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## They May Not Believe You Remembered That Nose: Juror Perceptions Of Eyewitness' Featural Justifications

Mary Cops

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THEY MAY NOT BELIEVE YOU REMEMBERED THAT NOSE: JUROR PERCEPTIONS  
OF EYEWITNESS' FEATURAL JUSTIFICATIONS

by

Mary Colleen Cops  
Bachelor of Science, University of Wisconsin Stout, 2019  
Master of Science, University of North Dakota, 2022

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

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May  
2022

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This thesis, submitted by Mary Cops in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Dr. Andre Kehn, Chairperson

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Dr. Alison Kelly, Committee Member

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Dr. Cheryl Terrance, Committee Member

This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

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Dr. Chris Nelson  
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## ABSTRACT

The featural justification effect occurs when an eyewitness provides a confidence statement at the time of lineup identification that includes reference to a facial feature or component that aided them in their identification (Dodson & Dobolyi, 2015, 2017, 2018; Slane & Dodson, 2019). The result of the effect, found across several manipulations, is that jurors tend to discredit the confidence of an eyewitness that references a facial feature (such as eyes, nose, chin) in the identification statement. The current studies examined featural justification, along with eyewitness viewing conditions and legal safeguards. Participants were presented with either expert testimony (study 1) or jury instruction (study 2) with the aim of sensitizing mock jurors to eyewitness factors in the case, as well as alleviate the featural justification effect. Results of both studies replicated the featural justification effect and found a significant main effect of viewing condition on verdict, such that good viewing conditions resulted in more guilty verdicts than bad viewing conditions. Other significant findings varied between the two studies. The current findings contribute to research on the featural justification effect and include discussion of implications for cases including eyewitness evidence.

# **CHAPTER I**

## **INTRODUCTION**

Ronald Cotton served ten years in prison for a crime he did not commit. In 1984, an assailant broke into Jennifer Thompson's apartment and sexually assaulted her. Jennifer Thompson was moderately confident at the time of the identification, but by trial, she was certain Cotton was the culprit. The only other physical evidence supporting Cotton's conviction was a flashlight found in his home, similar to the one used by the assailant. The main determinant of his sentence to life in prison, plus fifty years, was erroneous eyewitness testimony. Ten years after his sentencing, DNA evidence proved Cotton was innocent (The Innocence Project). The Innocence Project details numerous cases like Cotton's where eyewitness testimony was believed despite lack of physical evidence for a crime. Eyewitness testimony, especially confident eyewitness testimony, remains to be heavily weighed by jurors in cases even when there is little additional supporting evidence (Cash & Lane, 2020).

The current study aims to examine the influence of the featural justification effect and its impact on how jurors perceive eyewitness confidence (Dodson & Dobolyi, 2015, 2017, 2018; Slane & Dodson, 2019). The featural justification effect occurs when an eyewitness identifies a suspect out of a lineup and in their verbal expression of confidence, the eyewitness mentions a certain facial feature that influenced the confidence rating in their identification. Jurors tend to discredit an eyewitness that includes this featural description in their statement, regardless of how confident the eyewitness appears to be. To understand the factors that contribute to how jurors perceive eyewitness confidence, I will first discuss relevant research regarding eyewitness identification, juror perception of eyewitnesses, and how jurors perceive expert testimony and

judicial instructions of eyewitness testimony. Then, I will discuss recent research on the featural justification effect and address the gaps the current studies aim to address.

### **Eyewitness Identification**

The Innocence Project reports that since 1985, DNA testing has exonerated 375 individuals who were wrongfully convicted. Of those 375, 63% were convicted based on eyewitness misidentification (The Innocence Project). These misidentifications occurred for varying reasons; some may have involved the lineup, photo arrays, and composite sketches. The unfortunate reality occurs because eyewitness memory, like all memory, is malleable (Greenspan & Loftus, 2020; Smith et al., 2019; Wells & Loftus, 2003; Yuille & Cutshall, 1986).

Post-event information from the media, friends, police, or other eyewitnesses can alter the witness' memory (Greenspan & Loftus, 2020; Wells & Loftus, 2003). People are typically unaware of this unintentional altering of their memories, leading them to genuinely believe their "revised" memory remains accurate. In addition, just as memory is malleable, so is eyewitness confidence; post-event feedback can cause confidence to increase over time, leading jurors more apt to believe the eyewitness and convict the suspect (Greenspan & Loftus, 2020; Leippe et al., 2009; Smalarz & Wells, 2020; Wells & Bradfield, 1998; Wright & Skagerberg, 2007).

Traditionally, eyewitness researchers have distinguished between estimator and system variables when examining factors influencing accurate identifications (Wells, 1978). Estimator variables are factors the judicial system cannot control, such as the distance between the eyewitness and the perpetrator, cross-racial identification, witness stress, and weapon presence (Semmler et al., 2018). System variables consist of factors the judicial system can control, such as lineup procedures and interview techniques. More recently, another set of factors has been identified, namely reflector variables (Wells, 2020). Reflector variables are neither system nor

estimator variables, but rather a set of factors that help investigators reflect on the likelihood of an accurate identification by the eyewitness. For example, utterances or subjective confidence ratings made by the eyewitness during the lineup task would be considered a reflector variable. It is not the utterance per se that would indicate an accurate or inaccurate identification, but rather what the utterance or confidence statement suggest about the match made between the memory of the perpetrator and lineup identification. However, the three sets of factors do not operate independent of one another. The presence of specific estimator and system variables may lower the confidence of eyewitness in making an accurate identification from a lineup (Semmler et al., 2018; Wells, 1978; Wright & McDaid, 1996). Generally, low confidence has shown to be associated with low accuracy, and highly confident witnesses can be more accurate (Wixted et al., 2015; Wixted & Wells, 2017, but see Smith et al., 2021). However, in the case of Ronald Cotton, Thompson was highly confident Cotton was the assailant by the time of the trial. Understanding factors that can lead to inflated confidence and how confidence is assessed by a jury is necessary to prevent erroneous convictions.

Natural confidence inflation is the tendency that even in pristine lineup conditions, eyewitness confidence tends to inflate over time after the initial identification (Douglass & Jones, 2013). Because of this, research has stated the importance for eyewitness confidence to be documented verbatim at the time of the lineup to be referred to later (Greenspan & Loftus, 2020, Wells et al., 2020). Feedback given by the lineup administrator can influence eyewitness confidence (Greenspan & Loftus, 2020; Wells & Bradfield, 1998; Wright & Skagerberg, 2007). Typically, the feedback is given at the same time of the initial identification. In a study examining post-identification feedback, participants were provided misinformation regarding their confidence a week after the initial identification. In other words, if a participant had

originally said they were 60% confident, they were told a week later they had said they were 80% confident. When a participant was told they were 80% confident instead of their original confidence of 60%, they reported remembering being more confident than they actually stated at the time of the identification. As suspected with the tendency of confidence inflation, even participants in the no feedback condition showed confidence inflation a week later (Greenspan & Loftus, 2020).

A possible explanation for increases in reported confidence may be due to the eyewitness already having made an identification and then must justify their decision to remain consistent (Greenspan & Loftus, 2020; Smalarz & Gary, 2020; Steblay et al., 2014). Even an unbiased lineup procedure can still result in increased confidence over time, which demonstrates the malleability of witness confidence. As jurors tend to believe a highly confident eyewitness to be credible and accurate, jurors may believe an eyewitness that portrays high confidence, even if at the time of the lineup identification their confidence was lower (Greenspan & Loftus, 2020).

Biased lineups are one factor that can lead to misidentification (Charman et al., 2018; Leippe et al., 2009; Lindsay et al., 1991). Therefore, unbiased lineup procedures are a necessary first step to ensure eyewitness accuracy (for a review see Wells et al., 2020). Research suggests that witnesses lower their criteria for making an identification when the lineup has a weak match-to-memory (Smith et al., 2019). In one study, researchers created a weak recognition by having witnesses watch a clear or degraded video of a crime. In the following lineups, the researchers manipulated whether the culprit was present or absent. As poor witnessing conditions can increase false identifications, Smith and colleagues (2019) hypothesized participants who witnessed the degraded video would have more false alarms (e.g., identifying a lineup filler) than witnesses who watched the clear video. Mistaken identifications were significantly different

between conditions, with 21% incorrect identifications for the clear video and 57% for the degraded-view video. The same researchers also did a follow-up experiment where they showed witnesses either a clear six-photo lineup or degraded photo lineup, which aimed to mimic noisy retrieval. Results of this manipulation showed inaccurate identifications were at 39% in the clear lineup and 73% in the degraded lineup.

The findings above suggest the level of criteria needed for a witness to select a suspect is flexible at the time of the lineup and influenced by the lineup conditions (Smith et al., 2019). Whether there was poor encoding (degraded video) or noisy retrieval (degraded photo lineup), participants in these conditions had significantly higher false alarm rates than those in the control condition. The data also suggests higher false alarm rates in the culprit-not present condition. Having the suspect not present also lowers criteria warranted for a decision, as witnesses try to match their memory to what is available in the environment (e.g., lineup members).

In general, it appears that low confidence implies low accuracy and high confidence reflects high accuracy; again, this is specifically referring to confidence expressed at the initial lineup (Wixted et al., 2015; Wixted et al., 2016; Smith et al., 2021), which is considered an important reflector variable (Wells, 2020). Thus, initial identifications made with low confidence most likely indicate a high likelihood for error and should be diminished in value during a jury trial. Usually during a lineup, a witness is told to provide their confidence statement in their own words. Even if this is documented verbatim to potentially present in court later, variability exists in how a verbal expression of confidence is interpreted. Behrman and Davey (2001) proposed a simple scale to interpret eyewitness expression of confidence. The scale would provide statements for an eyewitness to fill in, such as “Although I am not positive, I think that number \_\_\_\_ is the person who committed the crime” (Behrman & Davey, 2001). Any empirically-tested

method that helps jurors clearly assess the confidence at the initial identification is critical for reducing false convictions. Regardless of whether such a method is utilized, police should record the initial level of confidence of the eyewitness, as confidence levels may change over time (Wixted et al., 2015). Such a change in eyewitness confidence would be a poor indicator of accuracy and therefore, difficult for jurors to assess the veracity of an eyewitness identification.

### **Juror Perception of Eyewitness**

Research aiming to assess how jurors interpret eyewitness evidence suggests most jurors do not recognize the potential inaccuracies and factors that can influence faulty eyewitness testimony (Benton et al., 2006). Jurors, judges, and law enforcement have considerable discrepancy regarding knowledge of eyewitness accuracy when compared to experts. One survey had participants rate “I agree” or “I disagree” on statements of lineup instructions, presentation format, weapon focus, and other factors. Jurors disagreed with experts on 87% of the issues, or 26 out of 30 items in the questionnaire. These results show laypeople seem to have a largely insufficient knowledge base of nuances of eyewitness identification and testimony, particularly what factors may influence the accuracy of an identification. However, surveys like this may overestimate participants’ knowledge, as the questions require recognition and not generating their own information (Wise et al., 2014). In this case, the discrepancy is likely larger than results depicted. Wise and colleagues emphasized (2014) the importance of having expert assistance at trial to help jurors understand and interpret eyewitness evidence.

