECISION-MAKING

Participation in the legal system is not only a key element to the American justice system, but has demonstrated benefits for its citizens as well. In the United States legal system as well as many other countries around the world, lay members of society are called upon to participate in deciding culpability of their peers who have been charged with a crime. This participation provides an opportunity for citizens to have direct contact with the criminal justice system and influence the decisions being made in their community.

In the United States jury trial system, most juries are comprised of either 6 or 12 jury members. Most criminal jury trials are comprised of 12 member juries with 6 member juries being most common in civil court, although it varies by state, jurisdiction, and court level. Each individual juror must contribute to the decision-making process, but is not responsible solely for the final verdict. Instead, jurors must engage in a group deliberation in order to reach a unanimous decision together to render a verdict for the defendant (Diamond, Vidmar, Rose, Ellis, & Murphy, 2008; Hans & Vidmar, 2007; Salerno & Diamond, 2010). Oftentimes this process can take hours, days, or in some cases even weeks for jury members to reach a unanimous decision. In cases where a unanimous decision cannot be reached, the jury is declared "hung" and the prosecution is given the option to retry the case with a new jury.

Irrespective of the fact that individual jurors ultimately do not make the final verdict decisions, the majority of research on jury decision-making has focused on decisions for

individual jurors. Early research in jury decision making suggested that a high percentage of final jury verdicts corresponded to the initial majority vote of the group and therefore deliberation had little effect on the group decision (Devine et al., 2001; Kalven & Zeisel, 1966). Researchers then focused their attention on the initial individual verdict decisions, determining it to be both an accurate meter of jury group verdict decisions and a methodologically efficient way to collect data on juror decisions (Kalven & Zeisel, 1966; Nunez et al., 2011). Despite these findings, there are cases in which the group minority either persuades the group in some way or refuses to yield to the group majority resulting in a deadlock (Clark, 1999; Hastie, Penrod, & Pennington, 1983; Salerno & Diamond, 2010). In these cases, the only way researchers can understand exactly the cause and nature of these outcomes is to examine the interactions that occur during deliberation (Nunez et al., 2011). Furthermore, even in cases where the majority vote corresponds with the final verdict, it is still pertinent to understand how jurors reasoned about the verdict they chose and successfully persuaded opposing jurors to align with their perspective. Unfortunately, we can obtain little from individual level data about these factors that will affect the overall verdict decision, because they are often measured without an opportunity for group level discussion and decision-making.

There has been a recent movement towards group level analysis and deliberation examination in jury research to assess this relatively undervalued aspect (Bornstein & Greene, 2011; Nunez et al., 2011). However, the increased focus on jury group examination has also raised some additional controversies in jury research. For example, there have been mixed opinions and results about the effect of jury group size on deliberation outcomes (Hastie et al., 1983; Saks & Marti, 1997; Waller, Hope, Burrowes, & Morrison, 2011).

Hastie and colleagues (1983) found that jury size did not change the quality of the deliberation discussion and that six person juries did not result in significant differences in trial outcomes compared to twelve person juries. They did find some differences, however, such as participation rates of jurors within a group varying more greatly in larger jury groups than in smaller groups. In fact, in many cases, only a few jurors will dominate the conversation, accounting for the majority of interaction including questioning and arguing, while other jurors remain passive participants (Waller et al., 2011). If only a few jurors are driving the group deliberation, then individual level data on all members of a jury may not yield the most accurate predictive results if we are not taking into account influential factors of those who will dominate the conversation. Not all jurors may be equal in affecting the trial outcome.

Jurors are afforded the same opportunities to share knowledge, argue their point, and persuade other jury members in the deliberation setting, although they do so ineffectively at times. For example, large group sizes allow for unmotivated members to disengage from the conversation, contributing as little as possible, while other members carry the discussion (Latane, Williams, & Harkins, 1979; Stasser & Titus, 1985). In other instances, information presented can be either misrepresented or not discussed during the group discussions (Steiner, 1972). The group also may feel obligated to give equal weight to all members during the group decision-making process, despite differences in group member competences (Sorkin, Hays, & West, 2001). Sorkin and colleagues (2001) found that when group members were given equal opportunity to interact in group deliberation activities, the group's performance and ability to adequately share information was inhibited.

Although there are ways in which a jury might seem to be a dysfunctional entity, it is still a valued method of legal decision-making, and in most instances, more impartial than any

individual decision-maker (London & Nunez, 2000). For example, jury deliberation allows for jurors to share information and knowledge gained throughout the course of the trial that may have been missed or misinterpreted by any individual juror (Bornstein & Greene, 2011; Prichard & Keenan, 2002). Evidence and instructions can be consolidated, corrected, and directed into a thorough discussion toward a thoughtful verdict decision (McCoy, Nunez, & Dammeyer, 1999). Furthermore, the importance of certain pieces of evidence and information relevant to the case and verdict decision become more salient during the deliberation process, often times leading to a more considerate decision than at the individual level (Kerwin & Shaffer, 1994; London & Nunez, 2000; Ruva, McEvoy, & Bryant, 2007). However, individual factors can still influence verdict decisions both at the individual (Dane & Wrightsman, 1982) and group level (Kaplan, 1977; Karpowitz & Mendelberg, 2007) despite the protective factors that the deliberation process may provide.

A considerable amount of time and effort has been placed on individual juror factors in verdict decisions; however, more recent research suggests that individual factors may not be as important in the final verdict outcome (Bornstein & Greene, 2011; Dahl et al., 2007; Finkelstein & Bastounis, 2010; MacCoun & Kerr, 1988; Salerno & Diamond, 2010). The deliberation process and group interaction may actually work to attenuate any extreme attitudes that may persuade an individual juror to make a verdict decision on the basis of peripheral information and not information pertinent to the case itself (Kaplan, 1977; Karpowitz & Mendelberg, 2007; Salerno & Diamond, 2010). Individual factors in aspects such as juror reasoning have been examined in group level studies, but few researchers have examined how individual reasoning translates into group discussion, persuasion, and decision making (Karpowitz & Mendelberg,

2007). This too may be particularly important if imbalance of power and persuasion exists within the jury group.

There are other methodological concerns when conducting jury research in addition to the individual versus group level decisions. For example, previous researchers examining juror decisions have used specific methodologies that limit the ecological validity and applicability of their findings in the past. The majority of studies investigating juror decisions have utilized a written transcript where participants are required to read many pages of the court proceeding, often containing legal jargon. Few researchers have used a visual or actual trial stimulus to study juror behavior. This may limit the cognitive appraisal of the information being presented to the jurors as well as fundamentally change the perceptions they may have of the case due to the lack of other peripheral cues typically present in an actual trial proceeding. For instance, a witness' testimony and demeanor may come across differently in text than when jurors are able to view the actual witness in court. The behavioral, linguistic, and interactional cues that contribute to juror perceptions of the witness are inherently absent in a written transcript. Researchers can mitigate these issues by including rich stimuli comparable to an actual juror experience, such as a videotaped proceeding, and including measures of group level, as well as individual level decisions rendered by jurors/participants.

CHAPTER V

CURRENT STUDY

Gaps in the literature

To date, there is little existing literature examining the role of police officers in the courtroom, despite the unique position they hold and the frequency in which they appear as important figures in trial proceedings, like in a witness capacity (Cole & Cohn, 2015; Yarmey, 1986). The purpose of the current set of studies is to address several gaps in the existing literature regarding the role of police as witnesses in the court: (1) there has been no examination of the difference between juror perceptions of lay witnesses and police as witnesses in the courtroom and how these perceptions ultimately affect juror verdict decisions for the defendant.

(2) When police do play a witness role in the courtroom, they may be viewed as having a greater degree of legitimacy of authority over other types of witnesses in the court due to their position as legal authorities. However, there has been no examination to date of the effect of previous experience with legal authorities resulting in perceptions of procedural justice and legitimacy of authority that may affect how jurors perceive police as witnesses as well as verdict decisions for the defendant. (3) Credibility has been shown to be the most important factor in determining whether a juror accepts a witness' testimony and how that information is utilized in the juror's verdict decision for the defendant. Police witness credibility can be established and manipulated differently than lay witness credibility due to the New Hampshire State Laurie Ruling (*State v. Laurie*, 1995) whereby character evidence is not required in the same way to

challenge an officer's veracity, personal character, or moral fortitude. The effect this may have on juror perceptions of the evaluation of a police officer witness and verdict decisions has never been tested empirically.

Current Study

The purpose of current study was to: (1) address the gaps in the current literature on police officers as witnesses, (2) examine the role of the procedural justice model of legal socialization on juror decisions and (3) examine the effect of police officer credibility in juror decisions by manipulating police officer reputation. The other purposes of the current study were (4) to address the methodological limitations in previous research in this area to increase the ecological validity of the results obtained by the current study by using a rich video stimulus and (5) to account for the effect of jury deliberation on juror verdict decisions.

Hypotheses. First, it is hypothesized that there will be a significant difference in participants' evaluation of the eyewitness (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness) between the lay eyewitness and police officer eyewitness. Participants will perceive the police officer eyewitness to be more credible, more trustworthy, and feel more obligation to listen to his testimony overall than the lay eyewitness. Second, it is hypothesized that participant presented with the police officer eyewitness will render more guilty verdicts and have higher verdict certainty for a guilty verdict than participants presented with the lay eyewitness. Third, it is hypothesized that the procedural justice model of legal socialization will predict participant verdict decisions and this relation will be mediated by participant evaluation of the police officer eyewitness (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness). Procedural justice will predict participant perceptions of police legitimacy and legal cynicism. Police legitimacy and legal cynicism will then predict participant

perceptions of the police officer eyewitness; those higher in police legitimacy and lower in legal cynicism will find the police officer eyewitness to be more credible, more trustworthy, and will feel more obligation to listen to the eyewitness's testimony. Eyewitness credibility, trustworthiness, and obligation to the eyewitness will in turn predict participant verdict decision. Therefore, police legitimacy and legal cynicism will mediate the relation between procedural justice and eyewitness evaluation variables.

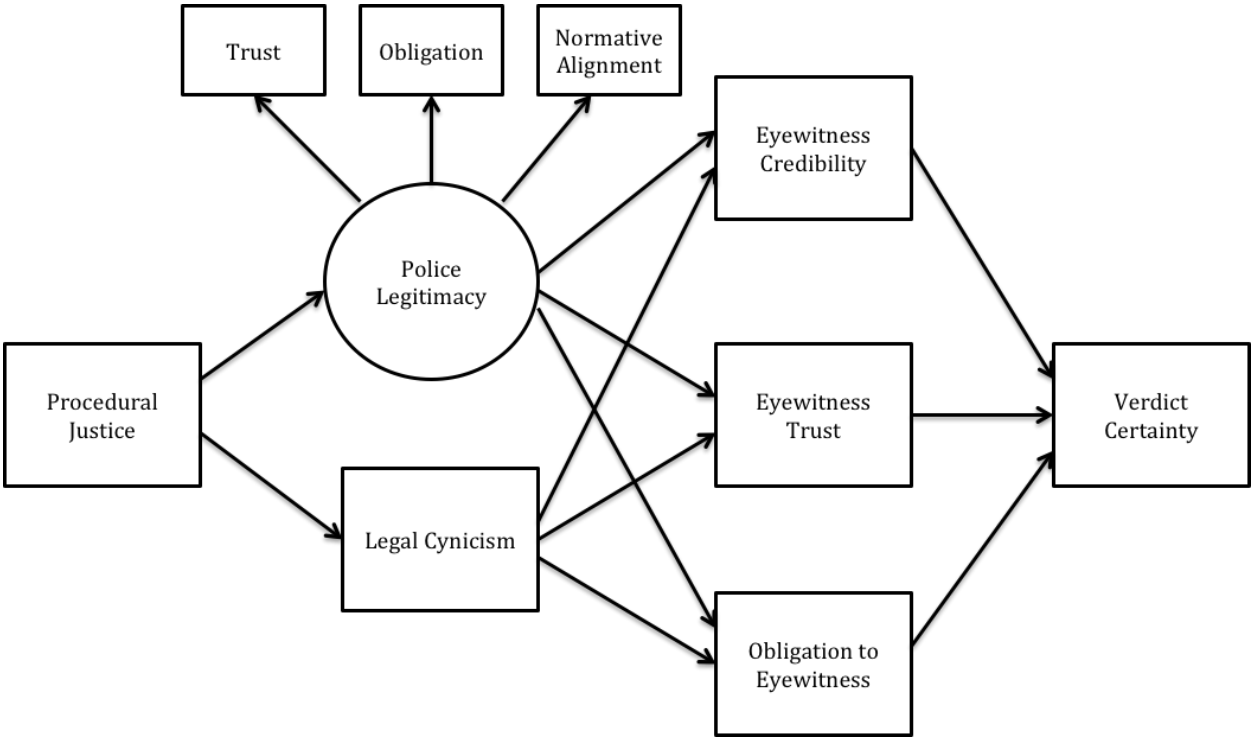

Figure 1. Initial proposed model of the procedural justice model of legal socialization predicting juror decisions

It is expected that the predictive model for participants in the lay eyewitness condition will differ. Particularly, perceptions of police legitimacy should not be related to perceptions of the eyewitness' credibility, trustworthiness, or participant obligation to the eyewitness, as the lay eyewitness is not a police officer. This is hypothesized to establish that police legitimacy is

distinct from general positive or negative attitudes towards the legal system and therefore a tendency towards pro prosecution alignment.

Fourth, it is hypothesized that the police officer eyewitness reputation manipulation will affect participant perceptions of the police officer eyewitness and participant verdict decisions. Participants in the bad reputation condition will render the most not guilty verdicts; while participants in the good reputation condition will render the most guilty verdicts in comparison to the police officer no reputation information condition participants. Last, the fifth hypothesis is that the effect of the procedural justice model of legal socialization on participant perceptions of the eyewitness and verdict decisions will be moderated by police officer reputation. The last hypothesis is exploratory and no a priori predictions about the nature of model differences were made.

CHAPTER VI

METHOD

Participants

Participants were 438 undergraduate students from the University of New Hampshire; they received partial course credit towards their introductory, statistics, or research methods Psychology class, or Justice Studies class. Participants were recruited using the SONA online subject pool and through a Justice Studies department course for which they have been assigned the project as part of the required coursework for the semester. Students who did not wish to participate in the study were offered an alternative assignment. Participants were scheduled in groups of six. Participants were required to have complete data from all parts of the study, including the online survey and experiment questionnaires, in order to be included in the analyses. Seventy-eight participants were eliminated for having incomplete data. An additional forty-six participants were eliminated from the sample for failure to pass manipulation check questions, bringing the total number of participants included in the analyses to 314 participants. The average age of participants included in the final analyses was 19.11 (SD = 1.68), with 61.5% indicating that they were female, and 90.4% indicating Caucasian as their main racial background.

Materials

Trial Videos. A mock trial video was created specifically for the purpose of the current proposed dissertation research (see Appendix A). The video included a recreation of trial

proceedings from the perspective of the juror (i.e. opening statements, witness testimony, closing statements, etc.). The video stimulus was made in collaboration with the Strafford County Superior Court, University of New Hampshire Justice Works and Justice Studies department, and members from the University of New Hampshire and greater Seacoast communities as actors. The video was filmed at the Strafford County Courthouse in Dover, New Hampshire.

In the video, participants were presented with several witnesses in the case, including the primary witness who was the focus of the current research; an eyewitness to the alleged robbery of a convenience story who testified on the behalf of the prosecution. Two aspects of the eyewitness were manipulated: eyewitness type (police officer, layperson) and reputation of the police officer eyewitness (good, bad, neutral/control). For the eyewitness type manipulation, the eyewitness was presented as either a layperson (music teacher) or an off-duty police officer while maintaining all other aspects of the testimony relevant to the crime constant.

For the reputation manipulation, either the prosecuting attorney (good reputation condition) or defense attorney (bad reputation condition) presented character evidence to the court (including jurors) that suggested the witness was either a trustworthy individual, not a trustworthy individual, or did not make any suggestion about the trustworthiness of the witness in the case of the neutral/control condition. For the good reputation manipulation, the eyewitness was presented as having a clean record with many commendations and awards, including for service to the community. For the bad reputation manipulation, the defense attorney introduced evidence of a prior professional reprimand for taking a video camera from the eyewitness' employer without permission. In this case, the camera was returned and no official legal charges were ever filed. In the control condition, no information about reputation was given. These manipulations were only performed for the police officer eyewitness, in accordance with the

research questions under investigation. Therefore, participants were presented with one of four versions of the trial video: police officer eyewitness (good reputation, bad reputation, neutral/control) or layperson eyewitness.

Measures.

Demographics. Participants were asked demographic questions regarding their age, sex, race, and socio-economic status (see Appendix B). The average age of participants was 19.11 (SD = 1.68), 61.5% were female, 90.4% were Caucasian, and the median household income range was $75,000-$99,000 annually. Because there was little variability in racial background among the participants and the number of participants who indicated a race other than Caucasian was extremely low, race was not included as a control variable in the following analyses.

Manipulation check. The pre-deliberation questionnaire was administered to participants after the group has finished viewing the trial video (see Appendix C). Each individual participant completed a questionnaire including manipulation check questions to ensure that the manipulations were interpreted correctly and effectively. Participants were asked the profession of the eyewitness for the first manipulation check and second, to identify any previous acts or reputation information about the eyewitness that was provided in the video. Both sets of questions were open ended and later coded pass/fail. Participants had to identify the information from the video that matched with their assigned condition manipulations accurately in order to pass. Participants that failed the manipulation check questions were excluded from the analyses. A total of 46 participants failed at least one or both manipulation check questions and were removed from the sample for the following analyses.

Procedural Justice. A 10-item measure of procedurally fair treatment by police was used for the current study (Folger & Konovsky, 1989; Moorman, 1991; Trinkner & Cohn, 2014)

(see Appendix B). Participants were asked to indicate on a scale from 1 (strongly disagree) to 5 (strongly agree) how much they agreed with a series of questions regarding interactions with the police. An example of one of the items is "The police in your neighborhood are honest and ethical when dealing with you." All items were averaged to create a composite score of procedural justice with higher scores indicating greater perceived levels of procedural justice (M = 3.67, SD = .67, α = .94).

Police Legitimacy. The measure of police legitimacy used for the current study was a three-factor measure created by Tyler and Jackson (2014) including a dimension of obligation to obey police authority, trust and confidence in the police, and normative alignment with the police (see Appendix B) (M = 3.43, SD = .53, α = .88).

Obligation to obey. The obligation to obey police authority dimension of police legitimacy was measured using four items. Participants were asked to indicate on a scale of 1 (strongly disagree) to 5 (strongly agree) how much they agreed with each statement regarding their obligation to obey police authority. An example item is "you should do what the police tell you, even if you do not understand or agree with the reasons." Items were averaged to create a composite score for obligation to obey police authority with higher scores indicating greater obligation to obey the police (M = 3.27, SD = .69, α = .80).

Trust and confidence. The trust and confidence in the police dimension of police legitimacy was measured using five items. Participants were asked to indicate on a scale of 1 (strongly disagree) to 5 (strongly agree) how much they agreed with each statement regarding their trust and/or confidence in the police. An example item taken from the subscale is "when police deal with people they almost always behave according to the law." A composite was

created using the five items to represent the dimension for trust and confidence in the police with higher scores indicating greater trust and confidence in the police (M = 3.43, SD = .63, α = .70).

Normative alignment. Normative alignment with the police represents the degree to which an individual perceives the police as having shared values and goals. Normative alignment was measured using six items where participants were asked to indicate on a scale of 1 (strongly disagree) to 5 (strongly agree) how much they agreed with each statement regarding shared values and goals with the police. An example item is "the police stand up for values that are important to you." Items were averaged to create a composite score for normative alignment with higher scores indicating closer perceived normative alignment with the police (M = 3.60, SD = .67, α = .92).

Legal Cynicism. Legal Cynicism was measured using a scale created by Sampson and Bartusch (1998), originally derived from Durkheim's theory of anomie (see Appendix B). This five-item measure asked participants to indicate on a scale from 1 (strongly disagree) to 5 (strongly agree) how much they agreed with each statement. Questions included statements like "laws were made to be broken," and "Fighting between friends or within families is nobody else's business." The 5 items were averaged to create a composite score with higher scores indicating greater levels of legal cynicism (M = 2.40, SD = .65, α = .69).

Eyewitness Credibility. Participants were asked to indicate their perceptions of the eyewitness' credibility on a Likert scale ranging from 1 (not credible at all) to 10 (very credible). Participants were asked to rate the eyewitness' credibility prior to deliberation and following the deliberation. The purpose of the post-deliberation question was to determine if there was an effect of the deliberation process on participant perceptions of the eyewitness (Pre-deliberation: M = 6.58, SD = 1.77; post deliberation: M = 6.06, SD = 1.89).

Eyewitness trustworthiness. In keeping consistent with dimensions of the police legitimacy measures, participants were asked to rate how trustworthy they perceived the eyewitness to be on a Likert scale ranging from 1(not trustworthy at all) to 10 (very trustworthy). Participants were asked to rate their perception of eyewitness trustworthiness both in the pre-deliberation decision questionnaire and the post deliberation decision questionnaire (Pre-deliberation: $M = 7.20$, $SD = 1.94$; post deliberation: $M = 6.49$, $SD = 1.98$).

Obligation to the eyewitness. Also in accordance with dimensions of the police legitimacy measures, participants were asked how obligated they felt to listen and consider the eyewitness' testimony ranging from 1 (not obligated at all) to 10 (very obligated). Participants were asked to rate their perception of obligation to the eyewitness both prior to deliberation and following deliberation (Pre-deliberation: $M = 8.03$, $SD = 1.86$; post deliberation: $M = 7.55$, $SD = 2.03$).

Individual level dependent variables. Participants were asked to provide a verdict (guilty or not guilty) and to rate the degree of certainty for their decision on a Likert type scale ranging from 1 (not certain at all) to 5 (very certain) prior to deliberation and following deliberation (see Appendix C). Verdict decisions (-1 = not guilty, 1 = guilty) were multiplied by degree of certainty and used to create a composite score for strength of verdict. Participants who provided a not guilty verdict had negative verdict certainty scores, while participants who provided a guilty verdict had positive verdict certainty scores (Pre-deliberation: $M = .60$, $SD = 3.80$; post deliberation: $M = -1.22$, $SD = 3.51$).

Jury deliberation dependent variables. The jury group completed the jury deliberation questionnaire after a decision had been reached regarding the verdict for the defendant (see Appendix D). The group indicated whether the verdict was guilty or not guilty, as well as rated

how certain the group members were collectively in their decision on a scale from 1 (not certain at all) to 5 (very certain). Verdict decisions (-1 = not guilty, 1 = guilty) were multiplied by degree of certainty and used to create a composite score for strength of verdict. Groups that provided a not guilty verdict had negative verdict certainty scores, while groups that provided a guilty verdict had positive verdict certainty scores (M = -.96, SD = 3.48).

Equipment

Four EZWatch Pro CM35IR-48/6 surveillance camera devices and microphones were used to record jury deliberation sessions. The surveillance cameras were controlled by the EZWatch Pro digital surveillance software installed on a computer in the camera control room adjacent to the research room. A 47-inch LG flat screen LCD TV was used to project the trial video mounted in the research room. A laptop computer located in the camera control room connected to the TV by a computer media cable controlled the TV. The trial videos were played using digital media files specifically created for this research study.

Procedure

Survey. Participants registered for the study online using the Psychology subject pool SONA system, or through their Justice Studies class. Those students who registered through the SONA system were given 1 hour of research participation credit for each portion of the study they completed (2 credits total). Participants recruited through Justice Studies classes were given participation credit towards their course requirements set by their course instructor. Students who did not wish to participate in the study were given an alternative assignment to complete that involved watching the trial video and writing an essay about their thoughts on the case and juror decision-making. Participants were provided with a randomly assigned three digit ID number and a link to access the survey portion of the study at qualtrics.com, a secure, encrypted

survey website. The purpose of the assigned ID number was to link the participants' survey information to their experimental data once they have completed all portions of the study while maintaining participant confidentiality.

Participants accessed the survey approximately one week before their scheduled research experiment date. The first page of the survey asked participants to enter their assigned ID number and then read the informed consent. Participants who consented to the stipulations of the study were directed to the first page of the survey. Participants who did not consent to participate in the study were directed to an exit page. Participants who did not consent were not eligible for the credit awarded for the second portion of the study (experimental session). No IP address information or personally identifying information was collected in the survey. Participants were required to complete the online survey before their scheduled experiment time in order to ensure that they would have complete data for the study.

Experiment. Psychology Department students registered for timeslots for the experimental portion of the study using the online SONA system. Justice Studies students were scheduled for their experiment times through course signup sheets at the beginning of the semester. Experimental sessions were run in groups of 6 participants. Groups were randomly assigned to one of the four conditions prior to their scheduled experiment time. Participants arrived at the research lab at their scheduled time with their assigned participant ID number as identification for the study documents.

Upon arriving, they were checked in by the research assistant using their ID number as identification in order to award participation credit. Participants were then given an ID tag with their participant ID number to place on their person. No personally identifying information was linked to participant study data or was collected initially upon arrival for course credit purposes.

Participant ID numbers were used to identify participants for the duration of the experiment session. Participants each reviewed a second informed consent specific to the experimental portion of the study. If participant consent was not given for the experimental session, participants were able to leave before proceeding further. No participant had refused to participate in the session after they had arrived, however. Once the consent forms have been completed by all members of the group, they were collected and a researcher briefly explained the overview of the experiment.

The researcher then left the room and presented the group with one of the four versions of the trial video manipulating the eyewitness type (police, lay) and the eyewitness's reputation (police officer eyewitness only: good, bad, control) that were made specifically for the current experiment using the TV in the experiment room. As previously stated, the specific video condition was randomly assigned prior to the group's arrival. The video lasted approximately 30 minutes followed by eight minutes of jury instructions, also videotaped. After the video concluded, the researcher returned to the experiment room and distributed the pre-deliberation questionnaire.

After all participants completed the pre-deliberation questionnaire, the researcher collected the materials and reviewed the deliberation instructions with the group. A written copy of the instructions was also provided to the group as a reminder and for clarification. Following instructions, the researcher left the room and started the recording software in the control room to activate the surveillance camera system. The group had up to 45 minutes to deliberate on a verdict for the defendant. The group had to be unanimous in its decision. If a decision had not been reached within 45 minutes, the group automatically was classified as a hung jury. No group

deliberation lasted the entire 45 minutes and all groups were able to come to a unanimous decision.

Once a decision had been reached, a member of the group alerted the researcher that the deliberation had ended. The researcher then stopped the recording system and returned to the room to record information on the deliberation form indicating the verdict and degree of certainty for the group. After the form was completed, the researcher distributed the post-deliberation questionnaire and instructed participants to answer the questions based on their own personal opinion having discussed the case with the group. Once the participants completed the last questionnaire, they submitted it to the researcher. At that point, the researcher thanked the participants for their participation, and gave them a debriefing form explaining the goals of the study.

CHAPTER VII

RESULTS

Analysis Plan

In order to test the hypotheses, the analyses have been broken down into two main sections. The first section examined differences between participants in the lay eyewitness and police officer eyewitness conditions. The second section examined differences between the police officer eyewitness conditions (good reputation, bad reputation, neutral). First, regressions were conducted to determine differences in verdict and verdict certainty decisions between conditions under examination. Next, structural equation models (SEM) were fit to examine the effect of the procedural justice model in participant decisions. SEM models were constructed for each condition to compare the relation of the procedural justice model to verdict decisions between lay eyewitness and police officer eyewitness, and to compare the three police officer eyewitness conditions. An additional SEM model was fit combining all three police officer conditions together to create an overall model for police officers eyewitnesses, irrespective of reputation information. Furthermore, analyses were conducted separately for pre-deliberation, post deliberation, and post deliberation controlling for pre-deliberation decisions.

Post deliberation decisions were used as a proxy for group decisions, as individual post deliberation decisions were highly correlated with the group decisions across the entire sample, $r(312) = .80$. Therefore, post deliberation decisions were highly reflected of the overall group decision, with very little variation. Participant verdict decisions for pre-deliberation and post

deliberation decisions were multiplied by their reported degree of certainty so that greater negative values indicate more certainty for a not guilty verdict while greater positive values indicate more certainty for guilty verdicts. This index was used as a measure of verdict decision in addition to the categorical measure of decision of guilt.

Comparing lay eyewitnesses and police eyewitnesses. Structural equation modeling was employed to test the first hypothesis: the procedural justice model of legal socialization would predict juror verdict decisions and this effect would be mediated by juror perceptions of the eyewitness (see figure 1).

It was also predicted that this effect would differ for participants exposed to a lay eyewitness compared to a police officer eyewitness. Therefore, moderated mediation models were tested comparing the previously described mediation model between participants in the lay eyewitness condition and participants in the police officer (neutral) condition. The model tested for both groups included procedural justice as an exogenous variable predicting participant perceptions of police legitimacy and legal cynicism. Police legitimacy and legal cynicism in turn predicted participant perceptions of eyewitness credibility, eyewitness trustworthiness, and obligation to the eyewitness. Eyewitness credibility, eyewitness trustworthiness, and obligation to the eyewitness then predicted participant verdict certainty scores. All variables included in the model were measured variables except for police legitimacy, which was constructed as a latent variable using the three measured components: trust/confidence in the police, obligation to obey the police, and normative alignment. The model was tested for each condition for pre-deliberation verdict certainty scores and post deliberation verdict certainty scores to determine changes in the model as a function of group deliberation.

Preliminary Analyses

Pre-deliberation. Bivariate correlations were conducted to establish direct relations between continuous predictors and the verdict certainty measure. All bivariate correlations were consistent with hypotheses in the predicted directions (see table 1). Verdict certainty was significantly positively related to procedural justice, police legitimacy, eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness, and eyewitness knowledge. All relations between predictors were significant in the expected direction, with only a few exceptions. Legal cynicism was only significantly negatively related to procedural justice, police legitimacy, obligation to the eyewitness, and eyewitness knowledge. The relations between procedural justice and obligation to the witness and police legitimacy and obligation to the witness were also not significant. All other relations between predictors were statistically significant (see table 1).

A MANOVA was conducted to determine if there were any differences between experimental conditions for predictors and the dependent variable, verdict certainty. It was expected that there would be no differences between conditions in pre-existing attitude variables including: procedural justice, police legitimacy, and legal cynicism due to random assignment to experimental group. Measures taken during the experiment including: eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness, eyewitness knowledge, and verdict certainty, were expected to show significant differences across conditions if there were an effect of experimental condition on participant decisions. The overall MANOVA was statistically significant, $Wilks'\Lambda = .78$, $F(18, 863.16) = 4.34$, $p < .001$. Follow up univariate test of between subject effects revealed that there were significant differences between conditions in eyewitness

Table 1:

Bivariate correlations: pre-deliberation and post deliberation

	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**
1. Verdict/Certainty	---	.15**	.21***	-.02	.59***	.42***	.27***	.44***
2. Procedural Justice	.06	---	.65***	-.24***	.10*	.11*	.02	.17**
3. Police Legitimacy	.08	.65***	---	-.35***	.19***	.10*	.04	.18**
4. Legal Cynicism	.09	-.23***	-.35***	---	-.05	-.04	-.12*	-.14**
5. Eyewitness Credibility	.56***	.11*	.14**	-.05	---	.61***	.47***	.56***
6. Eyewitness Trustworthiness	.43***	.13**	.08	-.05	.72***	---	.52***	.58***
7. Obligation to Eyewitness	.31***	.02	.04	-.07	.49***	.53***	---	.60***
8. Eyewitness Knowledge	.46***	.10*	.06	-.04	.70***	.67***	.56***	---

Note: Coefficients about the diagonal are pre-deliberation bivariate correlations. Coefficients below the diagonal are post deliberation bivariate correlations. *$p < .05$, **$p < .01$, ***$p < .001$.

trustworthiness, $F(3, 310) = 17.60$, $p < .001$, $\eta^2 = .15$. Participants in the police officer good reputation eyewitness condition ($M = 7.99$, $SD = 1.54$) found the eyewitness to be more trustworthy than participants in the police officer bad reputation eyewitness ($M = 6.06$, $SD = 1.81$), $p = .01$, and lay eyewitness conditions ($M = 7.16$, $SD = 1.68$), $p = .02$ (see table 2).

Table 2

Pre-deliberation verdict certainty decision MANOVA results

	Lay	Police	Police Good Reputation	Police Bad Reputation	*F*	η^2
Verdict Certainty	.25 (3.77)	.66 (3.86)	.65 (3.72)	.82 (3.80)	.32	.01
Procedural Justice	3.64 (.74)	3.74 (.65)	3.69 (.60)	3.61 (.70)	.54	.01
Police Legitimacy	3.43 (.58)	3.43 (.56)	3.45 (.44)	3.41 (.53)	.05	.00
Legal Cynicism	2.35 (.60)	2.46 (.70)	2.47 (.68)	2.33 (.62)	.96	.01
Eyewitness Credibility	6.44 (1.80)	6.55 (1.91)	6.88 (1.67)	6.43 (1.71)	1.14	.01
Eyewitness Trustworthiness	7.16^{b} (1.68)	7.64^{ab} (2.16)	7.99^{a} (1.54)	6.06^{c} (1.81)	17.60***	.15
Obligation to Eyewitness	8.01 (1.94)	8.41 (1.82)	8.10 (1.67)	7.62 (1.96)	2.40	.02
N	77	73	82	82		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

There were no significant differences in perceptions of trustworthiness of the eyewitness between any other conditions. Furthermore, there were no significant differences between conditions in participant procedural justice, police legitimacy, legal cynicism, eyewitness credibility, obligation to the eyewitness, or pre-deliberation verdict certainty.

Finally, a chi-square was performed to examine potential differences in pre-deliberation verdict decisions across conditions (see table 3). All four conditions showed a slight to moderate

inclination towards guilty verdicts. The results of the chi-square analysis suggested that the verdict decisions across conditions were approximately equivalent with the differences in verdict decisions at pre-deliberation not statistically significant, $X^2(3) = 1.36$, $p = .72$, $\Phi = .07$.

Table 3

Pre-deliberation verdict decisions by condition

	Verdict Decision		
Condition	Not Guilty	Guilty	Total
Lay	38 (49.4%)	39 (50.6%)	77 (100%)
Police	33 (45.2%)	40 (54.8%)	73 (100%)
Police Good Reputation	36 (43.9%)	46 (56.1%)	82 (100%)
Police Bad Reputation	33 (40.2%)	49 (59.8%)	82 (100%)
Total	140 (44.6%)	174 (55.4%)	314 (100%)

Post deliberation. Bivariate correlations were conducted on post deliberation predictors and the continuous dependent variable, verdict certainty, to determine the direct relations between post deliberation variables including verdict certainty (see table 1). Results were consistent with pre-deliberation bivariate relations, however some relations were no longer significant at post deliberation that had been significant relations at pre-deliberation. Verdict certainty was significantly positively related to eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness, and eyewitness knowledge. It was not significantly related to procedural justice or police legitimacy as it had been for the pre-deliberation decisions. There were several other changes in relations from pre-deliberation to post deliberation. Police legitimacy was no longer significantly related to eyewitness trustworthiness or eyewitness

knowledge. Additionally, legal cynicism was no longer significantly related to obligation to the eyewitness or eyewitness knowledge. All other relations between predictors were statistically significant and in the expected directions (see table 1).

Next, a MANOVA was conducted to examine potential differences between experimental conditions for the predictor variables and the continuous dependent variable, verdict certainty. It was already determined that there were no significant differences in pre-experimental (given one week prior) measures of participant attitudes including: procedural justice, police legitimacy, and legal cynicism in the pre-deliberation analyses. Therefore, these variables were omitted from the current analysis to avoid redundancy. Measures taken during the experiment including eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness, eyewitness knowledge, and verdict certainty were included in the current analysis and were expected to show significant differences across conditions if there were an effect of experimental condition on participant decisions. The overall MANOVA was statistically significant, *Wilks'Λ* = .87, $F(9, 749.74) = 5.12$, $p < .001$.

Tests of between subject effects revealed that there were still significant differences between conditions in eyewitness trustworthiness following the deliberation, $F(3, 310) = 6.20$, $p < .001$, $\eta^2 = .05$, however, these differences were reduced in magnitude. Participants in the police officer bad reputation eyewitness condition ($M = 5.83$, $SD = 1.84$) found the eyewitness to be significantly less trustworthy than participants in the police officer eyewitness no reputation information ($M = 6.75$, $SD = 1.92$), $p = .02$, and police officer good reputation eyewitness conditions ($M = 7.06$, $SD = 2.03$), $p < 001$ (see table 4). There was no significant difference in trustworthiness scores between participants in the police officer bad reputation eyewitness ($M = 5.83$, $SD = 1.84$) and lay eyewitness conditions ($M = 6.34$, $SD = 1.93$).

There was a significant main effect of experimental condition on verdict certainty scores following the deliberation, $F(3, 310) = 3.35$, $p = .02$, $\eta^2 = .03$ (see table 4). Participants in the police officer eyewitness no reputation information condition ($M = -2.19$, $SD = 3.13$) had significantly lower verdict certainty scores than participants in the police officer bad reputation eyewitness condition ($M = -.59$, $SD = 3.85$), $p = .02$, and marginally significantly lower scores than participants in the lay eyewitness condition ($M = -.77$, $SD = 3.54$), $p = .06$. There were no significant differences in verdict certainty scores between all other conditions. There were also no significant differences between conditions in participant eyewitness credibility, obligation to the eyewitness, or eyewitness knowledge (see table 4).

Table 4

Post deliberation verdict certainty decision MANOVA results

	Lay	Police	Police Good Reputation	Police Bad Reputation	*F*	η^2
Verdict Certainty	$-.77^{ab}$ (3.54)	-2.19^{a} (3.13)	-1.41^{ab} (3.28)	$-.59^{b}$ (3.85)	3.35*	.03
Eyewitness Credibility	5.96 (1.94)	5.97 (1.95)	6.20 (1.90)	6.11 (1.78)	.28	.00
Eyewitness Trustworthiness	6.34^{ab} (1.93)	6.75^{a} (1.92)	7.06^{a} (2.03)	5.83^{b} (1.84)	6.20***	.05
Obligation to Eyewitness	7.61 (2.14)	8.00 (1.77)	7.43 (2.08)	7.21 (2.03)	2.13	.02
N	77	73	82	82		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

Last, a chi-square was performed to determine differences in verdict decisions across experimental conditions post deliberation (see table 5). The results of the chi-square analysis were statistically significant, $X^2(3) = 12.52$, $p = .006$, $\Phi = .20$. There was a large shift from slightly more guilty verdicts in pre-deliberation decisions to majority not guilty verdicts for post deliberation decisions in the police officer eyewitness and police officer good reputation

eyewitness conditions. Only 45.2% of police officer eyewitness condition participants voted not guilty at pre-deliberation; however, that proportion increased to 80.8% following the deliberation. Similarly, 43.9% of participants in the police officer good reputation eyewitness condition voted not guilty at pre-deliberation and that proportion increased to 73.2% at post deliberation. There was also a shift in verdict decisions for participants in the police officer bad reputation eyewitness condition from pre-deliberation to post deliberation, but the shift was less dramatic. At pre-deliberation, 40.2% of police officer bad reputation eyewitness condition participants voted not guilty with the proportion increasing to 61% who voted not guilty at post deliberation. Finally, there was only a small change in lay eyewitness condition participants' verdict decisions from pre-deliberation to post deliberation. At pre-deliberation decisions, 49.4% of lay eyewitness condition participants voted not guilty. That proportion increased to 57.1% at post deliberation.

Table 5

Post deliberation verdict decisions by condition

	Verdict Decision		
Condition	Not Guilty	Guilty	Total
Lay	44 (57.1%)	33 (42.9%)	77 (100%)
Police	59 (80.8%)	14 (19.2%)	73 (100%)
Police Good Reputation	60 (73.2%)	22 (26.8%)	82 (100%)
Police Bad Reputation	50 (61.0%)	32 (39.0%)	82 (100%)
Total	213 (67.8%)	101 (32.2%)	314 (100%)

Change from pre-deliberation to post deliberation. Repeated measures ANOVAs were conducted to examine change in participant scores measured at pre-deliberation and post deliberation for eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness, and verdict certainty. Change was compared across time points with pre-deliberation and post deliberation decisions as the within subjects factor and conditions as the between subjects factor. The first repeated measures ANOVA examining changes in verdict certainty scores showed a significant effect of the deliberation on verdict decisions from pre-deliberation to post deliberation, *Wilks'Λ* = .82, $F(1, 310) = 67.69$, $p < .001$. There was a significant degree of change in verdict certainty from pre-deliberation ($M = .59$, $SD = 3.80$) to post deliberation ($M = -1.24$, $SD = 3.51$) overall, $F(1, 310) = 67.69$, $p < .001$. Participants shifted from slightly pro guilty mean verdict certainty scores to pro acquittal mean verdict certainty scores from pre-deliberation to post deliberation.

There was also a significant interaction between change in verdict certainty scores and experimental condition, *Wilks'Λ* = .97, $F(3, 310) = 3.15$, $p = .03$. Participants in the lay eyewitness and police officer bad reputation conditions changed from slightly pro guilty to slightly not guilty average verdict certainty scores (see table 6). Participants in the police officer eyewitness and police officer good reputation eyewitness conditions showed a more dramatic shift from slightly pro guilty to moderately pro acquittal average verdict certainty scores. Therefore, it appeared that the police officer eyewitness and police officer good reputation eyewitness conditions were producing the significant change effects exhibited overall. Next repeated measure ANOVAs were conducted examining change in eyewitness credibility, eyewitness trustworthiness, and obligation to the eyewitness from pre-deliberation to post deliberation and across conditions. For eyewitness credibility measures, there was a main effect

Table 6

Repeated measures ANOVA for pre-deliberation and post deliberation decisions by condition

	Lay		**Police**		**Police Good Reputation**		**Police Bad Reputation**		***F***	η^2
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**	**Pre**	**Post**		
Verdict/Certainty	.25 (3.77)	-.77 (3.54)	.66 (3.86)	-2.19 (3.13)	.65 (3.72)	-1.41 (3.28)	.82 (3.80)	-.59 (3.85)	3.15*	.03
Eyewitness Credibility	6.44 (1.80)	5.96 (1.94)	6.55 (1.91)	5.97 (1.95)	6.88 (1.67)	6.20 (1.90)	6.43 (1.71)	6.11 (1.78)	.12	.00
Eyewitness Trustworthiness	7.16 (1.68)	6.34 (1.93)	7.64 (2.16)	6.75 (1.92)	7.99 (1.54)	7.06 (2.03)	6.06 (1.81)	5.83 (1.84)	.08	.00
Obligation to Eyewitness	8.01 (1.94)	7.61 (2.14)	8.41 (1.82)	8.00 (1.77)	8.10 (1.67)	7.43 (2.08)	7.62 (1.96)	7.21 (2.03)	.00	.00
N	78	77	73	73	84	82	83	82		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

of time point on change in participant scores collapsed across conditions *Wilks'Λ* = .97, $F(3, 310) = 30.16$, $p < .001$.

Participants had greater mean eyewitness credibility scores at pre-deliberation ($M = 6.06$, $SD = 1.77$) than at post deliberation ($M = 6.58$, $SD = 1.89$). This means that participants found the eyewitnesses to be less credible overall following the group deliberation, regardless of what condition they were in. There was no significant interaction effect with experimental condition.

There was a main effect of time point on change in eyewitness trustworthiness scores from pre-deliberation to post deliberation, *Wilks'Λ* = .84, $F(3, 310) = 58.37$, $p < .001$. Participant mean eyewitness trustworthiness scores were higher at pre-deliberation ($M = 7.21$, $SD = 1.94$) than at post deliberation ($M = 6.50$, $SD = 1.98$). Similar to eyewitness credibility, participants trusted the eyewitness less following the group deliberation, regardless of assigned condition. There was also a significant interaction between eyewitness trustworthiness measures at pre-deliberation and post deliberation and experimental condition, *Wilks'Λ* = .97, $F(3, 310) = 3.13$, $p = .03$. There was a large drop in eyewitness trustworthiness scores from pre-deliberation to post deliberation for participants in the lay eyewitness, police officer eyewitness, and police officer good reputation eyewitness conditions. There was only a slight decrease in eyewitness trustworthiness scores from pre-deliberation to post deliberation for participants in the police officer bad reputation condition.

Last, there was also a main effect of time on change in obligation to the eyewitness scores from pre-deliberation to post deliberation, *Wilks'Λ* = .92, $F(3, 310) = 26.05$, $p < .001$. Participants provided higher obligation to the eyewitness scores in general prior to deliberation ($M = 8.04$, $SD = 1.86$), than they did following group deliberation ($M = 7.56$, $SD = 2.03$). There was no significant interaction between time point and experimental conditions, however. Overall,

it appeared that participants were more critical of the eyewitness following the group deliberation.

A log-linear analysis was conducted to determine significant changes in verdict decision from pre-deliberation to post deliberation by condition. Models were fit examining the presence of higher order effects (three-way interaction), two way interaction, and basic main effect models. The results of the analysis suggested that the addition of the three way interaction did not significantly change the chi-square value, $X^2\Delta(3) = .04$, $p = .99$. The addition of the two-way interaction between condition and pre-deliberation verdicts also did not significantly affect the chi-square for the model, $X^2\Delta(3) = 4.24$, $p = .24$. Therefore, the best-fitting model including the two-way interactions between post deliberation verdict and condition, $X^2\Delta(3) = 12.86$, $p = .005$, as well as pre-deliberation verdict and post deliberation verdict, $X^2\Delta(1) = 46.18$, $p < .001$. The final model including both two-way interactions had good fit to the data, $X^2(6) = 4.26$, $p = .64$.

The interaction between post deliberation verdict and condition suggested that there was a significant effect of condition on post deliberation verdict decisions. There is a clear proportional difference in verdict decisions across conditions at post deliberation, particularly comparing lay eyewitness condition participants and police officer eyewitness condition participants (see table 7).

There is not much of a proportional difference at pre-deliberation across conditions, however, which is likely why the inclusion of the two-way interaction between pre-deliberation verdict and condition did not significantly add to the model. The interaction between pre-deliberation and post deliberation verdict decisions was also significant, indicating that there was an overall shift in verdict decisions following the group deliberation. The shift appeared to be from a slightly pro guilt inclination across conditions at pre-deliberation to pro acquittal or not

guilty verdict decisions at post deliberation. Again, the proportion of verdicts by condition only seemed to differ at post deliberation.

Table 7

Pre-deliberation verdict and post deliberation verdict by condition

Condition	Pre-Deliberation Verdict Decision	Post Deliberation Verdict Decision		Total
		Not Guilty	Guilty	
Lay	Not Guilty	30 (39.0%)	8 (10.4%)	77 (100%)
	Guilty	14 (18.2%)	25 (32.4%)	
Police	Not Guilty	31 (42.5%)	2 (2.7%)	73 (100%)
	Guilty	28 (38.4%)	12 (16.4%)	
Police Good Reputation	Not Guilty	33 (40.2%)	3 (3.7%)	82 (100%)
	Guilty	27 (32.9%)	19 (23.2%)	
Police Bad Reputation	Not Guilty	28 (34.2%)	5 (6.1%)	82 (100%)
	Guilty	22 (26.8%)	27 (32.9%)	
Total		213 (67.8%)	101 (32.2%)	314 (100%)

Primary Analyses

Comparing lay eyewitnesses with police eyewitnesses.