One study examining juror decision-making surrounding an eyewitness statement showed mock jurors a videotaped trial of a robbery case (Cutler et al., 1988). Four witnesses were presented to the mock jurors over the tape. Several factors of the conditions were manipulated across conditions, including the disguise of the robber, weapon visibility, level of violence, and

biased or unbiased lineup instructions. Among all the factors, only witness confidence seemed to influence the suspect's perceived guilt. Despite attorneys reminding jurors about the eyewitness conditions in their closing arguments, these factors were diminished when compared against the witness confidence. The results suggest jurors appear to infer the most from eyewitness confidence and are less likely to be skeptical about other conditions surrounding testimony.

In addition, research on jurors' perception and level of processing of evidence has examined jurors' Need for Cognition (NFC), which is the level at which people enjoy or are motivated to put in effort in thinking about and evaluating information (Cacioppo & Petty, 1982). Thus, some jurors may be high in NFC while others are low in NFC. Overall, jurors high in NFC are believed to put forth more effort in studying and analyzing evidence, and recognize areas where evidence is weaker more efficiently than jurors low in NFC (Cacioppo & Petty, 1982; Petty & Cacioppo, 1986). One method proposed to help activate higher critical thinking among jurors is to provide expert testimony to make jurors aware of eyewitness factors.

### **Expert Testimony**

Expert testimony is one of the safeguards proposed for enhancing juror comprehension and application of eyewitness evidence in a trial. Currently, there are mixed results on the effect expert testimony has on jurors' decisions (Houston et al., 2013; Jones et al., 2017; Salerno et al., 2017; Wise & Kehn, 2020). Expert testimony regarding eyewitness evidence provides jurors with empirical information on eyewitness confidence and factors that can result in inaccurate eyewitness identification (Houston et al., 2013). The information provided is not generally known and aims to increase juror comprehension and application of the testimony to the case in question. Expert knowledge is not widely known, as even judges have shown to differ significantly from expert knowledge on eyewitness evidence (Houston et al., 2013; Magnussen et

al., 2008; Wise & Safer, 2004, 2010). One survey assessed ninety-nine judges with at least ten years of experience and found them to be in agreement with expert consensus 67% of the time (Houston et al., 2013). Over half of judges reported they felt they needed more training on eyewitness factors. Despite this, when researchers assessed the judges' beliefs regarding juror capabilities, 73% of judges said the credibility of eyewitness testimony was a matter of common sense. Moreover, 75% of judges said experts were not warranted to inform jurors on "common sense" information.

One of the goals of expert testimony is to increase juror sensitivity to eyewitness conditions, not just increase skepticism. When jurors appear to not be sensitized to expert testimony, this may be due to failures of memory, knowledge, or integration of the material (Cutler et al., 1989; Jones et al., 2017; Leippe et al., 2004). Some research has shown jurors exposed to expert testimony evaluate witnessing and identification conditions more thoroughly when determining the accuracy of the identification (Cutler et al., 1989). Still, other studies suggest expert testimony can have no effect on sensitivity to eyewitness credibility (Safer et al., 2016; Jones et al., 2020).

Previous research suggests peripheral information about an expert witness, such as their credentials, can distract jurors from important information they are providing (Salerno, 2017). There are two processing models for persuasion that help explain what information jurors attend to. The elaboration model for persuasion involves deliberate and effortful processing; jurors that are high in need for cognition (NFC) are more likely to engage in this process and attend to the content of the expert's testimony (Petty & Cacioppo, 1986). The other model of persuasion is the heuristic systematic model; this may be employed by jurors low in NFC, who aim to process

information quickly and heuristically (Chaiken, 1987), thus potentially leading to jurors focusing on the credentials of the expert rather than the strength of the message when deliberating.

One study examined the influence of peripheral and central information on jury decisions. Mock jurors heard an audiotaped version of a trial and then a cross examination of an expert that emphasized the peripheral information (Salerno, 2017). Half of the jurors also heard the central information as well. The researchers also manipulated the strength of the message, having a weak and strong message from the expert witness. Jurors low in NFC were less accurate in their decision than individuals high in NFC. Those that only heard the peripheral information were more likely to be inconsistent with the evidence provided. Despite peripheral information reducing accuracy among individuals, during group deliberation, members were more persuasive arguing for the stronger case when they mentioned the credibility of the expert witness. When used with the central information to point out a stronger case, peripheral information may have a beneficial impact.

The interview identification eyewitness, or I-I-Eye method, can be used by expert witnesses to help explain how to assess testimony (Pawlenko et al., 2013; Technical Working Group for Eyewitness Evidence, 1999; Wise et al., 2009; Wise & Kehn, 2020). This method has several steps, including assessing if law enforcement followed proper procedures when obtaining information from the eyewitness, conducting the lineup, and overall quality of identification procedures. A summary of questions is utilized to determine the accuracy of the eyewitness. Expert testimony with I-I-Eye is more efficient than standard expert testimony because it clearly separates three different sections of eyewitness factors to help jurors comprehend better. Wise and Kehn (2020) examined juror decisions after reading a case with no expert testimony, standard expert testimony, or an expert using the I-I-Eye method. Results showed participants in

the I-I-Eye method could differentiate between strong and weak eyewitness factors better than the other two conditions. Other studies have also found that jurors instructed with the I-I-Eye method are more likely to find a defendant guilty when conditions were good and less likely to convict when the conditions were poor (Safer et al., 2016).

In addition to instructional methods expert witnesses use, the timing of expert testimony in a trial can influence whether these approaches have an impact (Leippe et al., 2004). In one study, mock jurors read a murder trial transcript where eyewitness expert testimony was either presented before or after the eyewitness evidence. In addition, in one condition the judge's instructions to the jurors reminded them of the expert testimony before evaluation, whereas in another condition the judge did not remind jurors of the testimony. The researchers found when the expert testimony came right after the evidence and was followed by a judge's reminder, juror perceptions of guilt decreased significantly. Surprisingly, when expert testimony was not followed by a judge's reminder, the expert testimony had no significant effect on guilt ratings. Researchers propose having the judge remind jurors of the recent expert testimony may improve saliency and increase desired application of the information. Thus, not only does the presence of expert testimony matter, but possibly the timing of when it is presented within a trial.

### **Jury Instructions**

Along with the uncertain impact of expert testimony on jurors, research is continuing to assess the influence of jury instructions. Detailed instructions outlining important topics could aid jurors in recognizing good and poor conditions. In one study examining how to sensitize jurors to eyewitness factors, the authors found jurors were not influenced by instructions in their decision-making. Even when instructions are provided with the goal to educate jurors or make

them aware of a particular factor within the case, in many cases the information is either not processed or is not applied (Baguley et al., 2017; Cacioppo & Petty, 1982; Jones et al., 2017).

Simplifying jury instructions has been proposed to improve juror comprehension and application, as instructions consisting of legal jargon would only serve to confuse most jurors (Baguley et al., 2017). Surprisingly, Baguley and Colleagues (2017) found reducing the amount of information increased the severity of convictions among jurors. Reducing the conceptual complexity within instructions led to greater application of instructions. Interestingly, when mock jurors were given written instructions, they spent little time referring to them. Perhaps in other research where jurors seem to not apply instructions given to them, the simple reason is jurors do not spend time thoroughly reading the instructions. If so, the next question is how judges can ensure jurors pay adequate attention to instructions. For this safeguard to be effective, monitoring jurors' attention and memory of instructions to foster application is key.

One study examined if jury instructions had an influence on suggestive identifications shown on video (Skalon & Beaudry, 2019). Jurors watched an identification procedure that was either non-suggestive or suggestive and were given instructions before completing case judgements. The instructions aimed to make jurors more aware of potential problems in the evidence and have them consider factors that could lead to an inaccurate identification. The instructions did not improve mock jurors' ability to discern accuracy of an identification, even though jurors did recognize that the non-suggestive procedure was less biased than the suggestive one.

The authors offer several explanations for why the instructions were ineffective; these explanations are likely possible explanations in other studies where instructions seem to have no influence (Skalon & Beaudry, 2019). One possible reason is jurors simply misunderstood the

instructions. Another explanation is the judge did not provide sufficient support to jurors on how to read or assess instructions. The researchers also point out the factor of timing; by the time jurors heard the instructions at the end of a trial, they may already have constructed a strong position of what they believe (Pennington & Hastie, 1991, 1992). Lastly, and perhaps a key factor, is jurors may not apply the instructions because they do not process them on an elaborative level; jurors may simply lack motivation (low in NFC) to critically process the instructions. If this is the case, even the most detailed and relevant instructions may appear to show no influence in decision-making.

Even with safeguards such as juror instruction and expert testimony in place, one cannot guarantee these methods will have a significant effect on juror perception of evidence. There is still no consistent legal safeguard for sensitizing jurors to eyewitness error (Wise et al., 2014). Therefore, continuing research on juror perception and understanding how the presentation of information impacts juror decision-making remains crucial. Although jurors appear to not assess some factors critically, recent research suggests they are quite skeptical of eyewitnesses that refer to facial features of a suspect when making an identification (Dodson & Dobolyi, 2015, 2017, 2018; Cash & Lane, 2020).

### **Featural Justification Effect**

When an eyewitness selects someone out of a lineup, a verbal explanation of confidence increases the variability of how people perceive their confidence and make subsequent decisions in a trial (Dodson & Dobolyi, 2015). Jurors tend to create a mental model for an eyewitness based on the statement the eyewitness provides during a lineup identification; previous research by Cash and Lane (2020) has shown jurors tend to believe highly confident eyewitnesses have a good view of the criminal and pay more attention to an event. When giving a verbal expression

of confidence, an eyewitness may simply say “I am positive it is him” (Dodson & Dobolyi, 2015). In other cases, the eyewitness may say, “I am positive it is him. I recognize his nose.” In the latter case, the eyewitness references a facial feature that aided in the recognition process. This reference to a facial component of the suspect may lead to what has been termed the featural justification effect. The featural justification effect occurs when jurors rate an eyewitness that provides a facial cue in their statement as less confident than eyewitnesses who do not reference features.

### ***Perceived Diagnosticity***

Dodson and Dobolyi’s (2015) account of Perceived Diagnosticity helps explain why pointing out a distinctive feature may cause an eyewitness to be deemed as less credible. Unlike unobservable justifications, such as “He looks like a friend of mine,” observable featural justifications (“I recognize his chin”) may be independently assessed by jurors about how well the jurors think the feature distinguishes the suspect from others in the lineup (Dodson & Dobolyi, 2015). If a mock juror looks at the lineup and deems the feature to be nondistinctive, it can lead jurors to discredit the level of confidence the eyewitness provided. This error in cognition involves a juror assuming the eyewitness has the same experience as their own in processing the lineup. Justifications based on familiarity, such as “I am certain. He looks familiar,” are also deemed to be less reliable (Dobolyi & Dodson, 2018). When features are more ambiguous and resemble the majority of people in a lineup, there appears to be room for interpretation. As a result, providing a featural justification often results in jurors misinterpreting the intended meaning and confidence of the eyewitness, which can directly influence conviction rates.

The featural justification effect does not occur when the suspect has a distinctive feature that is widely perceived to be distinguishable, such as bushy eyebrows (Dodson & Dobolyi, 2015). In this scenario, the mock jurors deem the featural justification to be sound, as the mock jurors themselves can visibly determine the distinctiveness of the feature. Similarly, unobservable justifications do not appear to reduce perceived confidence. A statement followed by an unobservable justification such as “I recognize him” does not result in decreased credibility like observable justifications. Such a statement cannot be interpreted by jurors when looking at the lineup. Thus, jurors perceive an eyewitness to be the most convincing when the eyewitness provides a high confidence statement with an unobservable feature (“He looks like a friend of mine”) that cannot be independently verified (Dobolyi & Dodson, 2018).

### ***Featural Justification and Perceived Confidence***

Dodson and Dobolyi conducted a study in 2015 on the featural justification effect. In Experiment 2, confidence statements were either confidence only, confidence and featural justification, or confidence and unobservable justification. The race of the perpetrator was either black or white. In addition, confidence statements were high or moderate. Participants viewed eight lineups, four highly confident and four moderately confident. Featural justifications and unobservable justifications were manipulated as well. An example of a featural justification statement used is “His hair looks familiar” and an example of an unobservable justification is “I remember him.” The lineup contained six photos with the target outlined by a red box, with the eyewitness’ confidence statement underneath. Participants were asked to turn the verbal confidence statement into a numeric value. Results showed significant variability in how eyewitnesses were perceived when they gave featural justifications, compared to a confidence only statement or unobservable justification. In experiment 3, the authors found support that the

featural justification effect occurred, irrespective of lineup modality (e.g., simultaneous vs. sequential).

As stated previously, a common way an eyewitness provides a confidence statement is by verbal expression at the lineup identification (Dodson & Dobolyi, 2015). Verbal expressions of confidence can be interpreted differently among individuals. Despite this problem, it is quite common for the witness to provide a verbal expression of confidence rather than giving a clear percentage, such as “I am 80% confidence it is him.” Dodson and Dobolyi examined if there would be a significant difference in how jurors perceive numeric confidence statements (2017). As verbal expressions of confidence are more common, and these often lead to misinterpretation, a proposed solution would be for the eyewitness to provide a numeric statement; providing jurors with an exact confidence value of the eyewitness. The authors hypothesized a concrete confidence percentage in a statement would lessen the featural justification effect. The experiment had three different justifications – confidence only, confidence plus featural, and confidence plus unobservable justification. The type of expression of confidence was either verbal or numeric. For the numeric conditions, the eyewitness reported being 80% or 100% confident. Mock jurors viewed a six-photo lineup with the confidence statement underneath the target’s photo and were asked to complete a perceived guilt scale. Surprisingly, even when an eyewitness clearly expressed their confidence numerically, adding featural justifications to the statement such as “I’m 100% certain. I recognize his nose,” led to a decrease in perceived confidence when compared to a statement of “I’m 100% certain.”

If even in conditions where the eyewitness provided a numeric value of confidence, jurors still decreased perceived confidence levels, perhaps jurors were assessing eyewitness confidence and accuracy separately (Dodson & Dobolyi, 2017). In other words, even if an

eyewitness displays high confidence, a juror may perceive the eyewitness to be less accurate. Following this idea, the researchers conducted another experiment in which participants were asked to judge the accuracy of the statement instead of rating perceived guilt of the target. They viewed a six-photo lineup with a confidence statement and were told, “given the above expression of certainty, how accurate is the eyewitness’ identification?” Following was a six-point numeric scale from “not at all accurate” or 0% to “completely accurate” at 100%. In the conditions where the eyewitness statement included a featural justification effect, jurors rated the eyewitness as roughly 25% less accurate compared to the confidence only and unobservable justification conditions. This finding suggests even when eyewitness confidence is made explicitly clear to jurors, perceived accuracy may be lower when a featural justification is present.

Clearly the featural justification effect can be quite powerful, as it has been shown to be present in a variety of studies. Just how powerful is the featural justification effect and its influence on jury assessment? A recent study by Slane and Dodson (2019) examined if having two eyewitnesses provide a featural cue would still lead to similar reductions in confidence ratings. Researchers were interested to see if the strength of two eyewitnesses would diminish the featural justification effect. In one condition, two eyewitnesses referred to different features of a suspect, and in another condition the witnesses both referred to the same feature of the suspect. Results showed jurors rated suspects as more likely to be guilty when the same featural cue was referenced (“I recognize his nose”) twice than when different features were mentioned (“I recognize his nose” and “I recognize his eyebrows”). Still, two eyewitnesses referring to the same cue led to less guilty convictions than if the confidence statement had no reference to facial features. The strength of two eyewitnesses identifying a target still is diminished by the reference

of facial features, as jurors appear to discredit the accuracy. The researchers emphasize the need for more research on when and how jurors weigh evidence from single eyewitnesses compared to multiple eyewitnesses.

Thus far, there is strong evidence that referencing a facial feature leads to a decrease in perceived confidence and accuracy, even when the eyewitness statement includes a numeric rating of confidence (Dodson & Dobolyi, 2015, 2017, 2018). Cash and Lane (2020) explored other factors that may be impacted by featural justifications, such as juror perceptions of an eyewitness' clarity of image, attention, and time taken to make identification. Participants were asked to rate how influential they thought these factors were on the witness statement based on a Likert scale; the five-point scale ranged from "not influential" to "very influential." The lineup conditions were varied by showing no lineup, a distinctive lineup, or a nondistinctive lineup along with the expressions of confidence. Unique facial features were rated as more important when there was a distinctive lineup, suggesting jurors are more likely to attribute the unique feature to confidence rather than other factors. One factor, clarity of image, was rated lower in nondistinctive lineup conditions with a featural cue. Similarly, attention of the eyewitness had reduced ratings when featural cues were mentioned. Based on this research, if an eyewitness provides a featural justification in their statement, jurors may interpret the eyewitness had poorer viewing conditions than an eyewitness that does not mention a featural cue.

The results of this study suggest if a witness is highly confident, people infer the witness had a good view of the suspect, paid attention during the crime, has a reliable memory, and will identify the suspect from the lineup more quickly (Cash & Lane, 2020). An interesting finding emerged in that even when no lineup was shown, commenting on a facial feature reduced ratings for time attending to crime and amount of time taken to pick suspect from the lineup. Since no

lineup was shown, jurors did not have the chance to independently assess whether the feature was distinctive or not. The researchers hypothesize this occurred because the type of justification was manipulated within subjects; as a result, the added featural justification may have made jurors more aware of the addition and compared it to the confidence only condition. If further research replicates this result, then the mere mention of a facial feature, even in the absence of opportunity for comparison, could lower perceived confidence. The researchers point out although the effect was still present, the effect was weaker in this instance than when a lineup was shown. Based on these findings, the featural justification effect may be present even when jurors do not see the physical lineup to compare uniqueness for themselves. Research continues to show how highly influential this effect can be on jurors' inferences.

### **Current Studies**

The primary goal of the current studies is to investigate potential conditions to reduce or eliminate the featural justification effect. Research by Dodson and Dobolyi (2015, 2017, 2018) has shown across various manipulations, eyewitness confidence statements accompanied with featural justifications consistently produce the featural justification effect, leading to a decrease in perceived confidence of the eyewitness and lower guilt ratings. Research suggests jurors form a mental model of an eyewitness' attention span, clarity of image, and distance from the target based on the eyewitness' identification statement (Cash & Lane, 2020). Thus, jurors presented with an eyewitness statement, which includes a featural justification, tend to believe the eyewitness had less time to view the target and rate the clarity of image as lower (Cash & Lane, 2020). The current studies manipulate whether mock jurors are told the eyewitness had an overall good/poor viewing condition to determine if explicitly providing the actual viewing conditions (rather than coming to one's own inferences) influences perceived confidence. In

addition, the current studies aimed to explore potential safeguards to reduce the featural justification effect. Jury instructions are one type of safeguard that have been proposed; previous research shows mixed results on whether juror instructions are effective in increasing sensitivity to eyewitness factors in jurors (Pennington & Hastie, 1991, 1992; Skalon & Beaudry, 2019). Another safeguard explored was expert testimony; providing jurors with a transcript of an expert witness' account was hypothesized to decrease or eliminate the strength of the featural justification effect. Thus, the current studies advanced research on the featural justification effect by examining the effects of viewing conditions and safeguards to attempt to minimize the strength of the featural justification effect.

## CHAPTER II

### STUDY I

In Study 1, I investigated the main and interactive effects of justification type, viewing conditions, and expert testimony. Past research suggests eyewitness statements that include a featural justification will be rated as less confident and result in lower perceived guilt judgements than unobservable justifications or no justification (Dodson & Dobolyi, 2015, 2017, 2018). Thus, the aim of Study 1 was to examine the impact of eyewitness viewing conditions and eyewitness expert testimony on the featural justification effect. Previous research has not examined whether expert testimony can have an impact on how jurors perceive confidence statements with featural justifications but could potentially provide a procedural safeguard. Hence, I examined if a featural justification resulting from good eyewitness viewing conditions leads to lower perceived confidence ratings. In addition, I explored if expert testimony, specifically educating jurors on featural justifications, results in a reduced featural justification effect than previously found.

#### **Hypotheses.**

*Main Effects:* Featural Justification statements would lead to lower confidence ratings and reduction of guilty verdict ratings compared to all other conditions. Good viewing conditions would result in higher confidence and guilt ratings than poor viewing conditions. Enhanced expert testimony with featural justification should lead to a smaller reduction in perceived confidence and guilt ratings compared to standard expert testimony. No specific predictions were made for the enhanced with featural compared to the enhanced expert testimony due to the exploratory nature of these variables in the current study.

#### *Two-Way Interactions:*

A two-way interaction between featural justifications and viewing conditions, such that featural justifications with good viewing conditions would result in higher confidence and guilty verdict ratings than featural justifications made in bad viewing conditions was expected. The potential three-way interaction between featural justification, viewing conditions, and expert testimony was explored without prior hypotheses.

## **METHOD**

### **Participants and Design**

In total, Study 1 consisted of 376 individuals recruited from Amazon's Mechanical Turk who completed the study through Qualtrics and were compensated \$0.50 for their participation (Buhrmester et al., 2016). Of these, 26 participants were excluded for failing attention checks. An additional four participants were excluded for failing manipulation checks. A filter variable was created to assess recall of four facts of the vignette. Seven participants were removed for having recall of less than three out of the four statements correct. Thus, a total of 339 (age range 18-75,  $Mage = 44.23$ ,  $SD = 13.69$ ; 203 females; 272 White) participants were included for analyses. Each participant in Study 1 was randomly assigned to one of eighteen conditions in a 3 (type of justification: none vs. unobservable vs. featural) x 2 (viewing condition: good vs. bad) x 3 (expert testimony: standard vs. enhanced vs. enhanced + featural justification) factorial design.

### **Materials**

The current study did not present participants with a six-photo lineup, which has typically been used in Dodson and Dobolyi's research (2015, 2017, 2018). Instead, Cash and Lane (2020) found, albeit a smaller effect, the featural justification effect occurred even when mock jurors did not view a photo lineup to make featural comparisons.

The confidence statements of the eyewitness were conveyed consistently as high confidence (see Appendix B). These statements were modeled after Dodson and Dobolyi (2015) and were *I am positive it is him*. Unobservable justifications consisted of the statement, *He looks like someone I know*. Featural justifications included the statement, *I recognize his nose*.

The case vignette was a summary of a neighbor on a run at night who witnessed the suspect leaving his neighbor's house while they were away on vacation (see Appendix A). Several variables were manipulated to create a good eyewitness viewing condition and a bad eyewitness viewing condition. In both the good and bad eyewitness viewing conditions, the suspect was reported to be twenty feet away from the witness and the witness told the officer he had 20/20 vision. In the bad viewing condition, the suspect was wearing a hoodie, had a weapon, was seen in poor lighting, and was in view of the witness for about two minutes. In the good viewing condition, the suspect did not have a hoodie or weapon, was seen in good lighting and was in view of the witness for five minutes.