Differences in verdict decisions between conditions. To address the first hypothesis, a series of regression analyses were conducted to determine differences in decisions between lay eyewitness condition and police officer eyewitness condition participants. Decisions regarding the verdict and verdict certainty were examined prior to deliberation, following deliberation, and

for changes from pre-deliberation to post deliberation. Participants in the lay eyewitness condition were coded as 0, and participants in the police officer eyewitness condition were coded as 1 in the following analyses. In all analyses, sex, age, income, the procedural justice model variables: procedural justice, police legitimacy, and legal cynicism, and eyewitness evaluation variables: eyewitness credibility, eyewitness trustworthiness, and obligation to the eyewitness, were controlled for.

Pre-deliberation verdict decisions. To test for the effect of condition on pre-deliberation verdict decisions, a binary logistic regression was conducted controlling for demographic variables (age, household income, sex), procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness). A dummy coded variable indicated the experimental condition (0 = lay eyewitness, 1 = police officer eyewitness) and the dependent variable, pre-deliberation verdict decision, was also dummy coded (0 = not guilty, 1 = guilty).

Results from the binary logistic regression analysis showed a significant regression model overall, χ^2 (10) = 80.53, $p < .001$ (see table 8). Examination of the individual predictors revealed that the experimental condition did not have a significant impact on pre-deliberation verdict decisions, even after controlling for all other variables in the model, B = -.12, Exp(B) = .89, p = .80. Additionally, the demographic variables, age, B = -.14, Exp(B) = .87, p = .28, household income, B = .24, Exp(B) = 1.27, p = .15, and sex, B = .08, Exp(B) = 1.08, p = .87, did not significantly predict pre-deliberation verdict decisions. The procedural justice model of legal socialization variables, procedural justice, B = .46, Exp(B) = 1.58, p = .30, also were not significantly predictive of pre-deliberation verdict. One of the eyewitness evaluation variables was found to be a significant predictor. Eyewitness credibility significantly predicted verdict

decisions at pre-deliberation, $B = 1.16$, Exp(B) = 3.20, $p < .001$, showing that the higher participants rated the eyewitness as credible, the more likely they were to find the defendant guilty. However, the other two eyewitness evaluation variables, eyewitness trustworthiness, $B = .25$, Exp(B) = 1.28, $p = .14$, and obligation to the eyewitness, $B = -.17$, Exp(B) = .84, $p = .27$, were not significantly related to the verdict decision. The model correctly classified 81.8% of participants (78.3% of those who said not guilty, 84.8% of those who said guilty) and explained a large proportion of the variance, Nagelkerke's $R^2 = .56$. Results suggested that the predictive ability of the model was carried by the participants' evaluation of eyewitness credibility.

Next, an OLS regression predicting pre-deliberation verdict certainty was conducted. The overall regression was significant, $F(10, 137) = 11.39$, $p < .001$, $R^2 = .45$ (see table 8). There was no significant effect of experimental condition on pre-deliberation verdict certainty, controlling for all other variables in the model, $\beta = .01$, $t(137) = .14$, $p = .88$. The only significant predictor of pre-deliberation verdict certainty that emerged was eyewitness credibility, $\beta = .59$, $t(137) = 6.64$, $p < .001$, controlling for the effect of condition. This suggests that eyewitness credibility is a strong predictor of verdict certainty decisions and more predictive of scores than assigned condition. The other eyewitness evaluation variables were not significant predictors of verdict certainty decisions, including eyewitness trustworthiness, $\beta = .14$, $t(137) = 1.61$, $p = .11$, and obligation to the eyewitness, $\beta = -.07$, $t(137) = -1.00$, $p = .32$. The procedural justice model variables including procedural justice, $\beta = .10$, $t(137) = 1.19$, $p = .24$, police legitimacy, $\beta = -.03$, $t(137) = -.31$, $p = .76$, and legal cynicism, $\beta = -.03$, $t(137) = -.43$, $p = .67$, did not significantly predict participant pre-deliberation verdict certainty scores in the current analysis. Moreover, sex, $\beta = -.01$, $t(137) = -.07$, $p = .94$, age, $\beta = -.06$, $t(137) = -.87$, $p = 39$, and annual household income, $\beta = .07$, $t(137) = .97$, $p = .33$, did not contribute to the model as

significant predictors. Again, the findings suggested that participants' perceptions of the credibility of the eyewitness was the strongest predictor in how certain participants were of their verdict at pre-deliberation.

Table 8

Regressions comparing lay eyewitness and police officer eyewitness conditions: Pre-deliberation decisions

	Pre-deliberation Verdict			**Pre-deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.14	.13	.87	-.12	.14	-.06
Income	.24	.16	1.27	.16	.16	.07
Sex	.08	.48	1.08	-.04	.51	-.01
Procedural Justice	.46	.44	1.58	.55	.46	.10
Police Legitimacy	-.05	.60	.95	-.19	.62	-.03
Legal Cynicism	-.12	.40	.89	-.20	.46	-.03
Eyewitness Credibility	1.16***	.23	3.20	1.21***	.18	.59
Eyewitness Trustworthiness	.25	.17	1.28	.28	.18	.14
Obligation to Eyewitness	-.17	.16	1.23	-.15	.15	-.07
Condition	-.12	.47	.89	.07	.50	.01
Intercept	-7.36			-7.50		
Omnibus tests	**χ^2(10) = 80.53***, *Negelkerke's* R^2=.56**			**F(10, 137) = 11.39***, R^2=.45**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

Post deliberation verdict decisions. Next, analyses were conducted to examine the effect of condition on post deliberation verdict decisions, controlling for demographic variables (age, income, sex), procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness). The post deliberation verdict decision provided

information about the overall group decision, because almost all of participants' post deliberation decisions aligned with the group decision and were therefore highly influenced by the group deliberation process. All dichotomous variables were coded the same as in the previous set of analyses examining pre-deliberation decisions.

A binary logistic regression was conducted examining post deliberation verdict decisions. The overall regression was significant, χ^2 (10) = 69.78, $p < .001$ (see table 9). There was a significant relation between experimental condition and post deliberation verdict decisions, B = -2.05, Exp(B) = .13, $p < .001$, indicating that participants in the police officer eyewitness condition were significantly more likely to provide a verdict of not guilty. Similar to the pre-deliberation verdict decision analysis, the participant demographic variables, age, B = -.09, Exp(B) = .91, p = .58, household income, B = -.11, Exp(B) = .90, p = .50, and sex, B = .25, Exp(B) = 1.28, p = .63, were not significant predictors of post deliberation verdict. The procedural justice model variables, including procedural justice, B = -.44, Exp(B) = .65, p = .32, police legitimacy, B = .25, Exp(B) = 1.29, p = .69, and legal cynicism, B = .75, Exp(B) = 2.12, p = .10, were also not significantly predictive of verdicts at post deliberation. Of the eyewitness evaluation measures, eyewitness credibility was the only significant predictor, B = .79, Exp(B) = 2.19, p = .001, meaning that participants who rated the eyewitness as highly credible were more likely to render a guilty verdict. The other two eyewitness evaluation variables, eyewitness trustworthiness, B = .34, Exp(B) = 1.40, p = .13, and obligation to the eyewitness, B = -.07, Exp(B) = .94, p = .69, were not significant predictors of post deliberation verdict decisions.

The current model correctly classified 83.8 % of participants (91.1% of those who said not guilty, 68.1% of those who said guilty) and explained a large proportion of the variance, Nagelkerke's R^2 = .53. The findings from the analysis suggested that both experimental

condition and eyewitness credibility were the most important predictors in the model and accounted for the majority of variance in predicting post deliberation verdict decisions. Interestingly, the post deliberation model was very accurate in predicting not guilty verdicts correctly, but much less accurate in predicting guilty verdicts. The model for the pre-deliberation decisions did not show much of a difference in accuracy of prediction between the two verdicts, and was even slightly better at predicting guilty verdicts than acquittals.

To test the ability of experimental condition to predict post deliberation verdict certainty scores, while controlling for demographics (age, income, sex), the procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness), an OLS regression was conducted. Experimental condition was dummy coded in the analysis the same as in the previous analyses (0 = lay eyewitness, 1 = police officer eyewitness). The overall regression was significant, $F(10, 137) = 9.05$, $p < .001$, $R^2 = .40$ (see table 9). Experimental condition significantly predicted post deliberation verdict certainty scores, $\beta = -.25$, $t(137) = -3.68$, $p < .001$, while controlling for all other variables in the model. Participants who were in the police officer eyewitness condition were more likely to have greater certainty for a not guilty verdict than participants in the lay eyewitness condition.

Once again, the demographic variables, age, $\beta = -.07$, $t(137) = -1.02$, $p = .31$, income, $\beta = -.11$, $t(137) = -.70$, $p = .49$, and sex, $\beta = .04$, $t(137) = .60$, $p = .55$, were unrelated to the verdict certainty scores. The procedural justice model variables, procedural justice, $\beta = -.03$, $t(137) = -.36$, $p = .72$, police legitimacy, $\beta = .06$, $t(137) = .65$, $p = .52$, and legal cynicism, $\beta = .15$, $t(137) = 1.83$, $p = .07$, were also not significant predictors of post deliberation verdict certainty. Eyewitness credibility, $\beta = .48$, $t(137) = 4.49$, $p < .001$, was a significant predictor of post

deliberation verdict certainty, as was consistent with the post deliberation verdict decision model. Participants who felt the eyewitness was highly credible were more likely to have greater certainty for a guilty verdict than participants who viewed the eyewitness as not credible. Both eyewitness trustworthiness, $\beta = .11$, $t(137) = .94$, $p = .35$, and obligation to the eyewitness, $\beta = .05$, $t(137) = .61$, $p = .54$, were not significant predictors, however.

Table 9

Regressions comparing lay eyewitness and police officer eyewitness conditions: Post deliberation decisions

	Post Deliberation Verdict			**Post Deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.09	.16	.91	-.13	.13	-.07
Income	-.11	0.17	0.90	-.11	.16	-.05
Sex	.25	.52	1.28	-.04	.51	-.01
Procedural Justice	-.44	.44	.65	-.16	.43	-.03
Police Legitimacy	.25	.62	1.29	.38	.58	.06
Legal Cynicism	.75	.46	2.12	.79	.43	.15
Eyewitness Credibility	.79**	.23	2.19	.85***	.19	.48
Eyewitness Trustworthiness	.34	.22	1.40	.19	.20	.11
Obligation to Eyewitness	-0.07	.16	.94	.08	.14	.05
Condition	-2.05***	.53	.13	-1.72***	.47	-.25
Intercept	-6.06			-7.77		
Omnibus tests	**$\chi^2(10) = 69.77$***, *Negelkerke's* R^2=.53**			**$F(10, 137) = 9.05$***, R^2=.40**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

Findings from the current analysis support that the experimental condition in conjunction with eyewitness credibility evaluations were the most important predictors of post deliberation verdict decisions and certainty for those decisions. The current model accounted for a large

proportion of the variance (approximately 45%) in verdict certainty scores. The majority of the predictive variance appeared to be contributed by condition and eyewitness credibility.

Post deliberation verdict decisions controlling for pre-deliberation decisions. Last, analyses were conducted to determine if experimental condition was predictive of change in verdict decisions from pre-deliberation to post deliberation. Post deliberation was entered into the model as the dependent variable while pre-deliberation decisions were controlled for in the model in addition to the other control variables discussed in previous analyses. First, changes in overall verdict decision were examined using binary logistic regression. The overall regression analysis was significant, χ^2 (11) = 82.46, $p < .001$ (see table 10). There was a significant effect of experimental condition on post deliberation verdict, controlling for pre-deliberation verdict, B = -2.46, Exp(B) = .09, $p < .001$. Participants in the police officer eyewitness condition were more likely to change their guilty verdict to not guilty following the group deliberation, controlling for demographics, procedural justice model variables, and eyewitness evaluation measures. This is particularly important to note as there was no effect of condition found for pre-deliberation decisions, therefore the effect of condition only emerged following the group deliberation. Pre-deliberation verdict also predicted post deliberation verdict, B = 1.95, Exp(B) = 7.03, $p < .001$, suggesting there was some continuity, but also some change given the strength of the association, from pre-deliberation to post deliberation.

Similar to the findings in all previous analyses, participant demographics, including age, B = -.10, Exp(B) = .91, p = .62, income, B = -.18, Exp(B) = .83, p = .30, and sex, B = .22, Exp(B) = 1.24, p = .69, were not significant predictors of post deliberation verdict decisions, controlling for pre-deliberation decisions. The relation between the procedural justice model variables and post deliberation verdict controlling for pre-deliberation verdict were also similar to the findings

from previous analyses, except for legal cynicism. Legal cynicism was significantly predictive of changes in verdict from pre-deliberation to post deliberation, $B = 1.02$, Exp(B) = 2.77, $p = .04$, although it was not predictive of the actual post deliberation verdict itself, as noted in the post deliberation decision analysis. Participants higher in legal cynicism were more likely to change to a guilty verdict following the group deliberation. The other two procedural justice model variables, procedural justice, $B = -.69$, Exp(B) = .50, $p = .15$, and police legitimacy, $B = .23$, Exp(B) = 1.26, $p = .73$, were not significantly related to the post deliberation verdicts, controlling for pre-deliberation verdict decisions.

Also consistent with both the pre-deliberation decision analyses and the post deliberation decision analyses, eyewitness credibility was a significant predictor of changes in verdict decision, $B = .77$, Exp(B) = 2.17, $p = .001$. Participants who found the eyewitness to be less credible were more likely to change to a not guilty verdict following the deliberation. Eyewitness trustworthiness, $B = .32$, Exp(B) = 1.38, $p = .17$, and obligation to the eyewitness, $B = -.07$, Exp(B) = .94, $p = .71$, were not significantly related to post deliberation verdict decisions, controlling for pre-deliberation decisions. The current model accurately predicted 84.5% of participant decisions (91.1% of those who said not guilty, 70.2% of those who said guilty) and accounted for a large portion of the variance in changes in verdict decisions, Nagelkerke's $R^2 = .60$.

Finally, an OLS regression was conducted to examine the differences between conditions in changes in verdict decision. The overall regression model was significant, $F(10, 136) = 10.10$, $p < .001$, $R^2 = .45$ (see table 10). In examination of the predictors, experimental condition was found to be a significant predictor of post deliberation verdict certainty, while controlling for pre-deliberation verdict certainty, $\beta = -.26$, $t(137) = -4.03$, $p < .001$. Participants in the police

officer eyewitness condition were more likely to change their verdict towards greater certainty for a not guilty verdict than participants in the lay eyewitness condition. Pre-deliberation verdict certainty also significantly predicted post deliberation verdict certainty, $\beta = .25$, $t(137) = 3.58$, $p < .001$. This indicates that there was some consistency in verdict certainty decisions from pre-deliberation to post deliberation; however the size of the beta weight suggests that there was change from pre-deliberation to post deliberation as well.

Consistent with previous findings, the demographic variables, age, $\beta = -.08$, $t(137) = -1.14$, $p = .26$, income, $\beta = -.06$, $t(137) = -.93$, $p = .35$, and sex, $\beta = .04$, $t(137) = .52$, $p = .60$, were not significantly related to changes in post deliberation verdict certainty. The procedural justice variables, procedural justice, $\beta = -.05$, $t(137) = -.60$, $p = .55$, and police legitimacy, $\beta = .04$, $t(137) = .45$, $p = .66$, were also not significant predictors. Legal cynicism was marginally significant in predicting change in verdict certainty scores, $\beta = .15$, $t(137) = 1.94$, $p = .06$, suggesting that there might be an inclination for those low in legal cynicism to have greater certainty for a not guilty verdict at post deliberation while controlling for their pre-deliberation decisions. Eyewitness credibility was again a significant predictor, $\beta = .38$, $t(137) = 3.62$, $p < .001$; participants who found the eyewitness to be credible were more likely to have greater certainty for a guilty verdict following the deliberation, accounting for pre-deliberation decisions. Eyewitness trustworthiness, $\beta = .10$, $t(137) = .91$, $p = .37$, and obligation to the eyewitness, $\beta = .07$, $t(137) = .90$, $p = .37$, were found to not be predictive of changes in verdict certainty. Results were consistent with previous findings that eyewitness credibility was a significant predictor of verdict and verdict certainty at all time points, while experimental condition only became a significant predictor following the group discussion of the case. The procedural justice model variables were not predictive of verdict decisions, except for legal cynicism that appeared

to be related only to changes in decisions from pre-deliberation to post deliberation. One reason why no relation was identified could be related to differences in the predictive model across experimental groups. In other words, the relation between procedural justice model variables and verdict decisions may differ for lay eyewitness condition participant and police officer eyewitness condition participants. In order to test this theory, structural equation models were constructed using the procedural justice model variables for each condition.

Table 10

Regressions comparing lay eyewitness and police officer eyewitness conditions: Post deliberation decisions controlling for pre-deliberation decisions

	Post deliberation Verdict			**Post Deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.10	.19	.91	-.14	.12	-.08
Income	-.18	.17	.90	-.14	.15	-.06
Sex	.22	.55	1.24	.25	.48	.04
Procedural Justice	-.69	.48	.50	-.25	42	-.05
Police Legitimacy	.23	.66	1.26	.25	.56	.04
Legal Cynicism	1.02*	.50	2.77	.80	.41	.15
Eyewitness Credibility	.78**	.24	2.17	.68***	.19	.38
Eyewitness Trustworthiness	.32	.23	1.38	.17	.19	.10
Obligation to Eyewitness	-.07	.17	.94	.12	.13	.07
Condition	-2.46***	.62	.09	-1.81***	.45	-.26
Pre-deliberation Decisions	1.95**	.60	7.03	.23***	.06	.25
Intercept	-6.14			-7.77		
Omnibus tests	$\chi^2(10) = 69.77$***, *Negelkerke's* R^2=.53			$F(10, 137) = 10.10$***, R^2=.45		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

Lay eyewitness condition models. Initial structural equation models testing pre-deliberation verdict certainty, post deliberation verdict certainty, and change in verdict certainty were constructed in AMOS 22, as described in the analyses plan, to test for differences in the hypothesized procedural justice model of juror decision-making (see figure 1). All variables were entered into the model as measured variables, except for police legitimacy that was constructed as a latent variable comprised of the three measured sub factors: trust in police, obligation to obey police, and normative alignment with police. The model was tested first predicting lay eyewitness condition participant pre-deliberation verdict certainty scores.

Pre-deliberation decision models. The results from the analysis of the lay eyewitness condition participant model predicting pre-deliberation verdict certainty suggested that the initial model did not have good fit, χ^2 (22) = 84.91, $p < .001$ (see figure 2). The goodness of fit statistics failed to meet conventional standards for a good fitting model, NFI = .72, CFI = .76, RMSEA = .19 (90% CI:.15, .24), AIC = 130.91. In examination of the casual paths, all paths were statistically significant, except in the case of police legitimacy predicting obligation to the eyewitness, $\beta = -.04$, $p = .70$, and eyewitness trust predicting verdict certainty, $\beta = .16$, $p = .07$ (see table 11). Procedural justice significantly predicted legal cynicism, $\beta = -.28$, $p = .03$, and police legitimacy, $\beta = .74$, $p < .001$. Individuals who had positive experiences with police tended to find the police more legitimate and to be less cynical towards the legal system. Legal cynicism significantly predicted eyewitness credibility, $\beta = -.28$, $p = .009$, eyewitness trustworthiness, $\beta = -.22$, $p = .04$, and obligation to the eyewitness, $\beta = -.44$, $p < .001$. In all three instances, greater cynicism towards the legal system resulted in lower evaluations of the eyewitness. Police legitimacy significantly predicted eyewitness credibility, $\beta = .25$, $p = .04$, and eyewitness trustworthiness, $\beta = .27$, $p = .04$. Participants who viewed the police as legitimate

authorities tended to find the eyewitness more credible and trustworthy than participants who did not view the police as legitimate.

Eyewitness credibility, $\beta = .60$, $p < .001$, and obligation to the eyewitness, $\beta = -.19$, $p = .04$, significantly predicted the dependent variable, pre-deliberation verdict certainty. Participants that viewed the eyewitness as more credible were more likely to be more certain about a guilty verdict than participants who viewed the eyewitness as less credible. Conversely, participants who felt more obligation to listen to the eyewitness' testimony were less likely to be certain of a guilty verdict. The initial model predicted 41% of the variance in pre-deliberation verdict certainty scores.

The non-significant paths were removed from the model to improve model fit. Eyewitness trust was removed from the model as it did not predict the dependent variable and therefore did not serve a mediating function in the model. In the revised model following the removal of non-significant paths and eyewitness trust from the model, the model fit improved from the initial model, $\chi^2(18) = 41.80$, $p = .001$. The goodness of fit statistics still failed to meet conventional standards for a good fitting model, NFI = .83, CFI = .89, RMSEA = .13 [90% CI:.08, .19], AIC = 77.80. Additionally, several more paths were rendered non-significant. Obligation to the eyewitness was no longer a significant predictor of pre-deliberation verdict certainty in the revised model, $\beta = -.16$, p = .06. Furthermore, police legitimacy no longer significantly predicted eyewitness credibility, $\beta = .23$, p = .06. All other paths were significant and followed a similar pattern to the initial model. The current model predicted 45% of the variance in pre-deliberation verdict certainty scores. Both of the non-significant variables were removed from the final model because they no longer served a predictive contribution in the model.

For the final model, a simplified model including only significant paths and predictors were included. The best fitting, most parsimonious model to the current data included procedural justice as a predictor, legal cynicism as the first mediating variable, and eyewitness credibility as the second mediating variable. In this model, all paths were significant (see figure 3) and the overall model had improved model fit, $\chi^2(3) = 8.91$, $p = .03$. Procedural justice significantly predicted legal cynicism, $\beta = -28$, $p = .03$. This relation was negative, indicating that individuals who felt the police were procedurally fair tended to be less cynical about the law. Legal cynicism significantly predicted eyewitness credibility ratings, $\beta = -.37$, $p < .001$, and this relation was also negative in nature. Individuals who were cynical about the legal system were less likely to find the eyewitness credible. Eyewitness credibility in turn predicted pre-deliberation verdict certainty scores, $\beta = .63$, $p < .001$, and this relation was positive. Individuals who found the eyewitness to be credible were more likely to have greater certainty for a guilty verdict.

Other goodness of fit indices suggested that the model still failed to meet conventional standards for a good fitting model for some of the model fit indices, NFI = 86, CFI = .90, RMSEA = .16 [90% CI:.04, .29], AIC = 22.91. This may be due in part to the small sample size for each condition and may improve with a larger sample. Bootstrapped bias correct confidence intervals were calculated and found to be significant for all paths. The estimated bootstrapped path from procedural justice to legal cynicism, $b = -.28$ [95% CI: -.51, -.04], legal cynicism to eyewitness credibility $b = -.37$ [95% CI: -.54, -.17], and eyewitness credibility to pre-deliberation verdict certainty, $b = .63$ [95% CI:.49, .73], were all significant and in the expected directions. The final model predicted 39% of the variance in pre-deliberation verdict certainty scores.

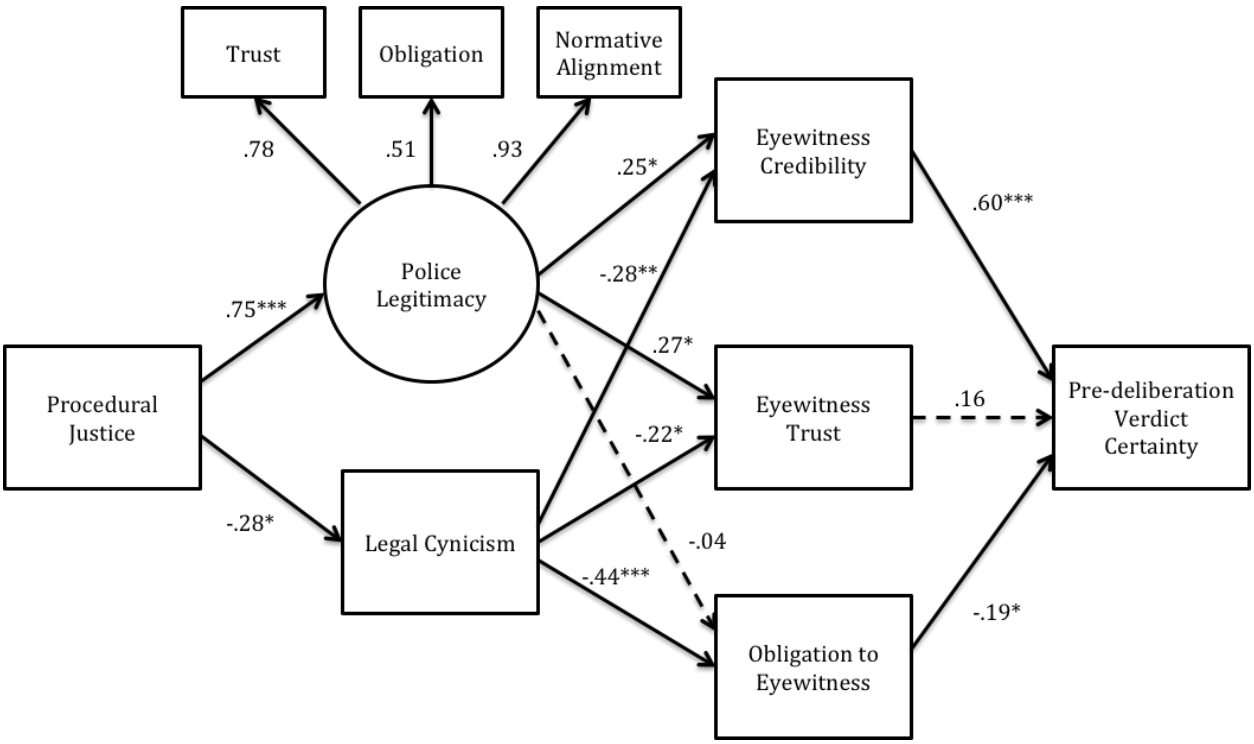

Figure 2. Lay eyewitness pre-deliberation decision initial model

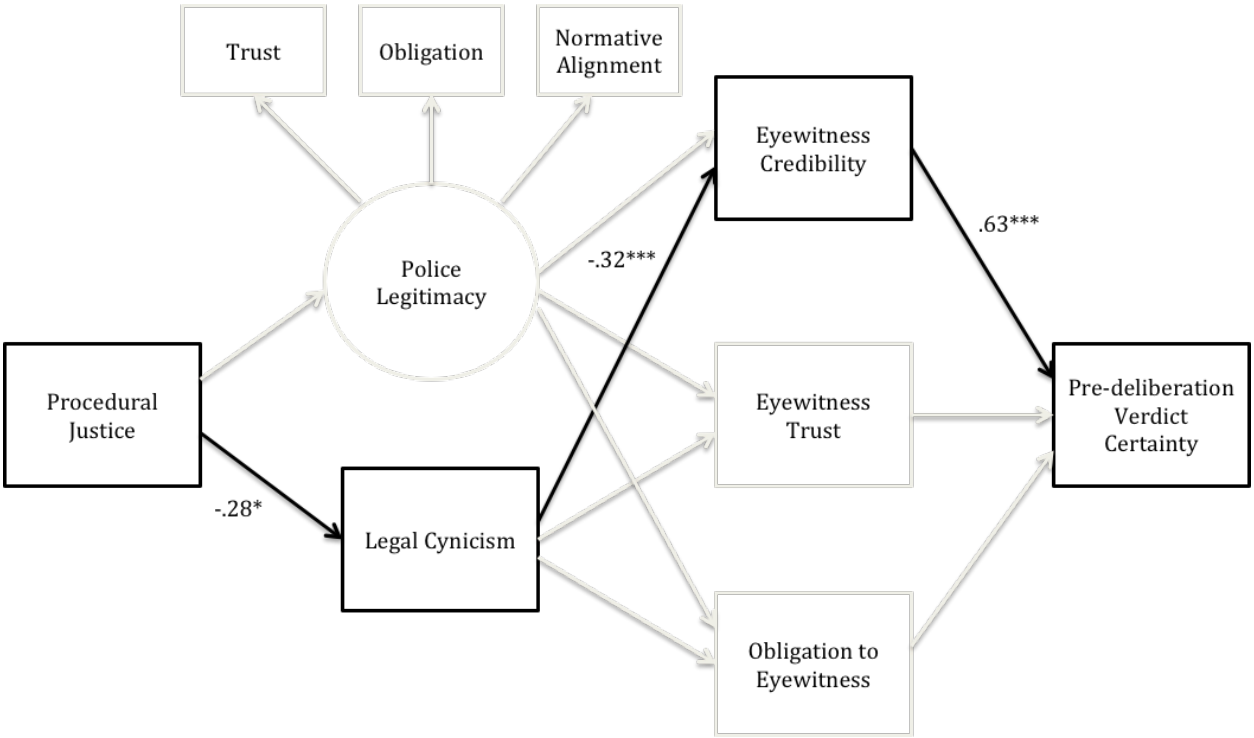

Figure 3. Lay eyewitness pre-deliberation decision final model

Table 11

Lay eyewitness condition SEM model for pre-deliberation verdict certainty decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Legal Cynicism ← Procedural Justice	-.28*	-.22	.09	-.28*	-.22	.09
Police Legitimacy ← Procedural Justice	.75***	.34	.08	---	---	---
Eyewitness Credibility ← Legal Cynicism	-.28**	-.84	.09	-.37***	-1.12	.32
Eyewitness Trust ← Legal Cynicism	-.22*	-.61	.30	---	---	---
Obligation to Eyewitness ← Legal Cynicism	-.44***	-1.41	.35	---	---	---
Eyewitness Credibility ← Police Legitimacy	.25*	1.34	.65	---	---	---
Eyewitness Trust ← Police Legitimacy	.27*	1.31	.63	---	---	---
Obligation to Eyewitness ← Police Legitimacy	-.04	-.25	.64	---	---	---
Pre VC ← Eyewitness Credibility	.60***	1.26	.19	.63***	1.31	.19
Pre VC ← Eyewitness Trust	.16	.36	.20	---	---	---
Pre VC ← Obligation to Eyewitness	-.19*	-.36	.17	---	---	---
$\chi^2(df)$	84.91(22)***			8.91(3)*		
N	77			77		
NFI	.72			.86		
CFI	.76			.90		
RMSEA	.19			.16		
AIC	130.91			22.91		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

Post deliberation decision models. The model was tested again using post deliberation decisions. The initial model was not a good fit to the data, $\chi^2(22) = 124.61$, $p = .03$, and fit indices did not meet conventional standards for a good fitting model, NFI = .60, CFI = .63, RMSEA = .25 [90% CI:.21, .29], AIC =170.61 (see figure 4). In the post deliberation model, procedural justice still significantly predicted police legitimacy, $\beta = .73$, $p < .001$, and legal cynicism, $\beta = -.28$, $p = .03$ (see table 12). Police legitimacy did not significantly predict any of the eyewitness variables: eyewitness credibility, $\beta = .01$, $p = .94$, eyewitness trustworthiness, $\beta = .04$ $p = .73$, or obligation to the eyewitness, $\beta = .17$, $p = .16$. Legal cynicism significantly predicted eyewitness credibility, $\beta = -.28$, $p = .01$, but was not significantly related to eyewitness trustworthiness, $\beta = -.22$, $p = .06$, or obligation to the eyewitness, $\beta = -.22$, $p = .06$. The more cynical individuals were about the law, the less credible they viewed the eyewitness to be.

Eyewitness credibility, $\beta = .52$, $p < .001$ and eyewitness trustworthiness, $\beta = .20$, $p = .03$, significantly predicted post deliberation verdict certainty. The more credible and trustworthy the participants viewed the eyewitness, the more likely they were to have greater certainty for a guilty verdict. Obligation to the eyewitness, $\beta = -.05$ $p = .57$, did not significantly predict post deliberation verdict certainty. The initial regression predicted 32% of the variance in post deliberation verdict certainty scores.

The non-significant paths again were removed from the model to improve model fit. The results yielded a good fitting model, $\chi^2(3) = 2.59$, $p = .46$, and replicated the final model from the pre-deliberation verdict certainty analysis. Other goodness of fit indices suggested that the model also was a good fit to the data, NFI = .95, CFI = 1.00, RMSEA = .00 [90% CI:.00, .18], AIC =16.59 (see figure 5). Therefore, the current model fit criteria to be the final model in predicting participant post deliberation verdict certainty decisions.

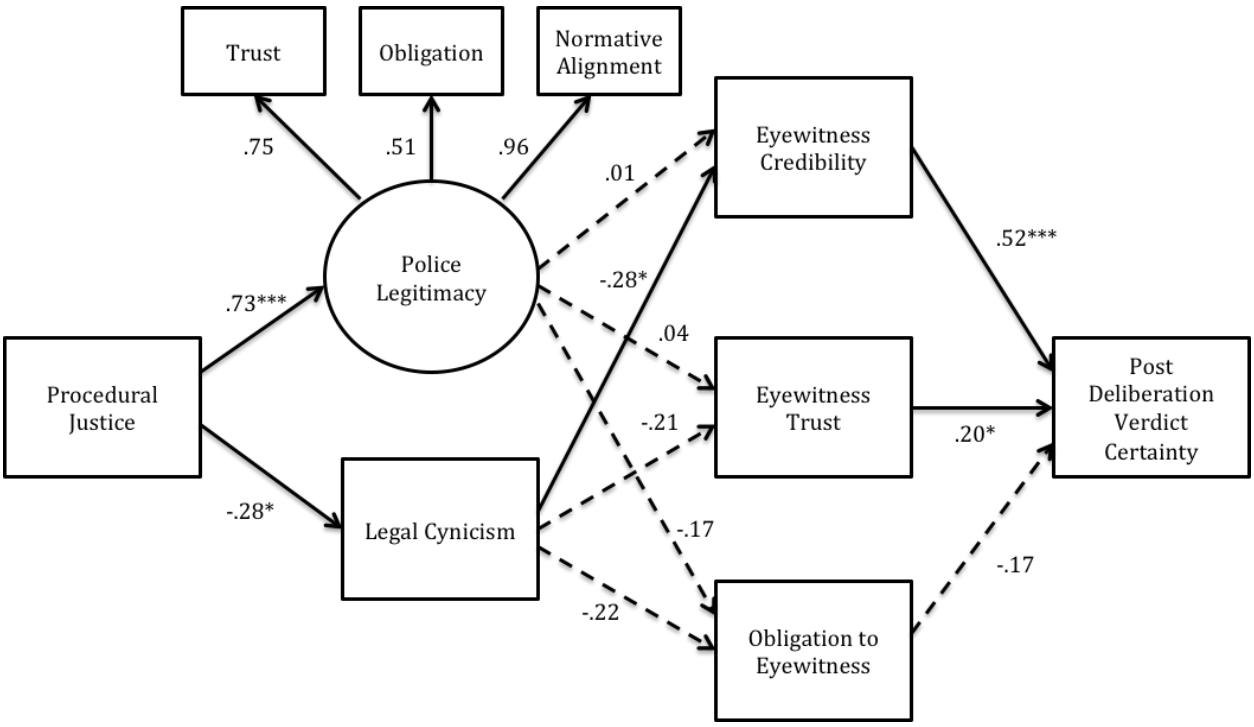

Figure 4. Lay eyewitness post deliberation decision initial model

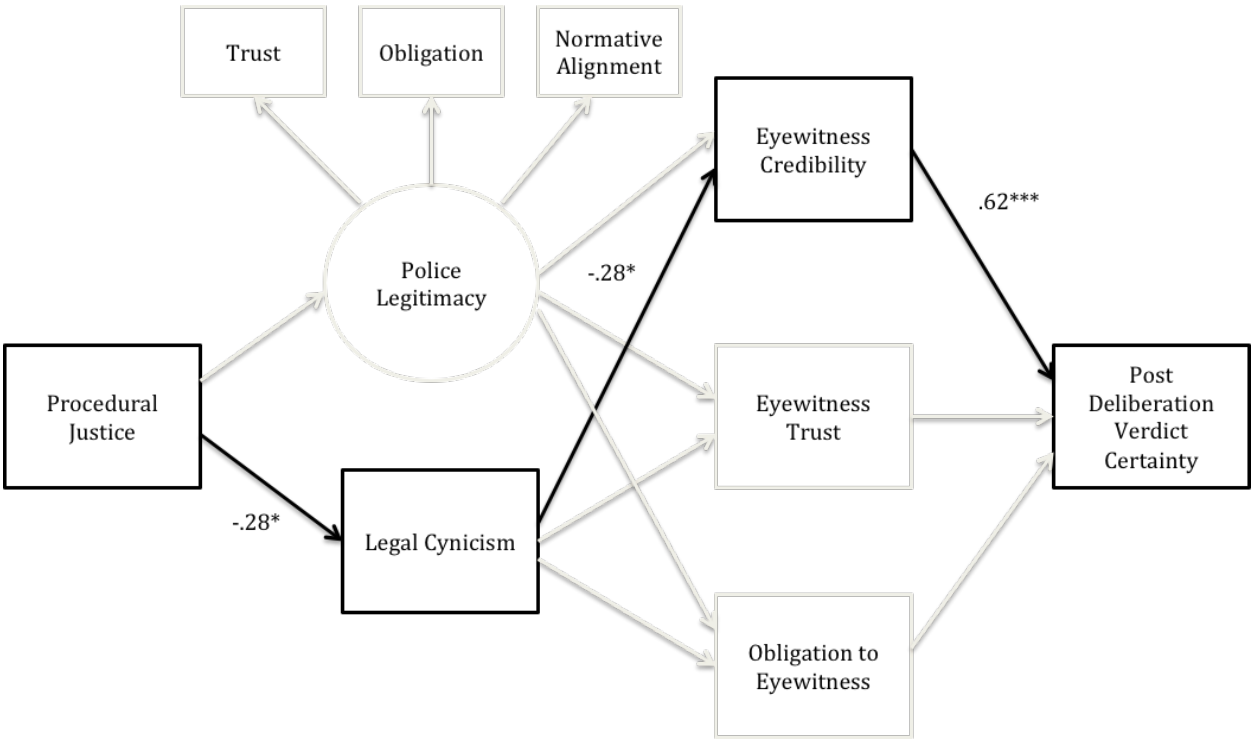

Figure 5. Lay eyewitness post deliberation decision final model

Table 12

Lay eyewitness condition SEM model for post deliberation verdict certainty decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.28*	-.22	.09	-.28*	-.22	.09
Legitimacy ← Procedural Justice	.73***	.34	.08	---	---	---
Eyewitness Credibility ← Cynicism	-.28*	-.91	.37	-.28***	-.92	.36
Eyewitness Trust ← Cynicism	-.22	-.68	.37	---	---	---
Obligation to Eyewitness ← Cynicism	-.22	-.79	.41	---	---	---
Eyewitness Credibility ← Legitimacy	.01	.05	.68	---	---	---
Eyewitness Trust ← Legitimacy	.04	.24	.67	---	---	---
Obligation to Eyewitness ← Legitimacy	-.17	-1.10	.78	---	---	---
Post VC ← Eyewitness Credibility	.52***	.90	.16	.62***	1.13	.16
Post VC ← Eyewitness Trust	.20	.35	.16	---	---	---
Post VC ← Obligation to Eyewitness	-.05	-.08	.15	---	---	---
$\chi^2(df)$	124.61(22)***			2.59(3)		
N	77			77		
NFI	.60			.95		
CFI	.63			1.00		
RMSEA	.25			.00		
AIC	170.61			16.59		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

In the final model, procedural justice significantly predicted legal cynicism, $\beta = -.28$, $p = .03$, indicating that more positive experiences of procedural justice were related to less cynicism towards the legal system (see table 12). Legal cynicism predicted post deliberation

eyewitness credibility, β = -.28, p = .03. The more cynical an individual was towards the legal system, the less credible they viewed the eyewitness to be. Eyewitness credibility in turn predicted post deliberation verdict certainty scores, β = .62, p < .001, suggesting that individuals who found the eyewitness to be credible were more likely to be more certain of a guilty verdict. Bootstrapped bias correct confidence intervals using 1,000 bootstrap samples were calculated for the paths in the final model. The bootstrapped estimated path from procedural justice to legal cynicism was significant, b = -.22, p = .02 [95% CI: -.42, -.03]. The estimated paths from legal cynicism to eyewitness credibility, b = -.92, p = .008 [95% CI: -1.69, -.24], and eyewitness credibility to post deliberation verdict certainty, b = 1.13, p = .003 [95% CI: .84, 1.39], were also significant. The final model predicted 38% of the variance in post deliberation verdict certainty scores.

Post deliberation decision controlling for pre-deliberation decisions models. Next, the model was tested predicting change in verdict decisions from pre-deliberation to post deliberation by including pre-deliberation verdict certainty as a control variable in the model. This way, the variance from pre-deliberation decisions was accounted for in the model in predicting post deliberation decisions. The initial model did not have good fit to the data, $\chi^2(27) = 136.29$, p < .001. Other fit indices also indicated that the model did not fit well, NFI = .61, CFI = .64, RMSEA = .23 [90% CI:.19, .27], AIC =192.29. In the current model procedural justice continued to predict both police legitimacy, β = .73, p < .001, and legal cynicism, β = -.28, p = .01 (see table 13). Legal cynicism significantly predicted eyewitness credibility, β = -.23, p = .03, but did not predict eyewitness trustworthiness significantly, β = -.17, p = .12, or obligation to the eyewitness, β = -.21, p = .06. Police legitimacy did not significantly predict any of the eyewitness evaluation variables, including eyewitness credibility, β = -.11, p = .31, eyewitness

trustworthiness, β = -.06, p = .60, or obligation to the eyewitness, β = -.21, p = .06. Eyewitness credibility significantly predicted post deliberation verdict certainty, controlling for pre-deliberation verdict certainty, β = .39, p < .001. Eyewitness trustworthiness, β = .17, p = .07, and obligation to the eyewitness, β = -.00, p = .99, did not significantly predict post deliberation verdict certainty scores controlling for pre-deliberation verdict certainty. Pre-deliberation was used to control for pre-deliberation verdict decisions, and the effect pre-deliberation decisions had on other post deliberation measures including eyewitness credibility ratings, participant perceptions of eyewitness trustworthiness, and obligation to the eyewitness. The path from pre-deliberation verdict certainty to post deliberation verdict certainty was significant, β = .29, p = .006, suggesting some stability in pre-deliberation decisions to post deliberation decisions. The path from pre-deliberation verdict certainty to post deliberation verdict certainty was not as large in magnitude as the post deliberation eyewitness credibility path to post deliberation verdict certainty. This may suggest that there was significant amount of change from pre-deliberation to post deliberation decisions for some participants. The paths from pre-deliberation verdict certainty to post deliberation eyewitness credibility, β = .41, p < .001, and eyewitness trustworthiness, β = .33, p = .002, were also significant. The path from pre-deliberation verdict certainty to post deliberation obligation to the eyewitness, β = .08, p = .46, was not significant however. The model predicted 40% of the variance overall in post deliberation verdict certainty controlling for pre-deliberation verdict certainty decisions.

The non-significant predictors and paths were removed for the revised model to improve model fit. Of those, police legitimacy, eyewitness trustworthiness, and obligation to the eyewitness were removed entirely from the model, as they did not contribute to the predictive variance in the model. The revised model predicting post deliberation verdict certainty

controlling for pre-deliberation mirrored the model pattern exhibited in the pre-deliberation verdict certainty and post deliberation verdict certainty models, except for one path. The overall model had improved model fit over the initial model, $\chi^2(5) = 18.78$, $p = .002$ (see figure 7). Procedural justice again predicted legal cynicism, $\beta = -.28$, $p = .01$ (see table 13). Legal cynicism, however, no longer significantly predicted eyewitness credibility, $\beta = -.19$, $p = .06$. Eyewitness credibility did predict post deliberation verdict certainty, controlling for pre-deliberation verdict certainty, $\beta = .39$, $p < .001$.

The path from pre-deliberation verdict certainty to post deliberation verdict certainty was significant, $\beta = .28$, $p = .004$, as was the path from pre-deliberation verdict certainty to eyewitness credibility, $\beta = .50$, $p < .001$. Fit indices indicated that the model still did not fit well to the data, NFI = .79, CFI = .82, RMSEA = .19 [90% CI:.10, .29], AIC =38.78, and failed to meet conventional standards. The final model accounted for 43% of the variance in post deliberation verdict certainty, controlling for pre-deliberation verdict certainty decisions.

Bootstrapped bias corrected confidence intervals using 1,000 bootstrap samples were calculated for all paths and were found to be significant for all paths except legal cynicism predicting eyewitness credibility. The bootstrapped estimated path from procedural justice to legal cynicism was significant, $b = -.22$, $p = .02$ [95% CI: -.42, -.03], as was the estimated path from eyewitness credibility to post deliberation verdict certainty, controlling for pre-deliberation verdict certainty, $b = .92$, $p = .002$ [95% CI: .56, 1.23]. The estimated path from legal cynicism to eyewitness credibility was not significant, however, $b = -.62$, $p = .06$ [95% CI: -1.35, .02]. Finally, the estimated paths from pre-deliberation verdict certainty to post deliberation verdict certainty, $b = .25$, $p = .01$ [95% CI: .06, .45], and post deliberation eyewitness credibility, $b = .20$, $p = .002$ [95% CI: .08, .30], were significant.

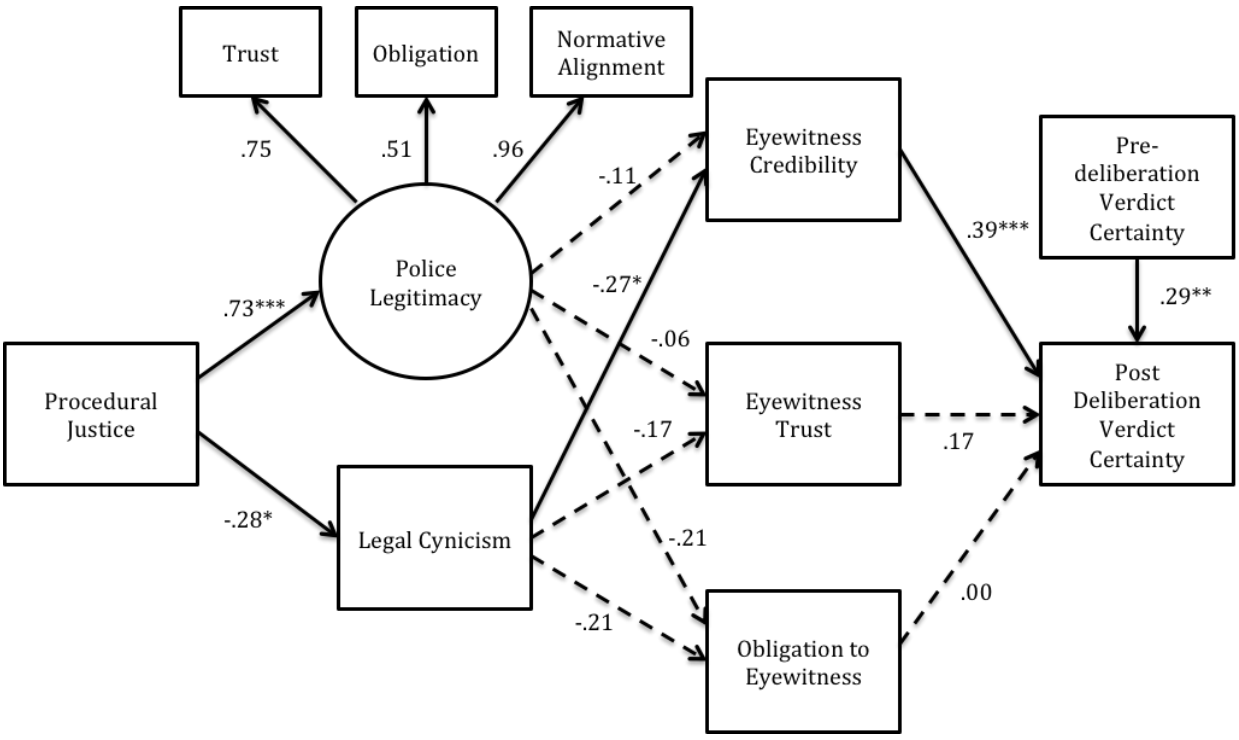

Figure 6. Lay eyewitness post deliberation decisions controlling for pre-deliberation decisions initial model

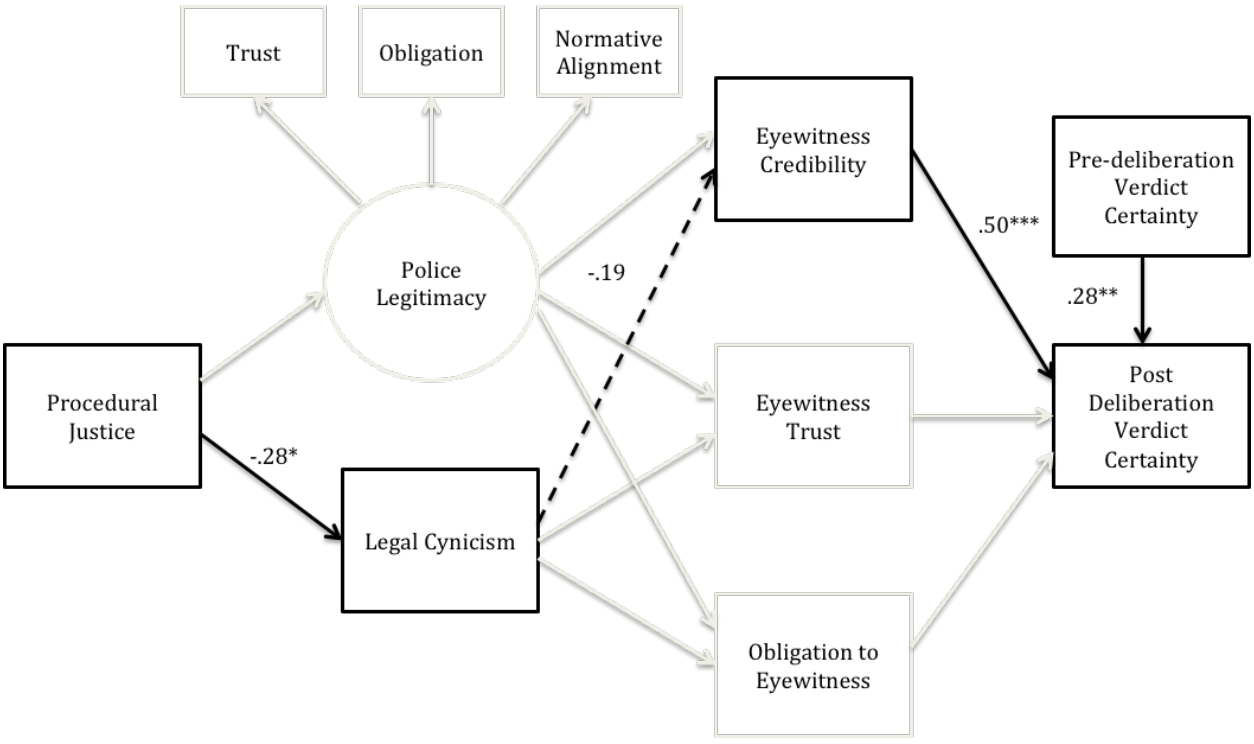

Figure 7. Lay eyewitness post deliberation decisions controlling for pre-deliberation decisions final model

Table 13

Lay eyewitness condition SEM model for post deliberation verdict certainty decisions controlling for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.28*	-.22	.09	-.28*	-.22	.09
Legitimacy ← Procedural Justice	.73***	.34	.08	---	---	---
Eyewitness Credibility ← Cynicism	-.23*	-.73	.34	-.19	-.62	.33
Eyewitness Trust ← Cynicism	-.17	-.54	.35	---	---	---
Obligation to Eyewitness ← Cynicism	-.21	-.76	.41	---	---	---
Eyewitness Credibility ← Legitimacy	-.11	-.63	.63	---	---	---
Eyewitness Trust ← Legitimacy	-.06	-.34	.64	---	---	---
Obligation to Eyewitness ← Legitimacy	-.21	-1.31	.79	---	---	---
Post VC ← Eyewitness Credibility	.39***	.68	.17	.50***	.92	.17
Post VC ← Eyewitness Trust	.17	.31	.17	---	---	---
Post VC ← Obligation to Eyewitness	.00	.00	.14	---	---	---
Eyewitness Credibility ← Pre VC	.41***	.21	.05	.39***	.20	.05
Eyewitness Trust ← Pre VC	.33**	.17	.05	---	---	---
Obligation to Eyewitness ← Pre VC	.08	.05	.06	---	---	---
Post VC ← Pre VC	.29**	.25	.09	.28**	.25	.09
$\chi^2(df)$	136.29(27)***			18.78(5)**		
N	77			77		
NFI	.61			.79		
CFI	.64			.82		
RMSEA	.23			.19		
AIC	192.29			38.78		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

The results from the analysis indicate that post deliberation credibility alone predicting post deliberation verdict certainty controlling for pre-deliberation verdict certainty may be the

best fitting model to the data. Although the path from legal cynicism to eyewitness credibility was marginally significant, which could be a result of the low *N* in the model. Overall, the lay eyewitness condition participant model seemed to best predict post deliberation verdict certainty scores and was not a sufficient predictive model of change in decisions from pre-deliberation to post deliberation.

Police officer eyewitness condition models. The same initial model was tested to predict police officer eyewitness condition participant pre-deliberation verdict certainty, post deliberation verdict certainty, and change in verdict certainty fro pre-deliberation to post deliberation scores. Again, all variables were entered into the model as measured variables, except for police legitimacy that was constructed as a latent variable comprised of the three measured indicators: trust in police, obligation to obey police, and normative alignment with police. The first model was fit to predict pre-deliberation verdict certainty decisions for police officer eyewitness condition participants.

Pre-deliberation decision models. The initial model did not have good fit, $\chi^2(22) = 83.01$, $p < .001$. Additional fit indices also indicated that the model was not a good fit, NFI = .67, CFI = .72, RMSEA = .20 [90% CI:.15, .24], AIC =129.01 (see figure 8). Procedural justice significant predicted both police legitimacy, $\beta = .74$, $p < .001$, and legal cynicism, $\beta = -.50$, $p < .001$ (see table 14). Police legitimacy did not significantly predict eyewitness credibility, $\beta = .17$, $p = .21$, eyewitness trustworthiness, $\beta = .01$, $p = .94$, or obligation to the eyewitness, $\beta = .06$, $p = .67$. Moreover, legal cynicism also did not significantly predict any of the eyewitness evaluation mediators: eyewitness credibility, $\beta = .14$, $p = .29$, eyewitness trustworthiness, $\beta = .01$, $p = .94$, or obligation to the eyewitness, $\beta = .06$, $p = .67$. Although these paths were not significant, it is worth noting that the sign of the relation between legal cynicism and the

eyewitness evaluation mediators switch from negative relations in the lay eyewitness condition models to positive in the police eyewitness condition model. Eyewitness credibility was a significant predictor of pre-deliberation verdict certainty, $\beta = .61$, $p < .001$. Eyewitness trustworthiness $\beta = .16$, $p = .09$, and obligation to the eyewitness, $\beta = .01$, $p = .92$, were not significant predictors of pre-deliberation verdict certainty, however. The model predicted 39% of the variance in pre-deliberation verdict certainty scores for police officer eyewitness condition participants.

The initial model did not have a good fit and the procedural justice model factors did not significantly contribute to the predictive ability of the proposed model. The only variable in the model that had a significant path, and therefore carried the vast majority of the predictive variance in pre-deliberation verdict certainty scores, was eyewitness credibility. Therefore, the results suggest that the best fitting model would only include this single variable in predicting pre-deliberation verdict certainty. Because the model would only include a single variable, it would inherently have perfect fit to the data, as illustrated below (see figure 9). The initial model pattern and final model did differ from the lay eyewitness condition participants as legal cynicism failed to add to the model in this case.

Post deliberation decision models. The initial model was then applied to the post deliberation data to determine if the proposed model could predict post deliberation verdict certainty scores for all police officer conditions combined. Similar to the pre-deliberation verdict certainty model, the current model was not found to be a good fit, $\chi^2(22) = 119.31$, $p < .001$. Other fit indices failed to meet conventional standards, also indicating that the model was not a good fit, NFI = .56, CFI = .59, RMSEA = .25 [90% CI:.21, .29], AIC =165.31 (see figure 10). There were only a few paths that were found to be significant in the model.

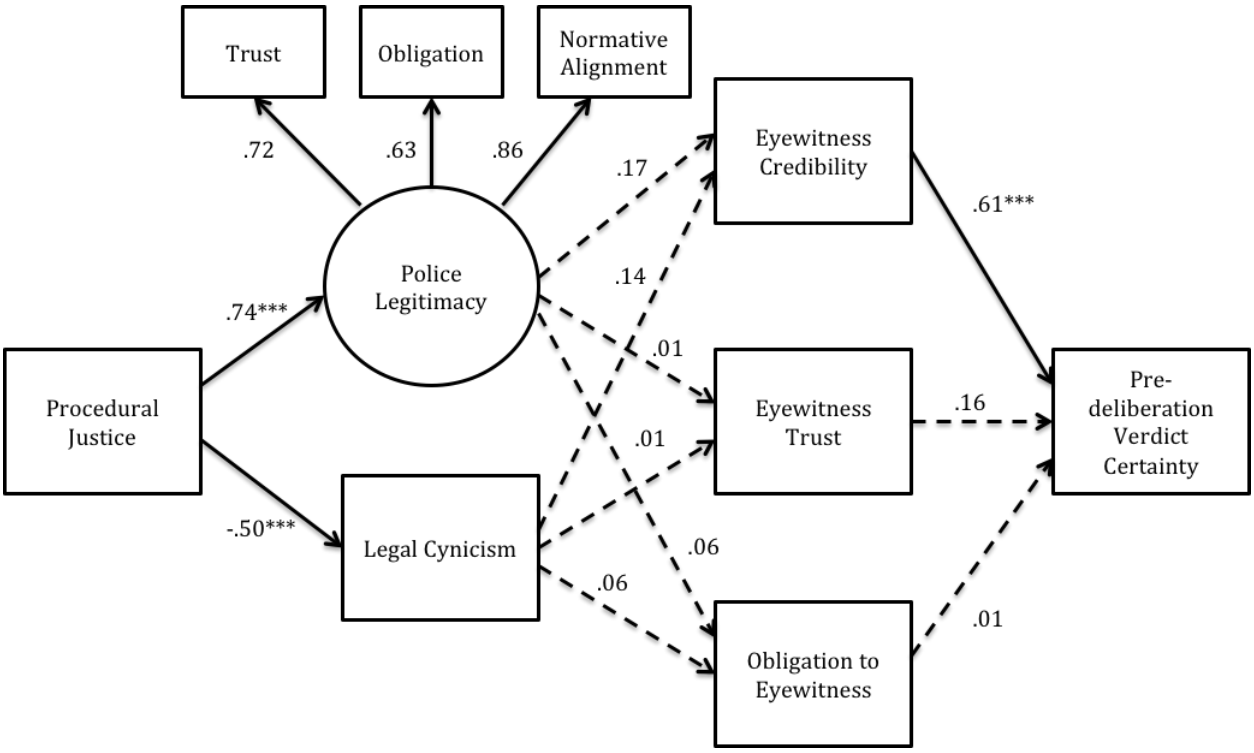

Figure 8. Police officer eyewitness (neutral/control) condition pre-deliberation decision initial model

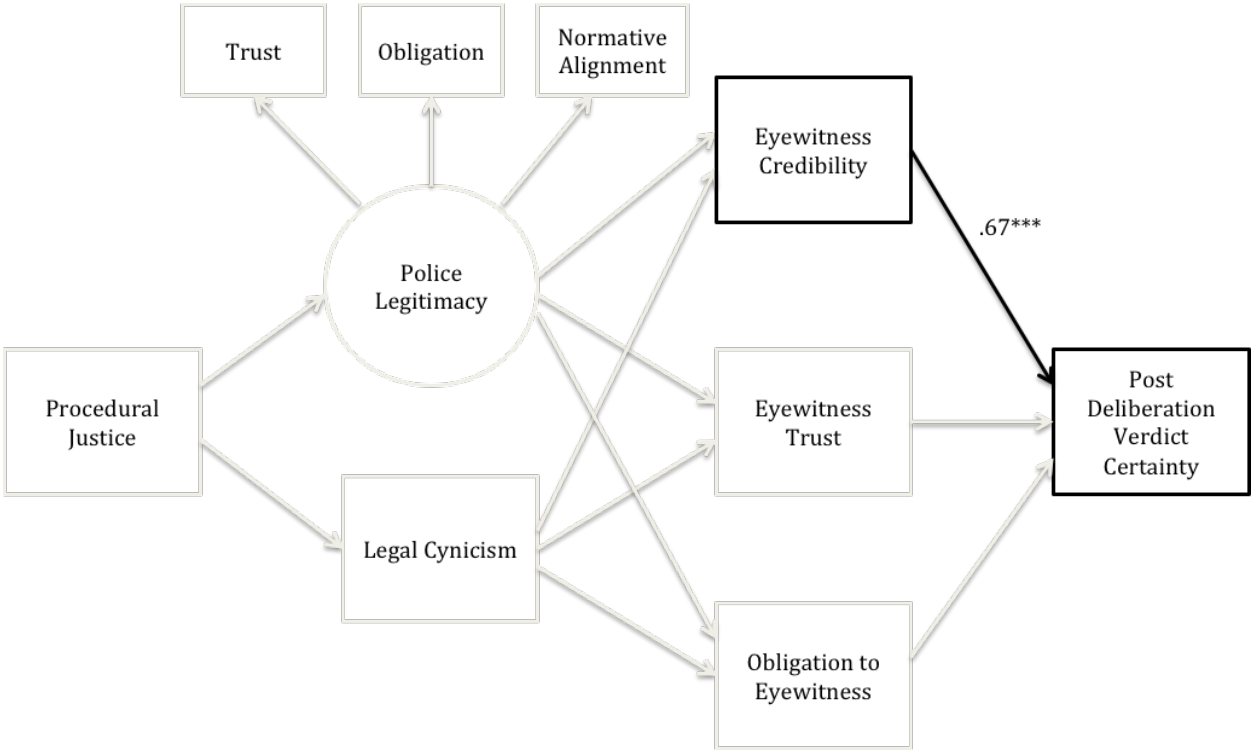

Figure 9. Police officer eyewitness (neutral/control) condition pre-deliberation decision final model

Table 14

Police officer eyewitness (neutral/control) condition SEM model for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Legal Cynicism ← Procedural Justice	-.50***	-.53	.11	---	---	---
Police Legitimacy ← Procedural Justice	.74***	.51	.10	---	---	---
Eyewitness Credibility ← Legal Cynicism	.14	.37	.35	---	---	---
Eyewitness Trust ← Legal Cynicism	.01	.03	.40	---	---	---
Obligation to Eyewitness ← Legal Cynicism	.05	.14	.33	---	---	---
Eyewitness Credibility ← Police Legitimacy	.17	.75	.60	---	---	---
Eyewitness Trust ← Police Legitimacy	.01	.05	.67	---	---	---
Obligation to Eyewitness ← Police Legitimacy	.06	.25	.57	---	---	---
Pre VC	.61***	1.16	.18	.67***	1.35	.18
Pre VC ← Eyewitness Trust	.16	.26	.16	---	---	---
Pre VC ← Obligation to Eyewitness	.01	.02	.18	---	---	---
$\chi^2(df)$	83.01(22)***			0(0)		
N	73			73		
NFI	.67			1.00		
CFI	.72			1.00		
RMSEA	.20			.00		
AIC	129.01			6.00		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

Procedural justice significantly predicted police legitimacy, $\beta = .73$, $p < .001$, and legal cynicism, $\beta = -.50$, $p < .001$ (see table 15). Police legitimacy significantly predicted eyewitness

credibility, $\beta = .31$, $p = .03$, but did not significantly predict eyewitness trustworthiness, $\beta = .12$, $p = .41$, or obligation to the eyewitness, $\beta = .15$, $p = .27$. Legal cynicism was not significantly related to any of the eyewitness evaluation variables, including eyewitness credibility, $\beta = .17$, $p = .18$, eyewitness trustworthiness, $\beta = .06$, $p = .64$, or obligation to the eyewitness, $\beta = .07$, $p = .58$. Eyewitness credibility significantly predicted post deliberation verdict certainty scores, $\beta = .46$, $p < .001$. The other two eyewitness evaluation variables, eyewitness trustworthiness, $\beta = .03$, $p = .76$, and obligation to the eyewitness, $\beta = .13$, $p = .22$, were not significantly related to post deliberation verdict certainty for police officer eyewitness condition participants. The initial model predicted 24% of the variance in post deliberation verdict certainty decisions.

Non-significant mediator variables and paths were removed from the revised model to improve model fit. The revised model tested no longer contained legal cynicism, eyewitness trustworthiness, or obligation to the eyewitness, as they did not add any significant predictive variance to the previous model. The revised model tested paths from procedural justice predicting police legitimacy, police legitimacy predicting eyewitness credibility, and eyewitness credibility predicting post deliberation verdict certainty. Results indicated that the model was a good fit to the data, $\chi^2(9) = 7.55$, $p = .58$. Other fit indices supported that the model as a good fit, NFI = .95, CFI = 1.00, RMSEA = .00 [90% CI:.00, .12], AIC =31.55 (see figure 11). Therefore, the revised model met criteria to be the final model predicting post deliberation verdict certainty for police officer eyewitness condition participants.

In the revised model, procedural justice significantly predicted police legitimacy, $\beta = .75$, $p < .001$ (see table 15). Police legitimacy was no longer a significant predictor of eyewitness credibility, however, in the new model, $\beta = .18$, $p = .17$. Eyewitness credibility significantly predicted post deliberation verdict certainty, $\beta = .52$, $p < .001$.

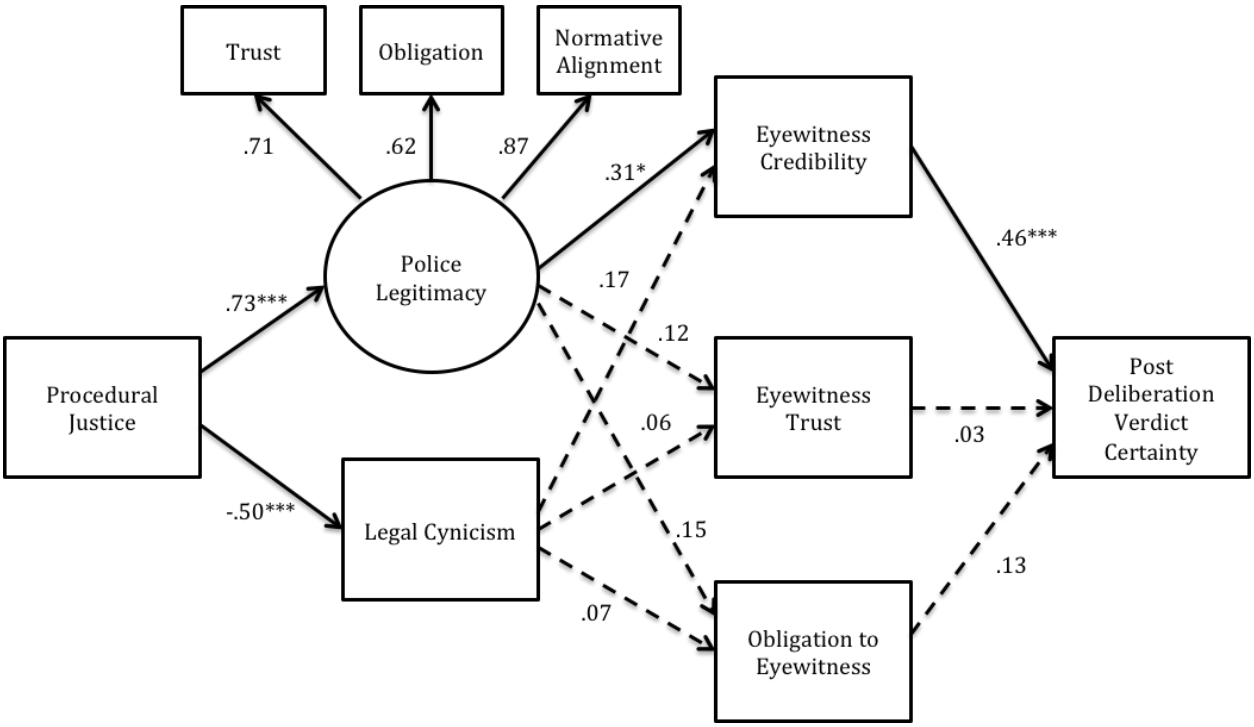

Figure 10. Police officer (neutral/control) eyewitness condition post deliberation decision initial model

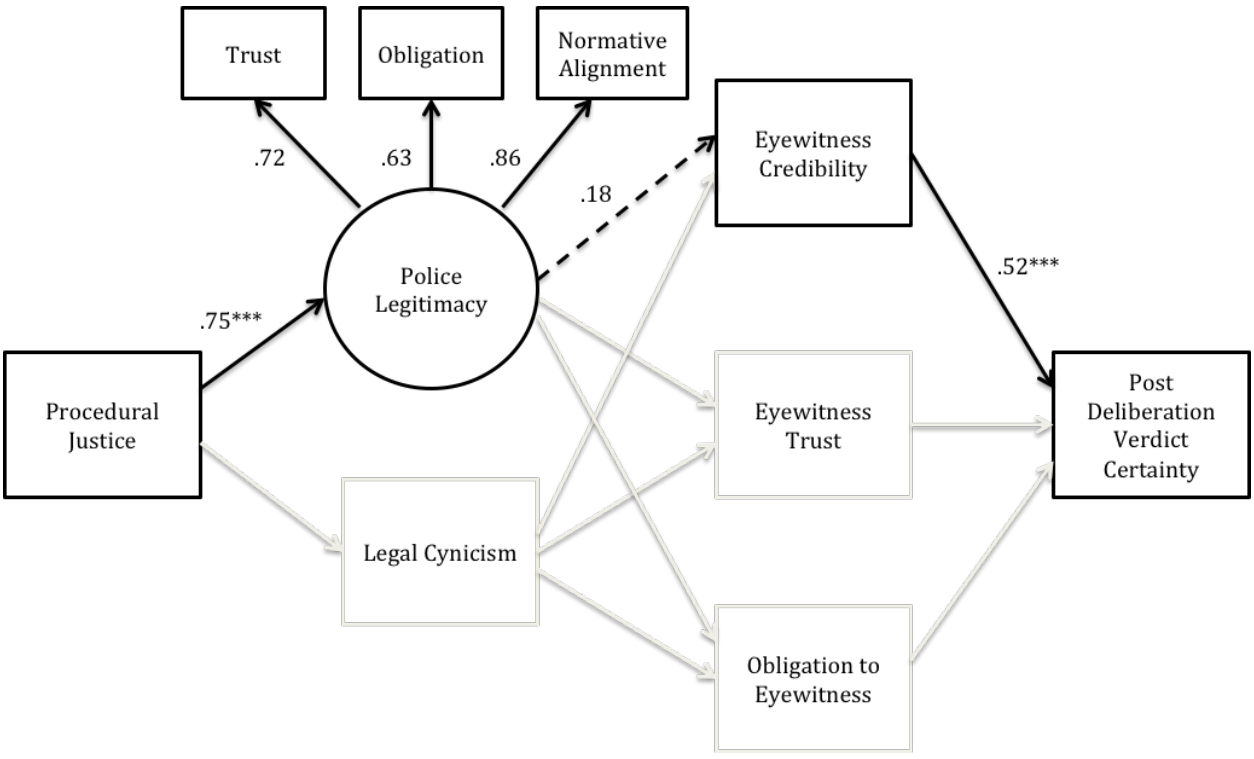

Figure 11. Police officer (neutral/control) eyewitness condition post deliberation decision final model

Table 15

Police officer (neutral/control) eyewitness condition SEM model for post deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.50***	-.53	.11	---	---	---
Legitimacy ← Procedural Justice	.73***	.10	.10	.75***	.51	.10
Eyewitness Credibility ← Cynicism	.17	.47	.35	---	---	---
Eyewitness Trust ← Cynicism	.06	.16	.35	---	---	---
Obligation to Eyewitness ← Cynicism	.07	.18	.32	---	---	---
Eyewitness Credibility ← Legitimacy	.31*	1.41	.65	.18	.77	.57
Eyewitness Trust ← Legitimacy	.12	.51	.61	---	---	---
Obligation to Eyewitness ← Legitimacy	.15	63	.57	---	---	---
Post VC ← Eyewitness Credibility	.46***	.71	.16	.52***	.83	.16
Post VC ← Eyewitness Trust	.03	.05	.16	---	---	---
Post VC ← Obligation to Eyewitness	.13	.21	.18	---	---	---
$\chi^2(df)$	119.31(22)***			7.55(9)		
N	73			73		
NFI	.56			.95		
CFI	.59			1.00		
RMSEA	.25			.00		
AIC	165.31			31.55		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

The final model suggested that the previously significant relation between police legitimacy and eyewitness credibility in the initial model was reduced to non-significance following the removal of other variables from the model. Bootstrapped bias correct confidence

intervals were calculated using 1,000 bootstrap samples for all paths in the model. The bootstrapped estimated path from procedural justice to police legitimacy was significant, $b = .51$, $p = .002$ [95% CI: .26, .76]. The estimated path from police legitimacy to eyewitness credibility was not significant however, $b = .77$, $p = .22$ [95% CI: -.46, 2.73]. The estimated path from eyewitness credibility predicting post deliberation verdict certainty was also significant, $b = .83$, $p = .002$ [95% CI: .50, 1.15]. The overall model predicted 27% of the variance in post deliberation verdict certainty decisions for police officer eyewitness condition participants.

Post deliberation decisions controlling for pre-deliberation decision models. Last, an initial model was fit to predict change in verdict certainty from pre-deliberation to post deliberation for police officer eyewitness condition participants. Pre-deliberation verdict certainty was incorporated into the model as a control variable with paths to all post deliberation measures including post deliberation verdict certainty, post deliberation eyewitness credibility, eyewitness trustworthiness, and obligation to the eyewitness. The control variable was entered to account for the effect of pre-deliberation verdict certainty decisions on post deliberation decision measures. The initial model was not found to be a good fit to the data, $\chi^2(27) = 117.81$, $p < .001$. Additional fit indices confirmed that the model was not a good fit, NFI = .59, CFI = .63, RMSEA = .22 [90% CI:.18, .26], AIC =173.81 (see figure 12).

The results of the initial model were similar to the initial model results for post deliberation verdict certainty decisions in the previous analyses. Procedural justice significantly predicted police legitimacy, $\beta = .74$, $p < .001$, and legal cynicism, $\beta = -.50$, $p < .001$ (see table 16). Police legitimacy significantly predicted eyewitness credibility, $\beta = .28$, $p = .04$, but was not a significant predictor of eyewitness trustworthiness, $\beta = .08$, $p = .54$, or obligation to the eyewitness, $\beta = .14$, $p = .33$. Legal cynicism was also not a significant predictor of eyewitness

credibility, $\beta = .16$, $p = .18$, eyewitness trustworthiness, $\beta = .05$, $p = .69$, or obligation to the eyewitness, $\beta = .06$, $p = .62$. Eyewitness credibility significantly predicted post deliberation verdict certainty scores, controlling for pre-deliberation verdict certainty, $\beta = .38$, $p < .001$. Neither eyewitness trustworthiness, $\beta = .04$, $p = .67$, nor obligation to the eyewitness, $\beta = .13$, $p = .20$, were significant predictors of change in verdict certainty from pre-deliberation to post deliberation. The initial model predicted 27% of the variance in post deliberation verdict certainty scores, controlling for pre-deliberation verdict certainty decisions.

The initial model was not a good fit to the data and many of the paths were non-significant. Paths and variables that did not contribute to the model were therefore removed from the revised model predicting change in verdict certainty from pre-deliberation to post deliberation to increase model fit. The revised model only included procedural justice, police legitimacy, and eyewitness credibility as predictors and mediators. The revised model had good model fit, $\chi^2(13) = 9.38$, $p = .74$, and met standards for the final model. Additional fit indices further suggested that the current model was not a good fit, NFI = .94, CFI = 1.00, RMSEA = .00 [90% CI:.00, .09], AIC =39.38 (see figure 16).

The model pattern replicated the previous model predicting post deliberation verdict certainty decisions. In the final model, procedural justice significantly predicted police legitimacy, $\beta = .74$, $p < .001$ (see table 16). Police legitimacy no longer was significantly related to eyewitness credibility in the final model, $\beta = .15$, $p = .21$. Eyewitness credibility significantly predicted post deliberation verdict certainty controlling for pre-deliberation verdict certainty scores, $\beta = .45$, $p < .001$. The path from pre-deliberation verdict certainty to post deliberation verdict certainty was not significant in the current model, $\beta = .21$, $p = .06$, suggesting that there was a large degree of inconsistency in verdict certainty from pre-deliberation to post deliberation.

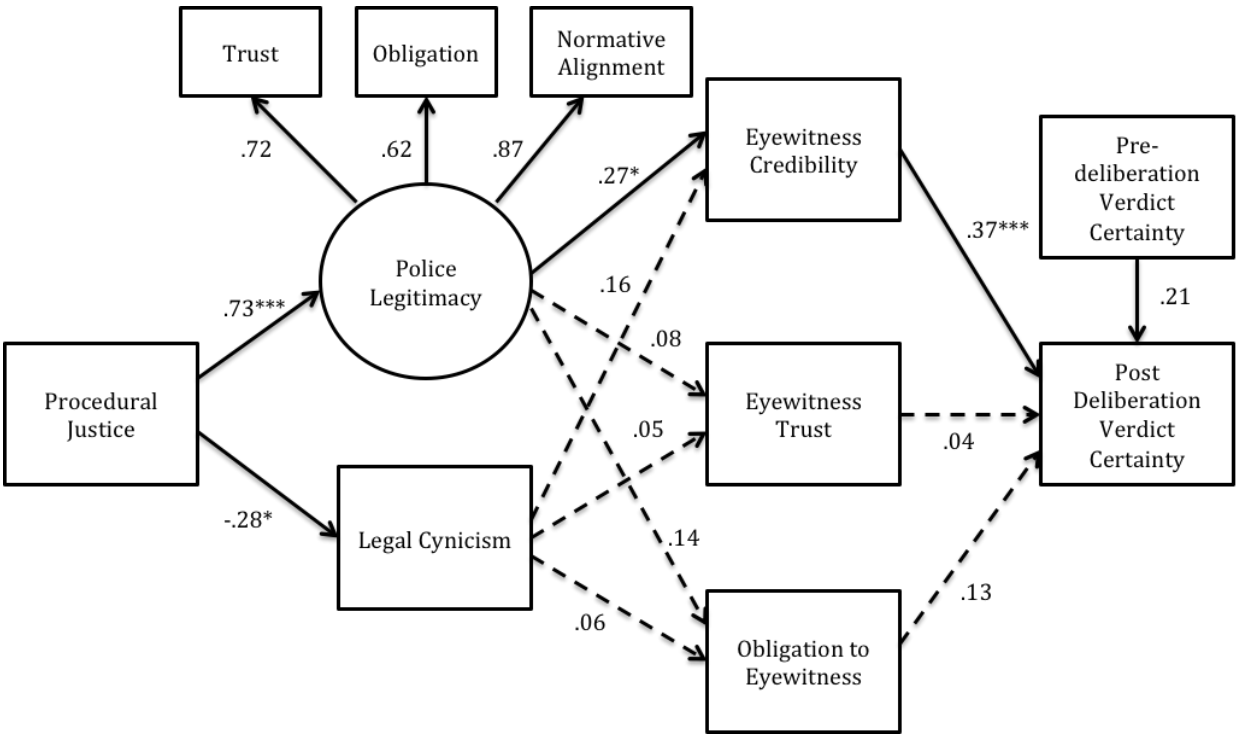

Figure 12. Police officer (neutral/control) eyewitness condition post deliberation decision controlling for pre-deliberation decisions initial model

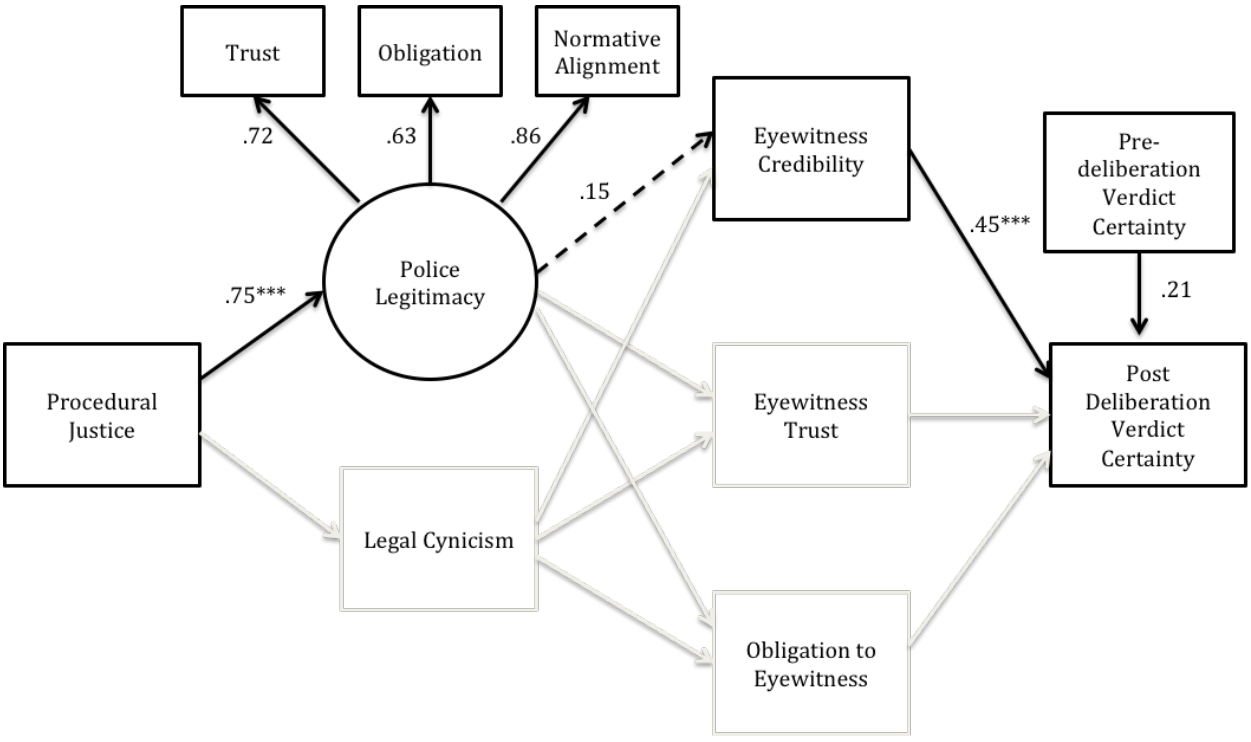

Figure 13. Police officer (neutral/control) eyewitness condition post deliberation decision controlling for pre-deliberation decisions final model

Table 16

Police officer eyewitness (neutral/control) eyewitness condition SEM model predicting post deliberation decisions controlling for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.50***	-.53	.11	---	---	---
Legitimacy ← Procedural Justice	.74***	.50	.10	.74***	.51	.10
Eyewitness Credibility ← Cynicism	.16	.44	.33	---	---	---
Eyewitness Trust ← Cynicism	.05	.14	.35	---	---	---
Obligation to Eyewitness ← Cynicism	.06	.16	.32	---	---	---
Eyewitness Credibility ← Legitimacy	.28*	1.23	.60	.15	.66	.53
Eyewitness Trust ← Legitimacy	.08	.37	.60	---	---	---
Obligation to Eyewitness ← Legitimacy	.14	.55	.56	---	---	---
Post VC ← Eyewitness Credibility	.38***	.58	.17	.45***	.72	.17
Post VC ← Eyewitness Trust	.04	.07	.16	---	---	---
Post VC ← Obligation to Eyewitness	.13	.23	.17	---	---	---
Eyewitness Credibility ← Pre VC	.33**	.17	.06	.34**	.17	.06
Eyewitness Trust ← Pre VC	.22	.11	.06	---	---	---
Obligation to Eyewitness ← Pre VC	.11	.05	.05	---	---	---
Post VC ← Pre VC	.21	.16	.09	.20	.16	.09
$\chi^2(df)$	136.29(27)***			9.38(13)		
N	73			73		
NFI	.60			.94		
CFI	.63			1.00		
RMSEA	.25			.00		
AIC	170.61			39.38		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

The path from pre-deliberation verdict certainty to post deliberation credibility was significant, however, $\beta = .34$, $p = .002$. The removal of non-significant variables from the initial model

seemed to impact the predictive ability of police legitimacy to significantly predict eyewitness credibility ratings.

Bias corrected bootstrapped confidence intervals using 1,000 bootstrap samples were calculated for all of the paths in the final model. The estimated bootstrapped path predicting police legitimacy from procedural justice was significant, $b = .51$, $p = .002$ [95% CI: .26, .76]. The path predicting eyewitness credibility from police legitimacy was not found to be significant, $b = .66$, $p = .26$ [95% CI: -.50, 2.67]. The estimated path predicting post deliberation verdict certainty while controlling for pre-deliberation verdict certainty from eyewitness credibility was significant, $b = .72$, $p = .002$ [95% CI: .40, 1.05], as well as the path from pre-deliberation verdict certainty to post deliberation eyewitness credibility, $b = .17$, $p = .007$ [95% CI: .05, .28]. The path from pre-deliberation verdict certainty to post deliberation verdict certainty was not significant, however, $b = .16$, $p = .06$ [95% CI: -.01, .31]. The final model predicted 30% of the variance in change in verdict certainty from pre-deliberation to post deliberation.

Comparing police officer eyewitness conditions.

Differences in verdict decisions. In order to compare the effect of police officer eyewitness reputation on verdict decisions, the three police officer eyewitness conditions (good reputation, bad reputation, neutral/control) were examined next. First regression analyses were conducted to determine an effect of reputation manipulation on pre-deliberation verdict, post deliberation verdict, and change in verdict decisions. As in the regression analyses comparing lay eyewitness condition participants to police officer eyewitness condition (neutral/control) participants, demographic variables, the procedural justice model variables, and eyewitness evaluation variables were controlled for.

Pre-deliberation verdict decisions. First, a binary logistic regression was conducted to determine the effect of police officer eyewitness reputation manipulations on pre-deliberation verdict and verdict certainty, controlling for demographic variables (age, income, sex), the procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness). The regression analysis included two dummy coded variables to represent the three experimental conditions under examination. The dummy coded variables were then rotated to include comparisons between all conditions. The overall regression analysis was significant, $\chi^2(11) = 96.14$, $p < .001$. In examination of individual predictors, results revealed that there was no significant effect of police officer eyewitness reputation condition compared to control on pre-deliberation verdict decisions when controlling for all other variables in the model (see table 17). Specifically, the difference between good reputation condition (coded 1) participant verdicts and the control condition (coded 0) were not statistically significant, $B = -.25$, Exp(B) = .78, $p = .54$. Furthermore there were no significant difference between the bad reputation condition (coded 1) participant verdicts and the control condition (coded 0) decisions, $B = .80$, Exp(B) = 2.23, $p = .08$. Dummy variables were then rotated to examine differences between the good reputation and bad reputation police officer eyewitness conditions. In this case there was a significant difference between good reputation condition (coded 1) participant verdicts and bad reputation condition (coded 0) participant verdict decisions, $B = -1.05$, Exp(B) = .35, $p = .02$ (see table 17). Participants in the good reputation police officer eyewitness condition provided significantly less guilty verdicts than participants in the bad reputation police officer eyewitness condition, controlling for all other variables in the model.

A few of the control variables were found to be significant predictors of pre-deliberation verdict. Sex, B = .95, Exp(B) = 2.58, p = .01, was found to be a significant predictor of pre-deliberation verdict, while age, B = -.01, Exp(B) = .99, p = .92, and household income, B = .23, Exp(B) = 1.26, p = .06, were not significantly related. Female participants were more likely to render a guilty verdict than male participants. None of the procedural justice model variables were found to be significant predictors of pre-deliberation verdict: procedural justice, B = .03, Exp(B) = 1.03, p = .93, police legitimacy, B = .75, Exp(B) = 2.11, p = .11, and legal cynicism, B = .40, Exp(B) = 1.50, p = .13. Finally, both eyewitness credibility, B = .72, Exp(B) = 2.06, p < .001, and eyewitness trustworthiness, B = .27, Exp(B) = 1.31, p = .04, were significant predictors of pre-deliberation verdict. The more participants felt the eyewitness was credible and/or trustworthiness, the more likely they were to give a guilty verdict. Obligation to the eyewitness, however, was not significantly predictive of pre-deliberation verdict, B = .00, Exp(B) = 1.00, p = .99. The model was able to accurately predict 76.9% of participant verdict decisions (65.7% of individuals who voted not guilty, 85.2% of participants who voted guilty) and accounted for 45.3% of the variance in verdict decisions, Negelkerke's R^2 = .45.

Next, an OLS regression was conducted to examine differences between police officer eyewitness reputation conditions (good, bad, neutral/control) on participant verdict certainty decisions, controlling for demographics (age, income, sex), procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness). The overall regression was significant in predicting pre-deliberation verdict certainty, F(11, 222) = 12.66, p < .001, R^2 = .39 (see table 17). In examining the results of the individual predictors, there was no significant differences identified between the two reputation conditions (good, bad) compared

to the control condition on pre-deliberation verdict certainty, controlling for all other variables in the model. Both the good reputation condition (coded 1) participant decisions, β = -.06, t(222) = -.89, p = .37, and the bad reputation condition (coded 1) participant decisions, β = .11, t(222) = 1.61, p = .11, did not significantly differ from the control condition (coded 0) participants' decisions. The dummy coded variables representing conditions were then rotated to compare the good reputation condition with bad reputation condition. Results indicated that there was a significant difference between good reputation police officer condition (coded 1) participant verdict certainty scores and bad reputation police officer condition (coded 0) participant scores, β = -.17, t(222) = -2.44, p = .02, controlling for all other variables in the model. This indicated that participants in the good reputation police officer condition were significantly more likely to have greater certainty for a not guilty verdict.

Sex was the only demographic variable to significantly predict pre-deliberation verdict certainty scores, β = .14, t(222) = 2.42, p = .02. Female participants were significantly more likely to have greater certainty for guilty verdicts than male participants. Household income, β = .09, t(222) = 1.54, p = .12, and age, β = -.01, t(222) = -.09, p = .93, were not significantly related to verdict certainty. Furthermore, procedural justice, β = .01, t(222) = .12, p = .91, police legitimacy, β = .12, t(222) = 1.65, p = .10, and legal cynicism, β = .07, t(222) = 1.25, p = .21, also did not significantly predict pre-deliberation verdict certainty. Of the eyewitness evaluation variables, eyewitness credibility, β = .45, t(222) = 6.40, p < .001, and eyewitness trustworthiness, β = .20, t(222) = 2.47, p = .01, were significant predictors in the model. Participants who viewed the eyewitness as more credible and/or trustworthy were more likely to provide greater certainty for a guilty verdict than participants who viewed the eyewitness as not credible or untrustworthy.

Obligation to the eyewitness was not a significant predictor of pre-deliberation verdict certainty, $\beta = -.01$, $t(222) = 0.20$, $p = .84$.

Table 17

Regressions comparing police officer eyewitness reputation conditions: Pre-deliberation decisions

	Pre-deliberation Verdict			**Pre-deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.01	.12	.99	-.01	.14	-.01
Income	.23	12	3.59	.22	.14	.09
Sex	.95*	.37	2.58	1.07*	.44	.14
Procedural Justice	.03	.35	1.03	.05	.41	.01
Police Legitimacy	.75	.46	2.11	.91	.55	.12
Legal Cynicism	.40	.27	1.49	.41	.33	.07
Eyewitness Credibility	.72***	.14	2.06	.98***	.15	.45
Eyewitness Trustworthiness	.27*	.13	1.31	.37*	.15	.20
Obligation to Eyewitness	.00	.12	1.00	-.03	.14	-.01
Good Reputation/Control	-.25	.41	.78	-.45	.50	-.06
Bad Reputation/Control	.80	.46	2.23	.87	.54	.11
Good Reputation/Bad Reputation	-1.05*	.46	.35			
Intercept	-12.42			-14.96		
Omnibus tests	**$\chi^2(11) = 96.14$***, *Negelkerke's* R^2=.45**			**$F(11, 222) = 12.66$***, R^2=.39**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

Post deliberation verdict decisions. To test the effect of condition on post deliberation verdict decisions, a second binary logistic regression was conducted using post deliberation measures and controlling for the same participant demographics, procedural justice model variables, and eyewitness evaluation variables, as in the previous analyses. The overall

regression was significant, $\chi^2(11) = 97.47$, $p < .001$ (see table 18). Police officer eyewitness reputation condition showed a significant effect on post deliberation verdict decisions. Bad reputation police officer eyewitness condition (coded 1) participants' verdict decisions were found to be significantly different from control condition (coded 0) participants' verdict decisions, $B = 1.77$, Exp(B) = 5.85, $p = .001$, while controlling for the other variables in the model. Participants in the bad reputation police officer eyewitness condition were significantly more likely to render a guilty verdict than participants in the control condition. Participants in the good reputation condition and control condition did not significantly differ in their post deliberation verdict decisions, $B = .28$, Exp(B) = 1.32, $p = .57$. The dummy coded variables representing reputation conditions were rotated to examine differences between the good reputation and bad reputation condition participants. In comparing the two reputation manipulated conditions, good reputation police officer eyewitness condition (coded 1) participants were found to be significantly different from bad reputation police officer condition (coded 0) participants in the verdict decisions provided, $B = -1.49$, Exp(B) = .23, $p = .003$. Participants in the good reputation condition were significantly more likely to give a verdict of not guilty at post deliberation than participants in the bad reputation condition.