In Study 1, the written transcript included expert testimony (see Appendix C). Expert testimony was either standard, enhanced, or enhanced plus featural. Standard expert testimony detailed eyewitness factors that can lead to inaccurate memory in general. Enhanced expert testimony included general information on memory, with the addition of discussion of system and estimator variables. Lastly, enhanced + expert testimony included the information in the enhanced version, with the addition of a brief discussion of featural justifications. In creating the expert testimony transcripts, research by Brodsky et al. (2009) on credibility of an expert witness was followed. When modeling the expert witness transcript, informal speech was prioritized over technical information, and the expert witnesses used "we" or "us" when discussing members of the scientific community.

Participants also completed several manipulation checks, assessing the effectiveness of the safeguard, eyewitness factors relating to the case, and a series of true/false statements to assess participants' memory for the case (see Appendix G). Participants then completed a short demographic questionnaire (see Appendix G). Lastly, several attention check questions were randomly included in the study.

## **Dependent Variables**

### **Confidence of Eyewitness**

Perceived confidence of eyewitness was measured on a 100-point scale (see Appendix E). Participants were asked to “translate the eyewitness’s verbal expression of confidence into a number” after reading the eyewitness confidence statement. The scale ranged from 0 (*not at all certain*) to 100 (*completely certain*), modeled after Dodson and Dobolyi’s perceived confidence scale (2018).

### **Verdict**

Participants were asked to render a verdict for the case. Participants were given the option of “not guilty” or “guilty.”

### **Confidence in Verdict**

Following rendering a verdict, participants were asked to rate how confident they were in their verdict. The 9-point Likert scale used to rate confidence in verdict (modeled after Wise & Kehn, 2020) ranged from “not at all confident” to “very confident” (see Appendix F).

## **Procedure**

Study 1 was conducted online through Qualtrics. Participants were recruited to take part in a study on Amazon’s Mechanical Turk. Participants were presented with a vignette describing the crime. Participants then read the confidence statement provided by the eyewitness and asked

to rate the confidence of the eyewitness. Following these two assessments, participants were presented with one of the three version of expert testimony. Participants then rendered a verdict as well as completing a questionnaire asking specifics about the case and the expert. Participants then completed a manipulation check and demographic questionnaire after which they were thanked and compensated for their participation.

## RESULTS

### Case Judgements

**Perceived Eyewitness Confidence.** Aligning with previous research, it was hypothesized that confidence statements made with featural justification would result in significantly lower perceived confidence than a confidence-only statement. The data supports this hypothesis as a one-way ANOVA revealed viewing conditions as a significant predictor,  $F(2, 336) = 5.52, p = .004$ . The confidence only condition had a significant higher rating ( $M = 87.82, SE = 1.59$ ) than both confidence and unobservable statement ( $M = 80.98, SE = 1.59$ ) and confidence and featural statement ( $M = 81.81, SE = 1.58$ ). No difference was detected between the confidence and unobservable statement condition and the confidence and featural statement condition. This supports the hypothesis and previous research suggesting that mock jurors rate an eyewitness who simply states their confidence level as more confident than other variations of expressed confidence including featural justifications.

A series of one-way analysis of variance (ANOVAs) was conducted to test the main effects of independent variables on ratings of eyewitness confidence. It was hypothesized that good viewing conditions would result in higher ratings of confidence than poor viewing conditions. The hypothesis was not supported by the data, as the good viewing ( $M = 84.10, SE =$

1.32) and bad viewing condition ( $M = 82.95$ ,  $SE = 1.30$ ) did not significantly differ in predicting mock jurors' confidence ratings,  $F(1, 337) = .383$ ,  $p = .537$ .

Contrary to my hypothesis, expert testimony was not a significant predictor of perceived eyewitness confidence,  $F(2, 336) = .18$ ,  $p = .84$ .

**Verdict.** One preliminary hypothesis was that bad viewing conditions would reduce guilty verdicts compared to good viewing conditions. A logistic regression was conducted to determine if viewing conditions was a significant predictor of verdict decision. There was a significant association between viewing condition and verdict,  $\chi^2[1] = 12.95$ ,  $p < .001$ . With good viewing conditions, 70 participants (41.9%) voted not guilty, while 97 participants (58.0%) voted guilty. This trend was reversed for participants in the bad viewing condition; 106 participants (61.6%) voted not guilty, and 66 participants (38.4%) voted guilty. In terms of odds ratios, participants in the good viewing condition were 2.23 times more likely to vote guilty than those in the bad viewing condition. Results confirm the initial hypothesis that bad viewing conditions would result in a reduction of guilty verdicts.

Further, it was hypothesized confidence with featural statements would lead to lower guilty verdicts than the confidence only and confidence with unobservable statement conditions. There was not a significant association between the confidence conditions and verdict,  $\chi^2[2] = .64$ ,  $p > .05$ . There was also not a significant association between expert testimony and verdict decision,  $\chi^2[2] = 1.60$ ,  $p > .05$ .

**Confidence in Verdict.** A one-way ANOVA was conducted to test the predictors on confidence in verdict. There was no significant main effect of viewing condition,  $F(1, 336) = 1.86$ ,  $p = .17$ , no significant effect of confidence condition,  $F(2, 336) = .22$ ,  $p = .80$ , or expert testimony on mock jurors' confidence in verdicts,  $F(2, 336) = .15$ ,  $p = .86$ .

## Interaction Effects

**Two-Way Interactions.** One hypothesis for two-way interactions was featural justifications made in good viewing conditions would have higher confidence and more guilty ratings than featural justifications made in bad viewing conditions. The other hypothesis was that enhanced expert testimony with featural justification would lead to a smaller reduction in perceived confidence and guilty verdicts compared to standard expert testimony with featural justification. Contrary to the hypotheses, overall effects suggests there was not a significant two-way interaction among any combination of the three variables,  $p > .05$ .

**Three Way Interactions.** Potential three-way interactions were exploratory and were not hypothesized prior to analysis. Overall effects suggest a significant interaction between all three independent variables on confidence in verdict ratings,  $F(4, 321) = 3.60, p = .007$ . Examining the pairwise comparisons, a significant difference of confidence in verdict was found between the conditions of confidence only and enhanced + expert with viewing conditions,  $p = .002$ . Participants presented with a confidence only statement in a good viewing condition with enhanced + expert testimony ( $M = 7.05, SE = .41$ ) had significantly higher confidence in verdict than participants in a confidence only in bad viewing condition with enhanced + expert testimony ( $M = 5.18, SE = .43$ ).

There was also a significant interaction between confidence + featural statement and enhanced expert with the two viewing conditions,  $p = .014$ . Participants presented with confidence + featural in the good viewing condition with enhanced expert ( $M = 6.95, SE = .41$ ) reported significantly higher confidence in verdict ratings than those in confidence + featural with bad viewing condition and enhanced expert testimony ( $M = 5.50, SE = .42$ ).

There was not a significant three-way interaction between the remaining conditions on confidence in verdict,  $p > .05$ .

### **Eyewitness Factors**

Six eyewitness factors were proposed to participants, rated on a 9-point Likert scale from *1 = Leads to False Identification* to *9 = Leads to Accurate Identification*. A one-way ANOVA was conducted to see if Expert testimony condition was a significant predictor on the ratings. Expert testimony was a significant predictor on weapon present,  $F(2, 336) = 39.04, p < .001$ . Participants in the standard expert testimony condition rated weapon presence higher ( $M = 5.01, SE = .18$ ) than enhanced ( $M = 2.91, SE = .22$ ) and enhanced + ( $M = 2.91, SE = .18$ ). Expert testimony was a significant predictor on “short duration,”  $F(2, 336) = 9.80, p < .001$ . Those in the standard expert testimony condition had significantly higher ratings ( $M = 3.48, SE = .17$ ) than enhanced versions ( $M = 2.60, SE = .18; M = 2.56, SE = .15$ ). Additionally, expert testimony was a significant predictor for the rating of “suspect wearing a hoodie,”  $F(2, 336) = 4.00, p = .02$ . Standard expert testimony resulted in significantly higher ratings ( $M = 3.20, SE = .18$ ) than enhanced expert testimony ( $M = 2.54, SE = .18$ ).

Expert testimony was not a significant predictor for participants’ ratings on poor lighting, short distance, and good vision. Overall, across all three conditions of Expert testimony, mock jurors rated good vision ( $M = 7.60, SD = 1.32$ ) and a short distance from suspect ( $M = 7.13, SD = 1.89$ ) as more likely to lead to accurate identification. Participants overall means for weapon present ( $M = 3.62, SD = 2.29$ ), poor lighting ( $M = 2.37, SD = 1.82$ ), short duration ( $M = 2.88, SD = 1.81$ ), and suspect wearing a hoodie ( $M = 2.81, SD = 1.88$ ) were rated more towards leading to false identification. These overall means suggest that mock jurors were sensitive to the different eyewitness factors that could impact identification.

Participants were asked to rate the effectiveness of the Expert testimony provided, with a Likert scale ranging from 1 = Not Very Effective to 9 = Very Effective. Between the three expert conditions of standard ( $M = 6.82$ ,  $SD = 1.70$ ), enhanced ( $M = 7.23$ ,  $SD = 1.76$ , and enhanced + ( $M = 6.90$ ,  $SD = 1.72$ ) there was not a significant difference in effectiveness ratings ( $p > .05$ ).

## DISCUSSION

Study 1 examined the effects of eyewitness confidence, viewing condition, and expert testimony on three dependent variables: perceived witness confidence, verdict, and confidence in verdict. The overall results of the study are mixed in terms of the hypotheses.

First, it was hypothesized that confidence statements with featural justification would lead to lower perceived confidence ratings than confidence only statements. This hypothesis was supported by the results, as participants who read an eyewitness confidence only statement rated the eyewitness as significantly more confident than an eyewitness that provided a featural justification. This replicates past research by Dodson and Dobolyi (2015, 2016) that consistently finds this effect when comparing a confidence only statement and a featural justification statement. There was not a significant difference between the unobservable confidence statement and the featural; this also is similar to past research findings that report no significant difference between these two variations.

Second, it was hypothesized that featural justification confidence statements would result in fewer guilty verdicts than other confidence conditions. Past findings suggest that participants tend to find an eyewitness who provides a featural justification as less confident; it was expected that this would translate to fewer guilty verdicts. However, this was not supported by the analysis. One possible explanation for this is that when deciding a verdict, participants may have

given more weight to whether the viewing condition was good or bad, rather than remembering the eyewitness statement presented earlier.

In addition, it was hypothesized that viewing condition would have a main effect on verdict and confidence in verdict. A good viewing condition was hypothesized to result in more guilty verdicts and higher confidence in these verdicts than a bad viewing condition. There was a significant main effect of viewing condition on guilty verdicts; participants who read about a good viewing case vignette were more likely to vote guilty than participants who read about a bad viewing case vignette. These results suggest participants were sensitive to this information and took the eyewitness viewing factors (e.g., lighting, vision, weapon present) into account when making their decision. There was not a significant effect of viewing condition on confidence in verdict, however. Mock jurors may be confident in their decision regardless of some of the case facts, as people tend to overstate their confidence.