Additionally, the demographic variables, including age, $B = -.04$, Exp(B) = .97, $p = .83$, household income, $B = -.01$, Exp(B) = .99, $p = .92$, and sex, $B = .35$, Exp(B) = 1.42, $p = .41$, were found to not be significantly predictive of post deliberation verdict. Of the procedural justice model variables, legal cynicism was found to be a significant predictor of post deliberation verdict, $B = .80$, Exp(B) = 2.22, $p = .01$, however, procedural justice, $B = .10$, Exp(B) = 1.11, $p = .81$, and police legitimacy, $B = .13$, Exp(B) = 1.13, $p = .82$, were not significantly related to verdict decisions. Last, eyewitness credibility, $B = .83$, Exp(B) = 2.29, p

< .001, and eyewitness trustworthiness, B = .34, Exp(B) = 1.41, p = .05, were also identified as significant predictors of post deliberation verdict. Once again, obligation to the eyewitness was not significantly related, B = .00, Exp(B) = 1.00, p = .98. The model accurately predicted 80.3% of participant post deliberation verdict decisions (89.2% of participants who said not guilty, 58.8% of participants who said guilty) and accounted for a large proportion of the variance, Negelkerke's R^2 = .49. The model did seem to better predict acquittals than it did guilty verdicts, as noted by the accuracy for each prediction type.

An OLS regression was conducted to examine differences between reputation manipulation conditions on post deliberation verdict certainty scores. As in the previous analyses, demographic variables (age, income, sex), procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness), were entered in to the regression as controls. Police officer eyewitness reputation condition was identified by two dummy coded variables in the model. The coding was rotated to examine the effect of condition across all three conditions in the analysis.

The overall regression was significant, $F(11, 222) = 11.55$, $p < .001$, $R^2 = 36$ (see table 18). Results revealed that there was a significant difference between some of the conditions on participant post deliberation verdict certainty. Bad reputation police officer witness condition (coded 1) participants were significantly more likely to have greater certainty for a guilty verdict than the control condition (coded 0) participants, $\beta = .27$, $t(222) = 4.02$, $p < .001$. Good reputation police officer eyewitness condition (coded 1) participants did not significantly differ in verdict certainty from control condition (coded 0) participants, $\beta = .09$, $t(222) = 1.34$, $p = .18$. The dummy coding variables were then rotated to compare good reputation police officer

eyewitness condition participants with the bad reputation police officer eyewitness condition participants on verdict certainty. Good reputation condition (coded 1) participants were significantly more likely to have greater certainty for a not guilty verdict than bad reputation condition (coded 0) participants, $\beta = -.18$, $t(222) = -2.74$, $p = .007$.

Table 18

Regressions comparing police officer eyewitness credibility conditions: Post deliberation decisions

	Post Deliberation Verdict			**Post Deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.04	.16	.97	.00	.13	.00
Income	-.01	.14	.99	.06	.14	.02
Sex	.35	.42	1.42	.27	.42	.04
Procedural Justice	.10	.42	1.11	.21	.40	.04
Police Legitimacy	.13	.54	1.13	.21	.51	.03
Legal Cynicism	.80*	.32	2.22	.76*	.31	.15
Eyewitness Credibility	.83***	.18	2.29	.76***	.15	.40
Eyewitness Trustworthiness	.34*	.17	1.41	.22	.15	.12
Obligation to Eyewitness	.00	.15	.99	.15	.12	.09
Good Reputation/Control	.28	.50	1.32	.64	.48	.09
Bad Reputation/Control	1.77**	.52	5.85	1.97***	.49	.27
Good Reputation/Bad Reputation	-1.49**	.51	.23	-1.33**	.49	-.18
Intercept	-12.29			-14.96		
Omnibus tests	**$\chi^2(11) = 97.47$***, *Negelkerke's* R^2=.49**			**$F(11, 222) = 11.55$***, R^2=.36**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

There were no significant relations found between the demographic variables, age, $\beta = .00$, $t(222) = .01$, $p = .99$, income, $\beta = .02$, $t(222) = .40$, $p = .67$, and sex, $\beta = .04$, $t(222) = .65$,

$p = .52$, and participant post deliberation verdict certainty scores. Legal cynicism was a significant predictor of post deliberation verdict certainty, $\beta = .15$ $t(222) = 2.49$, $p = .01$; procedural justice, $\beta = .04$, $t(222) = .54$, $p = .59$, and police legitimacy, $\beta = .03$, $t(222) = .41$, $p = .68$, were not found to be significant predictors. Furthermore, eyewitness credibility was identified as a significant predictor of post deliberation verdict certainty, $\beta = .40$, $t(222) = 5.16$, $p < .001$. Participants who viewed the police officer eyewitness as more credible were also more likely to have greater certainty for a guilty verdict. However, eyewitness trustworthiness, $\beta = .12$, $t(222) = 1.45$, $p = .15$, and obligation to the eyewitness, $\beta = .09$, $t(222) = 1.26$, $p = .21$, were not significantly related to the verdict certainty measure. Results of the OLS regression analysis replicated the majority of the pattern found from the binary logistic regression analysis, except that eyewitness trustworthiness was not a significant predictor of verdict certainty, where it had been a predictor of the verdict decision alone.

Post deliberation verdict decisions controlling for pre-deliberation decisions. Finally, to examine differences in changes in verdict decision across police officer eyewitness reputation conditions from pre-deliberation to post deliberation, a binary logistic regression was conducted to predict post deliberation verdict while controlling for pre-deliberation verdict decisions. The other control variables, including demographics (age, income, sex), procedural justice model variables (procedural justice, police legitimacy, legal cynicism), and eyewitness evaluation variables (eyewitness credibility, eyewitness trustworthiness, obligation to the eyewitness) were also included in the analysis. Results from the overall regression were found to be significant, $\chi^2(12) = 107.19$, $p < .001$ (see table 19).

There were significant differences identified between police officer eyewitness reputation conditions on change in verdict decision. Participants in the bad reputation police officer

condition (coded 1) were significantly more likely to provide a guilty verdict at post deliberation than participants in the control condition (coded 0), $B = 1.67$, Exp(B) = 5.29, $p = .002$, controlling for pre-deliberation decisions. Good reputation condition participants (coded 1) were not significantly different from control condition participants (coded 0) in post deliberation verdict decisions, $B = .28$, Exp(B) = 1.32, $p = .58$, controlling for pre-deliberation verdict decisions. The coding was then rotated to examine differences between the good reputation and bad reputation police officer eyewitness conditions. Good reputation condition participants (coded 1) were significantly more likely to acquit the defendant than participants in the bad reputation condition (coded 0), $B = -1.39$, Exp(B) = .25, $p = .009$.

In examining the control variables in the model, pre-deliberation verdict decisions significantly predicted post deliberation decisions, $B = 1.36$, Exp(B) = 3.88, $p = .003$, suggesting some continuity in decisions from pre-deliberation to post deliberation. The relation was not perfect, however, suggesting that there was also some change that occurred as well. None of the demographic variables were significant predictors of post deliberation verdict, controlling for pre-deliberation decisions. Specifically, age, $B = -.02$, Exp(B) = .98, $p = .91$, income, $B = -.08$, Exp(B) = .92, $p = .59$, and sex, $B = .15$, Exp(B) = 1.17, $p = .73$, were not significantly related to change in verdicts. Similar to the previous model findings, legal cynicism was a significant predictor of post deliberation verdict, controlling for pre-deliberation decisions, $B = .76$, Exp(B) = 2.15, $p = .02$. Procedural justice, $B = .26$, Exp(B) = 1.29, $p = .55$, and police legitimacy, $B = -.16$, Exp(B) = .86, $p = .78$, were not significantly related to change in verdict certainty.

Post deliberation eyewitness credibility was once again a significant predictor of post deliberation verdict, controlling for pre-deliberation decisions, $B = .77$, Exp(B) = 2.17, $p < .001$. The less credible participants viewed the eyewitness to be, the more likely they were to render a

not guilty verdict. The other two eyewitness evaluation variables, eyewitness trustworthiness, B = .31, Exp(B) = 1.37, p = .09, and obligation to the eyewitness, B = -.01, Exp(B) = .99, p = .95, were not significantly related, however. The model was able to accurately predict 82.9% (89.2% of participants who voted not guilty, 67.6% of participants who voted guilty) of participant verdict decisions at post deliberation, controlling for pre-deliberation verdict decisions. The model also accounted for a large proportion of the variance in verdict change, Negelkerke's R^2 = .53.

Last an OLS regression analysis was conducted to examine difference in verdict certainty change from pre-deliberation to post deliberation between police officer eyewitness reputation conditions. The analysis included the same variables as the binary logistic regression predicting changes in overall verdict. Results of the overall regression were significant, $F(12, 221) = 12.06$, $p < .001$, $R^2 = 40$. Participants in the bad reputation eyewitness condition (coded 1) were significantly more likely to have greater certainty for a guilty verdict than participants in the control condition (coded 0), $\beta = .26$, $t(221) = 4.00$, $p < .001$. Participants in the good reputation manipulation condition (coded 1) were not significantly different from control condition participants (coded 0) on verdict certainty scores at post deliberation, controlling for scores at pre-deliberation, $\beta = .09$ $t(221) = 1.43$, $p = .15$. The coding was rotated to examine differences between the reputation manipulation conditions (good, bad). Participants in the good reputation condition (coded 1) were found to have significantly greater certainty for not guilty verdicts than participants in the bad reputation condition (coded 0), $\beta = -.17$, $t(221) = -2.64$, $p = .009$.

Pre-deliberation verdict certainty scores were significantly predictive of post deliberation verdict certainty scores, $\beta = .20$, $t(221) = 3.41$, $p = .001$; participants who had greater certainty for a guilty verdict at pre-deliberation were significantly likely to also have greater certainty for a

guilty verdict at post deliberation. Consistent with the previous findings for post deliberation decisions and change, age, $\beta = .00$, $t(221) = -.05$, $p = .96$, income, $\beta = .00$, $t(221) = .07$, $p = .94$, and sex, $\beta = .00$, $t(221) = .01$, $p = .99$, were not found to be significantly related to post deliberation verdict certainty, controlling for pre-deliberation verdict certainty decisions. Of the procedural justice model variables, legal cynicism was the only significant predictor, $\beta = .13$, $t(221) = 2.22$, $p = .03$. The more participants were cynical towards the legal system the more likely they were to be more certain of a guilty verdict. Procedural justice, $\beta = .05$, $t(221) = .70$, $p = .49$, and police legitimacy, $\beta = -.01$, $t(221) = -.08$, $p = .94$, were not significant predictors of changes in verdict certainty. Last, in examining the eyewitness evaluation variables in the model, eyewitness credibility was found to be the only significant predictor of post deliberation verdict certainty, controlling for pre-deliberation verdict certainty decisions, $\beta = .35$, $t(221) = 4.53$, $p < .001$. Participants who viewed the police officer witness as more credible were more likely to have greater certainty for a guilty verdict than participants who viewed the eyewitness as not credible. Eyewitness trustworthiness, $\beta = .11$, $t(221) = 1.34$, $p = .18$, and obligation to the eyewitness, $\beta = .07$, $t(221) = .98$, $p = .33$, were not significantly related to change in verdict certainty.

Overall, the results of the analyses examining differences in verdict and verdict certainty decisions between police officer eyewitness reputation conditions indicated that the effect of the reputation manipulation mainly emerged following the group deliberation. At post deliberation and for change from pre-deliberation to post deliberation, the bad reputation condition participants were found to be significantly different from the good reputation condition and control condition participants on verdict certainty. The good reputation and control condition participants, however, did not significantly differ. Several of the other variables also emerged as

Table 19

Regressions comparing police officer eyewitness reputation conditions: Post deliberation decisions controlling for pre-deliberation decisions

	Post Deliberation Verdict			**Post Deliberation Verdict Certainty**		
Variables	B	S.E.	Exp(B)	*b*	S.E.	β
Age	-.02	.16	.98	-.01	.13	.00
Income	-.08	.15	.92	.01	.13	.00
Sex	.15	.44	.73	.00	.42	.00
Procedural Justice	.26	.43	1.29	.27	.38	.05
Police Legitimacy	-.16	.56	.86	-.04	.51	-.01
Legal Cynicism	.77*	.34	2.15	.67*	.30	.13
Eyewitness Credibility	.77***	.19	2.17	.66***	.15	.35
Eyewitness Trustworthiness	.31	.18	1.37	.20	.15	.11
Obligation to Eyewitness	-.01	.15	.99	.12	.12	.07
Good Reputation/Control	.28	.51	1.32	.67	.47	.09
Bad Reputation/Control	1.67**	.53	5.29	1.92***	.48	.26
Good Reputation/Bad Reputation	-1.49**	.51	.23	-1.25**	.48	-.17
Pre-deliberation decisions	1.36**	.46	3.88	.18**	.05	.20
Intercept	-11.68			-9.09		
Omnibus tests	$\chi^2(12) = 107.19$***, *Negelkerke's* R^2**=.53**			$F(12, 221) = 12.06$***, R^2**=.40**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

significant predictors of verdict and verdict certainty, including eyewitness credibility, eyewitness trustworthiness, legal cynicism, and sex. Eyewitness credibility was significantly related at every measurement of verdict and verdict certainty, while eyewitness trustworthiness and sex were only significantly predictive of pre-deliberation decisions. Moreover, legal cynicism only appeared as a significant predictor following group deliberation, similarly to the

eyewitness credibility conditions. In order to determine the effect of the procedural justice model and eyewitness evaluation variables in predicting verdict decisions for each condition, structural equation models were fit.

Combined police officer eyewitness models. To examine the influence of the procedural justice model of legal socialization and eyewitness evaluation variables on verdict decisions for police officer eyewitnesses, structural equation models were fit. Data across all reputation manipulations were combined for the following analysis first to establish an overall model, regardless of eyewitness reputation. Next, individual models were fit to examine differences in the model for good reputation police officer eyewitnesses and bad reputation police officer eyewitnesses. The first model constructed tested the initial model prediction (see figure 1) on pre-deliberation verdict certainty decisions for police officer eyewitnesses overall. Because sex was identified as a significant predictor of pre-deliberation verdict certainty in the regression analyses, it was added to the model as a control.

Pre-deliberation decision models. The initial model did not have good fit to the data, $\chi^2(30) = 250.36$, $p < .001$. Other fit indices failed to meet conventional standards, also indicating that the model was not a good fit, NFI = .62, CFI = .64, RMSEA = .18 [90% CI:.16, .20], AIC =300.36 (see figure 14). Results from the individual paths indicated that procedural justice significantly predicted police legitimacy, $\beta = .75$, $p < .001$, and legal cynicism, $\beta = -.23$, $p < .001$ (see table 20). Participants with higher procedural justice scores were significantly more likely to find the police legitimate and be less cynical about the legal system. Police legitimacy was a significant predictor of eyewitness credibility, $\beta = .18$, $p = .01$, but was not significantly related to eyewitness trustworthiness, $\beta = .11$, $p = .13$, or obligation to the eyewitness, $\beta = .06$, $p = .39$. Participants who viewed the police as legitimate authorities were more likely to find the police

officer eyewitness credible. Conversely, legal cynicism was not a significant predictor of eyewitness credibility, $\beta = .10$, $p = .13$, eyewitness trustworthiness, $\beta = .05$, $p = .45$, or obligation to the eyewitness, $\beta = -.02$, $p = .81$. Consistent with previous results, eyewitness credibility was found to be a significant predictor of pre-deliberation verdict certainty, $\beta = .52$, $p < .001$. Participants who viewed the eyewitness as more credible were more likely to have greater certainty for a guilty verdict than participants who did not find the eyewitness credible. Eyewitness trust, $\beta = .11$, $p = .05$, was only marginally significant, and obligation to the eyewitness was a non-significant predictor in the model, $\beta = .02$, $p = .74$. The overall model accounted for approximately 30% of the variance in verdict certainty scores.

Non-significant predictors and paths were removed from the model to increase model fit. The revised model included procedural justice, police legitimacy, eyewitness credibility, and sex. Legal cynicism, eyewitness trustworthiness, and obligation to the eyewitness were omitted from the revised model. The revised model had good fit, $\chi^2(14) = 20.24$, $p = .12$, and met standards to become the final model for pre-deliberation verdict certainty for police officer witnesses. Other fit indices showed support for the current model as a good fit to the data, NFI = .95, CFI = .98, RMSEA = .04 [90% CI:.00, .08], AIC =48.24 (see figure 15). In the now final model, procedural justice significantly predicted police legitimacy, $\beta = .75$, $p < .001$ (see table 20). Participants who have had positive interactions with the police were more likely to find them to be legitimate authorities. Similar to the police officer witness condition (neutral reputation) models from the previous sections (see figures 11 and 13), police legitimacy was no longer a

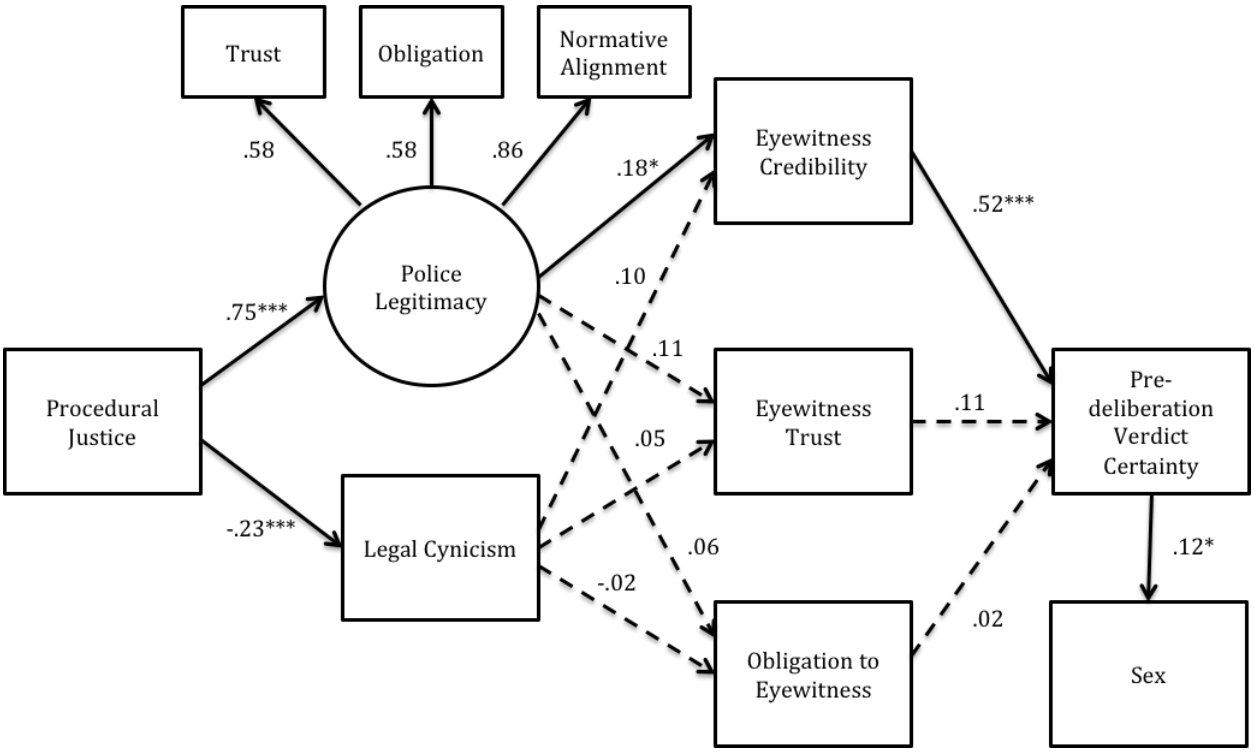

Figure 14. Combined police officer eyewitness conditions (good, bad, neutral/control) pre-deliberation decision initial model

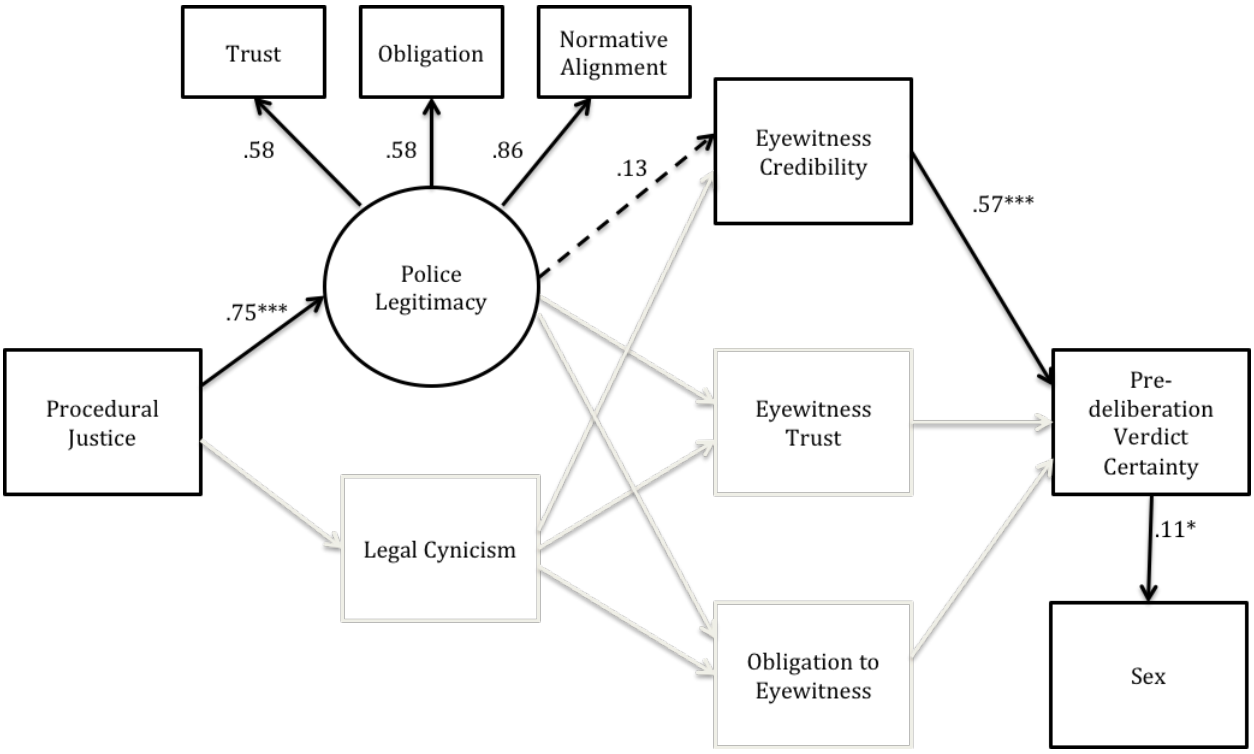

Figure 15. Combined police officer eyewitness conditions (good, bad, neutral/control) pre-deliberation decision final model

Table 20

Combined police officer eyewitness conditions SEM model for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Legal Cynicism ← Procedural Justice	-.23***	-.23	.07	---	---	---
Police Legitimacy ← Procedural Justice	.75***	.47	.06	.75***	.47	.05
Eyewitness Credibility ← Legal Cynicism	.10	.26	.17	---	---	---
Eyewitness Trust ← Legal Cynicism	.05	.15	.20	---	---	---
Obligation to Eyewitness ← Legal Cynicism	-.02	-.04	.18	---	---	---
Eyewitness Credibility ← Police Legitimacy	.18*	.80	.32	.13	.56	.31
Eyewitness Trust ← Police Legitimacy	.11	.55	.36	---	---	---
Obligation to Eyewitness ← Police Legitimacy	.06	.28	.33	---	---	---
Pre VC ← Eyewitness Credibility	.52***	1.08	.11	.57***	1.22	.11
Pre VC ← Eyewitness Trust	.11	.19	.10	---	---	---
Pre VC ← Obligation to Eyewitness	.02	.04	.11	---	---	---
Sex	.12*	.91	.41	.11*	.85	.41
$\chi^2(df)$	250.36(30)***			20.24(14)		
N	237			237		
NFI	.62			.95		
CFI	.64			.98		
RMSEA	.18			.04		
AIC	300.36			48.24		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

significant predictor of eyewitness credibility, $\beta = .13$, $p = .07$. Eyewitness credibility, $\beta = .57$, $p < .001$, as well as sex, $\beta = .11$, $p = .04$, did predict pre-deliberation verdict certainty in the model. Therefore, participants who viewed the eyewitness as credible and participants who were female were significantly more likely to have greater certainty for a guilty verdict at pre-deliberation.

Bias corrected bootstrapped confidence intervals were calculated using 1,000 bootstrap samples for all paths in the model. The bootstrapped estimated path from procedural justice to police legitimacy was significant, $b = .47$, $p = .001$ [95% CI: .40, .61]. The estimated path from police legitimacy to eyewitness credibility was not significant however, $b = .56$, $p = .09$ [95% CI: -.10, 1.35]. Finally estimated paths from both eyewitness credibility, $b = 1.22$, $p = .003$ [95% CI: 1.04, 1.38], and sex, $b = .72$, $p = .002$ [95% CI: .40, 1.05], were significant predictors of pre-deliberation verdict certainty. The final model significantly predicted approximately 34% of the variance in pre-deliberation verdict certainty for participants in the police officer eyewitness conditions.

Post deliberation decision models. Next, the initial model was fit to examine post deliberation verdict certainty scores. Sex was included as a control as it was shown to be a significant predictor of verdict certainty at pre-deliberation. Results indicated that the initial model overall did not have good fit to the data, $\chi^2(30) = 299.55$, $p < .001$ (see figure 16). Additional fit indices also suggested that the initial model was not a good fit, NFI = .57, CFI = .59, RMSEA = .20 [90% CI:.18, .22], AIC =349.55. There were several paths that showed significant relations in the model. Procedural justice significantly predicted police legitimacy, $\beta = .75$, $p < .001$, and legal cynicism, $\beta = -.23$, $p < .001$ (see table 21). The more participants felt the police were procedurally fair, the more likely they were to view the police as legitimate authorities and the less likely they were to be cynical about the legal system.

Police legitimacy was also significantly related to eyewitness credibility, $\beta = .23$, $p = .002$, eyewitness trustworthiness, $\beta = .21$, $p = .006$, and obligation to the eyewitness, $\beta = .16$, $p = .03$. The more participants viewed the police as legitimate authorities, the more likely they were to find the police officer eyewitnesses as credible and trustworthy, and feel obligated to listen to the eyewitness' testimony. Legal cynicism was not significantly related to any of the eyewitness evaluation variables, including eyewitness credibility, $\beta = .10$, $p = .14$, eyewitness trustworthiness, $\beta = .07$, $p = .26$, and obligation to the eyewitness, $\beta = .02$, $p = .71$. Eyewitness credibility was the only direct predictor of post deliberation verdict certainty, $\beta = .51$, $p < .001$. Eyewitness trustworthiness, $\beta = .04$, $p = .49$, obligation to the eyewitness, $\beta = .06$, $p = .32$, and sex, $\beta = .03$, $p = .62$, were not found to be significant predictors. The model overall predicted 27% of the variance in post deliberation verdict certainty scores.

In order to improve model fit, non-significant predictors and paths were removed from the model. Legal cynicism, eyewitness trustworthiness, obligation to the eyewitness, and sex were eliminated from the model, as they were not significantly predictive of the other variables in the model. The new revised model only tested paths from procedural justice to police legitimacy, police legitimacy to eyewitness credibility, and eyewitness credibility to post deliberation verdict certainty. The revised model had strikingly improved model fit and was found to be a good fitting model overall, $\chi^2(9) = 9.35$, $p = .41$ (see figure 17). Additionally, the other fit indices indicated that the new model was a good fit to the data and met criteria to be the final model predicting post deliberation verdict certainty, NFI = .98, CFI = 1.00, RMSEA = .01 [90% CI:.00, .08], AIC =33.35. All paths were found to be significant. Procedural justice significantly predicted police legitimacy, $\beta = .75$, $p < .001$. Police legitimacy significantly

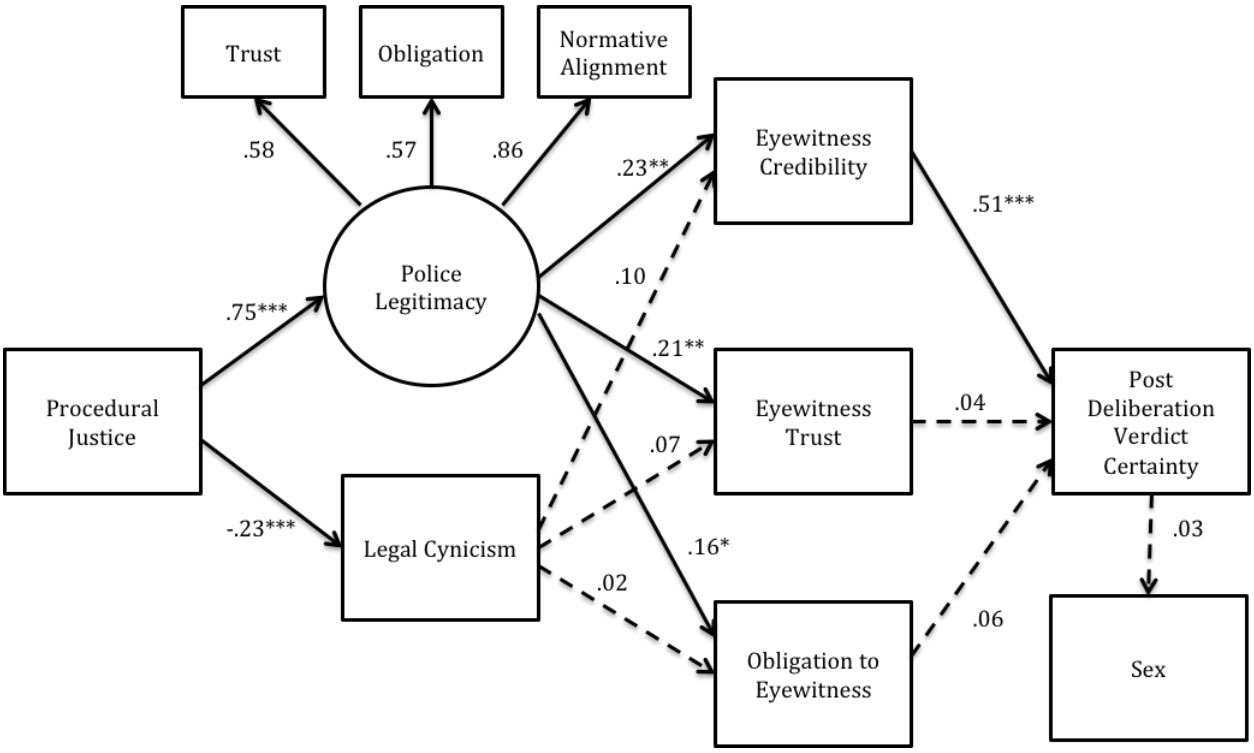

Figure 16. Combined police officer eyewitness conditions (good, bad, neutral/control) post deliberation decision initial model

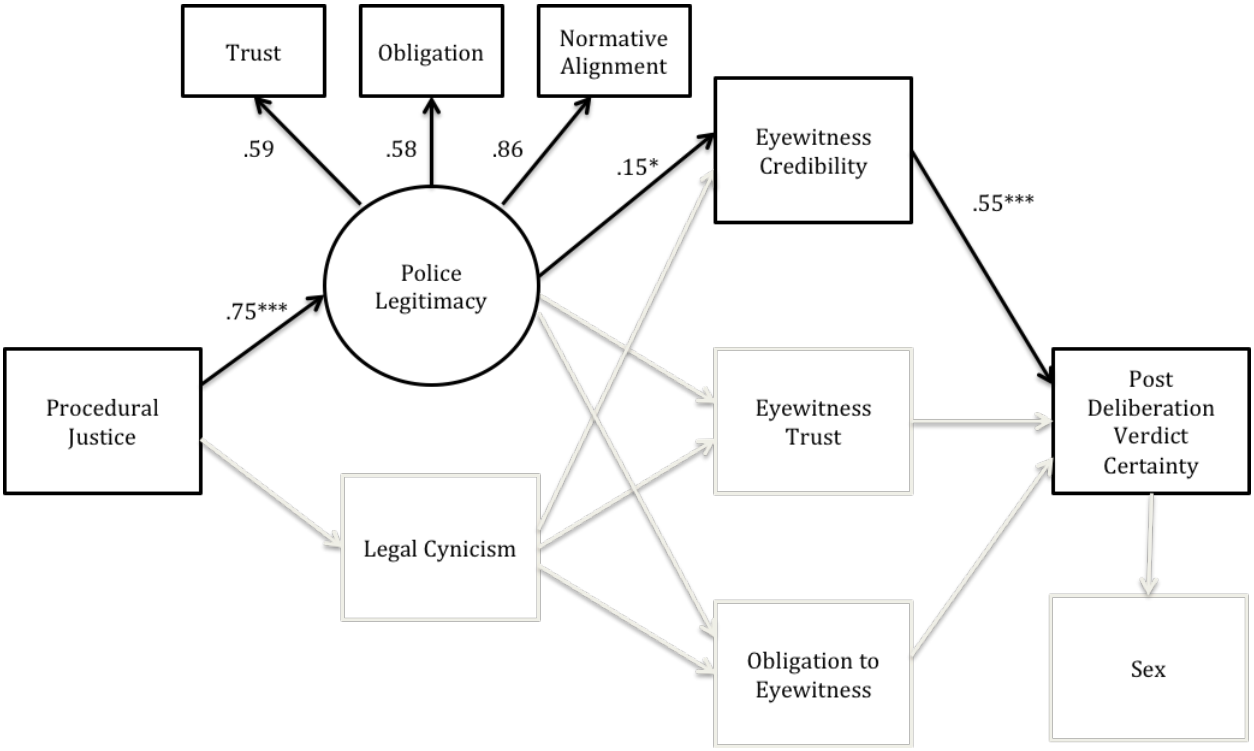

Figure 17. Combined police officer eyewitness conditions (good, bad, neutral/control) post deliberation decision final model

Table 21

Combined police officer eyewitness conditions SEM model for post deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.23***	-.23	.07	---	---	---
Legitimacy ← Procedural Justice	.75***	.49	.06	.76***	.47	.06
Eyewitness Credibility ← Cynicism	.10	.27	.18	---	---	---
Eyewitness Trust ← Cynicism	.07	.22	.20	---	---	---
Obligation to Eyewitness ← Cynicism	.02	.07	.20	---	---	---
Eyewitness Credibility ← Legitimacy	.23**	1.09	.35	.15*	.70	.33
Eyewitness Trust ← Legitimacy	.21**	1.03	.37	---	---	---
Obligation to Eyewitness ← Legitimacy	.16*	.82	.37	---	---	---
Post VC ← Eyewitness Credibility	.51***	.92	.10	.55***	1.02	.10
Post VC ← Eyewitness Trust	.04	.07	.10	---	---	---
Post VC ← Obligation to Eyewitness	.06	.10	.10	---	---	---
Sex	.03	.20	.39	---	---	---
$\chi^2(df)$	299.55(30)***			9.35(9)		
N	237			237		
NFI	.57			.98		
CFI	.59			1.00		
RMSEA	.20			.01		
AIC	349.55			33.35		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

predicted post deliberation eyewitness credibility ratings, $\beta = .15$, $p = .03$. Finally, eyewitness credibility was a significant predictor of post deliberation verdict certainty, $\beta = .55$, $p < .001$.

Last, bias corrected bootstrapped confidence intervals were calculated using 1,000 bootstrap samples to test the validity of the paths from the final model. All estimated paths were found to be significant in the bootstrapped model. The estimated path from procedural justice to police legitimacy was significant, $b = .47$, $p = .001$ [95% CI: .35, .61]. Next, the estimated path from police legitimacy to eyewitness credibility was also found to be significant, $b = .70$, $p = .04$ [95% CI: .04, 1.65]. Finally, the estimated path from eyewitness credibility predicting post deliberation verdict certainty was significant as well, $b = 1.02$, $p = .002$ [95% CI: .81, 1.18]. The final model was able to account for approximately 30% of the variance in post deliberation verdict certainty scores.

Post deliberation decisions controlling for pre-deliberation decisions. Last, a model was fit to examine changes in verdict certainty from pre-deliberation to post deliberation by including post deliberation verdict certainty scores as the dependent variable in the model, while controlling for pre-deliberation scores. An initial model was fit using data collapsed across all three police officer eyewitness conditions. Results indicated that the overall model was not a good fit to the data, $\chi^2(36) = 287.50$, $p < .001$ (see figure 18). Additionally, the initial model failed to meet standards for a good fitting model across the other fit indices, NFI = .62, CFI = .64, RMSEA = .17 [90% CI:.15, .19], AIC =347.50. The results of significant paths followed a similar pattern to the post deliberation decision model. Procedural justice was a significant predictor of both police legitimacy, $\beta = .76$, $p < .001$, and legal cynicism, $\beta = -.23$ $p < .001$ (see table 22). The more participants felt provided fair treatment, the more likely they were to find the police to be legitimate authorities and the less cynicism they held toward the legal system.

Police legitimacy in turn predicted eyewitness credibility, $\beta = .14$, $p = .04$, but was only a marginally significant predictor of eyewitness trustworthiness, $\beta = .13$, $p = .06$, and was not

significantly predictive of obligation to the eyewitness, $\beta = .09$, $p = .20$. As in previous police officer eyewitness models, legal cynicism was not significantly related to eyewitness credibility, $\beta = .06$, $p = .37$, eyewitness trustworthiness, $\beta = .04$, $p = .51$, or obligation to the eyewitness, $\beta = -.01$, $p = .89$. Eyewitness credibility controlling for pre-deliberation verdict certainty, $\beta = .43$, $p < .001$, and pre-deliberation verdict certainty scores, $\beta = .22$, $p < .001$, were significant predictors of post deliberation verdict certainty. The more participants viewed the eyewitness as credible and the more certain they were of a guilty verdict at pre-deliberation, the greater the likelihood that they would have greater certainty for a guilty verdict at post deliberation. However, eyewitness trustworthiness, $\beta = .04$, $p = .49$, obligation to the eyewitness, $\beta = .03$, $p = .65$, and sex, $\beta = -.01$, $p = .93$, were not found to be predictive of changes in verdict certainty decisions. Pre-deliberation verdict certainty was also found to be related to post deliberation eyewitness credibility, $\beta = .36$, $p < .001$, eyewitness trustworthiness, $\beta = .25$, $p < .001$, and obligation to the eyewitness, $\beta = .27$, $p < .001$. The more participants were certainty of a not guilty verdict at pre-deliberation, the less likely they were to find the eyewitness as credible or trustworthy, and the less obligated they would feel to listen to the eyewitness at post deliberation.

To establish a final model for participants in any of the police officer eyewitness conditions predicting post deliberation verdict certainty decisions controlling for pre-deliberation decisions, non-significant predictors and paths from the initial model were removed to increase model fit. For the revised model, procedural justice, police legitimacy, and eyewitness credibility remained in the model, while legal cynicism, eyewitness trustworthiness, obligation to the eyewitness, and sex were omitted. The results for the revised model revealed that the model fit well to the data, $\chi^2(13) = 16.42$, $p = .22$. Other fit indices supported the revised model as a good fitting model as well, NFI = .96, CFI = .99, RMSEA = .03 [90% CI:.00, .08], AIC =46.48

(see figure 19). Therefore, the revised model met criteria to become the final model predicting changes in verdict certainty for police officer eyewitness conditions.

Procedural justice was a significant predict of police legitimacy in the model, $\beta = .76$, $p < .001$. The more participants viewed the police as procedurally fair, the more likely they were to find the police to be legitimate authorities. Police legitimacy, however, was no longer a significant predictor of post deliberation verdict certainty, while controlling for pre-deliberation decisions, $\beta = .09$, $p = .16$. Eyewitness credibility controlling for pre-deliberation verdict certainty, $\beta = .46$, $p < .001$, as well as pre-deliberation verdict certainty, $\beta = .22$, $p < .001$, were found to be significant direct predictors of post deliberation verdict certainty decisions.

Bias corrected bootstrapped estimated confidence intervals using 1,000 bootstrap samples were calculated for each path in the final model. The estimated path from procedural justice to police legitimacy was found to be significant, $b = .47$, $p = .001$ [95% CI: .35, .61]. The police legitimacy path to eyewitness credibility, $b = .43$, $p = .20$ [95% CI: -.19, 1.34], was found to not be significant, however. The estimated paths for eyewitness credibility, $b = .86$, $p = .002$ [95% CI: .66, 1.07], and pre-deliberation verdict certainty, $b = .20$, $p = .003$ [95% CI: .09, .31], were both found to significantly predict post deliberation verdict certainty. Last, the path from pre-deliberation verdict certainty to post deliberation eyewitness credibility was significant, $b = .18$, $p = .002$ [95% CI: .12, .24]. The final model accounted for approximately 33% of the variance in post deliberation verdict certainty, controlling for pre-deliberation verdict certainty decisions. The pattern of the model for all police officer eyewitness conditions was slightly different from the police officer eyewitness control condition results from the comparison to lay eyewitness analyses. In the overall model from the current set of analyses, police legitimacy was found to be a significant predictor of post deliberation eyewitness credibility. Police legitimacy was still

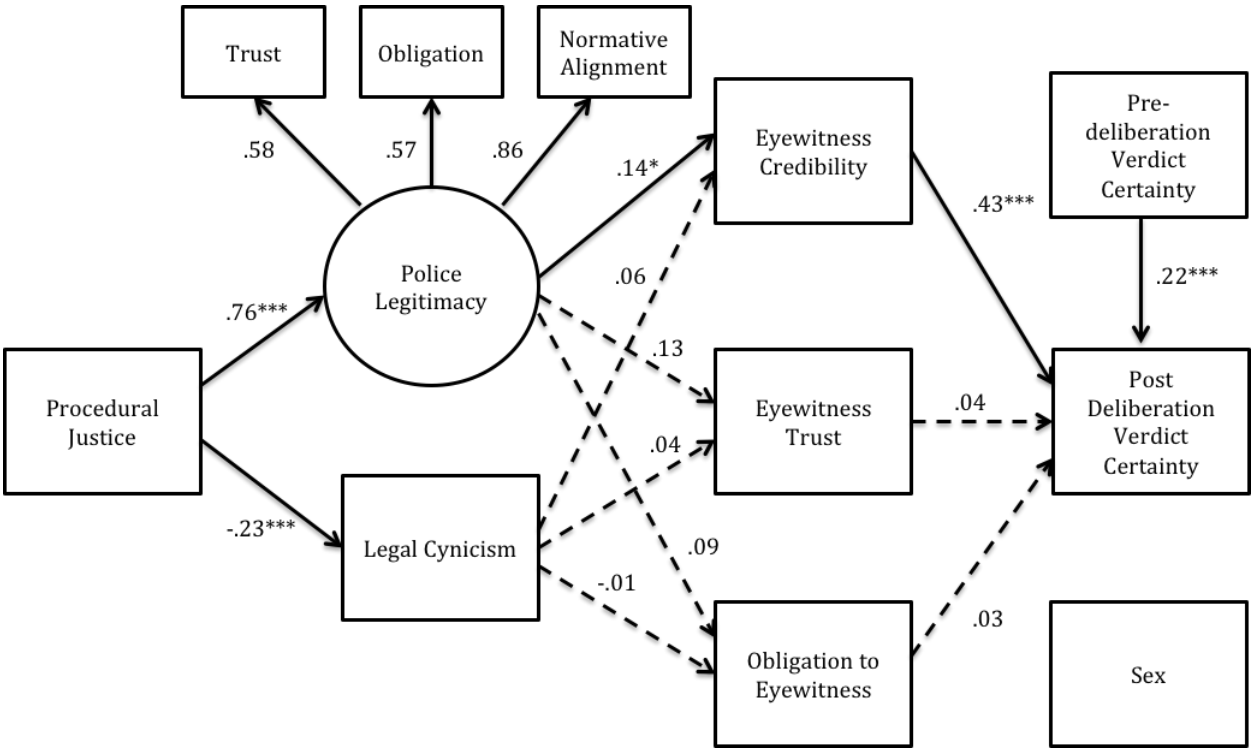

Figure 18. Combined police officer eyewitness conditions (good, bad, neutral/control) post deliberation decision controlling for pre-deliberation decisions initial model

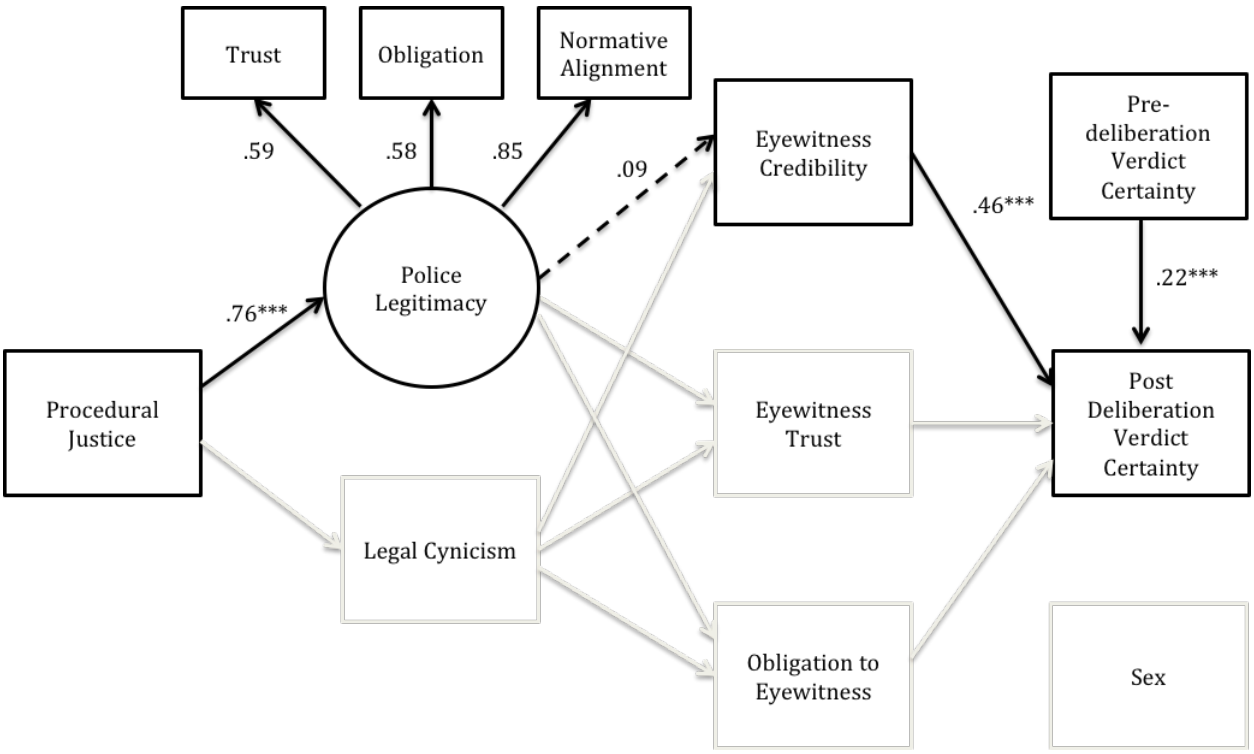

Figure 19. Combined police officer eyewitness conditions (good, bad, neutral/control) post deliberation decision controlling for pre-deliberation decisions final model

Table 22

Combined police officer eyewitness conditions SEM model for post deliberation decisions controlling for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.23***	-.23	.07	---	---	---
Legitimacy ← Procedural Justice	.76***	.47	.06	.76***	.47	.06
Eyewitness Credibility ← Cynicism	.06	.15	.17	---	---	---
Eyewitness Trust ← Cynicism	.04	.13	.19	---	---	---
Obligation to Eyewitness ← Cynicism	-.01	-.03	.19	---	---	---
Eyewitness Credibility ← Legitimacy	.14*	.64	.32	.09	.43	.31
Eyewitness Trust ← Legitimacy	.13	.66	.35	---	---	---
Obligation to Eyewitness ← Legitimacy	.09	.44	.35	---	---	---
Post VC ← Eyewitness Credibility	.43***	.80	.11	.46***	.86	.11
Post VC ← Eyewitness Trust	.04	.07	.10	---	---	---
Post VC ← Obligation to Eyewitness	.03	.04	.10	---	---	---
Sex	-.01	-.04	.38	---	---	---
Pre-deliberation decisions	.22***	.20	.06	.22***	.20	.06
$\chi^2(df)$	287.50(36)***			16.48(13)		
N	237			237		
NFI	.62			.96		
CFI	.64			.99		
RMSEA	.17			.03		
AIC	347.50			46.48		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

not predictive of pre-deliberation eyewitness credibility, or post deliberation eyewitness credibility controlling for pre-deliberation decisions. Because the findings were not the same in the previous police officer eyewitness condition analyses, additional models were fit for each of the reputation manipulated (good, bad) conditions to examine potential differences in the model due to the manipulation. The procedural justice model was fit to each of the police officer reputation condition's data to compare the relations between procedural justice model variables and verdict decisions across police officer eyewitness conditions.