Although it was hypothesized that expert testimony would influence the main dependent variables, there was no effect of expert testimony in Study 1. As previous research suggests (Safer et al., 2016; Skalon & Beaudry, 2019), there are several possibilities for the null findings. One potential explanation is that mock jurors did not take the time to read this information thoroughly. Participants may have read through the vignette but did not thoroughly encode the information to utilize in their decision-making. Another reason could be that the value of information provided in the three different versions of expert testimony was not substantially different. Between the three versions of expert testimony, a large portion of the vignette contained the same information, describing eyewitness identification factors. Participants may not have processed some of the specific information enough to impact their case judgements. Specifically, the differences between standard and the enhanced version was that enhanced

expert testimony elaborated on what factors make up a generally good/bad eyewitness viewing condition. Then, enhanced and enhanced + expert testimony differed with enhanced + expert testimony having an additional paragraph addressing the featural justification effect. If jurors were not processing the information thoroughly or giving adequate attention to the information covered in the expert testimony, the result of not having a significant difference between any of these conditions would be plausible.

There were no significant two-way effects of the independent variables on participants' ratings. Three-way interactions were left exploratory in the study. Two significant three-way interactions were found; the first was a significant interaction on confidence in verdict. Participants in the condition of confidence only and enhanced + expert differed in confidence in verdict between the two viewing conditions. Participants in good viewing conditions had higher confidence in verdict than those in the bad viewing condition. These results suggest that even when an eyewitness had a confidence only statement (the confidence statement mock jurors rate with the highest confidence), mock jurors were sensitive to the viewing conditions, recognizing that a bad viewing condition may not be as reliable.

There was also a significant interaction between confidence + featural statement and enhanced expert with the two viewing conditions on confidence in verdict; participants in good viewing conditions reported higher confidence in their verdict than those in bad viewing conditions. Results from this interaction and the previous significant interaction suggest that mock jurors are the most sensitive to the predictor variable of viewing condition; significant effects are found between confidence in verdict for the good and bad viewing conditions. A potential reason for this is there is more education on eyewitness viewing conditions than the different variations of eyewitness confidence statements and how to interpret them.

From the findings of Study 1, there was no significant difference of an unobservable confidence statement versus featural justification statement on any of the dependent variables; this also aligns with previous research (Dodson & Dobolyi, 2015) that has excluded the unobservable condition from future analyses to focus on confidence only versus featural conditions. Given the findings, Study 2 did not include the unobservable confidence condition. In addition, given that expert testimony had no significant main effects in Study 1, the use of jury instruction in Study 2 was limited to two conditions instead of three (standard vs. enhanced).

## CHAPTER III

### STUDY II

Study 2 examined the main and interactive effects of justification type, viewing conditions, and jury instructions. Study 2 was similar to Study 1 in that it also provided jurors with the viewing conditions (good vs. bad) of the eyewitness; however, instead of expert testimony, mock jurors were provided with instructions on how to accurately interpret expressions of confidence. Previous research on the featural justification effect has not examined if jury instructions can minimize the reduced ratings of confidence for statements with featural justifications. Study 2 utilized a 2 (type of justification: unobservable vs. featural) x 2 (viewing condition: poor vs. good) x 2 (jury instruction: standard vs. enhanced) factorial design.

#### **Hypotheses.**

*Main Effects.* To replicate the effects found in Study 1, one hypothesis was confidence conditions would result in a main effect on perceived confidence of the eyewitness; confidence only statements would result in higher perceived confidence than confidence with featural statements. In addition, it was hypothesized that viewing condition would influence verdict, such that good viewing condition would be more likely to result in guilty verdicts than bad viewing conditions. There was no proposed hypothesis for confidence in verdict; Study 1 found no significant main effect on participants' confidence in verdict.

Jury instructions provided were either standard or enhanced instructions. Standard instructions included a discussion of the need for proof beyond a reasonable doubt to reach a decision. Enhanced jury instructions included additional information on potential errors in eyewitness memory. It was hypothesized that enhanced jury instruction would lead to a reduction

of the number of guilt ratings compared to standard instructions, and that enhanced jury instruction would result in a reduction of confidence in verdict.

*Interactions.* As there were no significant two-way interactions in Study 1, the potential two-way and three-way interactions for this study were exploratory.

## **METHOD**

### **Participants**

A total of 225 participants were recruited for Study 2 through Amazon's Mechanical Turk and completed the study through Qualtrics. Of these, eight participants were excluded for failing attention checks. In addition, one participant was excluded for failing several manipulation checks. A filter was created to code recall for four manipulation checks. This filter eliminated an additional fourteen participants. Thus, a total of 203 (age range 21-80,  $M_{age} = 43.56$ ,  $SD = 13.13$ ; 125 females; 162 White) participants' data was analyzed. Each participant in Study 2 was randomly assigned to one of eight conditions in a 2 (viewing condition: bad vs. good) x 2 (type of justification: none vs. featural) x 2 (jury instruction: standard vs. enhanced) factorial design. To compensate participation, each participant received \$ .50 for completion.

### **Materials**

The materials used in Study 2 were similar to Study 1; the case vignette for good viewing and bad viewing conditions was identical to Study 1. From analysis of Study 1, Study 2 removed one confidence condition. The confidence statement with an unobservable justification was removed because there were no significant findings that differed from this condition and the confidence with featural statement. Therefore, Study 2 had two confidence conditions of the confidence only and the confidence with featural. Study 2 used two types of jury instruction

(standard vs enhanced) for the safeguard presented instead of expert testimony provided in Study 1.

The jury instructions were modeled after Wise and Kehn (2020) and proceeded the case vignette (see Appendix D). Standard juror instructions reminded jurors about the need for proof beyond a reasonable doubt and that it was up to them to decide based on the eyewitness testimony, whether there was substantial proof for guilt. Enhanced juror instructions consisted of explaining proof beyond a reasonable doubt and potential inaccuracies of eyewitness memory.

### **Dependent Variables**

The dependent variables to be analyzed were identical to those of Study 1: perceived confidence of eyewitness, verdict, and confidence in verdict. There were also some questions relating to demographics and manipulation checks.

### **Procedure**

The procedure was identical to Study 1 except jury instructions were introduced instead of expert testimony. Jury instructions were provided after the eyewitness confidence statements.

## **RESULTS**

### **Case Judgements**

**Perceived Eyewitness Confidence.** A series of one-way analysis of variance (ANOVAs) were conducted to test the main effects of independent variables on ratings of eyewitness confidence. One hypothesis was that good viewing conditions would result in higher ratings of confidence than bad viewing conditions. The results supported this hypothesis,  $F(1, 201) = 3.80$ ,  $p = .053$ . Eyewitnesses that witnessed the event in good viewing conditions were rated as more confident ( $M = 88.52$ ,  $SE = 1.75$ ) than those that witnessed the event in bad viewing conditions ( $M = 83.72$ ,  $SE = 1.74$ ).

Results also revealed a main effect of confidence statement on perceived witness confidence,  $F(1, 201) = 7.45, p = .007$ . Eyewitnesses who provided a confidence only statement were perceived to be more confident ( $M = 89.55, SE = 1.76$ ) than eyewitnesses who provided a featural justification ( $M = 82.89, SE = 1.70$ ). This replicates findings from Study 1 and supports the featural justification effect.

**Verdict.** A priority hypothesis was that bad viewing conditions would reduce guilty verdicts compared to good viewing conditions. A logistic regression was conducted to determine if viewing condition was a significant predictor of verdict decision. There was a significant association between viewing condition and verdict,  $\chi^2[1] = 25.10, p < .001$ . With good viewing conditions, 36 participants (35.64%) voted not guilty, while 65 participants (64.36%) voted guilty. This trend was reversed for participants in the bad viewing conditions; 73 participants (71.57%) voted not guilty, and 29 participants (28.43%) voted guilty. In terms of odds ratios, participants in good viewing conditions were 4.55 times more likely to vote guilty than those in bad viewing conditions. These results support the initial hypothesis that bad viewing conditions would result in a reduction of guilty verdicts compared to good viewing conditions.

The potential effects of jury instruction on the dependent variables was left exploratory, given the mixed results on the effectiveness of jury instruction in past research, as well as no effect of expert testimony in Study 1. There was a significant association between jury instruction and verdict,  $\chi^2[1] = 3.86, p = .049$ . For participants provided with standard jury instructions, 49 participants (47.57%) voted not guilty, while 54 participants (52.42%) voted guilty. For those provided with enhanced jury instructions, 60 participants (60.0%) voted not guilty, while 40 (40.0%) voted guilty. Participants provided with enhanced jury instructions were 1.65 times more likely to reach a not guilty verdict.

Further, it was hypothesized confidence with featural statements would lead to lower guilty verdicts than the confidence only and confidence with unobservable statement conditions. There was not a significant association between the confidence conditions and verdict,  $\chi^2[1] = 1.56, p > .05$ .

**Confidence in Verdict.** A series of one-way analysis of variance were conducted to test the predicted effects of the three independent variables on mock jurors' confidence in their verdict. It was hypothesized that good viewing conditions would result in higher confidence in verdict than decisions made from a case with bad viewing conditions. Results support this hypothesis,  $F(1, 195) = 4.33, p = .039$ . Good viewing conditions resulted in a higher reported confidence in verdict ( $M = 6.86, SE = .17$ ) than bad viewing conditions, ( $M = 6.37, SE = .17$ ).

Confidence conditions did not have a significant effect on confidence in verdict,  $F(1, 195) = .60, p = .440$ . The type of jury instruction did not have a significant effect on confidence in verdict, ( $F(1, 195) = 3.04, p = .083$ ).

### **Interactions Effects.**

**Two-way Interactions.** One hypothesis was featural justifications made with good eyewitness viewing conditions would have higher confidence and more guilty ratings than featural justifications made with poor eyewitness viewing conditions. There was a significant interaction between viewing condition and confidence condition on mock jurors' confidence in verdict,  $F(1, 195) = 5.07, p = .026$ . There was a significant difference between ratings of confidence in verdict for confidence only statements and the two viewing conditions. Confidence only statements with good viewing resulted in higher confidence in verdict ( $M = 7.21, SE = .24$ ) than confidence only statements made in bad viewing conditions ( $M = 6.50, SE = .23$ ). Featural

statements made in good viewing conditions ( $M = 6.50$ ,  $SE = .23$ ) did not differ significantly from featural statements made in bad viewing conditions ( $M = 6.54$ ,  $SE = .23$ ).

In addition, one hypothesis was enhanced jury instruction with featural justification would lead to a smaller reduction in perceived confidence and guilty verdicts compared to standard expert testimony with featural justification. Contrary to the hypotheses, overall effects suggests there was not a significant two-way interaction among any combination of the three variables,  $p > .05$ .

**Three-way Interactions.** The potential three-way interactions were exploratory for Study 2. Overall results suggest there were no significant three-way interaction between confidence type, viewing condition, and jury instruction,  $p > .05$ .

### **Eyewitness Factors**

Six eyewitness factors were proposed to participants rated on a 9-point Likert scale from  $1 = Leads to False Identification$  to  $9 = Leads to Accurate Identification$ . A one-way ANOVA was conducted to see if jury instruction condition was a significant predictor on the ratings. Jury instruction had an effect on ratings of weapon present,  $F(1, 201) = 27.68$ ,  $p < .001$ . Those with enhanced jury instruction rated weapon present as more likely to lead to false identifications ( $M = 3.24$ ,  $SE = .16$ ) than those given standard jury instructions ( $M = 4.78$ ,  $SE = .20$ ).

Jury instructions had a main effect on ratings for short duration of crime,  $F(1, 201) = 7.11$ ,  $p = .008$ . Participants with enhanced jury instruction rated this concept as less likely to lead to accurate identification ( $M = 3.26$ ,  $SE = .21$ ) than those with standard jury instructions ( $M = 4.01$ ,  $SE = .19$ ). In addition, there was a main effect of instruction on the rating of suspect wearing a hoodie,  $F(1, 201) = 11.16$ ,  $p < .001$ . Enhanced jury instruction resulted in ratings more towards

less likely to lead to accurate identification ( $M = 2.63$ ,  $SE = .17$ ) than standard instructions ( $M = 3.47$ ,  $SE = .18$ ).

Jury instructions did not affect ratings on poor lighting, short distance, or good vision,  $p > .05$ . Although not significant, for good vision, both jurors given standard jury instruction ( $M = 7.64$ ,  $SE = .13$ ) and enhanced ( $M = 7.58$ ,  $SE = .12$ ) rated good vision as more likely to lead to accurate identification.

Participants were asked to rate the effectiveness of the jury instruction provided, with a Likert scale ranging from 1 = Not Very Effective to 9 = Very Effective. Between the two jury instruction conditions, there was not a significant difference in effectiveness ratings ( $p > .05$ ).

## DISCUSSION

Study 2 examined the effects of eyewitness confidence, viewing conditions, and jury instruction on perceived witness confidence, verdict, and confidence in verdict. Several hypotheses were supported by the results of Study 2.

First, the hypothesis that confidence only conditions would result in higher perceived confidence than confidence statements with featural justifications was supported by the results of Study 2. This finding replicates results from Study 1 that find the featural justification effect to have a consistent influence on perceived ratings of eyewitness confidence. Mock jurors consistently appear to find eyewitnesses that provide less explanation in their statement to be more confident than eyewitnesses who reference a specific facial feature.

In addition, the hypothesis that viewing condition would have a main effect was predicted. Study 1 and study 2 found this same effect to be present, in that mock jurors who read a case vignette about good viewing conditions were more likely to vote guilty than participants

who read about bad viewing conditions. Jurors appear to be sensitive to these eyewitness factors and consider this relevant information when rendering a verdict.

There was a main effect of viewing condition on ratings of perceived confidence. Participants who read the vignette set in a good viewing condition were more likely to rate the eyewitness as higher in confidence than mock jurors that read about a bad viewing condition. This suggests that the mock jurors were sensitive to the eyewitness viewing conditions even before being educated on them with the jury instructions, since jurors were asked to rate how confident the eyewitness was immediately following the eyewitness statement, prior to reading the jury instructions.

In addition to the effect of viewing condition on verdict, jury instruction had a main effect on verdict decisions. Results suggest enhanced jury instruction led to an increase in not-guilty verdicts compared to standard jury instructions. While standard jury instructions focused on what could be deemed as reasonable doubt, enhanced jury instruction went beyond this to explain factors that make up a good versus bad viewing conditions. Based on the results, jurors appear to have processed the jury instruction and applied the information when deciding the case.

There was also a significant effect of viewing condition on confidence in verdict. Mock jurors presented with a bad viewing condition reported lower confidence in verdict than mock jurors presented with a good viewing condition. From these results, it appears mock jurors are sensitive to the factors in the viewing conditions and are able to judge to some degree whether the eyewitness' identification is reliable.

The one significant interaction effect for Study 2 was between confidence justification and viewing condition. Confidence only statements made in good viewing conditions resulted in

higher confidence in verdict ratings than confidence only statements made in bad viewing conditions. Results examining the effect of confidence type suggest confidence only statements are deemed to be the most confident by mock jurors. In addition, if a confidence statement is made in a good viewing condition, this factor may lead to increased support for the eyewitness' identification. Contrary to this, if an eyewitness appears to be very confident but has made the identification in a bad viewing condition, mock jurors appear to weigh the viewing conditions when determining how confident they are in their verdict.

## **CHAPTER IV**

### **GENERAL DISCUSSION**

Overall, Study 1 and Study 2 both replicated the featural justification effect found in previous research (Dodson & Dobolyi, 2015, 2017, 2018). Results from the two studies supports the theory that the featural justification effect is a strong, unwavering effect in the case of eyewitness confidence statements. In the current study, mock jurors were not provided with a photo lineup of the identification, as Cash and Lane (2020) found the effect to be present even without a photo lineup. The current studies support this finding, as the featural justification effect was found to be significant in both Study 1 and Study 2. Eyewitnesses in confidence only conditions were consistently perceived to be more confident than eyewitnesses who made statements referencing the suspect's nose. This finding is not surprising, as previous research on the effect has consistently found the featural justification effect present when comparing eyewitness statements with and without featural references (Dodson & Dobolyi, 2015, 2017, 2018; Slane & Dodson, 2019).

Another similar finding for both studies was the effect of viewing condition on verdict. Jurors appeared to be sensitive to the manipulation of good and bad eyewitness factors and took these factors into account when making verdict decisions. Results were that good viewing conditions elicited more guilty verdicts than bad viewing conditions. Since this effect was found in Study 1, where expert testimony did not have an effect on verdict, the finding of viewing condition on verdict suggests mock jurors in this case were aware of the discrepancies between the good and bad viewing conditions without needing to be informed on the specific factors, such as duration and lighting.

Several main effects were found to be significant in Study 2 that were not found in Study 1. Study 2 yielded a main effect of viewing condition on perceived confidence, in that eyewitnesses that made statements from good viewing conditions were reported to be higher in confidence than eyewitnesses in bad viewing conditions. In Study 1, good viewing conditions resulted in a confidence rating of 84.10%, while in Study 2 good viewing conditions had a mean rating of 88.52%. A potential explanation for this significant finding in Study 2 is that the participants in Study 2 were more sensitive of eyewitness conditions, potentially due to less information provided in the jury instructions compared to the expert testimony from Study 1, and thus the eyewitness factors were more salient to them when rating the eyewitness' confidence.

In addition, a main effect of viewing condition on confidence in verdict was observed in Study 2, an effect not found in Study 1. The finding that good viewing conditions resulted in higher confidence in verdict than bad viewing conditions (Study 2) suggests mock jurors were sensitive to the eyewitness conditions and took these into account not only when rendering a verdict, but also when reporting confidence in their verdict. Throughout both studies, jurors were sensitive to eyewitness factors, being that the quality of the viewing condition had a significant effect on verdict. Then, when asked to rate how confident jurors were in their verdict, mock jurors in Study 2 may have recalled the conditions of the case when assessing verdict confidence. With the bad viewing condition having added factors such as poor lighting, a briefer duration of exposure to the suspect, and the suspect wearing a hoodie, mock jurors may have determined these factors to influence the reliability of the eyewitness' identification. The studies aimed to add to the literature on the featural justification effect by including potential safeguards to educate jurors in attempts to lessen the featural justification effect. One of the aims of Study 1 was to explore the potential effect of expert testimony on the influence of the featural

justification effect, as previous research has not examined if expert testimony can alleviate jurors' discrediting these eyewitnesses. In Study 1, there was not an effect of expert testimony on jurors' decisions. A possible reason for this is that jurors were not thoroughly processing the information or skimmed through the expert testimony. However, in Study 2 there was an effect of jury instruction on verdict. Perhaps mock jurors were more likely to pay attention to jury instructions than the expert testimony because of the connotation that expert testimony was being provided by an individual person and thus created speculation on the credibility of this expert. Jury instructions, on the other hand, are provided by the court and may appear to be more factual and objective. Another factor that may explain a lack of significance for expert testimony, and jury instruction in most conditions, is that the expert testimony and jury instructions were provided to participants in a written transcript form. In a real case, an expert witness will testify and speak in front of the jurors, which may demand more attention than written instructions. Based on past research that finds mixed results on the effectiveness of expert testimony, the insignificant findings are not unprecedented (Houston et al., 2013; Jones et al., 2017; Salerno et al., 2017, but see Wise & Kehn, 2020).

In addition, past literature has shown mixed results on the effectiveness of jury instructions (Baguley et al., 2017; Jones et al., 2017; Jones et al., 2020). In Study 2, jury instruction had a significant effect on verdict. As hypothesized, enhanced jury instruction led to an increase in not guilty verdicts compared to standard jury instruction. The enhanced jury instructions provided mock jurors with more information relevant to the case vignette, specifically discussing an array of eyewitness factors that could influence the accuracy of an eyewitness. The results suggest jurors were able to apply these instructions when rendering a verdict.

The current studies are not without limitations. The aim of the expert testimony and jury instruction was to sensitize jurors to eyewitness factors in the viewing conditions, as well as the featural justification effect. The order in which information was provided in the current studies may not have been structured to influence or minimize the featural justification effect. If jurors had been educated on the prevalence of featural justifications before reading about the eyewitness statement, this could have affected ratings of perceived confidence. However, at the same time, this presentation of events may have alerted participants to what the study was examining.

The current study failed to measure Need for Cognition (NFC) in participants, which may have provided insight to explain the difference in findings between Study 1 and Study 2. For instance, it could be that in Study 2 consisted of more participants that would score high in NFC than Study 1, where expert testimony did not have an effect. However, this can only be speculated on, as this was not a measure examined in the study.

The results of expert testimony and jury instruction align with previous research that finds mixed results on the effectiveness of these safeguards. In the case of this study, the instructions were provided through a written transcript. In a real trial, providing instructions verbally and in written-form could increase the application of these instructions. Still, it may be that the featural justification effect is a robust effect that is impermeable to be alleviated by educating jurors. In the case of this study, jurors were provided with information about eyewitness statements after reading the statement and providing a confidence rating. A future study could examine if the effect would still be present if the order was switched, so that jurors are first made aware of featural justifications and provided with information informing jurors

that referencing a feature does not necessitate diminishing the confidence or accuracy of an eyewitness.

As discussed previously, a photo lineup was not provided to mock jurors in these studies, as Cash and Lane (2020) found the featural justification effect to be present despite mock jurors not having a photo lineup to assess. One could hypothesize the featural justification would have had a larger effect if a photo lineup was provided to mock jurors, as this was the conclusion Cash and Lane (2020) made in their study. Regardless, this study suggests that even without a photo lineup to make comparisons, the mere mention of a single facial feature leads jurors to interpret the eyewitness as less confident. In general, a limitation of studies that attempt to mirror a trial is that it cannot encompass all the details and time that a real trial would entail. Having participants read a written transcript of a case will not be the same as being a jury in a real-world trial where the jury hear significantly more information and deliberate together over possible verdicts. Still, the written transcript of the case vignette and eyewitness confidence statements have been used in previous research that aims to have findings relevant for real-world applications (Dodson & Dobolyi, 2015, 2017, 2017; Cash & Lane, 2020; Slane & Dodson, 2019).