Good reputation police officer eyewitness condition models. To examine the model for participants in the good reputation police officer eyewitness condition, the initial model (see figure 1) was fit to the data. Because sex was identified in the regression analyses as a significant predictor of pre-deliberation verdict certainty for police officer eyewitness condition participants, sex was included in the model as a control variable.

Pre-deliberation decision models. The initial model overall did not have good fit, $\chi^2(30) = 106.54$, $p < .001$. Fit indices confirmed that the model did not fit well to the data and failed to meet conventional standards for a good fitting model, NFI = .56, CFI = .61, RMSEA = .18 [90% CI:.14, .22], AIC =156.54 (see figure 20). In examining individual paths in the model, procedural justice was found to be a significant predictor of police legitimacy, $\beta = .72$, $p < .001$, however, was not significantly predictive of legal cynicism, $\beta = -.20$, $p = .07$ (see table 23). The more participants viewed the police as procedurally fair, the more likely they were to find the police legitimate authorities.

Police legitimacy was found to be significantly related to eyewitness credibility, $\beta = .35$, $p = .02$, and eyewitness trustworthiness, $\beta = .33$, $p = .02$; it was not significantly predictive of obligation to the eyewitness, $\beta = .23$, $p = .09$. Moreover, legal cynicism was significantly

predictive of eyewitness credibility, $\beta = .25$, $p = .02$, but was not significantly related to eyewitness trustworthiness, $\beta = .07$, $p = .50$, or obligation to the eyewitness, $\beta = -.10$, $p = .38$. Eyewitness credibility significantly predicted pre-deliberation verdict certainty, $\beta = .52$, $p < .001$. Eyewitness trustworthiness, $\beta = .14$, $p = .14$, obligation to the eyewitness, $\beta = .00$, $p = .98$, and sex, $\beta = .11$, $p = .23$, were not significant predictors.

The non-significant predictors and paths were removed from the model to increase model fit. Procedural justice, police legitimacy, legal cynicism, and eyewitness credibility were left in the model as indirect and direct predictors of pre-deliberation verdict certainty. Eyewitness trustworthiness, obligation to the eyewitness, and sex were removed from the model entirely, as they did not serve a predictive function. The path from procedural justice to legal cynicism was also omitted from the revised model. The revised model had improved model fit, $\chi^2(14) = 24.71$, $p = .03$, but still did not meet conventional standards for a good fitting model, NFI = .83, CFI = .91, RMSEA = .11 [90% CI:.04, .17], AIC =54.17 (see figure 21). All paths in the revised model were significant. Procedural justice significantly predicted police legitimacy, $\beta = .70$, $p < .001$ (see table 23). Police legitimacy, $\beta = .27$, $p = .04$, and legal cynicism, $\beta = .24$, $p = .03$, both significantly predicted eyewitness credibility. The more participants viewed the police as legitimate, the more participants found the police officer eyewitness to be credible. Surprisingly, the relation between legal cynicism and eyewitness credibility was also positive, suggesting that the more cynical participants were towards the legal system, the more likely they were to find the police officer eyewitness credible. The covariance between legal cynicism and procedural justice, however, was not significant, $b = -.08$, $p = .08$. Eyewitness credibility was a found to be significant direct predictor of pre-deliberation verdict certainty, $\beta = .60$, $p < .001$. Although the

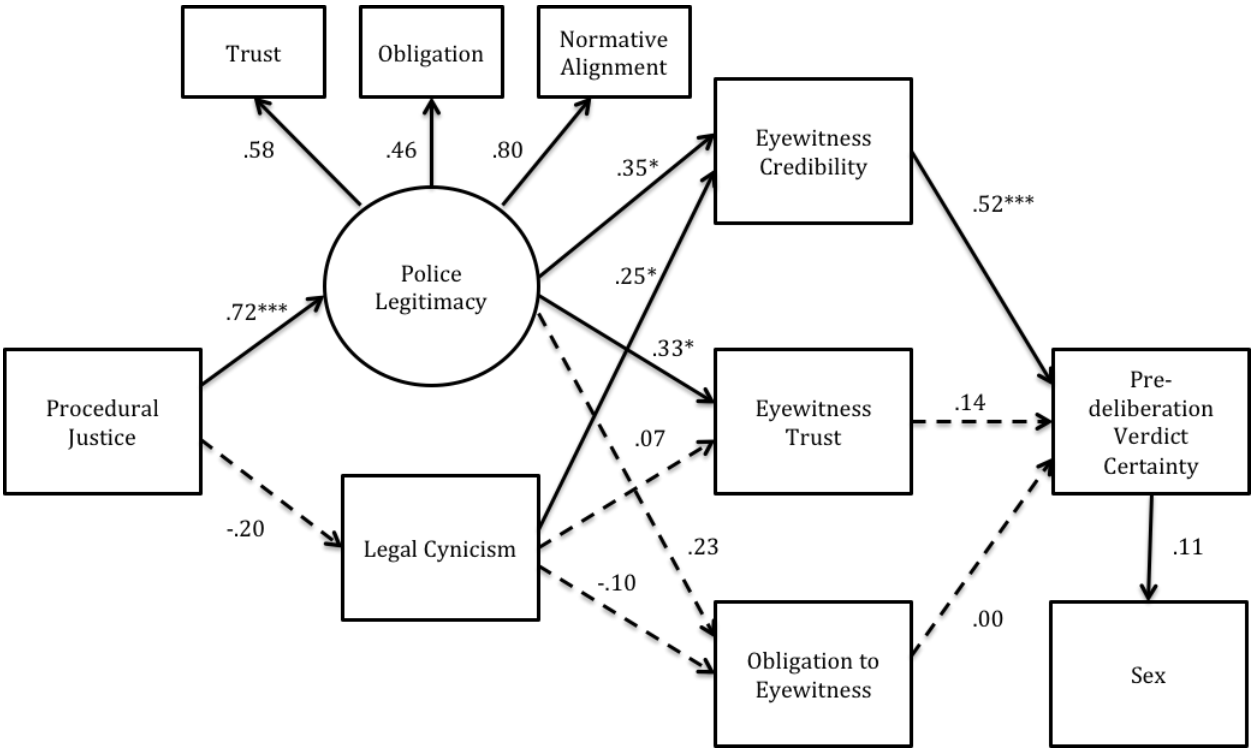

Figure 20. Good reputation police officer eyewitness condition pre-deliberation decision initial model

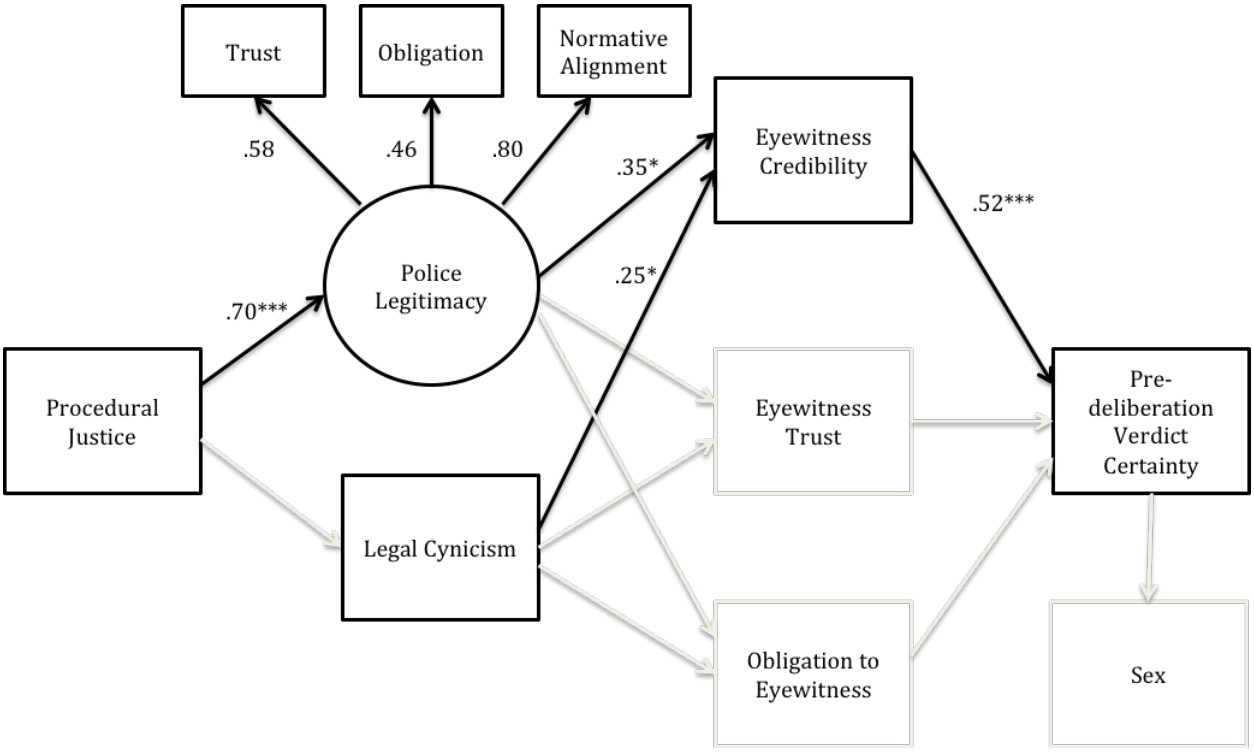

Figure 21. Good reputation police officer eyewitness condition pre-deliberation decision final model

Table 23

Good reputation police officer eyewitness condition SEM model for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β(cov)*	*b*	S.E.
Legal Cynicism ← Procedural Justice	-.20	-.22	.12	---	---	---
Legal Cynicism ←→ Procedural Justice	---	---	---	(-.08)	---	.05
Police Legitimacy ← Procedural Justice	.72***	.35	.10	.70***	.38	.10
Eyewitness Credibility ← Legal Cynicism	.25*	.62	.26	.24*	.58	.26
Eyewitness Trust ← Legal Cynicism	.07	.17	.24	---	---	---
Obligation to Eyewitness ← Legal Cynicism	-.10	-.23	.27	---	---	---
Eyewitness Credibility ← Police Legitimacy	.35*	1.99	.83	.27*	1.45	.69
Eyewitness Trust ← Police Legitimacy	.33*	1.76	.76	---	---	---
Obligation to Eyewitness ← Police Legitimacy	.23	1.31	.76	---	---	---
Pre VC ← Eyewitness Credibility	.52***	1.11	.20	.60***	1.32	.20
Pre VC ← Eyewitness Trust	.14	.31	.21	---	---	---
Pre VC ← Obligation to Eyewitness	.00	.01	.20	---	---	---
Sex	.11	.79	.67	---	---	---
$\chi^2(df)$	106.54(30)***			24.71(13)*		
N	82			82		
NFI	.56			.83		
CFI	.61			.91		
RMSEA	.18			.11		
AIC	156.54			54.71		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

model did not quite meet convention criteria for a good fitting model, it was the best fitting model to the current data. Therefore the current model was deemed the final model in predicting pre-deliberation verdict certainty for good reputation police officer eyewitness condition participants.

To test the statistical significance of the paths in the model, bias corrected bootstrapped confidence intervals were calculated using 1,000 bootstrap samples. The estimated path from procedural justice to police legitimacy was significant, $b = .37$, $p < .001$ [95% CI: .19, .62]. The estimated path from legal cynicism to eyewitness credibility was also significant, $b = .58$, $p = .03$ [95% CI: .03, 1.31], however, the path from police legitimacy to eyewitness credibility was no longer significant, $b = 1.45$, $p = .11$ [95% CI: -.61, 3.43]. Finally, the estimated path from eyewitness credibility to pre-deliberation verdict certainty was significant predictor, $b = 1.32$, $p = .002$ [95% CI: 1.02, 1.60]. The bootstrapped model did not provide support for police legitimacy as a predictor of eyewitness credibility in the model, at least at pre-deliberation. The final model accounted for approximately 35% of the variance in pre-deliberation verdict certainty for good reputation police officer eyewitness condition participants.

Post deliberation decision models. In order to determine the effect of the procedural justice model on post deliberation decisions, a post deliberation model was fit first using the proposed initial model. Again, the initial model was not a good fit to the data, $\chi^2(30) = 105.70$, $p < .001$, and did not meet conventional standards of a good fitting model, NFI = .62, CFI = .67, RMSEA = .18 [90% CI:.14, .21], AIC =155.70 (see figure 22). The pattern of significance for individual paths was very similar to the pre-deliberation model. Procedural justice significantly predicted police legitimacy, $\beta = .44$, $p = .03$, however, was not significantly related to legal cynicism, $\beta = -.20$, $p = .07$ (see table 24). Police legitimacy significantly predicted all three

eyewitness evaluation variables: eyewitness credibility, $\beta = .69$, $p = .01$, eyewitness trustworthiness, $\beta = .88$, $p = .009$, and obligation to the eyewitness, $\beta = .71$ $p = .01$. The more participants viewed the police as legitimate authorities, the more likely they were to find the police officer eyewitness to be credibility and trustworthy, and to feel obligation to listen to his testimony.

Legal cynicism also significantly predicted eyewitness credibility, $\beta = .26$, $p = .01$, and eyewitness trustworthiness, $\beta = .26$, $p = .009$, but was not significantly related to obligation to the eyewitness, $\beta = .16$, $p = .10$. The more cynical participants were towards the legal system, the more likely they were to find the police officer eyewitness to be credible and trustworthy. Eyewitness credibility was a significant direct predictor of post deliberation verdict certainty, $\beta = .50$, $p < .001$. The other direct predictors of post deliberation verdict certainty, eyewitness trustworthiness, $\beta = .08$, $p = .55$, obligation to the eyewitness, $\beta = .12$ $p = .31$, and sex, $\beta = .02$, $p = .78$, were found to not be significantly related. The initial model accounted for approximately 38% of the variance in post deliberation verdict certainty for good reputation police officer eyewitness condition participants.

To increase model fit, non-significant predictors and paths were removed from the model. The revised model contained procedural justice, legal cynicism, police legitimacy, and eyewitness credibility as indirect and direct predictors of post deliberation verdict certainty. The path from procedural justice to legal cynicism was omitted and the two variables were covaried instead. Eyewitness trustworthiness, obligation to the eyewitness, and sex were removed from the revised model, as they were not significant predictors of the dependent variable. The revised model was still not a good fit to the data, $\chi^2(13) = 35.80$, $p = .001$, and did not meet conventional standards of a good fitting model, NFI = .77, CFI = .83, RMSEA = .15 [90% CI:.09, .21], AIC =

65.80. After examining the individual paths in the model it was discovered that legal cynicism was no longer a significant predictor in the model, $\beta = .18$, $p = .09$. All other paths in the model continued to be significant from the previous model. Procedural justice was a significant predictor of police legitimacy, $\beta = .69$, $p < .001$. Police legitimacy continued to be a significant predictor of eyewitness credibility, $\beta = .29$, $p = .03$, and eyewitness credibility significantly predicted post deliberation verdict certainty, $\beta = .60$, $p < .001$. Therefore, it seemed appropriate to remove legal cynicism from the model to increase model fit for the final model.

The final model included procedural justice, police legitimacy, and eyewitness credibility in predicting post deliberation verdict certainty for participants in the good reputation police officer eyewitness condition. However, the final model still failed to meet criteria for a good fitting model, $\chi^2(9) = 24.00$, $p = .004$, and did not meet conventional standards of a good fitting model, NFI = .88, CFI = .88, RMSEA = .14 [90% CI:.08, .21], AIC = 48.00. The path from procedural justice to police legitimacy remained significant, $\beta = .71$, $p < .001$, but the path from police legitimacy to eyewitness credibility was no longer significant, $\beta = .22$, $p = .09$. Eyewitness credibility continued to predict post deliberation verdict certainty, $\beta = .60$, $p < .001$. At that point, modification indices were employed to determine alterations to the model that could increase model fit. Modification indices indicated that a direct path from police legitimacy to post deliberation verdict certainty would help increase model fit. The path from police legitimacy to eyewitness credibility was therefore removed from the model and a path from police legitimacy to post deliberation verdict certainty was added. Furthermore, procedural justice and eyewitness credibility were covaried as they now were both exogenous variables in the model. The current model was a better fit to the data than the previous model, $\chi^2(8) = 20.88$,

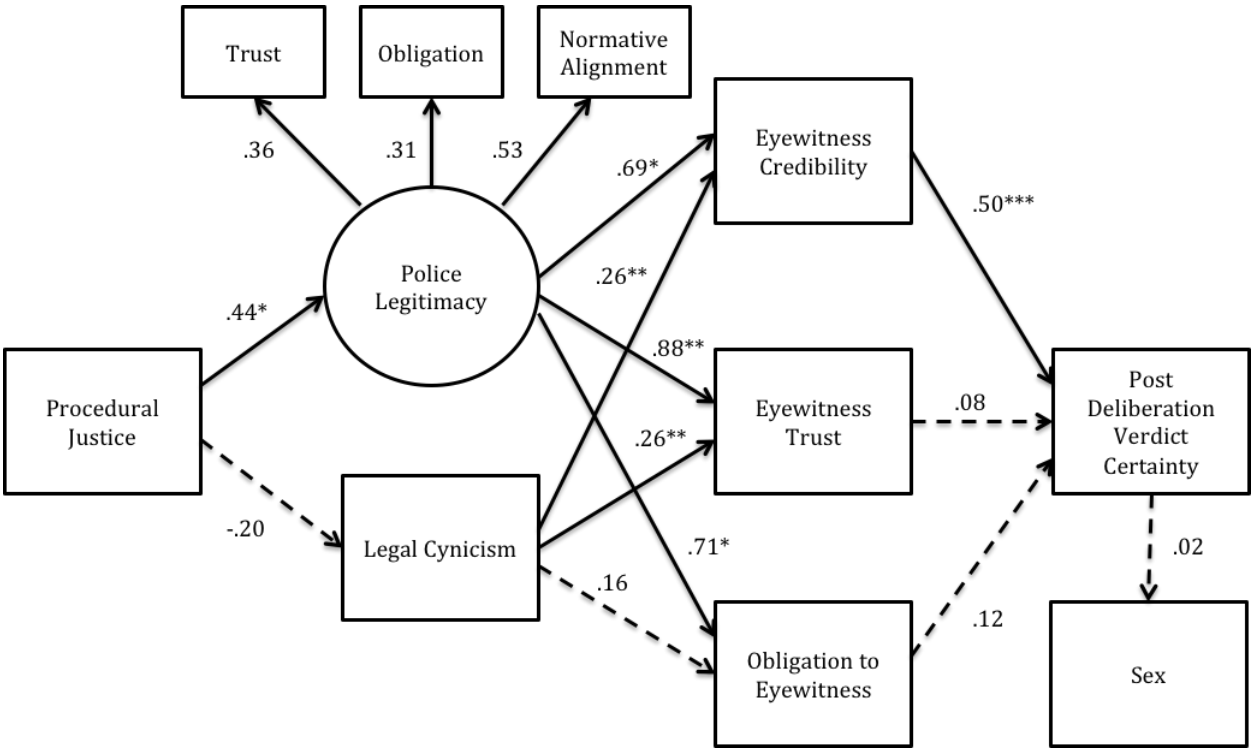

Figure 22. Good reputation police officer eyewitness condition post deliberation decision initial model

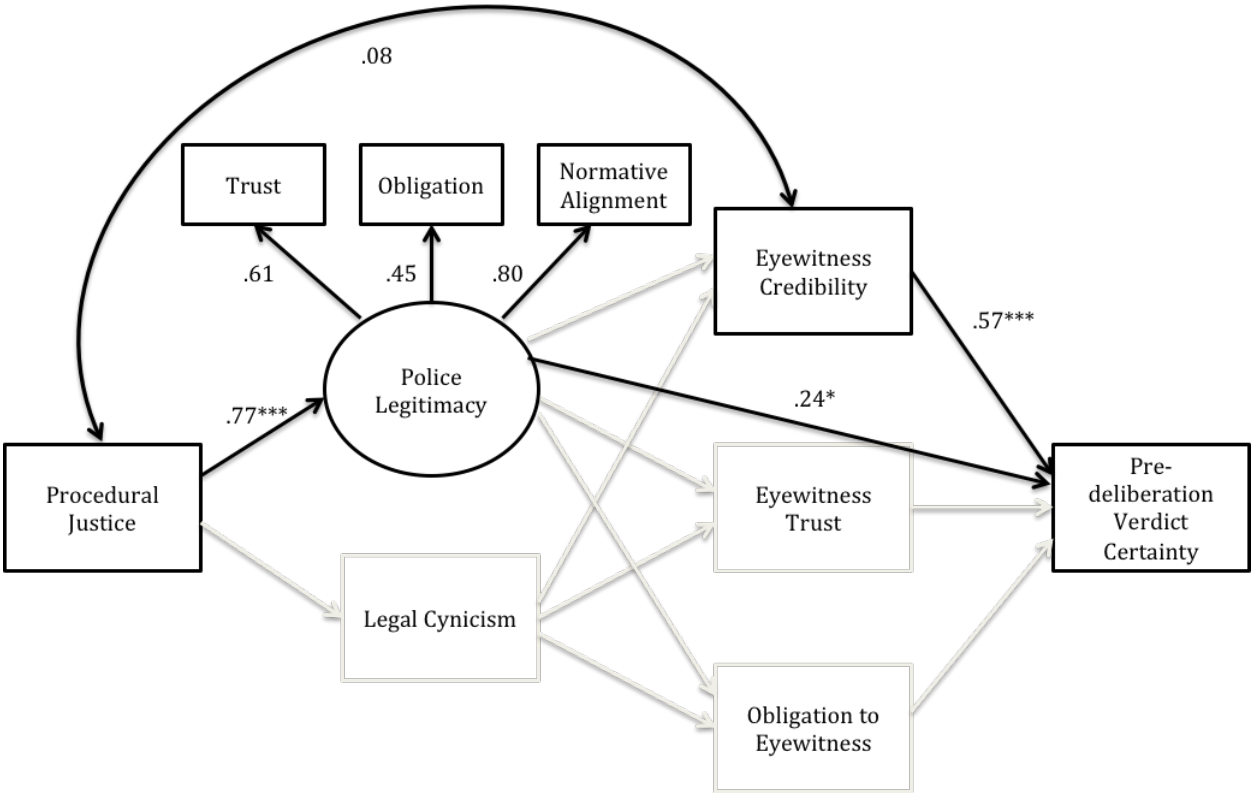

Figure 23. Good reputation police officer eyewitness condition post deliberation decision final model

Table 24

Good reputation police officer eyewitness condition SEM model for post deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β(cov)*	*b*	S.E.
Cynicism ← Procedural Justice	-.20	-.22	.12	---	---	---
Legitimacy ← Procedural Justice	.44*	.14	.06	.77***	.36	.10
Procedural Justice↔ Post VC	---	---	---	(.08)	---	.13
Eyewitness Credibility ← Cynicism	.26**	.76	.28	---	---	---
Eyewitness Trust ← Cynicism	.26**	.81	.27	---	---	---
Obligation to Eyewitness ← Cynicism	.16	.50	.30	---	---	---
Eyewitness Credibility ← Legitimacy	.69*	7.03	2.76	---	---	---
Eyewitness Trust ← Legitimacy	.88**	9.60	3.66	---	---	---
Obligation to Eyewitness ← Legitimacy	.71*	7.86	3.07	---	---	---
Post VC ← Legitimacy	---	---	---	.24*	2.73	1.30
Post VC ← Eyewitness Credibility	.50***	.83	.19	.57***	.96	.15
Post VC ← Eyewitness Trust	.08	.12	.20	---	---	---
Post VC ← Obligation to Eyewitness	.12	.18	.18	---	---	---
Sex	.02	.16	.58	---	---	---
$\chi^2(df)$	105.70(30)***			20.88(8)**		
N	82			82		
NFI	.62			.85		
CFI	.67			.90		
RMSEA	.18			.14		
AIC	155.70			46.88		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

p = .007, but did not reach conventional standards for a good fitting model, NFI = .85, CFI = .90, RMSEA = .14 [90% CI:.07, .22], AIC = 46.88 (see figure 23). All paths in the current model were significant, except for the covariation between procedural justice and eyewitness credibility (see figure 23). Procedural justice was a significant predictor of police legitimacy, β = .77, p < .001 (see table 24). Police legitimacy, β = .24, p = .04, and eyewitness credibility, β = .57, p < .001 were both significant predictors of post deliberation verdict certainty. To test the validity of the paths in the final model, bias correct bootstrapped confidence intervals using 1,000 bootstrap samples were calculated. The estimated path from procedural justice to police legitimacy was found to be significant, b = .36, p = < .001 [95% CI: .16, .60]. The estimated path from police legitimacy to post deliberation verdict certainty was also significant, b = 2.73, p = .03 [95% CI: .33, 10.83]. Finally the estimated path from eyewitness credibility to verdict certainty was significant, b = .96, p = .003 [95% CI: .71, 1.23]. The final model accounted for approximately 40% of the variance in post deliberation verdict certainty score for good reputation police officer eyewitness condition participants.

Post deliberation decisions controlling for pre-deliberation decisions. Last, the initial model (see figure 1) was fit to examine the procedural justice model and eyewitness evaluation variables influence on post deliberation verdict certainty scores, controlling for pre-deliberation verdict certainty decisions. Sex was included as a predictor of verdict certainty in the model, as it had a significant effect on verdict certainty scores in the regression analyses for police officer eyewitnesses. Pre-deliberation verdict certainty was also included in the model as a control for pre-deliberation decisions. The initial model was not found to be a good fitting model to the data, $\chi^2(36) = 113.23$, $p < .001$ (see figure 24), and failed to meet conventional standards for a good fitting model, NFI = .63, CFI = .69, RMSEA = .16 [90% CI:.13, .20], AIC = 173.23. Individual

paths in the model were examined; several predictors and paths were found to be non-significant contributors to the model.

Procedural justice was a significant predictor of police legitimacy, $\beta = .47$, $p = .03$, but was not significantly predictive of legal cynicism, $\beta = -.20$, $p = .07$ (see table 25). The more procedurally fair participants perceived the police to be, the more likely they were to view the police as legitimate. Police legitimacy was significantly predictive of all eyewitness evaluation variables including eyewitness credibility, $\beta = .62$, $p = .02$, eyewitness trustworthiness, $\beta = .84$, $p = .01$, and obligation to the eyewitness, $\beta = .63$, $p = .02$. The more participants viewed the police as legitimate authorities, the more likely they were to find the police officer eyewitness credible and trustworthy, and felt greater obligation to listen to the eyewitness' testimony. Legal cynicism also was a significant predictor of eyewitness credulity, $\beta = .23$, $p = .02$, and eyewitness trustworthiness, $\beta = .24$, $p = .005$, but not of obligation to the eyewitness, $\beta = .12$, $p = .21$. The more cynical participants were towards the legal system, the more likely they were to find the police officer eyewitness to be credible and trustworthy.

Eyewitness credibility significantly predicted post deliberation verdict certainty, while controlling for pre-deliberation decisions, $\beta = .46$, $p < .001$. The more credible participants thought the eyewitness was, the more certainty they tended to have for a guilty verdict. Eyewitness trustworthiness, $\beta = .05$, $p = .66$, obligation to the eyewitness, $\beta = .06$, $p = .61$, and sex, $\beta = -.03$, $p = .74$, were not significant predictors. Last, pre-deliberation verdict certainty also predicted post deliberation verdict certainty decisions significantly, $\beta = .25$, $p = .007$, post deliberation eyewitness credibility, $\beta = .26$, $p = .006$, eyewitness trustworthiness, $\beta = .21$, $p = .02$, and obligation to the eyewitness, $\beta = .30$, $p = .001$. The more certainty participants were for a not guilty verdict at pre-deliberation the more likely they were to be certain of a not guilty

verdict at post deliberation, find the eyewitness to be more credible and trustworthy, and feel obligated to listen to the eyewitness.

Because the initial model did not have good model fit, the non-significant predictors and paths were removed to increase model fit in the revised model. The path from procedural justice to legal cynicism was omitted from the revised model, as was eyewitness trustworthiness, obligation to the eyewitness, and sex variables. The revised model contained procedural justice, legal cynicism, police legitimacy, eyewitness credibility, and pre-deliberation verdict certainty was indirect and direct predictors of post deliberation verdict certainty. Procedural justice and legal cynicism were also covaried as they both were now exogenous predictors in the model.

Results from the revised model analysis showed that the new model was still not a good fit to the data, even though it was much improved from its previous iteration, $\chi^2(18) = 38.15$, $p = .004$. The revised model still did not quite meet conventional standards for a good fitting model, NFI = .78, CFI = .86, RMSEA = .12 [90% CI:.07, .17], AIC = 74.15. Upon inspection of the individual paths in the model, it was noted that legal cynicism was no longer a significant predictor in the model, $\beta = .14$, $p = .18$. All other paths remained significant. Legal cynicism was therefore removed from the model and the paths were tested again.

The new revisions indicated that the model fit better than the previous revised model, $\chi^2(18) = 25.44$, $p = .02$. The new revised model still did not meet minimum standards for a good fitting model, NFI = .84, CFI = .91, RMSEA = .11 [90% CI:.04, .17], AIC = 55.44. In examination of the model, the path from police legitimacy to eyewitness credibility was no longer significant, $\beta = .18$, $p = .14$. Modification indices suggested that a direct path from police legitimacy to post deliberation verdict certainty was warranted, similar to the findings from the post deliberation decision model. The path from police legitimacy to eyewitness credibility was

therefore removed and a direct path from police legitimacy to post deliberation verdict certainty was added.

The new model, which replicated the model from the post deliberation decisions, was tested again. The model was found to be an acceptably good fit to the data, $\chi^2(13) = 22.05$, $p = .06$ (see figure 25). Additional fit indices mostly supported the new model as a good fitting model, NFI = .86, CFI = .93, RMSEA = .09 [90% CI:.00, .16], AIC = 52.05; RMSEA was slightly higher than what is normally considered acceptable, however, the confidence interval did contain zero in the lower limit. Therefore, the new model was accepted as the final model for change in verdict certainty for participants in the good reputation police officer eyewitness condition. In the final model, procedural justice significantly predicted police legitimacy, $\beta = .77$, $p < .001$ (see table 25). The more participants viewed the police as procedurally fair, the more likely they were to feel the police were legitimate authorities.

Police legitimacy, $\beta = .23$, $p = .04$, eyewitness credibility, $\beta = .49$, $p < .001$, were both found to be significant direct predictors of post deliberation verdict certainty, controlling for pre-deliberation decisions. The more participants found the police to be legitimate and the higher they rated the eyewitness' credibility the more likely they were to be certain of a guilty verdict, controlling for their pre-deliberation decisions. The control variable, pre-deliberation verdict certainty, also had a significant relation to post deliberation verdict certainty, $\beta = .25$, $p = .005$, and to post deliberation eyewitness credibility, $\beta = .34$, $p = .001$. Participants who had greater certainty for a guilty verdict at pre-deliberation, tended to have greater certainty for a guilty verdict at post deliberation and found the eyewitness to be more credible.

Last, bias correct bootstrapped confidence intervals were calculated for all paths in the model using 1,000 bootstrap samples. The estimated path from procedural justice to police

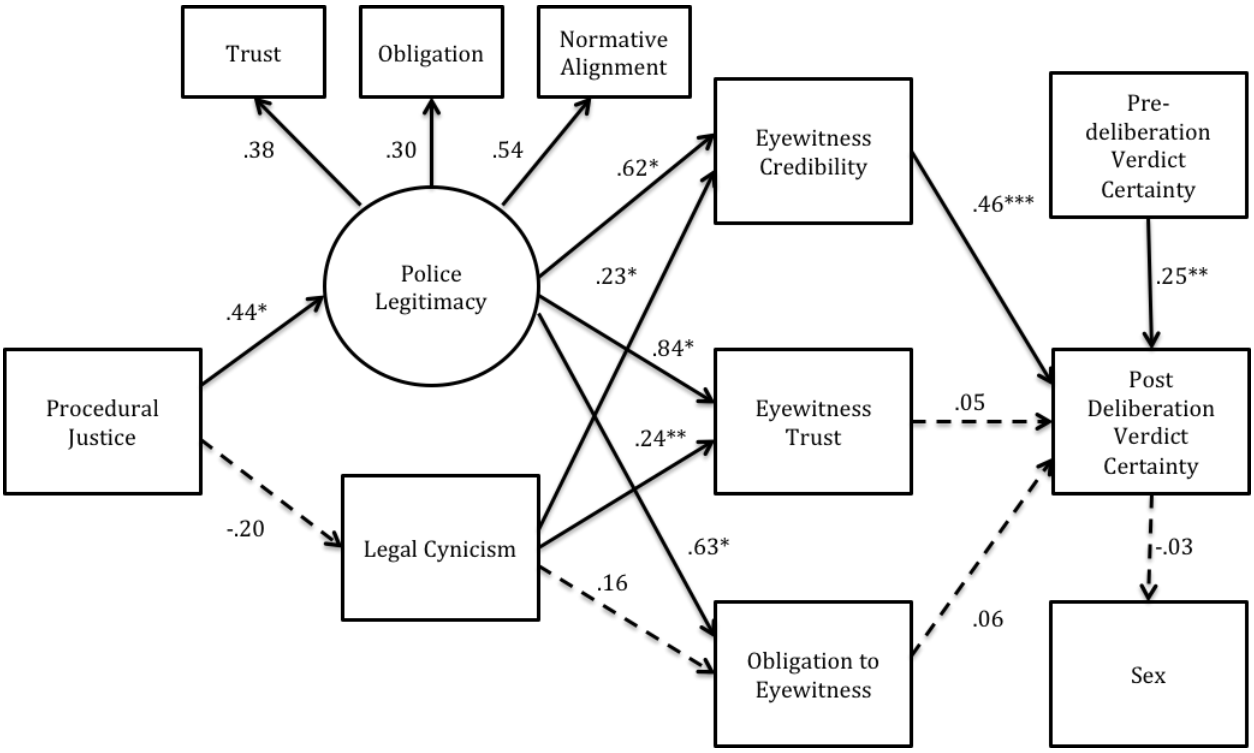

Figure 24. Good reputation police officer eyewitness condition post deliberation decision controlling for pre-deliberation decisions initial model

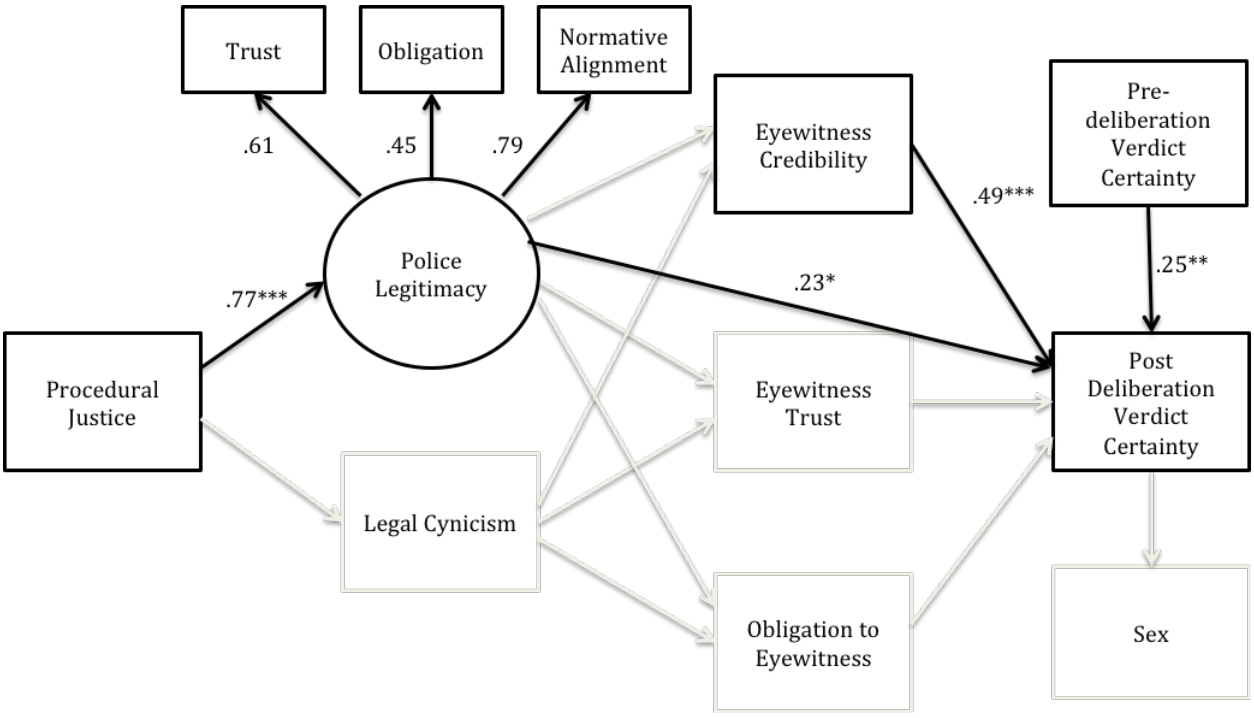

Figure 25. Good reputation police officer eyewitness condition post deliberation decision controlling for pre-deliberation decisions final model

Table 25

Good reputation police officer eyewitness condition SEM model for post deliberation decisions controlling for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.20	-.22	.12	---	---	---
Legitimacy ← Procedural Justice	.47*	.14	.07	.77***	.46	.10
Eyewitness Credibility ← Cynicism	.23*	.64	.27	---	---	---
Eyewitness Trust ← Cynicism	.24**	.72	.26	---	---	---
Obligation to Eyewitness ← Cynicism	.12	.35	.29	---	---	---
Eyewitness Credibility ← Legitimacy	.62*	6.40	2.68	.23*	2.61	1.25
Eyewitness Trust ← Legitimacy	.84*	9.34	3.77	---	---	---
Obligation to Eyewitness ← Legitimacy	.63*	7.02	2.93	---	---	---
Post VC ← Eyewitness Credibility	.46***	.78	.19	.49***	.83	.15
Post VC ← Eyewitness Trust	.05	.08	.19	---	---	---
Post VC ← Obligation to Eyewitness	.06	.09	.17	---	---	---
Post VC ← Sex	-.03	-.19	.56	---	---	---
Post VC ← Pre VC	.25**	.21	.08	.25**	.21	.08
$\chi^2(df)$	113.23(36)***			22.05(13)		
N	82			82		
NFI	.63			.86		
CFI	.69			.93		
RMSEA	.16			.09		
AIC	173.23			52.05		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

legitimacy was found to be significant, $b = .35$, $p < .001$ [95% CI: .16, .60]. The paths from police legitimacy, $b = 2.61$, $p = .03$ [95% CI: .33, 9.62], and eyewitness credibility, $b = .83$, $p = .003$ [95% CI: .57, 1.09], to post deliberation verdict certainty were also found to be significant. Finally, the paths from pre-deliberation verdict certainty to post deliberation verdict certainty, $b = .21$, $p = .01$ [95% CI: .05, .37], and post deliberation eyewitness credibility, $b = .17$, $p = .003$ [95% CI: .07, .29], were significant as well. The final model accounted for 44% of the variance in post deliberation verdict, controlling for pre-deliberation decisions.

Bad reputation police officer eyewitness condition models. The last condition in the current study to be compared was the bad reputation police officer eyewitness condition. SEM models were fit to compare bad reputation police officer eyewitness condition participants with the other police officer eyewitness condition models. First, an initial model (see figure 1) was fit to examine pre-deliberation verdict certainty decisions. Sex was included as a control variable in the model, as it had been a significant predictor of pre-deliberation decisions for participants in police officer eyewitness conditions in the regression analyses.

The initial model was not a good fit to the data, $\chi^2(30) = 126.89$, $p < .001$, and did not reach conventional standards for a good fitting model, NFI = .51, CFI = .55, RMSEA = .20 [90% CI:.17, .24], AIC = 176.89 (see figure 26). In examining individual paths in the model, very few were found to be significant. Procedural justice significantly predicted police legitimacy, $\beta = .82$, $p < .001$, but did not significantly predict legal cynicism, $\beta = -.04$, $p = .89$ (see table 26). Police legitimacy did not significantly predict any of the eyewitness evaluation variables: eyewitness credibility, $\beta = .13$, $p = .30$, eyewitness trustworthiness, $\beta = .04$, $p = .76$, obligation to the eyewitness, $\beta = -.02$, $p = .88$. Legal cynicism was also not a significant predictor of eyewitness credibility, $\beta = -.09$, $p = .41$, eyewitness trustworthiness, $\beta = -.06$, $p = .57$, or obligation to the

eyewitness, β = -.02, p = .89. Eyewitness credibility, β = .36, $p <$ .001, and eyewitness trustworthiness, β = .20, p = .04, were significant predictors of pre-deliberation verdict certainty scores, however, obligation to the eyewitness, β = .02, p = .82, and sex, β = .17, p = .09, were not significant predictors. The overall model accounted for approximately 20% of the variance in pre-deliberating verdict certainty scores.

The initial model results suggested that procedural justice model variables were unrelated to eyewitness evaluation variables in the model. Model fit further suggested that there was not a direct relation between procedural justice model variables and pre-deliberation verdict certainty, as adding additional paths between these variables would not increase model fit. Altogether, the results indicated that a model containing only eyewitness evaluation variables as predictors of pre-deliberation verdict certainty would be a better fitting model for bad reputation police officer eyewitness condition participants. Therefore, a revised model was fit including only the significant paths and predictors from the initial model analysis. Eyewitness credibility and eyewitness trustworthiness were included as predictors of pre-deliberation verdict certainty and were covaried. All other variables, including procedural justice, police legitimacy, legal cynicism, obligation to the eyewitness, and sex, were omitted from the model.

The revised model contained only direct paths with zero degrees of freedom which result in a perfect fitting model; therefore fit indices could not be calculated, $\chi^2(0) = .00$, *N/A* (see figure 27). Results of the individual paths indicated that eyewitness credibility was a significant predictor of pre-deliberation verdict certainty, β = .36, $p <$ .001. Eyewitness trustworthiness was no longer a significant predictor of verdict certainty in the revised model, β = .10, p = .10. It appeared that eyewitness credibility alone was the best predictor of pre-deliberation verdict certainty for bad reputation police officer eyewitness condition participants of the variables used.

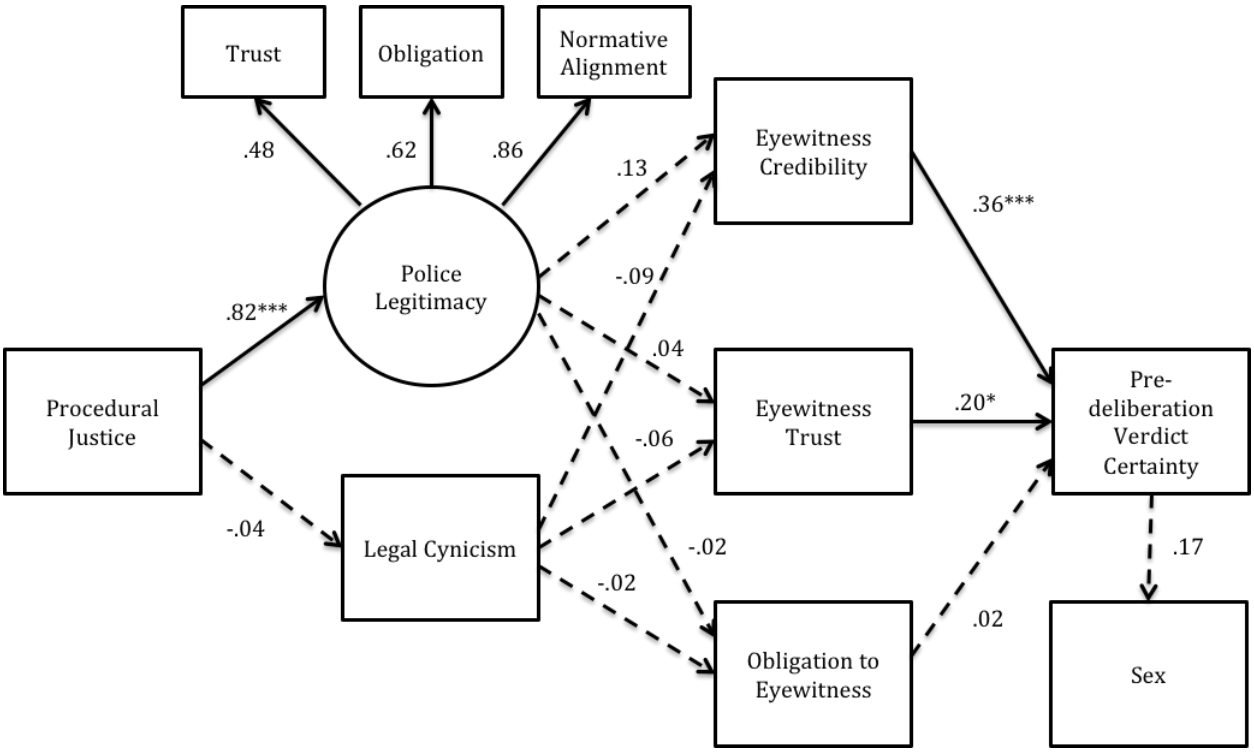

Figure 26. Bad reputation police officer eyewitness condition pre-deliberation decision initial model

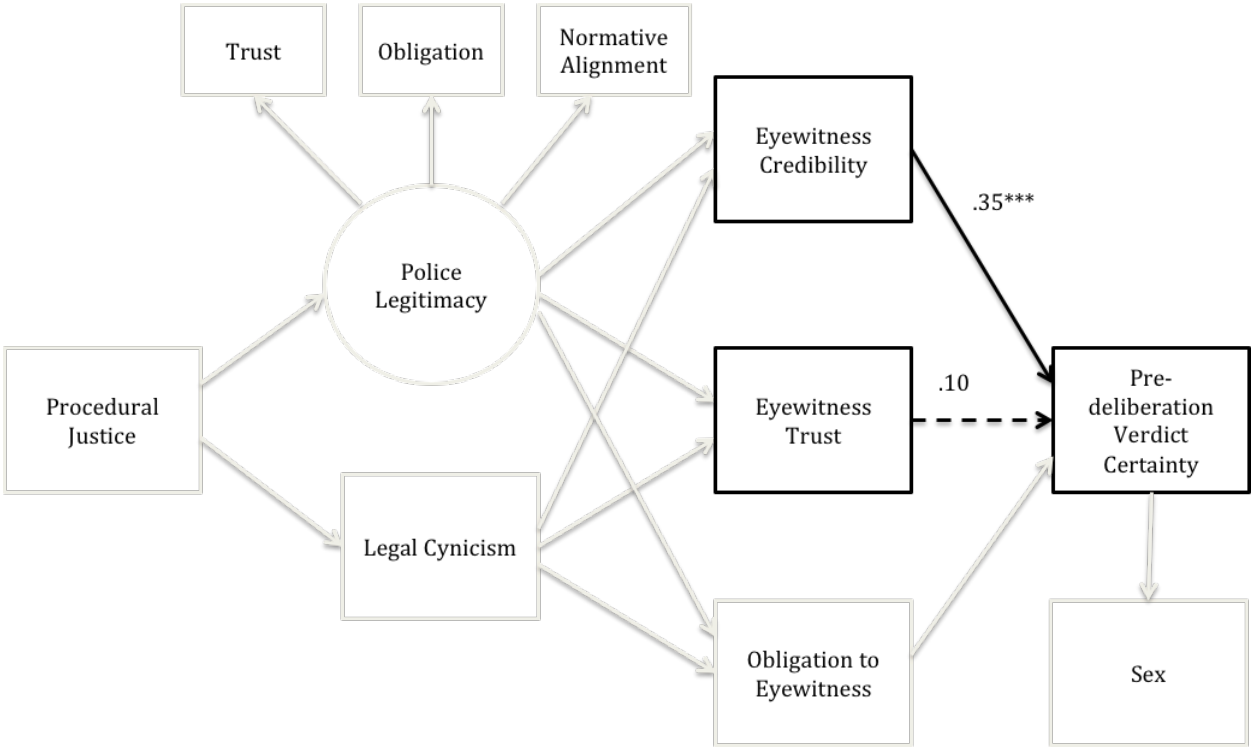

Figure 27. Bad reputation police officer eyewitness condition pre-deliberation decision final model

Table 26

Bad reputation police officer eyewitness condition SEM model for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Legal Cynicism ← Procedural Justice	-.04	-.03	.10	---	---	---
Police Legitimacy ← Procedural Justice	.82***	.55	.10	.70***	.38	.10
Eyewitness Credibility ← Legal Cynicism	-.09	-.25	.31	.24*	.58	.26
Eyewitness Trust ← Legal Cynicism	-.06	-.18	.33	---	---	---
Obligation to Eyewitness ← Legal Cynicism	-.02	-.05	.35	---	---	---
Eyewitness Credibility ← Police Legitimacy	.13	.45	.43	.27*	1.45	.69
Eyewitness Trust ← Police Legitimacy	.04	.12	.46	---	---	---
Obligation to Eyewitness ← Police Legitimacy	-.02	-.07	.49	---	---	---
Pre VC ← Eyewitness Credibility	.36***	.77	.21	.60***	1.32	.20
Pre VC ← Eyewitness Trust	.20*	.41	.20	---	---	---
Pre VC ← Obligation to Eyewitness	.02	.04	.19	---	---	---
Pre VC ← Sex	.17	1.32	.78	---	---	---
$\chi^2(df)$	126.89(30)***			24.71(13)*		
N	82			82		
NFI	.51			.83		
CFI	.55			.91		
RMSEA	.20			.11		
AIC	176.89			54.71		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

The revised model was accepted as the final model and it accounted for 26% of the variance in pre-deliberation verdict certainty.

Post deliberation decision models. To examine the model using post deliberation verdict certainty decisions for bad reputation police officer condition participants, an initial was fit replacing pre-deliberation decisions with post deliberation decisions as the dependent variable. Sex was still included as a control variable in the model as it had been identified as a significant predictor of police officer eyewitness condition verdict certainty scores in the regression analyses. The initial model was found to not have good fit, $\chi^2(30) = 138.99$, $p < .001$, and failed to meet conventional standards for a good fitting model, NFI = .50, CFI = .53, RMSEA = .21 [90% CI:.18, .25], AIC = 188.99 (see figure 28). In examination of the individual paths in the model, only paths from eyewitness evaluation variables to post deliberation verdict certainty were found to be significant contributors. Procedural justice was significantly predictive of police legitimacy, $\beta = .82$, $p < .001$, but did not significantly predict legal cynicism, $\beta = -.04$, $p = .73$ (see table 27). Neither police legitimacy nor legal cynicism was a significant predictor of any eyewitness evaluation variables, however. Police legitimacy was not significantly related to eyewitness credibility, $\beta = .07$, $p = .57$, eyewitness trustworthiness, $\beta = -.06$, $p = .62$, or obligation to the eyewitness, $\beta = .02$, $p = .87$. Legal cynicism also was not significantly related to eyewitness credibility, $\beta = -.01$, $p = .95$, eyewitness trustworthiness, $\beta = -.10$, $p = .37$, or obligation to the eyewitness, $\beta = .02$, $p = .51$.

Both eyewitness credibility, $\beta = .42$, $p < .001$, and eyewitness trustworthiness, $\beta = .23$, $p = .02$, were significantly predictive of post deliberation verdict certainty. Obligation to the eyewitness, $\beta = .00$, $p = .96$, and sex, $\beta = -.06$, $p = .53$, were not significantly related to post deliberation verdict certainty. The post deliberation initial model accounted for 23% of the

variance in post deliberation verdict certainty for bad reputation police officer eyewitness condition participants. The pattern for the post deliberation initial model replicated the findings from the pre-deliberation initial model results. Therefore, similar steps as taken in the pre-deliberation model were employed to increase model fit.

Non-significant variables and paths were removed from the model to increase model, leaving only eyewitness credibility and eyewitness trustworthiness as direct predictors of post deliberation verdict certainty. Procedural justice, police legitimacy, legal cynicism, obligation to the eyewitness, and sex were removed from the revised model as they did not serve a predictive function. The overall model was a perfect fit, as there were only two predictors with direct paths to the dependent variable left in the model; therefore, fit indices could not be calculated for the revised model (see figure 29). The results of the individual paths left in the model showed that eyewitness credibility was still a significant predictor of post deliberation verdict certainty, $\beta = .37$, $p = .01$, however, eyewitness trustworthiness was no longer significantly related to verdict certainty, $\beta = .28$, $p = .12$ (see table 27).

Bias correct bootstrapped confidence intervals were calculated for each path in the model using 1,000 bootstrap samples. The estimated path from eyewitness credibility to post deliberation verdict certainty was significant, $b = .80$, $p = .02$ [95% CI: .09, 1.44]. The estimated path from eyewitness trustworthiness to post deliberation verdict certainty was still not significant, $b = .47$, $p = .17$ [95% CI: -.21, 1.06]. Results from both the model paths and bootstrapped estimated paths suggested that eyewitness credibility alone was the best predictor of both pre-deliberation and post deliberation verdict certainty in this condition.

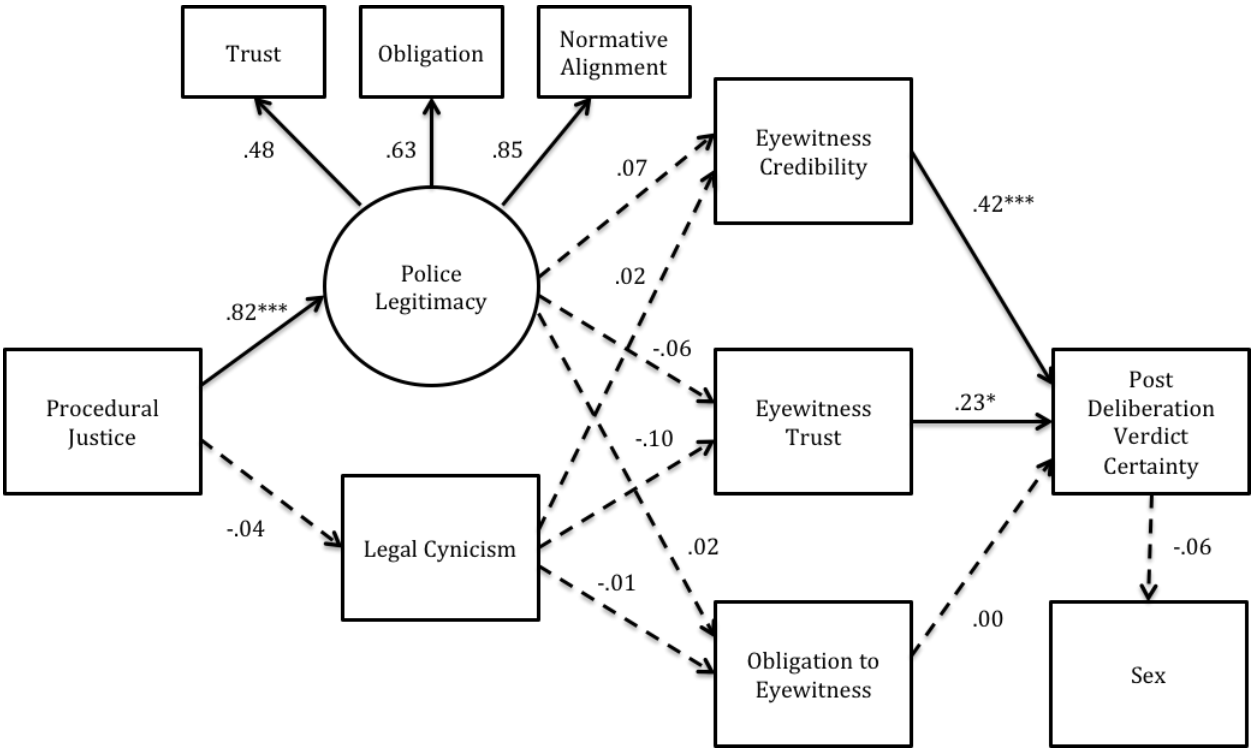

Figure 28. Bad reputation police officer eyewitness condition post deliberation decision initial model

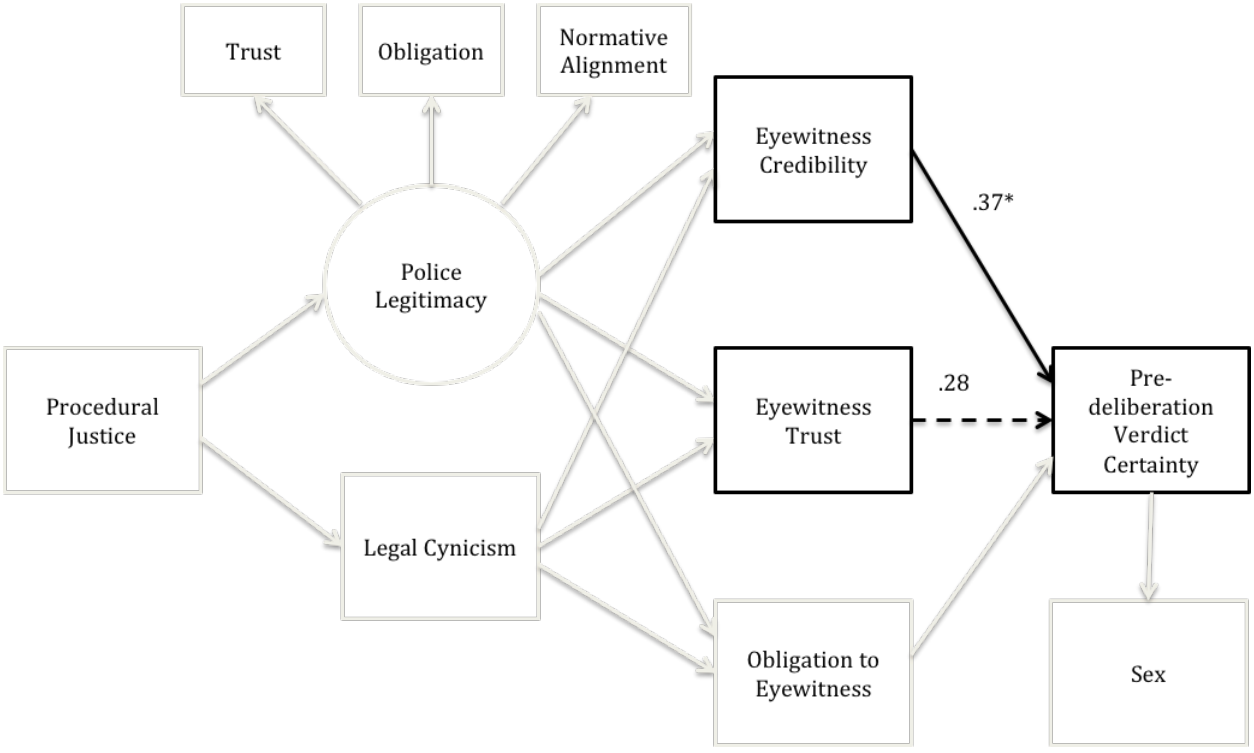

Figure 29. Bad reputation police officer eyewitness condition post deliberation decision final model

Table 27

Bad reputation police officer eyewitness condition SEM model for post deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.04	-.03	.10	---	---	---
Legitimacy ← Procedural Justice	.82***	.56	.10	---	---	---
Eyewitness Credibility ← Cynicism	-.01	-.02	.32	---	---	---
Eyewitness Trust ← Cynicism	-.10	-.29	.33	---	---	---
Obligation to Eyewitness ← Cynicism	-.07	-.24	.37	---	---	---
Eyewitness Credibility ← Legitimacy	.07	.26	.45	---	---	---
Eyewitness Trust ← Legitimacy	-.06	-.23	.46	---	---	---
Obligation to Eyewitness ← Legitimacy	.02	.08	.51	---	---	---
Post VC ← Eyewitness Credibility	.42***	.84	.20	.37*	.80	.31
Post VC ← Eyewitness Trust	.23*	.45	.19	.28	.47	.30
Post VC ← Obligation to Eyewitness	.00	-.01	.07	---	---	---
Post VC ← Sex	-.06	-.47	.75	---	---	---
$\chi^2(df)$	138.99(30)***			20.88(8)**		
N	82			82		
NFI	.50			.85		
CFI	.53			.90		
RMSEA	.21			.14		
AIC	188.99			46.88		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

The final model accounted for approximately 32% of the variance in post deliberation verdict certainty for participants in the bad reputation police officer eyewitness condition.

Post deliberation decisions controlling for pre-deliberation decisions. A final model was created to examine post deliberation verdict certainty decisions while controlling for pre-deliberation decisions for bad reputation police officer eyewitness condition participants. An initial model (see figure 1) was fit using pre-deliberation verdict certainty scores as a control. Sex was also included as a control as it was a significant predictor of verdict certainty for participants in the police officer eyewitness conditions in the regression analyses. The initial model had poor fit, $\chi^2(36) = 128.41$, $p < .001$, and did not meet conventional standards for a good fitting model, NFI = .59, CFI = .64, RMSEA = .18 [90% CI:.15, .21], AIC = 188.41 (see figure 30). Inspection of the individual paths in the model revealed that few paths were significant. Procedural justice was a significant predictor of police legitimacy, $\beta = .82$, $p < .001$, but not of legal cynicism, $\beta = -.04$, $p = .73$ (see table 28). Police legitimacy was not significantly related to eyewitness credibility, $\beta = -.10$, $p = .35$, eyewitness trustworthiness, $\beta = -.20$, $p = .07$, or obligation to the eyewitness, $\beta = -.11$, $p = .32$. Legal cynicism was also not significantly predictive of eyewitness credibility, $\beta = -.05$, $p = .58$, eyewitness trustworthiness, $\beta = -.13$, $p = .19$, or obligation to the eyewitness, $\beta = -.11$, $p = .30$.

Eyewitness credibility, $\beta = .30$, $p = .004$, and eyewitness trustworthiness, $\beta = .25$, $p = .01$, were both significant predictors of post deliberation verdict certainty, controlling for pre-deliberation verdict certainty. Obligation to the eyewitness, $\beta = -.05$, $p = .65$, and sex, $\beta = -.10$, $p = .29$, were not significantly related to change in verdict certainty. Pre-deliberation verdict certainty was also found to be significantly related to post deliberation verdict certainty, $\beta = .23$, $p = .04$, post deliberation eyewitness credibility, $\beta = .48$, $p < .001$, eyewitness trustworthiness, $\beta = .37$, $p < .001$, and obligation to the eyewitness, $\beta = .36$, $p < 001$. The initial model accounted

for approximately 34% of the variance in post deliberation verdict certainty, controlling for pre-deliberation decisions for participants in the bad reputation police officer eyewitness condition.

For the revised model, non-significant paths and predictors were removed to increase model fit. The only significant predictors of post deliberation verdict certainty in the previous model were eyewitness credibility, eyewitness trustworthiness, and pre-deliberation verdict certainty. Therefore, these three predictors were the only variables carried into the revised model. All other variables, including procedural justice, police legitimacy, legal cynicism, obligation to the eyewitness, and sex, were omitted from the model as they did not significantly contribute to the model. The revised model still did not show good fit, $\chi^2(1) = 65.71$, $p < .001$, and failed to reach conventional standards for a good fitting model, NFI = .49, CFI = .48, RMSEA = .89 [90% CI:.72, 1.08], AIC = 83.71 (see figure 28). All paths in the model were found to be significant. Eyewitness credibility, $\beta = .27$, $p = .01$, and eyewitness trustworthiness, $\beta = .26$, $p = .009$, were both significant predictors of post deliberation verdict certainty, controlling for pre-deliberation verdict certainty. Pre-deliberation verdict certainty significantly predicted post deliberation verdict certainty, $\beta = .22$, $p = .05$, post deliberation eyewitness credibility, $\beta = .46$, $p < .001$, and post deliberation eyewitness trustworthiness, $\beta = .32$, $p = .002$. However, the poor model fit suggested that the most appropriate way to analyze the predictors would be in a regression, as the final model did not warrant SEM techniques.

A follow up analysis was performed using OLS regression to test the remaining predictors in a more appropriate analysis. Eyewitness credibility and eyewitness trustworthiness were entered as predictors in the regression, pre-deliberation verdict certainty was included as a control variable, and post deliberation verdict certainty was entered as the dependent variable. The overall regression was significant, $F(3, 78) = 14.22$, $p < .001$, $R^2 = .35$ (see table 29).

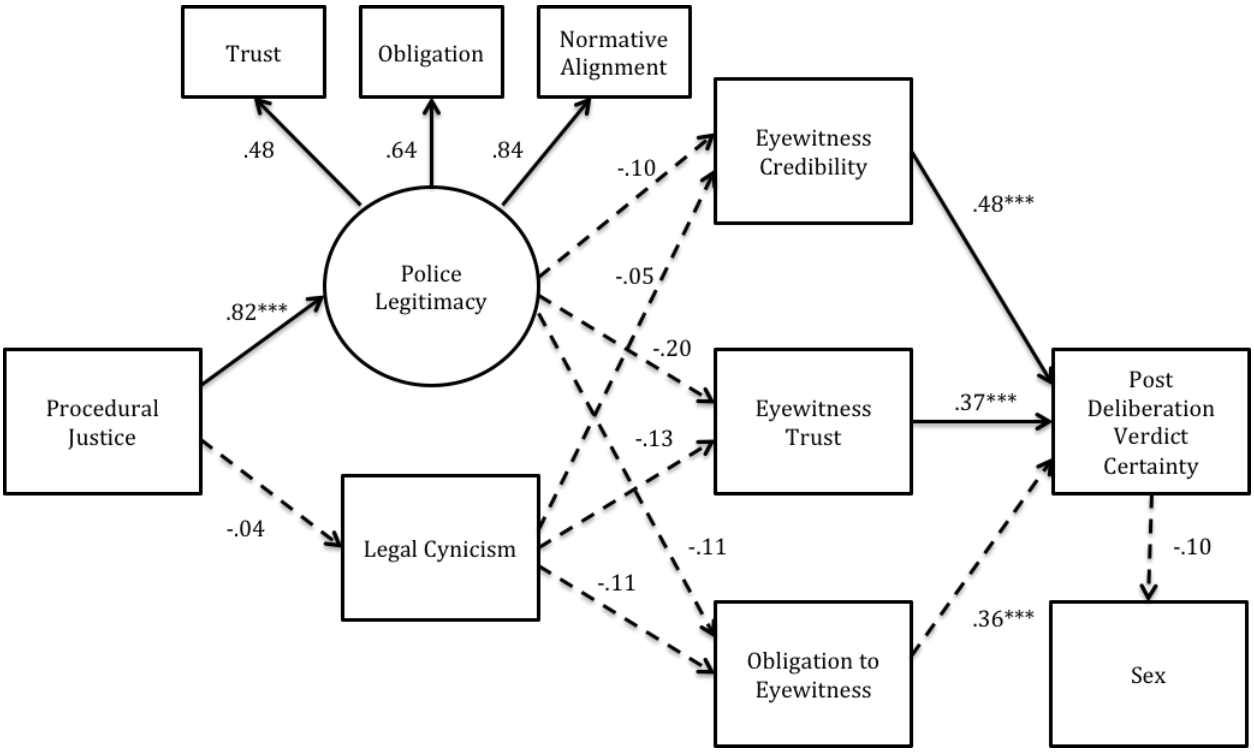

Figure 30. Bad reputation police officer eyewitness condition post deliberation decision controlling for pre-deliberation decisions initial model

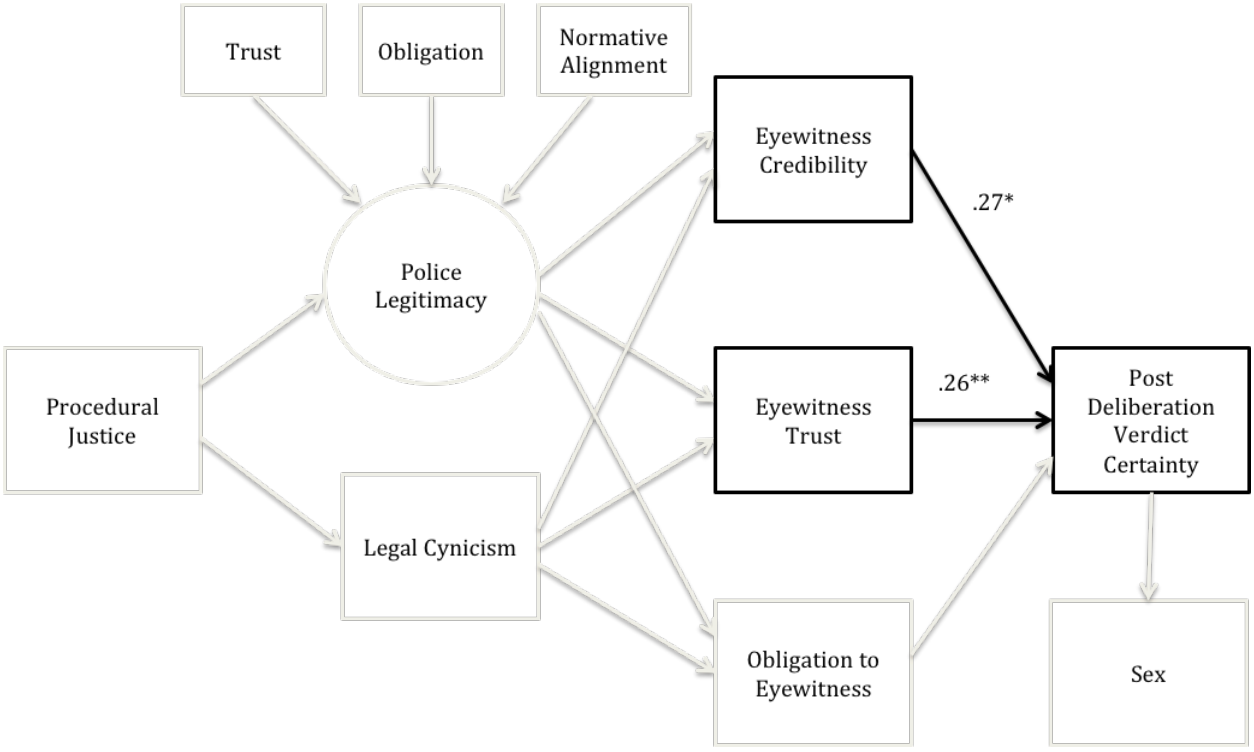

Figure 31. Bad reputation police officer eyewitness condition post deliberation decision controlling for pre-deliberation decisions final model

Table 28

Bad reputation police officer eyewitness condition SEM model for post deliberation decisions controlling for pre-deliberation decisions: Parameter estimates, standard errors, and fit indices

	Initial Model			Final Model		
	β	*b*	S.E.	*β*	*b*	S.E.
Cynicism ← Procedural Justice	-.04	-.03	.10	---	---	---
Legitimacy ← Procedural Justice	.82***	.57	.10	---	---	---
Eyewitness Credibility ← Cynicism	-.05	-.16	.28	---	---	---
Eyewitness Trust ← Cynicism	-.13	-.41	.31	---	---	---
Obligation to Eyewitness ← Cynicism	-.11	-.36	.34	---	---	---
Eyewitness Credibility ← Legitimacy	-.10	-.36	.39	---	---	---
Eyewitness Trust ← Legitimacy	-.20	-.77	.43	---	---	---
Obligation to Eyewitness ← Legitimacy	-.11	-.46	.47	---	---	---
Post VC ← Eyewitness Credibility	.30**	.62	.22	.27*	.56	.22
Post VC ← Eyewitness Trust	.25*	.50	.20	.26**	.51	.20
Post VC ← Obligation to Eyewitness	-.05	-.08	.18	---	---	---
Post VC ← Sex	-.10	-.77	.73	---	---	---
Post VC ← Pre VC	.23*	.23	.11	.22*	.21	.10
$\chi^2(df)$	113.23(36)***			65.71(1)***		
N	82			82		
NFI	.63			.49		
CFI	.69			.48		
RMSEA	.16			.89		
AIC	173.23			83.71		

Note: *$p < .05$, **$p < .01$, ***$p < .001$; VC = Verdict Certainty; Cynicism = Legal Cynicism; Legitimacy = Police Legitimacy; Eyewitness Trust = Eyewitness Trustworthiness

However, the regression results suggested that pre-deliberation verdict certainty was the only significant predictor, $\beta = .21$, $t(78) = 2.02$, $p = .05$. Eyewitness credibility, $\beta = .26$, $t(78) = 1.67$, $p = .10$, and eyewitness trustworthiness, $\beta = .25$, $t(78) = 1.71$, $p = .09$, were not significant in the analysis. The standardized regression weights for both non-significant predictors were greater than the standardized weight for pre-deliberation verdict certainty, suggesting that eyewitness credibility and eyewitness trustworthiness should be related the dependent variable.

It was thought that the reason for the lack of significance was likely due to multicolinearity between the two predictors. Inspection of the bivariate relation between eyewitness credibility and eyewitness trustworthiness showed that the two variables were highly correlated, $r(80) = .78$, supporting the multicolinearity theory. Because the two were so highly related for participants in the bad reputation police officer eyewitness condition, only one of the eyewitness evaluation predictors could be used in the model. The eyewitness credibility variable had a slightly stronger relation to post deliberation verdict certainty ($r(80) = .55$, compared to $r(80) = .51$) and had been the only significant predictor of both pre-deliberation and post deliberation verdict certainty decisions. Therefore it was decided that eyewitness credibility would be kept in the model as the representative predictor and eyewitness trustworthiness would be removed.

A new regression was conducted including only eyewitness credibility as a predictor, pre-deliberation verdict certainty as a control variable, and post deliberation verdict certainty as the dependent variable. Results indicated that the overall regression was significant, $F(2, 79) = 19.41$, $p < .001$, $R^2 = .33$ (see table 29). Eyewitness credibility was a significant predictor of post deliberation verdict certainty, controlling for pre-deliberation verdict certainty decisions, $\beta = .46$, $t(79) = 4.39$, $p < .001$. Pre-deliberation verdict certainty was no longer a significant predictor

however, $\beta = .20$, $t(79) = 1.89$, $p = .06$. The model accounted for approximately 33% of the variance in post deliberation verdict certainty scores, controlling for pre-deliberation decisions for bad reputation police officer eyewitness condition participants. Eyewitness credibility appeared to be the best predictor of verdict certainty at all measurement points for participants in this condition.

Table 29

Regressions predicting post deliberation verdict decisions controlling for pre-deliberation decisions for bad reputation police officer eyewitness condition participants

	Initial Regression			**Final Regression**		
Variables	*b*	S.E.	β	*b*	S.E.	β
Eyewitness Credibility	.56	.33	.26	.98***	.22	.46
Eyewitness Trustworthiness	.51	.30	.25	---	---	---
Pre-deliberation decisions	.21*	.10	.21	.20	.10	.20
Intercept	-7.17			-6.75		
***F* tests**	***F*(3, 78) = 14.22***, R^2=.35**			***F*(2, 79) = 19.41***, R^2=.33**		

Note: *$p < .05$, **$p < .01$, ***$p < .001$

CHAPTER VIII

DISCUSSION

The purpose of the study was threefold: the first purpose was to evaluate if there was an effect of witness type (lay, police officer) on juror decisions; the second purpose was to determine if there was an effect of police officer eyewitness reputation manipulation (bad, good, control) on juror decisions; and the third purpose was to examine the role of the procedural justice model of legal socialization on individual juror decisions of guilt in cases with lay eyewitnesses or police officer eyewitnesses. The discussion of the results from the current study has been divided into sections based on the goals of the study and the experimental hypotheses. First, the results from analyses examining the effect of the experimental manipulation of eyewitness type are discussed. Second, the results from the analyses examining the experimental manipulation of police officer eyewitness reputation are discussed. Third, findings related to jury decision-making and the effects of jury deliberation are discussed in the third section. Finally, the comparison of the procedural justice models fit for each eyewitness type condition are discussed in the fourth section. The last section addresses limitations of the current study and future directions for the current line of research.

Lay eyewitnesses compared to police eyewitnesses

Police are often called as witnesses in court, but may be viewed differently than a lay eyewitness even when called in an eyewitness role. The police represent the law as a legal institution and are viewed as authorities because of their professional obligation to uphold the

law (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Lind & Tyler, 1988; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b; Tyler & Huo, 2002). Jurors may use those perceptions of the police in the courtroom when a police officer is called as a witness. For example, previous researchers have found that participants' attitudes about the police (police legitimacy) predicted police officer witness credibility ratings and juror decisions of guilt (Cole & Cohn, 2015), suggesting that perceptions of the police and their role as legal authorities in the community can affect decisions made in the courtroom for defendants. The limitation in the previous study was that there was no comparison of the police officer witness to a lay witness to determine if the police officer witness actually had a different effect on juror perceptions and decisions than a layperson witness would have had. One of the purposes of the current study was to address that limitation.

It was hypothesized that there would be a significant difference in juror perceptions of credibility, trustworthiness, and obligation to the eyewitness between the lay eyewitness condition and police officer eyewitness condition. Results from the preliminary analyses suggested that there were no differences between conditions on perceived eyewitness credibility, both prior to deliberation and following deliberation. There was a difference between conditions on perceived trustworthiness of the eyewitness and obligation to the eyewitness pre-deliberation and post deliberation. In both cases, participants in the police officer eyewitness condition had higher ratings for eyewitness trustworthiness and obligation; however these differences were not statistically significant.

It was also hypothesized that jurors presented with the police officer eyewitness would render more guilty verdicts and have greater certainty for guilty verdicts than jurors presented with the lay eyewitness. The results from the preliminary analyses showed that there were no

differences in verdict or verdict certainty at pre-deliberation measurement. There was a significant difference in post deliberation decisions between participants in the lay eyewitness condition and police officer eyewitness. In examining the verdict decisions by condition alone, participants in the police officer eyewitness condition had a greater proportional shift towards not guilty verdicts at post deliberation than participants in the lay eyewitness condition. A mean comparison of verdict certainty decisions revealed that there was a marginally significant difference between police officer eyewitness condition scores and lay eyewitness condition scores at post deliberation. When participant demographics, procedural justice model variables, and eyewitness evaluation ratings were controlled for, the differences between conditions in verdict and verdict certainty at post deliberation were statistically significant. These findings did not support the initial hypothesis. In fact, the eyewitness manipulation resulted in the opposite effect than what was anticipated; viewing a police officer eyewitness resulted in more acquittals than convictions. However, this effect was only evident following the group deliberation.

The fact that eyewitness credibility was an important predictor and yet seemed to be unaffected by the manipulation was curious. The manipulation clearly had an effect on the outcome of the case (i.e. the verdict), but did not appear to influence the most important aspect of the participants' evaluation of the eyewitness. Perhaps the manipulation resulted in an implicit association that the participants did not explicitly recognize, yet still influenced their verdict decisions. In other words, the eyewitness type (lay, police officer) and reputation information (good, bad, neutral/control) caused the participants to view the case through a different lens. However, the participants themselves failed to attribute the way they viewed the case or made verdict decisions specifically to characteristics of the eyewitness, such as profession. In order to explore this theory and understand how the manipulation influenced the verdict decisions

without affecting participant perceptions of the eyewitness' credibility, the open-ended explanations participants were asked to provide for their verdict choices were examined.

The most prominent difference in the themes between lay eyewitness condition participant and police officer eyewitness condition participant decision explanations was related to the reliability or credibility of the eyewitness' testimony. Post deliberation explanations were examined as there were only significant differences found between conditions following the group deliberation. In the police officer eyewitness condition, participants who decided to acquit the defendant often cited lack of evidence and inconsistency in the eyewitness' testimony as the primary reasons for the acquittal. For example, a large proportion of the participants who made post deliberation not guilty verdict decisions stated that the eyewitness changed his testimony during the course of questioning, provided information that was inconsistent with other information in the case, or failed to provide enough information to have compelling testimony as an eyewitness.

One participant stated "the times of [what] time [the crime] took place kept switching. The surveillance tapes recorded the crime at 11:51pm but Officer Slate said he saw Mr. Smith run out of the store at 11:30pm." Although not entirely accurate regarding information from the video, it does raise important concerns over variations in eyewitness testimony and physical evidence in criminal cases. In this particular instance, Officer Slate indicated that he had finished his shift at 11:30 and stopped at the convenience store after leaving the police station following the completion of his shift. It would be reasonable to assume that it may have taken Officer Slate approximately twenty minutes to pack up, leave the station, and find his way to the convenience store; however a surprising number of participants focused solely on the difference in stated times without drawing any of these additional inferences.

Other participants included a discrepancy in the distance between the eyewitness and the defendant as the reason for the acquittal. For instance, a participant said, "first, James Slate said he was 25 feet away from John Smith; then he said that he was 30 feet away. He is unreliable." In both instances, there may be many occasions in which an eyewitness could be slightly inaccurate regarding details of the crime (Bell & Loftus, 1988), such as the exact time or distance away from the perpetrator. Being slightly inaccurate does not necessarily indicate that an eyewitness is not being veracious (Bell & Loftus, 1988; Wells et al., 1979) or should be considered unreliable. In this particular example, the difference between 25 and 30 feet or even 20 minutes could be easily mistaken and misjudged in a high-pressure situation. Participants in the police officer eyewitness condition were particularly harsh on the eyewitness for not maintaining perfectly consistent testimony with the rest of the evidence from the case.

In contrast, lay eyewitness condition participants who acquitted the defendant did not mention inconsistencies in the eyewitness' statement as a factor in their decision at all. In both iterations of the video, the time the eyewitness left his prior commitment, coming off shift in the police officer video and finishing a music concert for the teacher video, was kept consistent meaning that participants in either condition could have found a discrepancy with the timing of the crime and the arrival of the eyewitness. Not a single individual in the lay eyewitness condition raised a concern regarding a time discrepancy. Moreover, the argument over the distance the eyewitness had been away from the perpetrator was consistent in both versions as well. In all versions of the video, there had been the same conversation over whether the eyewitness had been 25 or 30 feet away at the time he witnessed the perpetrator flee the scene. Only participants in the police officer eyewitness condition raised issues about the eyewitness' uncertainty about the exact distance and used it as a reason to acquit the defendant.

In addition to participants in the police officer eyewitness condition using harsher scrutiny over the eyewitness' testimony, they also indicated an expectation for more evidence typically associated with police investigation than participants in the lay eyewitness condition. For example, one participant stated "evidence was not taken such as finger prints or license plate number" when explaining his decision for a not guilty verdict. Again, this theme was prominent in the police officer eyewitness condition and not in the lay eyewitness condition. Overall, there appeared to be a higher expectation for what a police officer eyewitness should be able to do and provide as an eyewitness than a lay eyewitness. When the police officer eyewitness "failed" to meet those expectations in the eyes of the participants, they viewed the eyewitness functionally as less credible, even if they did not explicitly state that they perceived the eyewitness as less credible when asked directly about the credibility of the eyewitness.

Inconsistencies in testimony are often thought to suggest inaccurate testimony among both legal authorities and lay participants in the legal system (Brewer, Potter, Fisher, Bond, & Luszcz, 1999; Potter & Brewer, 1999). However, empirical research on the effect of inconsistencies in testimony on perceptions of the witness and verdict decisions has found mixed results. Some researchers have found that inconsistencies in witnesses' testimony had a negative impact on evaluations of the witnesses' credibility and impacted the verdict decision for the defendant (Berman & Cutler, 1996; Berman, Narby, & Cutler, 1995). In contrast, other researchers found that inconsistencies in eyewitness testimony had no effect on verdict decisions (Lindsay, Lim, Marando, & Cully, 1986). One argument for the discrepancy in research findings relates to group identity. Brewer and Hupfeld (2004) found that participants were more likely to find the testimony of an in-group eyewitness more consistent than an out-group eyewitness, and found the defendant more culpable for the crime when the eyewitness was an in-group member.

Participants in the current study might have identified more closely with the lay eyewitness than with the police officer eyewitness, therefore focusing on the consistencies in the lay eyewitness' statement over the relatively few inconsistencies compared to the police officer eyewitness.

Individuals have been shown to believe that the police have heightened abilities over lay individuals (Christianson, Karlsson, & Persson, 1998; Cutler & Penrod, 1995; Deffenbacher & Loftus, 1982; Lindholm, Christianson, & Karlsson, 1997). Police are thought to have the ability to stay calm and remember details of a crime/incident better than lay individuals (Christianson et al., 1998; Lindhold et al., 1997), recall information more accurately to an event than lay eyewitnesses (Cutler & Penrod, Deffenbacher & Loftus, 1982), and be more trustworthy or credible than a layperson due to their profession as a legal authority (Yarmey, 1979; Yarmey, 1986). Therefore, when a police officer eyewitness appears to contradict or violate these assumptions (i.e. cannot remember enough details of the crime or is not perfectly accurate in his/her statement), it may have a negative impact on the jurors'/participants' appraisal of the police officer eyewitness' credibility and testimony. In other words, the police officer eyewitness in the video failed to meet participants' expectations for what a police officer eyewitness should be able to do and provide as an eyewitness. Therefore, the police officer eyewitness was viewed as not credible, at least as a *police officer* eyewitness, and participants felt that there was no longer enough evidence to find the defendant guilty of the crime. To test this theory, future researchers could use police officer eyewitness testimony with no possible contradictions to see if the effect is replicated or extinguished.

This was not the case for the lay eyewitness, because the expectation for lay eyewitnesses was not the same. Participants might not have had the same expectations for what a lay eyewitness should have been able to do or provide as an eyewitness, because a layperson would

not be expected to have heightened abilities like a police officer (Christianson et al., 1998; Cutler & Penrod, 1995; Deffenbacher & Loftus, 1982; Hulse & Memon, 2006; Lindholm et al., 1997). Furthermore, participants may have felt closer to the layperson, viewing the lay eyewitness as more of an in-group member, causing them to focus on the consistencies in his statement more than the few inconsistencies in contrast to the police officer eyewitness, who they might have viewed as more of an out-group member. As an in-group member, the lay eyewitness would not have had an expectation to remember more details, provide more information, or be more accurate or certain than what the participants could imagine themselves being capable of doing in a similar situation. The most interesting occurrence in the current study is the fact that the participants did not explicitly recognize that they perceived the police officer eyewitness to be less credible than the lay eyewitness when asked directly, although they demonstrated this in their open-ended statements regarding their reasoning for their decisions suggest otherwise.

The effect of police officer eyewitness reputation

Witness' credibility can be attacked at trial by presenting evidence that suggests the witness may be untrustworthy as a means to affect the credibility of a witness and his/her testimony (see rule 608, Lempert et al., 2013). When jurors are faced with an eyewitness with a bad reputation, like an eyewitness who has a prior conviction, for example, they are less inclined to view that eyewitness as credible (Eisenberg & Hans, 2009). In the current study, participants were presented with a police officer eyewitness with a good reputation (community service/commendations), bad reputation (prior conviction/professional dishonesty), or no information about reputation (control). Results indicated that, overall, participants did not perceive the eyewitnesses in any of the conditions to be more credible than any other, but did render more guilty verdicts when the police officer eyewitness had a bad reputation. Previous

researchers suggested jurors often viewed witnesses with poor reputations (Kassin et al., 1990), perceived propensities for dishonesty (Tanford & Cox, 1987), and/or poor character (Hunt & Budesheim, 2004; Nadler & McDonnell, 2012) as not credible. Findings from the current study partially support the findings from this research; however, they extend these previous findings in some new and unique ways.

In the case of the current study, the reputation manipulations were tailored to test the effect of reputation of police eyewitnesses. More specifically, the manipulations was designed to examine a Supreme Court Ruling in the State of New Hampshire relevant to police officers as witnesses in court. The State v. Laurie (1995) ruling allows for a police officer's professional record to be openly used in court to attack his/her credibility as a witness. This means any marks in an officer's record, including minor infractions, may be used against him/her as a means to invalidate his/her credibility as a witness in the eyes of jurors. In order to test this, participants in the police officer eyewitness bad reputation condition were provided with information about the officer's prior disciplinary infractions for taking a video camera from a previous employer. Participants in the good reputation condition were told that the police officer eyewitness had a record of service to the community and had won many awards as a police officer.

Results also supported the fourth hypothesis, which predicted the model would differ for participants in the lay eyewitness condition from the police officer eyewitness conditions. Police officer eyewitness reputation had an effect on participant perceptions of the police officer eyewitness and participant verdict decisions. Results from the analyses did uncover differences in verdict decisions between the police officer eyewitness reputation conditions, however, not in the anticipated directions. It was originally hypothesized that participants in the bad reputation condition would render the most not guilty verdicts, while participants in the good reputation

condition would render the most guilty verdicts in comparison to the police officer no reputation manipulation condition participants. In reality, participants in the bad reputation police officer eyewitness condition provided significantly more guilty verdicts and greater certainty for guilty verdicts than participants in the police officer eyewitness (neutral/control) and good reputation police officer eyewitness conditions. This effect only emerged post deliberation.

In examining the reputation manipulation police officer eyewitness conditions, further support was found for the "higher standards" theory. Similar to the police officer (neutral/control) eyewitness condition, participants in the good reputation police officer eyewitness condition who found the defendant not guilty often included statements such as "the eyewitness was not reliable so his testimony is not considered," "the cop might not be so truthful," or "the eyewitness wasn't 100% credible." Participants in the good reputation police officer eyewitness condition also cited inconsistencies in the police officer eyewitness' statement as a concern as well. For example one participant said "there were too many holes in the case; why was the time the off duty cop arrived so far before the crime?" while another participants stated "there is a lot of missing evidence and time gaps that were unclear." In both cases, these statements were the only reasons provided by the participants for their verdict decisions. This might be why there were no significant differences found between the police officer (neutral/control) eyewitness condition and good reputation police officer eyewitness condition participants' verdict and verdict certainty decisions, as participants in both conditions viewed the police officer eyewitness very similarly.

The findings from the bad reputation police officer eyewitness condition appear to be convoluted and therefore more difficult to explain. Many of the participants who decided to acquit the defendant cited the same inconsistencies in testimony and concerns over the

eyewitness' credibility as the participants in the police officer (neutral/control) eyewitness and good reputation police officer eyewitness conditions. Additionally, participants in the bad reputation police officer eyewitness condition raised concerns about the police officer's prior record of dishonest behavior (e.g. the purported theft of a camera) in their reasons for acquittal. For example, a participant in the bad reputation police officer eyewitness condition stated:

> *"[The] time [Slate] claimed to have seen Smith was inaccurate with robbery. Also waited half hour before seeing Pat Jones. Slate is a dishonest guy who should be a discredited witness because he is unreliable. He claims that the robbery took place at 11:30pm, the shore time says 11:51pm. Even if Slate's testimony is about the time, why did he [wait] half an hour before checking on Jones and notifying the police? I think Slate committed the robbery."*

Another participant said "Slate could not have possibly been able to identify Smith from 30 feet in a non well lit area. The timing between the crime is off, plus Slate doesn't have much qualification / a good reputation." In contrast, the participants that rendered a guilty verdict rarely included the eyewitness' testimony in their open-ended reasoning. This was not the case for the other three conditions where eyewitness testimony was cited in statements for both guilt renderers and acquitters, although for different reasons. Therefore, there appeared to be a polarizing effect of the manipulation on participant perceptions of the eyewitness verdict decisions. On one hand, participants who acquitted the defendant tended to scrutinize the testimony of the eyewitness quite harshly and took the history of dishonest behavior into consideration when forming their opinion.