Nevertheless, the results from these studies have important implications for real cases where eyewitness evidence is provided to jurors. As the featural justification effect was found to be prominent in both studies, which is consistent with previous research, it is important to note for attorneys that an eyewitness identification statement that references a feature will most likely be interpreted by the jury to be less confident. In one of Dodson and Dobolyi's (2018) studies where participants were asked to give statements when identifying a suspect, 50% of those statements referenced a single facial feature, or multiple features when justifying one's identification. Clearly, eyewitnesses will continue to make featural statements when identifying a

suspect. As eyewitness evidence is a piece of evidence jurors assign weight to in a case, a statement referencing a feature could be given less weight or influence when it comes to decision-making or deliberation. Thus, it is important for judges, attorneys, and others in the legal system to be aware of how an eyewitness statement may be interpreted, and thus influence decisions juries make in a case. As previous research suggests judges, attorneys, and others involved in legal decision making may not have the knowledge that expert witnesses do on eyewitness testimony, research should continue to examine effective ways of informing jurors on these issues (Benton et al., 2006; Wise & Safer, 2004, 2010)

The two studies support previous studies on the featural justification effect that find the effect to be a prominent result of an eyewitness using features to justify their identification (Dodson & Dobolyi, 2015, 2017, 2018; Slane & Dodson, 2019). The current studies aimed to address a gap in the literature by attempting to lessen the effect by providing mock jurors with expert testimony or jury instruction. Although the current studies found mixed effects with these safeguards, future research could explore the timing of when these safeguards are provided to examine if a different order of presentation could influence decisions. From this research, a key takeaway is that those working within the legal system should be aware of how an eyewitness' credibility may be perceived, given the eyewitness references facial features. Awareness of this effect and how to mitigate how jurors perceive an eyewitness will be important in real-world cases, especially when eyewitness evidence is a significant piece of evidence in a case.

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**Table 1***Study 1 Demographics*

Characteristic	<i>n</i>	%	<i>M</i>	<i>SD</i>
Age			44.23	13.69
Gender				
Male	132	38.9		
Female	203	59.9		
Race				
White	272	80.2		
Black or African American	26	7.7		
Asian	25	7.4		
Education				
High School	30	8.8		
Associate's	36	10.6		
Bachelor's	146	43.1		
Master's	26	7.7		
Political Orientation				
Liberal	143	42.2		
Moderate	93	27.4		
Conservative	103	30.4		
U.S. Citizen				
Yes	332	97.9		
No	7	2.1		

*Note.* N = 339.

**Table 2***Study 1 Perceived Confidence Estimates*

Condition	<i>M</i>	<i>SE</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Confidence Only	87.82	1.59	84.69	90.95
Unobservable	80.98	1.59	77.87	84.10
Featural	81.81	1.58	78.70	84.91

*Note.* N = 339.

**Table 3***Study 1 Verdict Parameter Estimates*

Variable	<i>b</i>	<i>SE</i>	<i>Wald x<sup>2</sup></i>	<i>p</i>	95% CI	
					<i>LL</i>	<i>UL</i>
Viewing Condition						
Viewing Condition (X <sub>1</sub> )	-0.80	0.22	12.95 (1)	< .001	0.29	0.69
Confidence			0.64 (2)	.725		
Confidence (X <sub>1</sub> )	-0.12	0.27	0.19 (1)	.663	0.52	1.52
Confidence (X <sub>2</sub> )	-0.22	0.27	0.64 (1)	.423	0.47	1.37
Expert Testimony			1.60 (2)	.450		
Expert Testimony (X <sub>1</sub> )	-0.34	0.27	1.60 (1)	.206	0.42	1.21
Expert Testimony (X <sub>2</sub> )	-0.17	0.27	0.39 (1)	.532	0.50	1.44

*Note.* N = 339, Degrees of freedom in parentheses.  
X<sub>1</sub>: Good viewing; Confidence Only; Standard Expert  
X<sub>2</sub>: Unobservable; Enhanced Expert

**Table 4***Study 1 Count for Main Effect of Viewing on Verdict*

Viewing Condition	Verdict		Total
	Not Guilty	Guilty	
Good	70	97	167
Bad	106	66	172
Total	176	163	339

*Note.* N = 339.

**Table 5***Study 1 Estimates for Three-Way Interaction on Confidence in Verdict*

Viewing	Confidence	Expert Testimony	<i>M</i>	<i>SE</i>	95% CI	
					<i>LL</i>	<i>UL</i>
Good	Confidence Only	Standard	6.37	0.41	5.57	7.17
		Enhanced	5.89	0.42	5.06	6.71
		Enhanced +	7.05*	0.41	6.25	7.86
	Unobservable	Standard	5.74	0.41	4.93	6.54
		Enhanced	6.18	0.43	5.33	7.03
		Enhanced +	6.00	0.41	5.20	6.80
	Featural	Standard	6.37	0.41	5.57	7.17
		Enhanced	6.95**	0.41	6.15	7.75
		Enhanced +	6.33	0.42	5.51	7.16
Bad	Confidence Only	Standard	5.84	0.41	5.04	6.65
		Enhanced	6.85	0.39	6.07	7.63
		Enhanced +	5.18*	0.43	4.32	6.03
	Unobservable	Standard	6.28	0.42	5.45	7.10
		Enhanced	6.05	0.40	5.27	6.83
		Enhanced +	6.35	0.40	5.57	7.13
	Featural	Standard	6.14	0.39	5.38	6.91
		Enhanced	5.50**	0.42	4.68	6.33
		Enhanced +	6.16	0.41	5.36	6.96

*Note.* N = 339.\**p* = .002; \*\**p* = .014

**Table 6***Study 2 Demographics*

Characteristic	<i>n</i>	<i>%</i>	<i>M</i>	<i>SD</i>
Age			43.56	13.13
Gender				
Male	74	36.5		
Female	125	61.6		
Race				
White	162	79.8		
Black or African American	18	8.9		
Asian	13	6.4		
Education				
High School	21	10.3		
Associate's	26	12.8		
Bachelor's	68	33.5		
Master's	31	15.3		
Political Orientation				
Liberal	92	45.3		
Moderate	55	27.1		
Conservative	56	27.6		
U.S. Citizen				
Yes	199	98.0		
No	4	2.0		

*Note.* N = 203.

**Table 7***Study 2 Viewing Condition on Perceived Confidence Estimates*

Condition	<i>M</i>	<i>SE</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Good Viewing	88.52	1.75	85.07	91.96
Bad Viewing	83.72	1.74	80.29	87.14

*Note.* N = 203.

**Table 8***Study 2 Confidence Type on Perceived Confidence Estimates*

Condition	<i>M</i>	<i>SE</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Confidence Only	89.55	1.76	86.09	93.01
Featural	82.89	1.70	79.54	86.23

*Note.* N = 203.

**Table 9***Study 2 Verdict Parameter Estimates*

Variable	<i>b</i>	<i>SE</i>	<i>Wald x<sup>2</sup></i>	<i>p</i>	95% CI	
					<i>LL</i>	<i>UL</i>
Viewing Condition						
Viewing Condition (X <sub>1</sub> )	-1.57	0.31	25.10 (1)	< .001	0.11	0.38
Confidence						
Confidence (X <sub>1</sub> )	-0.38	0.31	1.56 (1)	.212	0.37	1.25
Jury Instruction						
Jury Instruction (X <sub>1</sub> )	-0.61	0.31	3.86 (1)	.049	0.30	1.00

*Note.* N = 203, Degrees of freedom in parentheses.

X<sub>1</sub>: Good viewing; Confidence Only; Standard Jury Instruction

**Table 10**

*Study 2 Count for Main Effect of Viewing on Verdict*

Verdict	Viewing Condition		Total
	Good	Bad	
Not Guilty	36	65	101
Guilty	73	29	102
Total	109	94	203

*Note.* N = 203.

**Table 11**

*Study 2 Count for Main Effect of Jury Instruction on Verdict*

Jury Instruction	Verdict		Total
	Not Guilty	Guilty	
Standard	49	54	103
Enhanced	60	40	100
Total	109	94	203

*Note.* N = 203.

**Table 12***Study 2 Estimates for Two-Way Interaction on Confidence in Verdict*

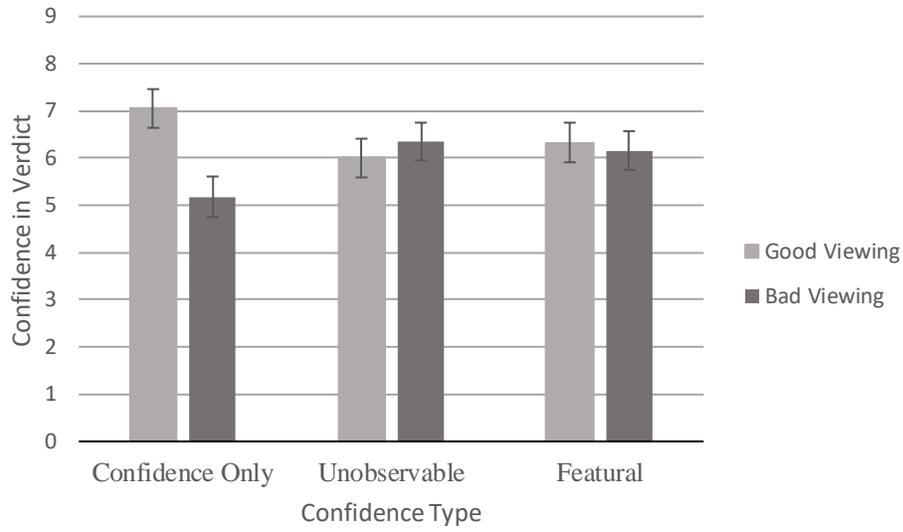
Viewing	Confidence	<i>M</i>	<i>SE</i>	95% CI	
				<i>LL</i>	<i>UL</i>
Good	Confidence Only	7.21*	0.24	6.74	7.68
	Featural	6.50*	0.23	6.05	6.95
Bad	Confidence Only	6.20	0.24	5.73	6.66
	Featural	6.54	0.23	6.09	7.00

*Note.* N = 203.

\**p* = .034

**Figure 1**

*Confidence type x viewing x enhanced + expert testimony on confidence in verdict*

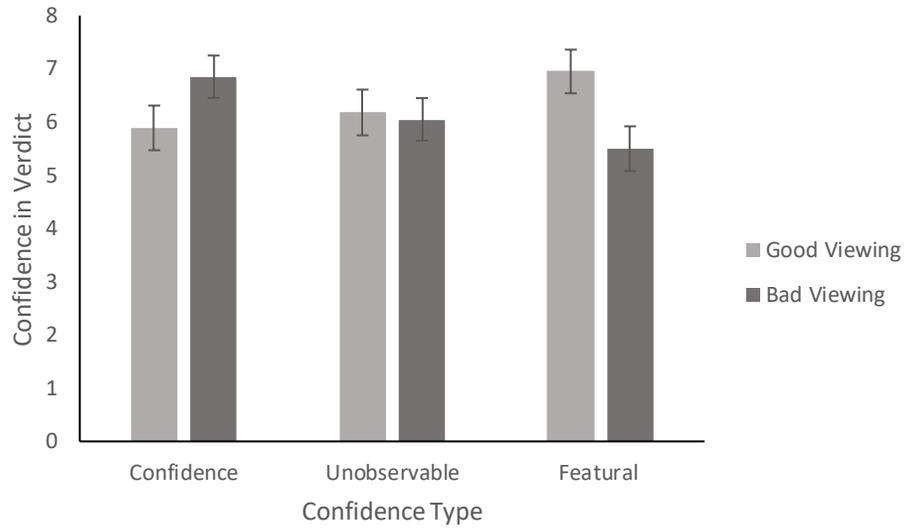


*Note.* Three-way interaction on confidence in verdict (Study 1).

Error bars represent standard error.