In comparison, participants who voted guilty, however, seemed to focus almost completely on the physical evidence of the case and did not mention any specific information

regarding the eyewitness testimony other than the identification. For example, when asked to explain his/her verdict decision, one participant who rendered a guilty verdict said "defendant had three opposing witnesses. One had facial recognition and they all three identified the mask, jacket, and knife that police found on his kitchen table during a search." Most comments from participants who convicted the defendant were very similar, focusing more broadly on all the information presented and not specifically on the eyewitness' account. The bad reputation police officer eyewitness condition was proportionally the most similar to the lay eyewitness condition in guilty to not guilty verdict decisions. However, the reason for why they ended up with such proportions is likely different.

On one hand, some individuals in the bad reputation police officer eyewitness condition appeared to have been affected by the same mechanisms as participants in the other police officer eyewitness conditions. The police officer eyewitness might have been expected to have superior abilities over a lay eyewitness (Christianson et al., 1998; Cutler & Penrod, 1995; Deffenbacher & Loftus, 1982; Hulse & Memon, 2006; Lindholm et al., 1997) causing a backlash when that expectation was not met. That backlash might then have been exacerbated by the violation of further expectations that police have an obligation to uphold and abide by the law as a function of their profession as a legal authority (Bayley, 1995; Reiner, 2010). This did not affect some participants, particularly those who voted guilty.

In order to determine what might have caused the divergence in assessment of the bad reputation police officer eyewitness several possibilities were examined. First, there may have been characteristics that differed between participants who decided the defendant was guilty compared to those who said he was not guilty. However, no differences were found across any of the quantitative variables measured in the study other than eyewitness evaluation variables

between participants who said guilty versus not guilty in the bad reputation condition. Another explanation for the polarization effect may relate to participant attitudes towards the police. When information presented to participants is consistent with their pre-existing attitudes, it may reinforce their belief (Kaplan, 1977; Karpowitz & Mendelberg, 2007) and strengthen the effect the attitude has on their decision-making. However, when the information presented is inconsistent with participants' beliefs, it will have the opposite effect, diminishing the effect of their attitude (Asch, 1951; Kaplan, 1977) or the effect of the manipulation if participants choose to selectively ignore the inconsistent information (Carlson & Russo, 2001). However, for this scenario to be likely, there should have been a difference in attitudes towards the police found between those who rendered guilty and not guilty verdicts. Again, there were no differences found between these two groups.

Perhaps the difference stems from the actual background and experiences of the participant. If the participant comes from a community that is far removed from the scenario presented in the video, it may be the case that he/she draws little parallel between the type of police officer he/she viewed on the witness stand and a police officer that would be representative of his or her own community. Because the questions regarding procedural justice and police legitimacy were phrased in reference to "police in your community…" or "police in your neighborhood…" (Sunshine & Tyler, 2003; Tankebe, 2013; Trinkner & Cohn, 2014; Tyler & Jackson, 2014), the measures would not have been predictive of the eyewitness evaluation variables if the participants did not view the police officer eyewitness in a similar light as the police in their communities. By providing information about the urban location of the crime and the negative history of the police officer, a certain stereotype about the situation might have been

activated for some participants (Banaji, 2001; Bargh, 1999; Dovidio, Evans, & Tyler, 1986; Gaertner & McLaughlin, 1983; Greenwald & Banaji, 1995).

Participants that came from very different geographic and socioeconomic backgrounds than that of the individuals in the case (i.e. rural communities where they could not imagine the police they would interact with to be corrupt) could have used these stereotypes to make judgments about the case. In other words, the expectations of some participants might have been that many police officers in such a community were likely to have issues of corruption and credibility (Carr et al, 2007; Sampson & Bartusch, 1998). Therefore, the fact that this particular police officer was accused of misconduct of the sort was not only consistent with that stereotype, but confirms that the situation is far removed from the participants' own situation (Allen & Wilder, 1975; Tajfel & Billig, 1974). Having removed the relevance of the participants' own life from the scenario, the participants might find it easier to focus on the most salient aspects of the case, because the peripheral details are inconsequential in relation to their own life. In other words, "something like this would never happen in my own community," so it is treated as fictional in a sense.

The bad reputation manipulation could have also resulted in a blemishing effect, whereby the relatively small piece of negative information among the mostly positive information actually bolstered the opinion of the eyewitness for certain types of participants (Ein-Gar, Shiv, & Tormala, 2012). The presence of negative information about a police officer, usually someone who is in a position of authority who is held in high regard, may actually have increased the participants' attraction towards the eyewitness by humanizing him (Aronson, Willerman, & Floyd, 1966). Once some of the participants viewed the police officer eyewitness as a fallible person, and not as a disconnected legal authority, they might have been more willing to accept

his testimony similarly to the lay eyewitness. This humanizing effect might have actually drawn a parallel between the bad reputation police officer eyewitness and the lay eyewitness, as both were viewed as more in-group members than out-group members (Brewer & Hewstone, 2004; Jackson, 2002; Tajfel & Turner, 1979). However, these are only several possible explanations and with no current way to test either of the hypotheses proposed. Follow up research will need to be conducted to understand the finding from the bad reputation manipulation in the current study.

To address some broader findings from the manipulations, across all conditions, eyewitness trustworthiness and obligation to listen and consider the testimony of the eyewitness were not significantly predictive of verdict decisions in general. There were few instances in which eyewitness trustworthiness predicted verdict and verdict certainty decisions; however, eyewitness credibility usually was the more powerful predictor of verdict decisions in the model. Eyewitness credibility was the most consistent predictor of verdict and verdict certainty decisions overall across all conditions and all measurement points. Interestingly, there were no significant differences found in eyewitness credibility levels between conditions both pre-deliberation and post deliberation. There were differences at post deliberation in eyewitness trustworthiness evaluations however.

Effect of Jury Deliberation

Researchers in jury deliberation and decision-making have emphasized the efficacy of including a full deliberation paradigm in recent years (Cornwell & Hans, 2011; Dahl et al., 2007; Devine et al., 2001; Finkelstein & Bastounis, 2010; Salerno & Diamond, 2010). However, despite previous objections regarding the need to include a group deliberation in verdict decision-making (Kalven & Zaisel, 1966), modern researchers consider the knowledge than can

be gained from group level data in jury studies to be potentially invaluable (Cornwell & Hans, 2011; Devine et al., 2001; Nunez et al., 2011; Salerno & Diamond, 2010). For example, it was expected that there would be an attenuation effect of the pre-existing attitudes on juror verdict decisions as a function of the group deliberation (Kaplan, 1977; Karpowitz & Mendelberg, 2007), however in many cases, there was no such attenuation effect. In fact, there was an amplification effect of the eyewitness and reputation condition manipulations by the group deliberation that would not have been discovered if only individual pre-deliberation decisions had been measured.

Prior to the group deliberation, there were no significant differences between any of the police officer eyewitness conditions on verdict decisions. In all conditions, there was a slight to moderate inclination towards guilt at pre-deliberation. Following the group deliberation, there was a large proportional shift in verdicts from guilty to not guilty in the police officer (neutral/control) and good reputation police officer eyewitness conditions, and a much smaller shift in the bad reputation police officer eyewitness condition. At post deliberation, bad reputation police officer eyewitness condition participants were closer in verdict decisions to the lay eyewitness condition participants than the other two police officer eyewitness conditions. Verdict and verdict certainty decisions were not significantly different between the police officer (neutral/control) eyewitness and the good reputation police officer eyewitness condition participants.

Without the inclusion of a group deliberation and post deliberation data analysis, results from the study would have been inaccurately concluded and therefore irrelevant to what would likely occur in a real trial with actual jurors. Furthermore, the deliberation process allowed for individual participants to consider perspectives that they perhaps had not previously considered. It also allowed jurors to engage in different processing techniques that may have increased

participant reasoning (McCoy et al., 1999) and forced participants to agree unanimously, limiting the degree to which decisions could have been based on extreme opinions or biased reasoning. However, despite the protective factors that the group decision-making environment afforded, the effect of police authority and the general sense of trust that it instilled (Jeleniewski, 2014; Trinkner & Cohn, 2014; Tyler, 2006b; Tyler & Huo, 2002; Tyler & Jackson, 2014) were pervasive enough to influence juror decisions, even after the group deliberation for post deliberation decisions.

General overt attitudes towards the police, whether they were negative or positive, may have been attenuated during the deliberation process, because they made an individual group member seem extreme or biased to other members (Karpowitz & Mendelberg, 2007). In this case, the power to conform to the group norm and regress towards the more neutral position (Asch, 1951) during group deliberation would have been strong, influencing their decisions. More widely accepted institutional perceptions, like viewing the police as authority figures, regardless of their legitimacy was likely more pervasive however. In other words, regardless of one's opinion of the police in general, when faced with a police officer as a witness in court versus a lay person as a witness, one may automatically view that police officer as more of an authority simply because he/she is in a position of authority in the legal system. Therefore, these perceptions were more likely to continue to be effective through deliberation as they fit a more general social schema; police play a role in the legal system as an authority figure.

In fact, the group deliberation appeared to make the manipulation more salient and draw the participants' attention to the eyewitness' testimony more. This was unexpected and had the opposite effect of most research on jury deliberation attitude attenuation (Karpowitz & Mendelberg, 2007). What does typically occur in the course of jury deliberation, however, is

that jurors share information and knowledge about the case with one another. In sharing, missed, misinterpreted, or incorrect information can be addressed by the group moving forward towards a more informed decision (Bornstein & Greene, 2011; Prichard & Keenan, 2002). Furthermore, the evidence and juror instructions presented can be consolidated, corrected, and mobilized through discussion into a more carefully considered verdict decision (McCoy et al., 1999). Perhaps most relevant to the current circumstances of the study results, the importance of certain pieces of evidence and information relevant to the case and the verdict decision tend to become more salient during the deliberation process, often times leading to a more considerate decision than at the individual level (Kerwin & Shaffer, 1994; London & Nunez, 2000; Ruva et al., 2007). Thus, the results from the current study further solidify the efficacy of jury deliberation in juror decision-making as a valued method of legal decision-making over individual decision-maker (London & Nunez, 2000).

Procedural Justice Model of Legal Socialization

The procedural justice model of legal socialization suggests that the interactions individuals have with authorities help to shape their perceptions of legitimacy of those authorities (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Trinkner & Cohn, 2014; Tyler, 2006b). If individuals feel they are treated fairly with benevolent intentions and respect, and given an opportunity to voice their position by an authority figure (Lind & Tyler, 1988), then they are more likely to view the authority as legitimate (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Trinkner & Cohn, 2014; Tyler, 2006a, 2006b). These interactions that result in perceptions of legitimacy towards authorities, like the police, affect an individuals' behaviors towards the authorities and the rules/laws they enforce (Fagan & Piquero, 2007; Fagan & Tyler,

2005; Jeleniewski, 2014; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b). For example, individuals who view the police as legitimate authorities are more likely to comply with the directives of the police (Fagan & Tyler, 2005; Sunshine & Tyler, 2003) and engage in less rule/law violating behavior (Fagan & Piquero, 2007; Jeleniewski, 2014; Trinkner & Cohn, 2014).

It was hypothesized that the procedural justice model of legal socialization would predict juror verdict decisions and the relation would be mediated by juror perceptions/evaluations of eyewitness credibility, trustworthiness, and obligation to listen to the eyewitness. It was expected that the predictive model for participants in the lay eyewitness condition would differ from the police officer eyewitness condition. These predictions were partially supported; some parts of the procedural justice model predicted eyewitness evaluation measures for both the lay eyewitness condition and police officer eyewitness condition participants. Specific parts of the model were predictive for lay eyewitness condition verdicts while other parts were predictive of police officer eyewitness condition verdicts.

For participants in the lay eyewitness condition, legal cynicism was a significant predictor of eyewitness credibility for pre-deliberation and post deliberation decisions. Procedural justice predicted legal cynicism, which in turn was predictive of eyewitness credibility. The more participants thought the police provided fair treatment, the less cynical they were towards the legal system, and the more credible they found the eyewitness to be. Eyewitness credibility then significantly predicted verdict certainty decisions. The more credible participants viewed the eyewitness, the more likely they were to render a guilty verdict. This pattern was found for each level of decision: pre-deliberation, post deliberation, and post deliberation controlling for pre-deliberation decisions.

The relation between legal cynicism and eyewitness credibility was not significant in the post deliberation analysis controlling for pre-deliberation verdict decisions. Because this particular analysis was aimed at examining change in verdict from pre-deliberation to post deliberation by controlling for pre-deliberation decisions, the influence of legal cynicism was not as strong. There was not a significant amount of change in verdict decisions from pre-deliberation to post deliberation for lay eyewitness condition participants. Therefore, either legal cynicism was not particularly predictive of the few people who did change their decisions in this condition, or the relation to change was much smaller and failed to be significant with the relatively small sample size. Collecting data from additional participants to increase the sample size might help to flesh out the nature of the relation of legal cynicism in the change model.

For police officer eyewitness condition participants, legal cynicism was not a significant predictor of eyewitness credibility. Instead, police legitimacy was associated with participant perceptions of eyewitness credibility. This association occurred for post deliberation verdict certainty decisions alone and post deliberation verdict certainty controlling for pre-deliberation decisions. These findings supported the initial prediction that perceptions of police legitimacy would not be related to perceptions of the lay eyewitness' credibility, trustworthiness, or juror obligation to the eyewitness, because the eyewitness is not a police officer. The different model patterns found across eyewitness types established that police legitimacy was distinct from general positive or negative attitudes towards the legal system, which might otherwise have indicated a general proclivity for prosecution alignment. The police officer eyewitness model indicated that attitudes towards the police authority specifically might be more important in the evaluation of police officer eyewitnesses. In contrast, the lay eyewitness model suggested that general attitudes towards the system as a whole, namely one's level of cynicism towards the

system, were more important in the evaluation of eyewitnesses who were ordinary citizens and not legal authorities.

In both pre-deliberation and post deliberation decisions, the association between police legitimacy and eyewitness credibility failed to be statistically significant in the police officer (neutral/control) eyewitness SEM model. In later analyses combining all police officer eyewitness conditions together, this was not the case. In the combined model, police legitimacy significantly predicted police officer eyewitness credibility. The size of the standardized regression weight was suggestive of a potential relation for the police officer (neutral/control) eyewitness condition participants; therefore sample size may have been a factor in the lack of significant findings. A similar sized standardized regression weight for the relation between police legitimacy and eyewitness credibility was found in the combined police officer eyewitness conditions model and the relation was statistically significant. The sample used for the police officer eyewitness condition SEM model analyses was small (n = 73) compared to the combined models (n = 237), suggesting that the relation might be statistically relevant for the police officer (neutral/control) eyewitness condition with a larger sample.

In examining the procedural justice integration models for the police officer credibility conditions, support was also found for the fifth hypothesis. It was hypothesized that the effect of the procedural justice model of legal socialization on participant perceptions of the eyewitness and verdict decisions would be moderated by police officer eyewitness credibility. In other words, the model would differ depending on the reputation of the police officer eyewitness. First, an overall model was created combining all three police officer eyewitness conditions (good, bad, neutral/control) together. The combined model results showed that procedural justice and police legitimacy were predictive of participant perceptions of police officer eyewitness credibility.

The effect of procedural justice on eyewitness credibility was mediated by participant perceptions of the legitimacy of police authority. Eyewitness credibility then predicted verdict and verdict certainty decisions. This pattern was found for both pre-deliberation and post deliberation decisions.

When individual models were created for the different police officer eyewitness conditions, the pattern of results for the model changed. For participants in the good reputation police officer eyewitness condition, police legitimacy was still found to be a significant predictor of eyewitness credibility, but only for pre-deliberation decisions. At pre-deliberation, police legitimacy and legal cynicism were significant predictors of eyewitness credibility, which then predicted verdict and verdict certainty decisions for good reputation police officer eyewitness condition participants. Interestingly, following the group deliberation, police legitimacy no longer significantly predicted eyewitness credibility in the model, but instead was a competing direct predictor of verdict and verdict certainty decisions. Legal cynicism was no longer a significant predictor at post deliberation.

For bad reputation police officer eyewitness condition participants, the procedural justice model variables were not significantly related to any of the eyewitness evaluation variables or verdict decisions at any measurement time point. Eyewitness evaluation factors, particularly eyewitness credibility, were the only significant factors in the proposed model. Therefore, additional factors outside of the procedural justice model might be important for decisions involving a police officer with bad reputation.

The procedural justice model was therefore only partially supported by the results of the current study in predicting eyewitness credibility and juror verdict decisions. The only condition in which the procedural justice model did not show any potential as a predictive model of juror

perceptions and decision-making was in the bad reputation police officer condition. In the lay eyewitness condition, procedural justice and legal cynicism were significant predictors of eyewitness credibility and participant verdict decisions; however police legitimacy was not a significant predictor in the model. This particular result makes theoretical sense, because legal cynicism represents general feelings of cynicism or distrust towards the legal system and society as a whole (Carr et al., 2007; Durkheim, 1897/1997, Hickman et al., 2004; Sampson & Bartusch, 1998). Individuals high in legal cynicism distrust institutions within the system, like the police (Carr et al., 2007; Sampson & Bartusch, 1998), and find the system to be unjust (Agnew, 2007; Durkheim, 1897/1997). Therefore, participants that are more skeptical/cynical about the legal system as a whole would be less likely to trust the entire process, including eyewitness testimony, and more likely to find the defendant not guilty as they see the system in general as unjust.

In contrast, procedural justice and police legitimacy were more important predictors of eyewitness credibility and verdict decisions in the combined police officer eyewitness conditions (good, bad, neutral/control), police officer (neutral/control) eyewitness condition, and good reputation police officer eyewitness condition models. In the majority of these models, legal cynicism was no longer a significant factor in predicting either eyewitness evaluation variables or verdict decisions. The findings from the police officer eyewitness condition models, for the most part, also make intuitive sense. Previous researchers in procedural justice and police legitimacy have found that interactions with police influenced a variety of behavioral outcomes including compliance with police (Fagan & Tyler, 2005; Tyler & Jackson, 2014; Tankebe, 2013), engagement in rule/law violating behavior (Jeleniewski, 2014; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014), and civic engagement (Jackson & Bradford, 2010). The current study

extended the existing literature by applying the model to perceptions of the police in a very specific situation, as an eyewitness in court, and decisions for others' behavior, in the form of juror decision-making.

Procedural justice significantly positively predicted police legitimacy in the case of the following three models: combined (good, bad, neutral/control) police officer eyewitness conditions, police officer eyewitness (neutral/control), and good reputation police officer eyewitness conditions. This was consistent with previous procedural justice research suggesting that the more positive interactions individuals had with police, the more likely they were to find the police to be legitimate legal authorities (Jackson & Bradford, 2009; Tyler, 2006b; Tyler & Jackson, 2014). Police legitimacy then positively predicted police officer eyewitness credibility (except in the good reputation police officer eyewitness post deliberation analyses), suggesting that pre-existing general attitudes about the police influenced the formation of specific attitudes about a particular police officer eyewitness. In the case of the good reputation police officer eyewitness condition, the reputation manipulation became salient and exerted an effect on the group decisions following the group deliberations.

At that point, police legitimacy no longer had a direct relation to participant perceptions of police officer eyewitness credibility, as the reputation manipulation was likely heavily influencing credibility perceptions over pre-existing attitudes. Specifically, participants' general attitudes towards the police no longer mattered as much in the evaluation of this particular police officer eyewitness, at least in the direct measure of eyewitness credibility, because information about his legitimacy as a police officer was already provided, in a way. That information was either stereotype consistent or inconsistent (Pezdek, Whetstone, Reynolds, Askari, & Daugherty, 1989), depending on their pre-existing attitudes or beliefs about the police. Stereotype consistent

information can work as a confirmation bias, reinforcing the already established belief (see Nickerson, 1998). Because participants expected the police officer to be skilled and trustworthy and then were told he was so, they may have been especially sensitive to the fact that there were discrepancies, however small, in his testimony.

In contrast, for those that saw the information as inconsistent, the information might have been discounted as an atypical example (Jackson & Rose, 2013; Pezdek et al., 1989). However, in accessing the inconsistent information, additional cognitive resources are utilized above and beyond what is normally required for processing stereotype consistent information, facilitating superior recall (Pezdek et al., 1989). As an unintended consequence, attention may have been drawn to matters related to the eyewitness' testimony for participants with inconsistent stereotypes (i.e. normally view the police less favorably), also resulting in the ability to remember small details like the discrepancy in time and distance. These discrepancies may have reinforced their own stereotype that the police officer is actually not as good as described in the video (Clark & Woll, 1981), thereby discounting the reputation manipulation information provided in their decision-making. In either case, when participants were presented with a police officer with no reputation information provided or one with good reputation information, participant experiences with the police and attitudes about the legitimacy of the police were important in their decision-making as a mock juror. Many of the effects of both the procedural justice model variables and the eyewitness condition manipulations changed from pre-deliberation to post deliberation suggesting an effect of the group deliberation as well.

Implications

The current study extends the current literature on eyewitnesses and attitudes towards the police in several ways. Previous researchers largely ignored the role of police as witnesses in the

court (Cole & Cohn, 2015; Yarmey, 1986). The current study was one of the first to explore the role of police as witnesses in court and how juror perceptions and decisions differ for police eyewitnesses from lay eyewitnesses. Police are a unique type of witness unlike either a lay eyewitness or a typical expert witness in the eyes of jurors. Police are viewed as legal authorities in the community as a function of their profession (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Lind & Tyler, 1988; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Tyler, 2006b; Tyler & Huo, 2002). As such, these perceptions of the police as authority carry over into the courtroom when a police officer is called as a witness, even in an eyewitness capacity. Few researchers have studied police as witnesses in the courtroom, despite their relatively high frequency in this role and the potentially large impact they may have on juror decisions (Cole & Cohn, 2015; Yarmey, 1986). Previous researchers have found that participants' attitudes about the police (police legitimacy) predicted police officer witness credibility ratings and juror decisions of guilt (Cole & Cohn, 2015), suggesting that perceptions of the police and their role as authorities in the community affected decisions made in the courtroom for defendants.

The current study was the first to compare police as eyewitnesses to lay eyewitnesses in court. Although one previous study found that participant attitudes towards the police predicted their credibility ratings for a police officer witness and verdict decisions (Cole & Cohn, 2015), there was no comparison between the police officer eyewitness and a lay eyewitness. The results from the current study replicated and extended findings from that previous research to include a distinction between police as witnesses and lay witnesses which addresses this limitation (Cole & Cohn, 2015). The findings from the current study showed that police officers' role as legal authorities in the community affected juror perceptions of police as eyewitnesses in court and

ultimately juror verdict decisions for the defendant differently than for lay witnesses. Jurors may think of police officer eyewitnesses as "trustworthy", because the police in general can be trusted, as they are charged with upholding the law and protecting the community at large (Tyler, 2006b; Tyler & Huo, 2002). Unfortunately, when the expectations of the abilities of the police as legal authorities are violated, the police are viewed as less credible, as illustrated by the results from the current study.

The current study was also the first to incorporate the procedural justice model of legal socialization variables into juror decision-making research. Previous researchers studying procedural justice models and police legitimacy focused mostly on compliance with authorities and engagement in rule/law violating behavior (Fagan & Piquero, 2007; Fagan & Tyler, 2005; Jeleniewski, 2014; Piquero et al., 2005; Sunshine & Tyler, 2003; Trinkner & Cohn, 2014; Sunshine & Tyler, 2003). Only one study attempted to apply any of the theories of the procedural justice model to juror decision-making to date (Cole & Cohn, 2015). The current study expanded procedural justice literature into a new area previously unexplored and unapplied in the legal realm, finding support for the model in juror judgments of eyewitness credibility and verdict decision-making.

The results from the current study could have immense implications for the legal system, especially related to the use of police as witnesses in court. Currently, little is known about the effect that police officers as witnesses have on juror decisions. Findings from the current study demonstrated that participants and potential jurors did view police officer eyewitnesses differently than lay eyewitnesses and the type of eyewitness presented affected juror decision-making. Moreover, the results expanded the witness credibility literature to include examination of police officer eyewitness credibility, which has never been examined previously. The vast

majority of the witness researchers focused on lay eyewitnesses (Lindsay et al., 1981; Wells, Ferguson, & Lindsay, 1981; Wells et al., 1979) and/or expert witnesses (Brewer, 1998; Kassin et al., 1990; Wrightsman et al., 1987). Consequently, any reforms resulting from research dedicated to understanding these topics may not be applicable to police officer witnesses as they hold a unique position unlike any other type of witness. Findings from the current study may help to bring attention to this group of witnesses and identify them as a separate entity from either eyewitness or expert witness exclusively, both in the academic and legal communities.

Many previous researchers have demonstrated the effect of juror attitudes and bias on juror decision-making; however few have examined the role of legal attitudes specifically related to the police on juror decisions to date (Cole & Cohn, 2015). There are safeguards in place in our legal system to attempt to protect against forms of juror bias in court cases; however, if specific causes of bias are not identified, it may be difficult to enact those protections. By identifying the effect of juror attitudes about the police on juror perceptions of police officer eyewitnesses and verdict decisions, it will help educate legal professionals on a new potential source of bias for a common witness that often appears at trial. In doing so, it may help to improve the jury selection process, reduce the occurrence of heuristic processing in jurors, and ultimately reduce biased verdicts for defendants.

The other contribution that the current study can make to the justice system is directly related to the New Hampshire Supreme Court decision (*Stave v. Laurie*, 1995) that was tested as part of the examination of witness credibility and reputation. The Laurie ruling has caused a considerable amount of controversy in the state of New Hampshire, where police officers as witnesses in court are concerned. Police officers who have potential "credibility issues" in their professional records can be placed on the "Laurie List" once their credibility is challenged in

court with this information. The criteria for Laurie relevant information is vague and even minor infractions can be seen as Laurie related as long as they could be construed as dishonest behavior. Once placed on the list, that officer's name cannot be removed. Many see this as career damaging and several officers who have been placed on the list have even filed suit against the State.

The current study was also the first to examine the effect of the State v. Laurie (1995) decision in New Hampshire that allows a police officer's professional record to be used against him/her in court as a way to attack witness credibility. Findings from the current study showed that there was an effect of credibility information on police officer eyewitness testimony and verdict decisions. Results from the current study suggest that police officer eyewitnesses with good records who are likely to have a good reputation will be viewed similarly and result in a similar verdict outcome to police officer eyewitnesses who are not presented with any credibility information. Police officer eyewitnesses with a poor record and potentially bad credibility as an eyewitness actually resulted in more convictions than the other two groups. If anything, this is likely the opposite effect that would be expected from a legal practitioners perspective and could have serious implications for policy concerning the admissibility of police officer eyewitness credibility information.

The results from the current study could help to inform legal practitioners and legislators about the effect Laurie material has on juror perceptions of police eyewitnesses and juror verdict decisions. If even small infractions are found to have a substantial effect on juror perceptions of a police officer eyewitness' credibility and influence decisions of guilt for a defendant, especially in unintended ways, then it may be important to reevaluate the efficacy of the use of Laurie material in court. In most cases, police officers would be testifying on behalf of the prosecution.

Therefore, allowing information that may persuade jurors to negatively evaluate the police officer's testimony and view them as a less credible witness yet still condemn the defendant to be convicted more often. In both instances, multiple parties are harmed, even if the defendant truly is guilty of the crime. The system fails to function properly if innocent parties are incarcerated and guilty parties are set free, particularly at the expense of diminishing trust in the enforcers of the legal institution. These issues go beyond just the State of New Hampshire, as examined in the current study. Many other states in the United States have similar rules and procedures governing police officer witness testimony as New Hampshire. Therefore, the findings from this study could impact other states as well.

The current study also addressed methodological limitations from previous research as well as made theoretical contributions. For example, although the current study was the first to incorporate the procedural justice model into a theory of juror decision-making, the hypothesized hybrid model of juror decision-making predicated by procedural justice model variables was not predictive in many instances. This finding suggested that there might be a revised model of juror decision-making for police officer eyewitness involved cases to consider. Additionally, many of the previous researchers in this area have utilized a written transcript where participants read about a case and then rendered a decision based on what they had read (Bornstein, 1999; Devine et al., 2001). The current study instead used a mock trial video specifically created for the study to increase ecological validity. This allowed for participants to get a better experience more closely related to the actual experience of a real juror in court.

Limitations and Future Directions

The current study had many strengths that addressed gaps and limitations from previous research; however, there are some limitations to the current study as well. First, future

researchers will need to expand on the measures included and/or the methodology used to disentangle the relation between the bad police officer eyewitness reputation condition and verdict decisions. Additional measures, such as more detailed demographic variables, and more in-depth qualitative sections to better understand how the reputation manipulation affected the participants' perceptions of the eyewitness and verdict decisions should be included. For example, participants could be asked to indicate what previous contacts they have had with police, whether those contacts have been positive or negative in nature, and whether they perceive those contacts to have been procedurally just. These questions could be used to account for specific experiences with police that might be related to perceptions of police legitimacy. Furthermore, it would be important to understand whether participants identify their own experiences with that of the police officer eyewitness and defendant in the case by asking participants what type of community they identify as living in (urban, rural, etc.). A follow-up open-ended question session could also be added to the end of the experiment to probe participants for more specific reasons regarding their perceptions of the case, evaluation of the eyewitness, and verdict decisions.

Another method that could be enacted to test the bad reputation manipulation effect would be to use a stronger manipulation. In the current study, the bad reputation manipulation used was consistent with information that could/would be presented as a result of the New Hampshire Laurie Ruling (*State v. Laurie,* 1995) to reduce credibility of the eyewitness. It may be the case that the manipulation, in this case a minor theft of a camera that was never prosecuted, was not strong enough for some participants to find an effect of the bad reputation. A more serious offense may elicit the desired effect and show more consistent results than the findings from the current study. Future studies could incorporate this stronger manipulation to

further test for an effect of bad police officer eyewitness reputation to affect credibility on juror verdict decisions.

In addition, the material used in the case could be kept more consistent in future research to avoid any participant perceptions of inconsistencies in the eyewitness' statement. In the current study, the police officer eyewitness was accused of contradicting his statement, however the lay eyewitness was not accused of committing the same offense despite the fact that they provided the exact same testimony in almost every regard. To reduce this issue in the future, the testimony could be kept entirely consistent in all instances to avoid any perception of contradictions. In other words, the eyewitness could simply state that he was 25 feet away instead of 25 to 30 feet away. Any discrepancy arguments could be removed from cross examination to keep the testimony as clean as possible to see if the effect found in the current study still replicates.

The current study examined the New Hampshire Laurie Rule exclusively, which is only specific to New Hampshire law and therefore may not be applicable to other states. Although there are many other states that have similar evidentiary rules governing police officer witness testimony, it would be important to consider potential differences in other states to determine the applicability of the current findings. Future studies should examine the evidentiary rules from other states and compare any differences between states to determine if these differences impact perceptions of police as witnesses as well as the verdict decisions. It would also be important to note whether the same pattern of results emerged in states using other evidentiary rules for police officer witnesses as this may have important policy implications.

The current study was the first to incorporate the procedural justice model into juror decision-making; however, the procedural justice model was never theoretically designed or

metrically evaluated to be used in juror decision-making. Only partial support was found for the procedural justice hybrid model of juror decision-making as predicted in the current study. Part of the reason for the mixed result might be related to the theoretical model. Perhaps there are other aspects of the participants' decisions that were not accounted for in the current study or previous research on procedural justice that would be important factors in the evaluation of a police officer eyewitness. The procedural justice model of juror decision-making might look different than procedural justice models for other behavioral outcomes such as compliance with the law or engagement in law violating behavior, given that the focus is on consequences for an unrelated third party and not the individual himself/herself. In order to identify and understand these other factors to develop a more complete model of juror decision-making related to police interactions, future studies could incorporate additional measures, such as perceptions of the specific police officer witness compared to police in general, identification with the community in the court district, legal reasoning ability, attitudes towards the legal system as a whole, etc. It would also be useful to understand whether participants feel the trial proceeding is fair and the outcome is fair in future research studies.

The procedural justice model of juror decision-making will likely involve additional dimensions unaccounted for in the procedural justice model of compliance or law violating behavior. Because decisions are focused on an unrelated third party, unlike other models of procedural justice where the focus is on decisions specifically relevant to and consequences for the individual, these additional measures such as identification and prior experiences, will be important to consider. A more cohesive model of juror decision-making related to procedural justice will likely include accounting for actual prior experiences with the police, prior experiences with the legal system, perception of the police officer eyewitness' treatment towards

others as fair and just, identification with the community for which the juror/participant is serving, and perceptions of the fairness of the court proceeding. There are many instances in a trial where issues of fairness and fair treatment could be called into question. In order to parse out juror perceptions of police officers specifically and to identify how those perception and previous experiences can influence interpretations of a police officer eyewitness, other attitudes and perceptions regarding fairness in the legal system must be accounted for. Future studies should consider all of these aspects in revising a procedural justice model of juror-decision making.

From a methodological standpoint, the current study did not have a representative sample of jury eligible community members because of feasibility considerations. Given the difficulty in obtaining a representative sample of jurors for the current study, it was not possible to have a representative sample that could experience the full jury group deliberation paradigm. In order to include a full deliberation paradigm, a college sample had to be used. Future studies could incorporate a full jury deliberation paradigm with a representative sample once the effects have been established empirically and replicated, as many of the constructs being examined in the current study are novel and have never been previously examined.

Future studies could include a community sample of juror eligible participants to increase of the ecological validity of the findings. Participants could be sampled through courthouse sampling following dismissal from jury service. It would be important to ensure that the community sample be exposed to the group deliberation as the findings from the current study illustrate that an effect may not be found at the individual pre-deliberation decision level.

Another limitation in the current study is that the credibility manipulations were only conducted for the police officer eyewitness and not for the lay eyewitness. Because the

empirical question under examination in the current study was related specifically to police officer witnesses and the New Hampshire Supreme Court ruling related to that specific type of witness, a comparison between lay eyewitness reputation manipulations and police officer eyewitness reputation manipulations was not performed. Future research studies could be conducted to examine differences in reputation manipulation effects between the two types of eyewitnesses now that an initial effect for police officer eyewitnesses has been established.

The current study also only examined the effect of police as eyewitnesses in the court; however, there are other functions that police officers have in court cases. For example, police officers appear as expert witnesses as well as eyewitnesses. There are many instances in which police officers are witnesses that fall somewhere in between expert and eyewitness, such as in the case of testifying about what he/she saw and/or heard at the scene of the crime. The police officer may not have actually witnessed the crime itself, but would provide an eyewitness-like account of the scene of the crime, possibly including interactions with a victim(s), information about the state of the scene, and reporting on anything that may have seemed odd or out of place. At the same time, the police officer is still in a professional role and would also testify about the evidence collected at the scene, interpretation of the crime scene, and conjecture about what likely happened, based on his/her own opinion. Therefore, future studies should examine the other roles that police officer witnesses have in the court and how these different roles affect juror decision-making.

In addition, there are other types of authority figures that may induce similar influence in juror decisions than police officers. For example, military officers and personnel may be viewed as authority figures who are respected in the community at large and the military community. These individuals may especially hold very influential roles as witnesses in military specific

court, where officer rank can very literally command authority outside of the courtroom. Future studies could examine the effect of other types of authority figures, like military officers, on juror decisions both in the civilian court systems and the military court systems.

Conclusion

Legal scholars have long overlooked the importance of police officers as witnesses in the court and the influence they have on juror decision-making. The current study demonstrated that jurors perceived police officer eyewitnesses differently than lay eyewitnesses and the difference in perception affected juror verdict decisions. Juror perceptions of police officer eyewitnesses in particular were susceptible to manipulation of credibility evidence. When a police officer eyewitness was presented as a "good" police officer that could be viewed as highly credible, jurors were more likely to actually acquit the defendant, compared to a "bad" police officer that was viewed as having bad reputation. Furthermore, the results from the study showed that juror attitudes towards the police affected how jurors perceived police officer eyewitnesses in court, ultimately affecting their decisions of guilt for the defendant. In other words, the interactions that jurors had with police officers in their communities affected the way they viewed a police officer eyewitness in the case when making decisions.

Perhaps the most important contribution from the current study is that the results highlight that the police are a unique type of witness in the court, unlike other witnesses that have been studied previously. Therefore, much of the previous research in the area of eyewitness research, or even likely other areas of witness research, may not be applicable to police as witnesses. This provides an opportunity for further investigation in the area of the role of police in the courtroom and a foundation for new theories of juror decision-making related to police as witnesses. Finally, findings from the current study help to address issues in legal

practice where policies are already in place concerning police as witnesses, such as in the State of New Hampshire. The differences in juror decisions and perceptions between lay eyewitnesses and police officer eyewitnesses, as well as the effect of police officer eyewitness credibility on juror decisions may be of interest to legal practitioners and legislators in state with existing special policies for police officers, perhaps influencing future practices and policy decisions.

LIST OF REFERENCES

Agnew, R. (1997). The nature and determinants of strain: Another look at Durkheim and Merton. In N. Passas & R. Agnew (Eds.), *The future of anomie theory* (pp. 27-51). Boston: Northeastern University Press.

Allen, V. L., & Wilder, D. A. (1975). Categorization, belief similarity, and intergroup discrimination. *Journal of Personality and Social Psychology*, *32*(6), 971.

Aronson, E., Willerman, B., & Floyd, J. (1966). The effect of a pratfall on increasing interpersonal attractiveness. *Psychonomic Science*, *4*(6), 227-228.

Asch, S. E. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership, and men* (pp. 177–190). Pittsburgh, PA: Carnegie Press.

Banaji, M. R. (2001). Implicit attitudes can be measured. In H. L. Roediger, III & J. S. Nairne (Eds.), *The nature of remembering: Essays in honor of Robert G. Crowder* (pp. 117–150). Washington, DC: American Psychological Association.

Bargh, J. A. (1999). The cognitive monster: The case against the con- trollability of automatic stereotype effects. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 361–382). New York: Guilford.

Bayley, D. H. (1996). Policing: The world stage. *Journal of Criminal Justice Education*, *7*(2), 241-251.

Bell, B. E., & Loftus, E. F. (1988). Degree of detail of eyewitness testimony and mock juror judgments. *Journal of Applied Social Psychology, 18(14),* 1171-1192.

Berman, G. L.. & Cutler, B. L. (1996). Effects of inconsistencies in eyewitness testimony on mock-juror decision making. *Journal of Applied Psychology 81,* 170-177.

Berman, G. L., Narby, D. J., & Cutler, B. L. (1995). Effects of inconsistent eye- witness statements on mock-jurors' evaluations of the eyewitness, perceptions of defendant culpability, and verdicts. *Law and Human Behavior, 19,* 79-88.

Brewer, M. B., & Hewstone, M. E. (2004). *Self and social identity*. Blackwell publishing.

Boccaccini, M. T., & Brodsky, S. L. (2002). Believability of expert and lay witnesses: Implications for trial consultation. *Professional Psychology: Research and Practice, 33(4),* 384–388.

Borckardt, J. J., Sprohge, E., & Nash, M. (2003). Effects of the inclusion and refutation of peripheral details on eyewitness credibility. *Journal of Applied Social Psychology, 33,* 2187-2197. doi:10.1111/ j.1559-1816.2003.tb01880.x

Bornstein, B. H. (1999). The ecological validity of jury simulations: Is the jury still out? *Law and Human Behavior, 23,* 75–91. DOI: 10.1023/A:1022326807441.

Bornstein, B. H. & Greene, E. (2011). Jury decision making: Implications for and from psychology. *Current Directions in Psychological Science, 20*(1), 63-67.

Bradfield, A. L., Wells, G. L., & Olson, E. A. (2002). The damaging effect of confirming feedback on the relation between eyewitness certainty and identification accuracy. *Journal of Applied Psychology, 87*, 112–120. DOI: 10.1037//0021-9010.87.1.112

Brewer, S. (1998). Expert testimony and intellectual due process. *Yale Law Journal, 107*(6), 1535-1681.

Brewer, N., & Hupfeld, R. M. (2004). Effects of testimonial inconsistencies and witness group identity on mock-juror judgments. *Journal of Applied Social Psychology*, *34*(3), 493-513.

Brewer, N., Potter, R., Fisher, R. P., Bond, N. W., & Luszcz, M. A. (1999). Beliefs and data on the relationship between consistency and accuracy of eye- witness testimony. *Applied Cognitive Psychology,* 13,297-313.

Brewer, W. F., & Treyens, J. C. (1981). Role of schemata in memory for places. *Cognitive Psychology, 13,* 207– 230.

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The witness credibility scale: An outcome measure for expert witness research. *Behavioral Sciences and the Law, 28,* 892-907.

Carlson, K., & Russo, J. (2001). Biased interpretation of evidence by mock jurors. Journal of *Experimental Psychology: Applied, 7,* 91–103.

Carr, P. J., Napolitano, L., & Keating, J. (2007). We never call the cops and here is why: A qualitative examination of legal cynicism in three Philadelphia neighborhoods. *Criminology: An Interdisciplinary Journal*, *45(2),* 445-480. doi:10.1111/j.1745-9125.2007.00084.x

Champagne, A., Shuman, D. W. & Whitaker, E. (1992). Expert witness in the courts: An empirical examination. *Judicature 76*, 5-10.

Chapdelaine, A., & Griffin, S. F. (1997). Beliefs of guilt and recommended sentence as a function of juror bias in the O.J. Simpson trial. *Journal of Social Issues, 53(3),* 477-485.

Christianson, S. Å., Karlsson, I., & Persson, L. G. (1998). Police personnel as eyewitnesses to a violent crime. *Legal and Criminological Psychology*, *3*(1), 59-72.

Clark, R. (1999). Effect of number of majority defectors on minority influence. *Group Dynamics: Theory, Research, And Practice*, *3*(4), 303-312. doi:10.1037/1089-2699.3.4.303

Clark, L. F., & Woll, S. B. (1981). Stereotype biases: A reconstructive analysis of their role in reconstructive memory. *Journal of Personality and Social Psychology*, *41*(6), 1064.

Cohn, E. S., Bucolo, D. O, Rebellon, C. J., & Van Gundy, K. (2010). An integrated model of legal and moral reasoning and rule-violating behavior: The role of legal attitudes. *Law and Human Behavior*, *34*(4), 295-309. doi:10.1007/s10979-009-9185-9

Cohn, E. S., Trinkner, R. J., Rebellon, C. J., Van Gundy, K. T., & Cole, L. M. (2012). Legal attitudes and legitimacy: extending the integrated legal socialization model. *Victims & Offenders*, *7*(4), 385-406. doi:10.1080/15564886.2012.713902

Cole, L. M., & Cohn, E. S. (2015). *Too legit to acquit: The effect of police legitimacy on police officer witness credibility assessments and juror verdict decisions*. Manuscript in preparation.

Cornwell, E., & Hans, V. P. (2011). Representation through participation: A multilevel analysis of jury deliberations. *Law & Society Review*, *45(3),* 667-698. doi:10.1111/j.1540-5893.2011.00447.x

Cramer, R. J., Brodsky, S. L., & DeCoster, J. (2009). Expert witness confidence and juror personality: Their impact on credibility and persuasion in the courtroom. *Journal of the American Academy of Psychiatry and the Law, 37*(1), 63-74.

Cutler, B. L. & Penrod, S. D. (1995). *Mistaken identification: The eyewitness, psychology, and the law.* Cambridge, UK: Cambridge University Press.

Dahl, J., Enemo, I., Drevland, G. C., Wessel, E., Eilertsen, D. E., & Magnussen, S. (2007). Displayed emotions and witness credibility: A comparison of judgments by individuals and mock juries. *Applied Cognitive Psychology, 21,* 1145-1155.

Dane, F. C., & Wrightsman, L. W. (1982). Effects of defendants' and victims' characteristics on jurors' verdicts. In N.L. Kerr, & R.M. Bray (Eds.). *The psychology of the courtroom* (pp. 83-115). New York: Academic Press.

Deffenbacher, K. A., & Loftus, E. F. (1982). Do jurors share a common understanding concerning eyewitness behavior?. *Law and Human Behavior*, *6*(1), 15-30.

DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin, 129*, 74-118. doi:10.1037/0033-2909.129.1.74

Devenport, J. L., Kimbrough, C. D., & Cutler, B. L. (2009). Effectiveness of traditional safeguards against erroneous conviction arising from mistaken eyewitness identification. In B. L. Cutler (Ed.), *Expert testimony on the psychology of eyewitness identification* (pp. 51–68). New York: Oxford University Press. DOI:10.1093/acprof:oso/9780195331974.001.0001

Devine, D. J., Clayton, L. D., Dunford, B. B., Seying, R., & Pryce, 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

Diamond, S. S., Vidmar, N., Rose, M. R., Ellis, L., & Murphy, B. (2003). Jury discussions during civil trials: Studying an Arizona innovation. *University of Arizona Law Review,* 45, 1-81.

Doyle, J. M. (2010). Learning from error in American criminal justice. *The Journal of Criminal Law & Criminology 100*(1), 109-147.

Durkheim, E. (1897/1997). *Suicide: A study in sociology*. Free Press.

Ein-Gar, D., Shiv, B., & Tormala, Z. L. (2012). When blemishing leads to blossoming: The positive effect of negative information. *Journal of Consumer Research*, *38*(5), 846-859.

Eisenberg, T., & Hans, V. P. (2009). Taking a stand on taking the stand: The effect of a prior criminal record on the decision to testify and on trial outcomes. *Cornell Law Review 94*(3), 1353-1390.

Fagan, J., & Piquero, A. R. (2007). Rational choice and developmental influences on recidivism among adolescent felony offenders. *Journal of Empirical Legal Studies*, *4*, 715-748.

Fagan, J., & Tyler, T. R. (2005). Legal socialization of children and adolescents. *Social Justice Research*, *18*, 217-242.

Finkelstein, R., & Bastounis, M. (2010). The effect of the deliberation process and jurors' prior legal knowledge on the sentence: The role of psychological expertise and crime scene photo. *Behavioral Sciences & the Law*, *28(3),* 426-441.

Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal, 32,* 115-130.

Gaertner, S. L., & McLaughlin, J. P. (1983). Racial stereotypes: Associations and ascriptions of positive and negative characteristics. *Social Psychology Quarterly, 46*, 23–30.

Goodman, J., Greene, E. & Loftus, E. F. (1985). What confuses jurors in complex cases. *Trial* (November):65-68.

Goodman, J., & Loftus, E. F. (1992). Judgment and memory: The role of expert psychological testimony on eyewitness accuracy. In P. Suedfeld, P. E. Tetlock, P. Suedfeld, P. E. Tetlock (Eds.), *Psychology and social policy* (pp. 267-282). Washington, DC US: Hemisphere Publishing Corp.

Granhag, P. A. & Strömwall, L. A. (2002). Repeated interrogations: Verbal and non-verbal cues to deception. *Applied Cognitive Psychology, 16,* 243-257.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem and stereotypes. *Psychological Review, 102*, 4–27.

Hans, V. P., & Vidmar, N. (2007). The verdict on juries. *Judicature*, *91*, 226.

Hartwig, M., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2005). Detecting deception via strategic disclosure of evidence. *Law and Human Behavior, 29,* 469-484.

Hastie, R., Penrod, S. and N. Pennington (1983). *Inside the Jury.* Cambridge, Mass.: Harvard University Press.

Hickman, M. J., Piquero, N. L., & Piquero, A. R. (2004). The validity of Niederhoffer's cynicism scale. *Journal of Criminal Justice*, *32*, 1-13.

Hunt, J. S. & Budesheim, T. L. (2004). How jurors use and misuse character evidence. *Journal of Applied Psychology, 89*(2), 347-361.

Hulse, L. M., & Memon, A. (2006). Fatal impact? The effects of emotional arousal and weapon presence on police officers' memories for a simulated crime. *Legal and Criminological Psychology*, *11*(2), 313-325.

Jackson, J. W. (2002). Intergroup attitudes as a function of different dimensions of group identification and perceived intergroup conflict. *Self and Identity*, *1*, 11–33. doi:10.1080/152988602317232777

Jackson, J., & Bradford, B. (2009). Crime, policing and social order: On the expressive nature of public confidence in policing. *The British Journal of Sociology, 60*(3), 493-521.

Jackson, J., & Bradford, B. (2010). What is trust and confidence in the police? *Policing*, *4*(3), 241-248.

Jackson, J. W., & Rose, J. (2013). The stereotype consistency effect is moderated by group membership and trait valence. *The Journal of social psychology*, *153*(1), 51-61.

Jeleniewski, S. A. (2014). *Expanding legitimacy in the procedural justice model of legal socialization: Trust, obligation to obey, and right to make rules* (Unpublished doctoral dissertation). University of New Hampshire, Durham, New Hampshire.

Kalven, H., & Zeisel, H. (1966). *The American jury*. Boston: Little, Brown

Kaplan, M. F. (1977). Discussion polarization effects in a modified jury decision paradigm: Informational influences. *Social Psychology Quarterly, 40*, 262–271.

Kapsis, R. E. (1978). Black ghetto diversity and anomie: A sociopolitical view. *The American Journal of Sociology*, *83*, 1132-1153.

Karpowitz, C. F., & Meldelberg, T. (2007). Groups and deliberation. *Swiss Political Science Review, 13*(4), 645-662.

Kassin, S. M., Bogart, J., & Kerner, J. (2012). Confessions that corrupt: Evidence from the DNA exoneration case files. *Psychological Science*, *23*(1), 41-45. doi: 10.1177/0956797611422918

Kassin, S. M., Williams, L. N., & Saunders, C. L. (1990). Dirty tricks of cross-examination: The influence of conjectural evidence on the jury. *Law and Human Behavior*, *14*(4), 373-384. doi:10.1007/BF01068162

Kerwin, J., & Shaffer, D. R. (1994). Mock jurors versus mock juries: The role of deliberations in reactions to inadmissible testimony. *Personality and Social Psychology Bulletin, 20,* 153–162. DOI: 10.1177/ 0146167294202002.

Latane, B., Williams, K., & Harkins, S. (1979). Many hands make light the work: The causes and consequences of social loafing. *Journal of Personality and Social Psychology, 37,* 822–832. DOI: 10.1037/ 0022-3514.37.6.822

Leippe, M. R. (1994). The appraisal of eyewitness testimony. In D. F. Ross, J. D. Read, & M. P. Toglia (Eds.), *Adult eyewitness testimony: Current trends and developments* (pp. 385-418). New York: Cambridge University Press.

Leippe, M. R., & Eisenstadt, D. (2009). The influence of eyewitness expert testimony on jurors' beliefs and judgments. In B. L. Cutler (Ed.), *Expert testimony on the psychology of eyewitness identification* (pp. 169–199). New York: Oxford University Press. DOI: 10.1093/acprof:oso/9780195331974.001.0001

Leippe, M. R. & Romanczyk, A. (1987). Children on the witness stand: A communication/persuasion analysis of jurors' reactions to child witnesses. In S. J. Ceic, M. P. Toglia, & D. F. Ross (Eds.), *Children's eyewitness memory* (pp. 155-177). New York: Springer-Verlag.

Lempert, R. O., Gross, S. R., Liebman, J. S., Blume, J. H., Landsman, S., & Lederer, F. I. (2013). *A modern approach to evidence: Text, problems, transcripts, and cases:* (5th edition). St. Paul, MN: West Group.

Levine, F. J., & Tapp, J. L. (1977). The dialectic of legal socialization in community and school. In J. L. Tapp & F. J. Levine (Eds.), *Law, justice and the individual in society: Psychological and legal issues* (pp. 163-182). New York: Holt, Rinehart, and Winston.

Lind, E. A., & Tyler, T. (1988). *The social psychology of procedural justice*. New York: Plenum Publishing.

Lindholm, T., Christianson, S. Å., & Karlsson, I. (1997). Police officers and civilians as witnesses: Intergroup biases and memory performance. *Applied Cognitive Psychology*, *11*(5), 431-444.

Lindsay, R. C. L., Lim, R., Marando, L., & Cully, D. (1986). Mock-juror evaluations of eyewitness testimony: A test of metamemory hypotheses. *Journal of Applied Social Psychology,* 16,447-459.

London, K. Y., & Nunez, N. (2000). The effect of jury deliberation on jurors' propensity to disregard inadmissible evidence. *Journal of Applied Psychology, 85,* 932–939. DOI: 10.1037//0021- 9010.85.6.932.

MacCoun, R.J., & Kerr, N.L. (1988). Asymmetric influence in mock jury deliberation: Jurors' bias for leniency. *Journal of Personality and Social Psychology, 54,* 21–33.

Mann, S., Vrij, A., & Bull, R. (2004). Detecting true lies: Police officers' ability to detect suspects' lies. *Journal of Applied Psychology, 89,* 137-149. doi:10.1037/00219010.89.1.137

Martire, K. A., & Kemp, R. I. (2011). Can experts help jurors to evaluate eyewitness evidence? A review of eyewitness expert effects. *Legal and Criminological Psychology, 16,* 24–36. DOI: 10.1348/135532509X477225

McCoy, M. L., Nunez, N., & Dammeyer, M. D. (1999). The effect of jury deliberations on jurors' reasoning skills. *Law and Human Behavior, 23,* 557–575. DOI: 10.1023/A:1022348229558.

McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (Vol. 2, pp. 233-346). New York: Random House.

Milgram, S. (1963). The behavioral study of obedience. *Journal of Abnormal and Social Psychology, 67*, 371-378.

Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology, 76,* 845-855.

Nadler, J., & McDonnell, M. H. (2012). Moral character, motive, and the psychology of blame. *Cornell Law Review, 97*(1), 255-304.

Nemeth, C.P., (2010). *Law & evidence: A primer for criminal justice, criminology, law, and legal studies: (2nd Ed).* New Jersey: Prentice-Hall

Nickerson, R. S. (1998). Confirmation bias: An ubiquitous phenomena in many guises. *Review of General Psychology, 2*, 175–220.

Nunez, N., McCrea, S. M., & Culhane, S. E. (2011). Jury decision making research: Are researchers focusing on the moose and not the elephant in the room? *Behavioral Sciences and the Law, 29,* 439-451.

Paternoster, R., Brame, R., Bachman, R., & Sherman, L. W. (1997). Do fair procedures matter? The effects of procedural justice on spouse assault. *Law & Society Review*, *31*, 163-204.

Pezdek, K. (2012). Fallible eyewitness memory and identification. In B. L. Cutler & B. L. Cutler (Eds.)*, Conviction of the innocent: Lessons from psychological research* (pp. 105-124). Washington, DC US: American Psychological Association.

Pezdek, K., Whetstone, T., Reynolds, K., Askari, N., & Dougherty, T. (1989). Memory for real-world scenes: The role of consistency with schema expectation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *15*(4), 587.

Piquero, A. R., Fagan, J., Mulvey, E. P., Steinberg, L., & Odgers, C. (2005). Developmental trajectories of legal socialization among serious adolescent offenders. *The Journal of Criminal Law & Criminology*, *96*, 267-298.

Potter, R., & Brewer, N. (1999). Perceptions of witness behaviour-accuracy relationships held by police, lawyers, and jurors. *Psychiatry, Psychology, and Law,* 6, 97-103.

Pritchard, M., & Keenan, J. (2002). Does jury deliberation really improve jurors' memories? *Applied Cognitive Psychology, 16,* 589-601.

Read, J. D., Lindsay, D. S., & Nicholls, T. (1997). The relation between confidence and accuracy in eyewitness identification studies: Is the conclusion changing? In C. P. Thompson, D. J. Herrmann, J. D. Read, D. Bruce, D. G. Payne, & M. P. Toglia (Eds.), *Eyewitness memory: Theoretical and applied perspectives* (pp. 107-130). Mahwah, NJ: Erlbaum.

Reiner, R. (2010). *The politics of the police*. Cambridge: Oxford University Press.

Ruva, C., McEvoy, C., & Bryant, J. B. (2007). Effects of pre-trial publicity and jury deliberation on juror bias and source memory errors. *Applied Cognitive Psychology, 21,* 45–67. DOI: 10.1002/acp.1254.

Saks, M. J. & Hastie, R. (1978). *Social psychology in court.* New York: Van Nostrand Reinhold.

Saks, M. J., & Marti, M. W. (1997). A meta-analysis of the effects of jury size. *Law and Human Behavior, 21,* 451-466.

Salerno, J. M. & Diamond, S. S. (2010). The promise of a cognitive perspective on jury deliberation. *Psychonomic Bulletin & Review, 17*(2), 174-179. doi:10.3758/PBR.17.2.174

Sampson, R. J., & Bartusch, D. J. (1998). Legal cynicism and (subcultural?) tolerance of deviance: The neighborhood context of racial differences. *Law & Society Review*, *32*, 777-804.

Shuman, D. W., Whitaker, E., & Champagne, A. (1994). An empirical examination of the use of expert witnesses in the courts-part 2: A three city study. *Jurimetrics Journal 34*, 193-208.

Sorkin, R. D., Hays, C. J., & West, R. (2001). Signal-detection analysis of group decision making. *Psychological Review, 108,* 183–203. DOI: 30.1037//0033-295X. 108.1.183.

Spellman, B. A., & Tenney, E. R. (2010). Credible testimony in and out of court. *Psychonomic Bulletin & Review, 17,* 168-173.

Stasser, G., & Titus, W. (1985). Pooling of unshared information in group decision making: Biased information sampling during discussion. *Journal of Personality and Social Psychology, 48,* 1467–1478. DOI: 10.1037/0022-3514.48.6.1467.
State v. Henderson, 208 N.J. 208, 218 (2011).

State v. Laurie, 139 N.H. 325 (1995).

Steiner, I. D. (1974). Whatever happened to the group in social psychology?. *Journal of Experimental Social Psychology*, *10*(1), 94-108.

Sunshine, J. & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, *37*, 513-547.

Tajfel, H., & Billig, M. (1974). Familiarity and categorization in intergroup behavior. *Journal of Experimental Social Psychology*, *10*(2), 159-170.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The social psychology of intergroup relations*, *33*(47), 74.

Tanford, S., & Cox, M. (1988). The effects of impeachment evidence and limiting instructions on individual and group decision making. *Law and Human Behavior, 12*, 477– 497.

Tankebe, J. (2013). Viewing things differently: The dimensions of public perceptions of police legitimacy. *Criminology, 51*(1), 103-135.

Tenney, E. R., MacCoun, R. J., Spellman, B. A., & Hastie, R. (2007). Calibration trumps confidence as a basis for witness credibility. *Psychological Science, 18,* 46-50. doi:10.1111/j.1467-9280.2007 .01847.x

Tenney, E. R., Spellman, B. A., & MacCoun, R. J. (2008). The benefits of knowing what you know (and what you don't): How calibration affects credibility. *Journal of Experimental Social Psychology, 44,* 1368-1375. doi:10.1016/j.jesp.2008.04.006

Thibaut, J., & Walker, L. (1975). *Procedural justice: Psychological analysis*. Hillsdale, NJ: Erlbaum.

Trinkner, R. J., & Cohn, E. S. (2014). Putting the "social" back in legal socialization: Procedural justice, legitimacy, and cynicism in legal and non-legal authorities. *Law and Human Behavior, 38*(6), 602-617. doi: 10.1037/lhb0000107

Tyler, T. (1987). *Why citizens follow the law: Procedural justice, legitimacy, and compliance.* Unpublished manuscript, Northwestern University.

Tyler, T. R. (2000). Social justice: Outcome and procedure. *International Journal of Psychology, 35, 117-125.*

Tyler, T. R. (2006a). Psychological perspectives on legitimacy and legitimation. *Annual Review of Psychology*, *57*, 375-400.

Tyler, T. R. (2006b). *Why people obey the law* (2nd Ed.). New Haven, CT: Yale University Press.

Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. New York: The Russell Sage Foundation

Tyler, T. R., & Jackson, J. (2014). Popular legitimacy and the exercise of legal authority: Motivating compliance, cooperation, and engagement. *Psychology, Public Policy, and Law, 20*(1), 78-95.

Tyler, T. R., Rasinski, K. A., & Spodick, N. (1985). Influence of voice on satisfaction with leaders: Exploring the meaning of process control. *Journal of Personality and Social Psychology*, *48*, 72-81.

Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice.* Chichester, England: Wiley.

Waller, B. M., Hope, L., Burrowes, N., & Morrison, E. R. (2011). Twelve (not so) angry men: Managing conversational group size increases perceived contribution by decision makers. *Group Processes & Intergroup Relations, 14*(6), 835-843.

Wells, G. L., Ferguson, T. J., & Lindsay, R. C. L. (1981). The tractability of eyewitness confidence and its implications for triers of fact. *Journal of Applied Psychology, 66,* 688-696.

Wells, G. L., Lindsay, R. C. L., & Ferguson, T. J. (1979). Accuracy, confidence, and juror perceptions in eyewitness identifications. *Journal of Applied Ps ychology, 64,* 440-448.

Wells, G. L., & Olson, E. (2003). Eyewitness identification. *Annual Review of Psychology, 54,* 277-295.

Whitley, B. E. (1987). The effects of discredited eyewitness testimony: A meta-analysis. *The Journal of Social Psychology, 127(2)*, 209-214.

Wrightsman, L., Willis, C., & Kassin, S. (Eds.) (1987). *On the witness stand*. Thousand Oaks, CA US: Sage Publications, Inc.

Yarmey, A. D. (1979). *The psychology of eyewitness testimony* (pp. 204-05). New York: Free Press.

Yarmey, A. D. (1986). Perceived expertness and credibility of police officer as eyewitnesses. *Canadian Police College Journal, 10*(1), 31-51.

Zuckerman, M., Koestner, R., & Driver, R. (1981). Beliefs about cues associated with deception. *Journal of Nonverbal Behavior, 6,* 105-114. doi:10.1007/BF00987286

APPENDIX A

Trial Video Transcripts

State of New Hampshire

v.

John Smith

A Mock Trial for Jury Deliberation Research

Applicable Law

636:1 Robbery. –

I. A person commits the offense of robbery if, in the course of committing a theft, he:

(a) Uses physical force on the person of another and such person is aware of such force; or

(b) Threatens another with or purposely puts him in fear of immediate use of physical force.

II. An act shall be deemed "in the course of committing a theft" if it occurs in an attempt to commit theft, in an effort to retain the stolen property immediately after its taking, or in immediate flight after the attempt or commission.

III. Robbery is a class B felony, except that if the defendant:

(a) Was actually armed with a deadly weapon; or

(b) Reasonably appeared to the victim to be armed with a deadly weapon; or

(c) Inflicted or attempted to inflict death or serious injury on the person of another,

the offense is a class A felony, except that if the defendant was actually armed with a deadly weapon, and the deadly weapon was a firearm, he shall be sentenced in accordance with RSA 651:2, II-g.

[Highlights added for clarity]

Physical Evidence

State's Exhibit 1 -- Ski mask -- Stipulated

State's Exhibit 2 -- Warm up jacket -- Stipulated

State's Exhibit 3 – Knife -- Stipulated

Multimedia evidence

State's Exhibit 4 -- Surveillance videotape -- Stipulated

State of Granite

Superior Court

Dkt #14 – Crim – 0509

Jury Instructions

[See: http://nhbar.org/legal-links/criminaljuryinstructions.asp for additional form instructions]

1. **Burden of proof** Under our constitutions, all defendants in criminal cases are presumed to be innocent until proven guilty beyond a reasonable doubt. The burden of proving guilt is entirely on the State. The defendant does not have to prove his innocence. The defendant enters this courtroom as an innocent person, and you must consider him to be an innocent person until the State convinces you beyond a reasonable doubt that he is guilty of every element of the alleged offense. If, after all the evidence and arguments, you have a reasonable doubt as to defendant's having committed any one or more of the elements of the offense, then you must find him not guilty.
    a. A "reasonable doubt" is just what the words would ordinarily imply. The use of the word "reasonable" means simply that the doubt must be reasonable rather than unreasonable; it must be a doubt based on reason. It is not a frivolous or fanciful doubt, nor is it one that can easily be explained away. Rather, it is such a doubt based upon reason as remains after consideration of all of the evidence that the State has offered against it. The test you must use is this: If you have a reasonable doubt as to whether the State has proved anyone or more of the elements of the crime charged, you must find the defendant not guilty. However, if you find that the State has proved all of the elements of the offense charged beyond a reasonable doubt, you should find the defendant guilty.
2. **Robbery:** A person commits the offense of robbery if, in the course of committing a theft, he threatens another with or purposely puts him in fear of immediate use of physical force.
    a. An act shall be deemed "in the course of committing a theft" if it occurs in an attempt to commit theft.
    b. Robbery is a felony. It is a class A felony if the defendant was actually armed with a deadly weapon.
3. **Identification:**
    a. One of the most important issues is the identification of the defendant as the perpetrator of the crime. The State has the burden of proving identity beyond a reasonable doubt. It is not essential that a witness be free from doubt as to the correctness of his or her identification. However, you, the jury, must be satisfied beyond a reasonable doubt of the accuracy of the identification of the defendant

before you may convict [him/her]. If you are not convinced beyond a reasonable doubt that the defendant was the person who committed the crime, you must find the defendant not guilty.

b. The value of identification testimony depends on the opportunity the witness had to observe the person who committed the crime at the time of the crime and to make a reliable identification later. In appraising the identification testimony of a witness, you should consider the following:

c. Did the witness have the capacity and an adequate opportunity to observe the person in question at the time of the crime? In determining this, you may consider such factors as:

   i. The length of time available for the observation;

   ii. The distance between the witness and the person observed;

   iii. The lighting conditions;

   iv. The witness's degree of attention to the person observed;

   v. The accuracy of any prior description of the alleged perpetrator;

   vi. Whether the witness had an occasion to see or know the person identified in the past.

d. [Note: omitted material – consider whether you agree]

e. I again emphasize that the State has the burden of proving identity beyond a reasonable doubt. If, after examining the evidence, you have a reasonable doubt as to the accuracy of the identification, you must find the defendant not guilty.

4. **Direct and Circumstantial evidence:** There are two kinds of evidence -- direct and circumstantial. Direct evidence is direct proof of a fact, such as the testimony or statement of a person about what the person saw, heard or did. Circumstantial evidence is indirect evidence, that is, proof of a chain of facts from which you could find that another fact exists, although it has not been proved directly. For example, if you look outside and see water droplets falling from the sky, that is direct evidence that it is raining. But if you look out the window at night and the ground is dry and again the next morning and the ground is wet, that is indirect or circumstantial evidence that it rained during the night. By circumstantial evidence, I simply mean that you may infer the ultimate fact from another fact shown. You should feel free to reach reasonable conclusions from proven facts. Conversely, you may not reach conclusions based on facts that have not been proved. In the rain example, wet ground alone may support an inference that it rained during the night, but in the absence of additional evidence, it will not necessarily support inferences about how much rain fell or for how long a time period.

   a. You should consider all the direct and circumstantial evidence in the case as well as any reasonable inferences you draw therefrom in deciding whether the State has proved all the elements of the crime beyond a reasonable doubt.

5. **Credibility of Witnesses:** In deciding this case, you must decide the credibility of witnesses ;that is, it is up to you to decide who to believe. If there is any conflict between

the witnesses, then you must resolve the conflict. Simply because a witness has taken an oath to tell the truth does not mean that you have to accept the testimony as true.

a. Use your common sense and judgment. Consider factors you use in deciding important issues in your everyday lives. For example, you may consider the following:
    i. The witness's appearance, attitude, and behavior on the stand and the way the witness testified;
    ii. The witness's age, intelligence and experience;
    iii. The witness's opportunity and ability to see or hear the things about which the witness testified;
    iv. The accuracy of the witness's memory;
    v. Any motive of the witness not to tell the truth;
    vi. Any interest that a witness had in the outcome of the case;
    vii. Any bias of the witness, or friendship or animosity the witness may have for or against any of the other people in the case;
    viii. The consistency or inconsistency of the witness' s testimony;
    ix. Whether or not what the witness said appears reasonable or unreasonable;
    x. Whether what the witness said is consistent or inconsistent with the testimony of other witnesses, or with statements the witness made at another time.
b. In deciding which witnesses to believe and how much of their testimony to believe, you should consider both the direct and cross-examination of the witnesses.
c. If you believe that part of a witness's testimony is false, you may choose to distrust other parts also, but you are not required to do so. Inconsistencies and contradictions within a witness's testimony or between witnesses do not necessarily mean that you should disbelieve the witness. It is possible for honest people to witness the same event and see or hear things differently. You should evaluate inconsistencies and contradictions and determine whether they are important or unimportant. You need not believe any witness even though the testimony is uncontradicted. Nor are you required to accept testimony as true simply because some or even all of the witnesses agree with each other. You may find the testimony of one witness or of a few witnesses more persuasive than the testimony of a larger number.
d. These principles apply to all witnesses, whether they are ordinary citizens, police officers, experts or otherwise.
e. In short, you should consider the testimony of each witness and give it the weight you think it deserves.

6. **Indictment Not Evidence:** The fact that the defendant has been arrested and indicted is not evidence of guilt. The indictment is simply a way of giving the defendant notice of the charge. The indictment is a formal way of accusing the defendant of a crime in order to bring the defendant to trial. You must not consider this indictment as evidence of guilt.

Statement of Pat Jones

My name is Pat Jones. I am __ years old. I am a college student and I work the evening shift at the ABC Convenience Store in Granite City, Granite. I have worked there for 3 years.

On the evening of March 1, 2013 I was working the check out counter. At about 11:50 pm a man came into the store wearing a blue ski mask and a green warm up jacket. He was about __ feet __ inches tall and weighed about __ pounds. I did not recognize the man. He showed me a large knife. The blade of the knife was about 14" long. The man demanded that I give him the contents of the cash box.

I was very afraid and thought I'd be killed if I didn't give him the money. I have never been held up before. The owners of the store told me that if I was ever held up while working I should cooperate with the robber by giving him the money in the cash box. There was about $1000 in the cash box, because it had been a busy evening and I had not had a chance to put money in the store safe since 7 pm.

I handed the cash to the robber. He ran from the store. Right after that Jim Slate came through the door and asked me, "were you robbed?" I said I was. About 20 minutes later a police officer came and asked me to provide this statement.

_____

Pat Jones

March 1, 2013

Statement of Detective Sgt. L.C./Elsie Cole

My name is L.C./Elsie Cole. I am __ years old and I work as a detective for the Granite City Police Department. I have been an officer for 6 years. I am a graduate of the Granite Police Academy and I graduated in 2007. In 2010 I was promoted to Field Training Officer and later that year attended and graduated from a 2 week training program for detectives. In early 2011 I was promoted to the rank of detective sergeant and assigned to the Investigative Bureau of the Granite City PD. I am certified as a police officer, qualified on my police service firearm, I have certifications in the collection/preservation of evidence, financial crimes investigation and violent crimes investigation.

On the evening of March 2, 2013 I came on duty at 12:00 a.m. Shortly after I began my shift I learned that the ABC Convenience Store had been robbed at knifepoint and that James Slate had identified the robber as Jonathan Smith, who lives at 3 Wildcat Lane, Granite City. I interviewed James Slate who related exactly the same information to me in his oral statement that he provided in his written statement. Based on that interview and the statement of Pat Jones, I prepared an affidavit and application for search warrant, woke up a judge, then obtained a search warrant for the search of 3 Wildcat Lane and an arrest warrant for John Smith.

In the company of another officer I arrested Smith at his home at 5 a.m. on March 2. I identified John Smith at booking from his drivers license. [After informing him of all his rights I asked Smith to consent to an interview, but he declined, asking to speak with his attorney.]

There was no red Saturn in his yard. I recovered a red ski mask, stipulated to as State's Exhibit 1, a teal warm up jacket, stipulated to as State's Exhibit 2 and a knife with a

10” blade, stipulated to as State’s Exhibit 3 from his kitchen table. No money and no bag were found in Smith’s home.

_____

Detective L.C./Elsie Cole

March 2, 2013

Statement of Officer James Slate

My name is James Slate. I am __ years old and I work as a patrol officer for the Granite City Police Department. I have been an officer for 3 years. I am a graduate of the Granite Police Academy and I graduated in 2010. I am certified as a police officer, qualified on my police service firearm, qualified to use pepper spray and radar speed detection equipment used by the Granite City Police Department. Since I graduated from the police academy I have attended in-service training on crime investigation.

On the evening of March 1, 2013 I was on duty until 11:30 p.m. I changed out of my uniform and was driving home. I stopped at the ABC Convenience Store for a snack. Just as I pulled in to the well-lit parking lot I saw a man run from the convenience store. The man was medium height and medium build. He was wearing a white ski mask and blue warm up jacket. He pulled the mask from his head, tossed a bag into the car and tossed a knife that appeared to have an 8" blade into the car. I was about 25-35 feet from Smith. Judging from the mask, the bag, the knife, the man's hurry and the time of day, I suspected that a robbery had taken place.

I yelled "Stop." The man turned to me, and I recognized him to be John Smith, whom I know from selling tickets to the Granite City Police Benevolent Society fundraiser. Smith did not stop. He got into his car and sped away, but I noted that he was driving a red Saturn sedan. I checked with Pat Jones, who confirmed there was a robbery. I called the dispatcher and reported the robbery.

[I understand that Smith was arrested at his home. There was no red Saturn in his yard. A red ski mask, a teal warm up jacket and a knife with a 10" blade were on his kitchen

table. I understand that no money and no bag were found. I also understand that Smith is charged with robbery. I am confident that I correctly identified Smith.]

[**Variant 1:** I was disciplined for regularly falsifying a time card for a fellow officer that allowed the officer to earn a substantial amount of overtime, worth more than $2,000. I understand that my actions were wrong and that the prosecutor had a legal duty to make this unfavorable information available to the defendant.]

[**Variant 2:** In 2013 I received a commendation from the Granite City Police Commission for outstanding community service.]

_____

Patrolman James Slate

March 2, 2013

Statement of James Slate

My name is James Slate. I am __ years old and I work as a music teacher for the Granite City High School. I have been a teacher for 3 years. I am a graduate of the Granite State College and I graduated in 2010. I am certified as a teacher.

On the evening of March 1, 2013, my students had performed at a concert. After putting away uniforms and instruments, I was driving home. I stopped at the ABC Convenience Store for a snack. Just as I pulled in to the well-lit parking lot I saw a man run from the convenience store. The man was medium height and medium build. He was wearing a white ski mask and blue warm up jacket. He pulled the mask from his head, tossed a bag into the car and tossed a knife that appeared an 8" blade into the car. I was about 25-35 feet from Smith. Judging from the mask, the bag, the knife, the man's hurry and the time of day, I suspected that a robbery had taken place.

I yelled "hey what's going on here?" The man turned to me, and I recognized him to be John Smith, whom I know from seeing him at his niece's concert two years ago. Smith did not stop. He got into his car and sped away, but I noted that he was driving a red Saturn sedan. I checked with Pat Jones, who confirmed there was a robbery. I called 911 and reported the robbery.

[I understand that Smith was later arrested at his home. There was no red Saturn in his yard. A red ski mask, a teal warm up jacket and a knife with a 10" blade were on his kitchen table. I understand that no money and no bag were found. I also understand that Smith is charged with attempted robbery. I am confident that I correctly identified Smith.]

[**Variant 1:** I was the executor for my father's estate. I falsely claimed on a court form that $2,000 in his safe deposit box had been lost. When my false statement was

discovered the money was put back into the form and I was convicted of filing a false statement.]

[**Variant 2:** In 2013 the Granite City School Board named me "Community Teacher of the Year" for my work with poor children in Granite City.]

_____

James Slate

March 2, 2013

APPENDIX B

Pre-Experiment Questionnaire

1. What is your sex?

   1. Male
   2. Female

2. How old are you?

   _____ years old
   (Please fill in)

3. What is your main racial background?

   1. African American
   2. Native American
   3. Asian
   4. Caucasian (White)
   5. Hispanic American or Latino/a
   6. Other

   _____
   (If "other," please fill in)

4. Have you ever been on a jury?

   1. Yes
   2. No

5. What is your religious affiliation?

   1. Agnostic
   2. Atheist
   3. Buddhist
   4. Catholic
   5. Hindu
   6. Jewish
   7. Muslim
   8. Protestant
   9. Other: _____
   (If "other," please fill in)

7. What is the highest level of education you have received?

   1. Less than High School
   2. High School
   3. Some College Education
   4. Associate Degree (2-year college)
   5. Bachelor's Degree (4-year college)
   6. Graduate or Professional Degree (Ph.D., M.D., M.A.)

8. What is your estimated annual household income?

   1. Less than 25,000
   2. 25,000-49,000
   3. 50,000-74,000
   4. 75,000-99,000
   5. 100,000-150,000
   6. More than 150,000

Please Rate your Agreement with the following items.		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1.	The police in your neighborhood are honest and ethical when dealing with you.	1	2	3	4	5
2.	The police in your neighborhood give you a chance to express your side when you discuss things with them.	1	2	3	4	5
3.	The police in your community consider your views when interacting with you.	1	2	3	4	5
4.	The police are completely candid and frank when interacting with you.	1	2	3	4	5
5.	The police in your neighborhood show a real interest in being fair when making decisions that affect you.	1	2	3	4	5
6.	The police make clear what their expectations are for you.	1	2	3	4	5
7.	The police in your neighborhood give you a chance to explain your side when making decisions that affect you.	1	2	3	4	5
8.	The police in your community treat you with kindness and consideration.	1	2	3	4	5
9.	The police show concern for your rights as a member of the community.	1	2	3	4	5
10.	The police take steps to deal with you in a truthful manner.	1	2	3	4	5

How much do you agree with each of the following statements?		Disagree Strongly	Disagree Somewhat	Agree Somewhat	Agree Strongly
1.	The police in your neighborhood are generally honest.	1	2	3	4
2.	I agree with many of the values that define what the police stand for.	1	2	3	4
3.	I should do what the police tell you to do, even when I disagree with their decisions.	1	2	3	4
4.	There are things about the police and their policies that need to be changed.	1	2	3	4
5.	I should accept the decisions made by police, even if I think they are wrong.	1	2	3	4
6.	Neighborhoods work best when people follow the directives of the police.	1	2	3	4
7.	I have confidence that the police can do their job well.	1	2	3	4
8.	The law does not protect my interests.	1	2	3	4
9.	I should do what the police tell you to do even when I do not like the way they treat me.	1	2	3	4
10.	There are times when it is OK for me to ignore what the police tell me.	1	2	3	4
11.	The police can be trusted to make decisions that are right for the people in your neighborhood.	1	2	3	4

Please Rate your Agreement with the following items.		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1.	You should support the decisions of police officers even when you disagree with them	1	2	3	4	5
2.	You should do what the police tell you even if you do not understand or agree with the reasons	1	2	3	4	5
3.	You should do what the police tell you to do even if you do	1	2	3	4	5

	not like how they treat you					
Please Rate your Agreement with the following items.		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
4.	The police in your community are legitimate authorities so you should do what they tell you to do	1	2	3	4	5
5.	You generally support how the police act in your community	1	2	3	4	5
6.	When the police deal with people they almost always behave according to the law	1	2	3	4	5
7.	The decisions and actions of the police are unduly influenced by pressure from political parties and politicians	1	2	3	4	5
8.	The police only care about some of the people in your community	1	2	3	4	5
9.	The police take bribes	1	2	3	4	5
10.	The police generally have the same sense of right and wrong that you do	1	2	3	4	5
11.	The police stand up for values that are important to you	1	2	3	4	5
12.	The police usually act in ways consistent with your own ideas about what is right and wrong	1	2	3	4	5
13.	You and the police want the same things for your community	1	2	3	4	5
14.	The values of most police officers who work in your community are similar to your own	1	2	3	4	5
15.	The police stand up for values that are important to you	1	2	3	4	5

How much do you agree with each of the following statements?		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Laws were made to be broken	*1*	*2*	*3*	*4*	*5*
2.	It's okay to do anything you want as long as you don't hurt anyone	*1*	*2*	*3*	*4*	*5*
3.	To make money, there are no right and wrong ways anymore, only easy ways and hard ways	*1*	*2*	*3*	*4*	*5*
4.	Fighting between friends or within families is nobody else's business	*1*	*2*	*3*	*4*	*5*
5.	Nowadays a person has to live pretty much for today and let tomorrow take care of itself	*1*	*2*	*3*	*4*	*5*

How much do you agree with each of the following statements?		Strongly Disagree	Disagree Somewhat	Agree Somewhat	Strongly Agree
1.	The police use rules and procedures that are fair to everyone	1	2	3	4
2.	The police provide opportunities for unfair decisions to be corrected	1	2	3	4
3.	The police make decisions based on facts, rather than their own personal opinions	1	2	3	4
4.	The police would treat you with respect if you had contact with them for any reason	1	2	3	4
5.	The police clearly explain the reasons for their actions to people they deal with	1	2	3	4

How much do you agree with each of the following statements?		Strongly Disagree	Disagree Somewhat	Agree Somewhat	Strongly Agree
1.	People often receive fair outcomes from the police	1	2	3	4
2.	People usually receive the outcomes they deserve under the law	1	2	3	4
3.	When the police deal with people in my neighborhood, they always behave according to the law	1	2	3	4
4.	The law represents the moral values of people like me	1	2	3	4

How well do you think the police do in each of the following areas?		Not at all well	Mostly not well	Slightly not well	Neutral	Slightly well	Mostly well	Very Well
1.	tackling gun crime	1	2	3	4	5	6	7
2.	preventing economic or financial crime	1	2	3	4	5	6	7
3.	tackling drug dealing and drug use	1	2	3	4	5	6	7
4.	tackling dangerous driving	1	2	3	4	5	6	7
5.	enforcing road legislation to improve traffic flows	1	2	3	4	5	6	7
6.	dealing with people being drunk or rowdy	1	2	3	4	5	6	7
7.	solving murder	1	2	3	4	5	6	7

How much do you agree with each of the following statements?		Strongly Disagree	Disagree Somewhat	Agree Somewhat	Strongly Agree
1.	You should obey police decisions because that is the proper or right thing to do	1	2	3	4
2.	People like me have no choice but to obey the directives of the police	1	2	3	4
3.	You should obey the directives of the police if you consider their actions lawful	1	2	3	4

Now we would like to ask you about your thoughts concerning the legal system and laws. Next you will find a series of questions and statements. Each one is followed by three different responses. For each question or statement, please rank the three responses in order of your agreement. So, for the response that you most agree rank that response #1. For the response you agree with second most rank that response #2. For the response you agree with the least, rank that response #3. Please write in the rank you would give for each response on the corresponding line in front of the statement.

1. Why should people follow the law?

_____ Because laws maintain order in society

_____ Because laws reflect certain principles of how people should behave

_____ Because they will be punished if they don't

2. Why do people ultimately follow the law?

_____ Because society works better when people follow the law

_____ Because people believe in the principles that underlie laws

_____ To avoid being punished

3. What is the main reason we have laws?

_____ To ensure that people's rights aren't violated by others

_____ To stop people from doing whatever they want

_____ To prevent people from engaging in behavior that disrupts society

4. A fair law is one...

_____ ...that stops people from doing bad things

_____ ...where mostly everyone agrees it should be a law

_____ ...that protects people's freedoms and personal liberties

5. When is it okay to break a law?

_____ When no one will know

_____ When most people don't follow the law either

_____ When the law does not represent the principles of the legal system

6. It's alright to not follow a law when…

_____ ...the law stops a person from getting what he or she wants

_____ ...no one expects the law will be obey

_____ ...when the law is enforced differently for different people

7. When should laws be created?

_____ When government or legal officials identify a need for them

_____ When society decides

_____ When it is restricting an individual's rights

8. What is the primary purpose of the legal system?

_____ To make sure that people don't do bad things

_____ To maintain social order

_____ To protect people's freedoms and liberties

9. What is a right?

_____ Something that makes sure people get what they want

_____ Something that makes sure everyone in society gets the same thing

_____ Something that makes sure people do not have their freedoms and liberties taken away

10. When should a law be changed or removed?

_____ When government or legal officials decide it is ineffective or unnecessary

_____ When a majority of the population wants it changed or removed

_____ When it is restricting and individual's rights

11. What would happen if there were no laws?

_____ People would do whatever they want

_____ People would control themselves to maintain social order

_____ People would control themselves because it is the right thing to do

12. People should have rights that...

_____ ...maintain their freedoms and liberties

_____ ...allow them to behave in their best interests

_____ ...are consistent with what society deems as appropriate

APPENDIX C

Individual Juror Decision/Pre-deliberation Questionnaire

Pre-deliberation Questionnaire

1. Who was the defendant in the case? _____

2. What is the defendant charged with? _____

3. Where did the alleged crime take place? _____

4. What was the name of the convenience store clerk? _____

5. What was the name of the arresting officer? _____

6. What was the name of the eyewitness who saw the culprit leave the convenience store and identified him as the defendant? _____

7. What was his profession (the eyewitness in question 6)? _____

8. Did he have a reputation for prior acts that are noteworthy (good, bad, none)? _____

    a. If so, what were they? _____

Next, you will be asked to answer questions regarding your perceptions of one of the eyewitnesses. The eyewitness you will answer questions about has been randomly assigned to you and is listed directly below. Please answer the following questions in regards to the indicated eyewitness only, and not your perceptions of any other witnesses you may have seen in the video.

Eyewitness: **James Slate**

9. How credible was the eyewitness testimony?

1	2	3	4	5	6	7	8	9	10

Not at all very credible

10. How trustworthy was the eyewitness?

1	2	3	4	5	6	7	8	9	10

Not trustworthy at all very trustworthy

11. How obligated do you feel to listen to the eyewitness and consider his testimony in your decision?

1	2	3	4	5	6	7	8	9	10

Not obligated at all very obligated

12. How knowledgeable was the eyewitness about the case and his testimony?

1	2	3	4	5	6	7	8	9	10

Not knowledgeable at all very knowledgeable

Please rate the witness for the following items on the scale provided. If you are unsure, please take your BEST GUESS.

13.

1	2	3	4	5	6	7	8	9	10

Unfriendly Friendly

14.

1	2	3	4	5	6	7	8	9	10

Disrespectful Respectful

15.

1	2	3	4	5	6	7	8	9	10

Unkind Kind

16.

1	2	3	4	5	6	7	8	9	10

Ill-mannered Well-mannered

17.

1	2	3	4	5	6	7	8	9	10

Unpleasant Pleasant

18.

1	2	3	4	5	6	7	8	9	10

Untrustworthy Trustworthy

19.

1	2	3	4	5	6	7	8	9	10

Untruthful Truthful

20.

1	2	3	4	5	6	7	8	9	10

Undependable Dependable

21.

1	2	3	4	5	6	7	8	9	10

Dishonest Honest

22.

1	2	3	4	5	6	7	8	9	10

Unreliable Reliable

23.

1	2	3	4	5	6	7	8	9	10

Not Confident Confident

24.

1	2	3	4	5	6	7	8	9	10

Inarticulate Well-spoken

25.

1	2	3	4	5	6	7	8	9	10

Tense Relaxed

26.

1	2	3	4	5	6	7	8	9	10

Shaken Poised

27.

1	2	3	4	5	6	7	8	9	10

Not self-assured Self-assured

28.

1	2	3	4	5	6	7	8	9	10

Uninformed Informed

29.

1	2	3	4	5	6	7	8	9	10

Illogical Logical

30.

1	2	3	4	5	6	7	8	9	10

Unwise Wise

31. Based on your own opinion from the trial you have seen, what verdict would you give to the defendant for the charge of felony robbery? Choose one.

Guilty Not Guilty

32. How certain or strongly do you feel about your verdict decision?

1 2 3 4 5

not certain at all very certain

33. Briefly explain your choice of verdict.

_____
_____
_____
_____
_____

APPENDIX D

Group Deliberation Questionnaire

1. Based on the group deliberation, what verdict would the group give to the defendant? Choose one.

Guilty Not Guilty

2. How certain or strongly does the group as a whole feel about the verdict decision?

1 2 3 4 5

not certain at all very certain

APPENDIX E

Post Deliberation Questionnaire

First, we would like to ask you some questions regarding the group deliberation process. Please indicate which of the following group member best fits each of the following statements below. Indicate the group member by his/her participant ID number listed on the name tag. Please choose only **ONE** group member to answer each statement.

1. Which group member do you feel was the leader during the deliberation process?

   Participant # _____

2. Which group member directed the discussion (kept everyone on task, etc.) the most?

   Participant # _____

3. Which group member was the most influential in your decision?

   Participant # _____

4. Which group member was the least influential in your decision?

   Participant # _____

5. Which group member was the most influential to the group as a whole?

   Participant # _____

Next, you will be asked to answer questions regarding your perceptions of the same eyewitness you answered questions about prior to the group deliberation. Please answer the following questions in regards to the indicated eyewitness only, and not your perceptions of any other

witnesses you may have seen in the video. As a reminder, the eyewitness that has been assigned to you is listed below.

Eyewitness: **James Slate**

13. How credible was the eyewitness testimony?

1	2	3	4	5	6	7	8	9	10

Not at all very credible

14. How trustworthy was the eyewitness?

1	2	3	4	5	6	7	8	9	10

Not trustworthy at all very trustworthy

15. How obligated do you feel to listen to the eyewitness and consider his testimony in your decision?

1	2	3	4	5	6	7	8	9	10

Not obligated at all very obligated

16. How knowledgeable was the eyewitness about the case and his testimony?

1	2	3	4	5	6	7	8	9	10

Not knowledgeable at all very knowledgeable

Please rate the witness for the following items on the scale provided. If you are unsure, please take your BEST GUESS.

17.

1	2	3	4	5	6	7	8	9	10

Unfriendly Friendly

18.

1	2	3	4	5	6	7	8	9	10

Disrespectful Respectful

19.

1	2	3	4	5	6	7	8	9	10

Unkind Kind

20.

1	2	3	4	5	6	7	8	9	10

Ill-mannered Well-mannered

21.

1	2	3	4	5	6	7	8	9	10

Unpleasant Pleasant

22.

1	2	3	4	5	6	7	8	9	10

Untrustworthy Trustworthy

23.

1	2	3	4	5	6	7	8	9	10

Untruthful Truthful

24.

1	2	3	4	5	6	7	8	9	10

Undependable Dependable

25.

1	2	3	4	5	6	7	8	9	10

Dishonest Honest

26.

1	2	3	4	5	6	7	8	9	10

Unreliable Reliable

27.

1	2	3	4	5	6	7	8	9	10

Not Confident Confident

28.

1	2	3	4	5	6	7	8	9	10

Inarticulate Well-spoken

29.

1	2	3	4	5	6	7	8	9	10

Tense Relaxed

30.

1	2	3	4	5	6	7	8	9	10

Shaken Poised

31.

1	2	3	4	5	6	7	8	9	10

Not self-assured Self-assured

32.

1	2	3	4	5	6	7	8	9	10

Uninformed Informed

33.

1	2	3	4	5	6	7	8	9	10

Illogical Logical

34.

1	2	3	4	5	6	7	8	9	10

Unwise Wise

6. Based on your own opinion from the trial you have seen, what verdict would you give to the defendant for the charge of felony robbery? Choose one.

Guilty Not Guilty

7. How certain or strongly do you feel about your verdict decision?

1 2 3 4 5

not certain at all very certain

8. Briefly explain your choice of verdict.

_____

_____

_____

_____

_____

Now we would like to ask you about your thoughts concerning the legal system and laws. Next you will find a series of questions and statements. Each one is followed by three different responses. For each question or statement, please rank the three responses in order of your agreement. So, for the response that you most agree rank that response #1. For the response you agree with second most rank that response #2. For the response you agree with the least, rank that response #3. Please write in the rank you would give for each response on the corresponding line in front of the statement.

35. Why should people follow the law?

_____ Because laws maintain order in society

_____ Because laws reflect certain principles of how people should behave

_____ Because they will be punished if they don't

36. Why do people ultimately follow the law?

_____ Because society works better when people follow the law

_____ Because people believe in the principles that underlie laws

_____ To avoid being punished

37. What is the main reason we have laws?

_____ To ensure that people's rights aren't violated by others

_____ To stop people from doing whatever they want

_____ To prevent people from engaging in behavior that disrupts society

38. A fair law is one...

_____ ...that stops people from doing bad things

_____ ...where mostly everyone agrees it should be a law

_____ ...that protects people's freedoms and personal liberties

39. When is it okay to break a law?

_____ When no one will know

_____ When most people don't follow the law either

_____ When the law does not represent the principles of the legal system

40. It's alright to not follow a law when…

_____ ...the law stops a person from getting what he or she wants

_____ ...no one expects the law will be obey

_____ ...when the law is enforced differently for different people

41. When should laws be created?

_____ When government or legal officials identify a need for them

_____ When society decides

_____ When it is restricting an individual's rights

42. What is the primary purpose of the legal system?

_____ To make sure that people don't do bad things

_____ To maintain social order

_____ To protect people's freedoms and liberties

43. What is a right?

_____ Something that makes sure people get what they want

_____ Something that makes sure everyone in society gets the same thing

_____ Something that makes sure people do not have their freedoms and liberties taken away

44. When should a law be changed or removed?

_____ When government or legal officials decide it is ineffective or unnecessary

_____ When a majority of the population wants it changed or removed

_____ When it is restricting and individual's rights

45. What would happen if there were no laws?

_____ People would do whatever they want

_____ People would control themselves to maintain social order

_____ People would control themselves because it is the right thing to do

46. People should have rights that...

_____ ...maintain their freedoms and liberties

_____ ...allow them to behave in their best interests

_____ ...are consistent with what society deems as appropriate

APPENDIX F

Institutional Review Board Approval

University *of* New Hampshire

Research Integrity Services, Service Building
51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

25-Jul-2014

Cole, Lindsey M.
Psychology, Conant Hall
1 Mill Street, Apt. 136
Dover, NH 03820

IRB #: 6049
Study: Comparing Eyewitnesses
Approval Date: 25-Jul-2014

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Expedited as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 110.

Approval is granted to conduct your study as described in your protocol for one year from the approval date above. At the end of the approval period, you will be asked to submit a report with regard to the involvement of human subjects in this study. If your study is still active, you may request an extension of IRB approval.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects.* (This document is also available at http://unh.edu/research/irb-application-resources.) Please read this document carefully before commencing your work involving human subjects.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson
Director

cc: File
Cohn, Ellen