**Figure 2**

*Confidence type x viewing x enhanced expert testimony on confidence in verdict*

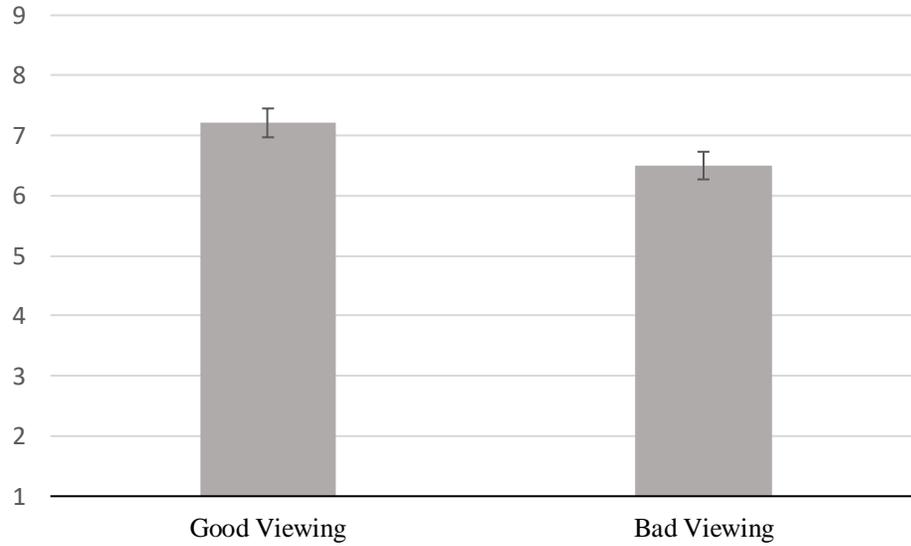


*Note.* Three-way interaction on confidence in verdict (Study 1).

Error bars represent standard error.

**Figure 3**

*Confidence only x viewing condition on confidence in verdict*



*Note.* Two-way interaction on Confidence in Verdict (Study 2).

Error bars represent standard error.

Appendix A:

Case Vignette

(Good Viewing)

The defendant was charged with robbery at a neighborhood home at 9:30 PM.

The main witness was a man who saw his neighbor's house getting broken into while his neighbors were away on vacation. The witness testified he was on a night run when he saw someone leaving the side of the house. He did not approach the individual but watched as the defendant allegedly exited the driveway and ran down the street and turned the corner. At one point the witness ran right by the alleged robber.

The Prosecution also called the police officer who attended the scene. The officer said he spoke to the witness, who described the event and offender. The witness told the officer the defendant was probably twenty feet away from him and that there was good street lighting. The witness said from the beginning of noticing the suspect, to the defendant running in front of him it was about five minutes. The eyewitness told the officer he had 20/20 vision.

The officer testified that the witness was shown a photo-lineup that included the defendant's photo, and that the witness subsequently selected the defendant from the photo-lineup.

### Case Vignette (bad viewing condition)

The defendant was charged with robbery at a neighborhood home at 9:30 PM.

The main witness was a man who saw his neighbor's house getting broken into while his neighbors were away on vacation. The witness testified he was on a night run when he saw someone wearing a hoodie leaving the side of the house. He did not approach the individual but watched as the defendant allegedly exited the driveway and ran down the street and turned the corner. At one point the witness ran right by the alleged robber.

The Prosecution also called the police officer who attended the scene. The officer said he spoke to the witness, who described the event and offender. The witness told the officer the defendant was probably twenty feet away from him and it was dark out. He could see the defendant put something that looked like a gun in the pocket of his hoodie as he was exiting the house, which caused him to be more stressed. The witness said from the beginning of noticing something suspicious to the defendant running in front of him it was about two minutes. The eyewitness told the officer he had 20/20 vision.

The officer testified that the witness was shown a photo-lineup that included the defendant's photo, and that the witness subsequently selected the defendant from the photo-lineup.

Appendix B:  
Confidence Statements

Witness statement at time of identification:

“I am very confident it was him.” (Confidence only)

“I am very confident it was him. He looks like someone I know.” (Unobservable justification)

“I am very confident it was him. I recognize his hair/nose/chin” (Featural justification)

## Appendix C:

### Expert Testimony Transcripts

#### **Standard Expert Testimony**

Dr. Hull holds a PhD in Psychology. After Dr. Hull was qualified as an expert the following testimony was given.

Dr. Hull testified:

In order for an eyewitness to make an identification of a suspect, they must have a memory for that event in which they saw the individual. However, the memory one has can be altered and confused by different variables. Research has shown us memory is not like a video recording that an eyewitness can simply replay when recalling the crime. Memory is far more complex. It is an active, ongoing, reconstructive process. In other words, each time an eyewitness recalls a crime the eyewitness has to reconstruct his or her memory of what happened. In reconstructing the crime, the eyewitness may unknowingly draw on other memories and information that he or she knows in trying to recreate the crime.

Eyewitness identification in criminal cases is very different from recognizing one's friends and acquaintances. We are very good at recognizing familiar faces. Repeated exposures to the faces, plus the context of the encounter, can serve to make recognition of familiar faces very reliable. Recognition of once-seen faces, however, is a very different matter. Good memory for a face is not accomplished instantaneously. Faces are complex stimuli and a single exposure to a face may be insufficient to encode the features of a face in a way that will allow us to recognize that person later. Although nothing may appear more convincing than an eyewitness

who is completely confident that he or she has made an accurate identification, you must carefully evaluate eyewitness evidence. An eyewitness may be mistaken even when the eyewitness is testifying honestly and in good faith.

## **Enhanced Expert Testimony**

Dr. Hull holds a Ph.D. in Psychology. After Dr. Hull was qualified as an expert the following testimony was given.

Dr. Hull testified:

In order for an eyewitness to make an identification of a suspect, they must have a memory for that event in which they saw the individual. However, the memory one has can be altered and confused by different variables. Research has shown us memory is not like a video recording that an eyewitness can simply replay when recalling the crime. Memory is far more complex. It is an active, ongoing, reconstructive process. In other words, each time an eyewitness recalls a crime the eyewitness has to reconstruct his or her memory of what happened. In reconstructing the crime, the eyewitness may unknowingly draw on other memories and information that he or she knows in trying to recreate the crime.

Eyewitness identification in criminal cases is very different from recognizing one's friends and acquaintances. We are very good at recognizing familiar faces. Repeated exposures to the faces, plus the context of the encounter, can serve to make recognition of familiar faces very reliable. Recognition of once-seen faces, however, is a very different matter. Good memory for a face is not accomplished instantaneously. Faces are complex stimuli and a single exposure to a face may be insufficient to encode the features of a face in a way that will allow us to recognize that person later. Although nothing may appear more convincing than an eyewitness who is completely confident that he or she has made an accurate identification, you must

carefully evaluate eyewitness evidence. An eyewitness may be mistaken even when the eyewitness is testifying honestly and in good faith.

Eyewitness factors during the crime can affect eyewitness's accuracy. The presence of a weapon can lead to weapon focus; this occurs because of the tendency to focus on the weapon, directing attention away from the criminal's face. The presence of a weapon can also lead to high stress levels, which can reduce the ability to remember specific details of an event. A hat or a hood can also decrease accuracy because it can conceal the criminal's hair and facial shape, which can be helpful cues in identifying a person. The length of the crime, or duration, also can impact the eyewitness' accuracy. In general, the more time an eyewitness has to observe the person committing the crime, the more likely the identification will be accurate.

Further, distance between the eyewitness and the person committing a crime can have an influence on the identification; in general, the greater the distance, the higher the risk of an incorrect identification. Crimes that occur at night, or in poor lighting, can increase the risk of a mistaken identification.

From these factors described, research has allowed for us to define what is considered a strong case for an eyewitness or a weak case. A weak case would be a crime that has many of these factors described above, for example, an eyewitness viewing a crime that happened for a short amount of time, at night, where they saw a weapon in the offender's hand. This kind of condition could weaken the strength of their memory when asked to complete a lineup identification. On the other hand, a strong condition, or good viewing condition, for an eyewitness would be an event where there was a significant portion of time the offender was in view of the eyewitness, during the day, and the offender was not wearing anything to obstruct

their face such as a hat or hood. In this condition, the eyewitness may have a stronger memory for what the suspect looked like and be more accurate in picking them from a lineup.

## **Enhanced + Expert Testimony**

Dr. Hull holds a Ph.D. in Psychology. After Dr. Hull was qualified as an expert the following testimony was given.

Dr. Hull testified:

In order for an eyewitness to make an identification of a suspect, they must have a memory for that event in which they saw the individual. However, the memory one has can be altered and confused by different variables. Research has shown us memory is not like a video recording that an eyewitness can simply replay when recalling the crime. Memory is far more complex. It is an active, ongoing, reconstructive process. In other words, each time an eyewitness recalls a crime the eyewitness has to reconstruct his or her memory of what happened. In reconstructing the crime, the eyewitness may unknowingly draw on other memories and information that he or she knows in trying to recreate the crime.

Eyewitness identification in criminal cases is very different from recognizing one's friends and acquaintances. We are very good at recognizing familiar faces. Repeated exposures to the faces, plus the context of the encounter, can serve to make recognition of familiar faces very reliable. Recognition of once-seen faces, however, is a very different matter. Good memory for a face is not accomplished instantaneously. Faces are complex stimuli and a single exposure to a face may be insufficient to encode the features of a face in a way that will allow us to recognize that person later. Although nothing may appear more convincing than an eyewitness who is completely confident that he or she has made an accurate identification, you must

carefully evaluate eyewitness evidence. An eyewitness may be mistaken even when the eyewitness is testifying honestly and in good faith.

Eyewitness factors during the crime can affect eyewitness's accuracy. The presence of a weapon can lead to weapon focus; this occurs because of the tendency to focus on the weapon, directing attention away from the criminal's face. The presence of a weapon can also lead to high stress levels, which can reduce the ability to remember specific details of an event. A hat or a hood can also decrease accuracy because it can conceal the criminal's hair and facial shape, which can be helpful cues in identifying a person. The length of the crime, or duration, also can impact the eyewitness' accuracy. In general, the more time an eyewitness has to observe the person committing the crime, the more likely the identification will be accurate.

Further, distance between the eyewitness and the person committing a crime can have an influence on the identification; in general, the greater the distance, the higher the risk of an incorrect identification. Crimes that occur at night, or in poor lighting, can increase the risk of a mistaken identification.

When making an identification, an eyewitness may describe features of the suspect that distinguished them from others in the lineup. These features pointed out may be the suspect's chin, hair, nose, or even facial expression. Other times, an eyewitness picks a suspect out of a lineup without providing this information as justification for the selection of the suspect. Research has shown jurors tend to discredit the confidence of eyewitnesses who include a specific feature as identifying, even though an eyewitness who provides a facial feature is not necessarily any less accurate than an eyewitness who does not. This is because a juror may look at a photo of the lineup and believe the feature mentioned is not distinguishable among the people in the group; however, this is an individual difference that does not mean the eyewitness

did not find the feature to be distinct, and was able to make a correct identification from assessing this feature in the lineup.

From these factors described, research has allowed for us to define what is considered a strong case for an eyewitness or a weak case. A weak case would be a crime that has many of these factors described above, for example, an eyewitness viewing a crime that happened for a short amount of time, at night, where they saw a weapon in the offender's hand. This kind of condition could weaken the strength of their memory when asked to complete a lineup identification. On the other hand, a strong condition, or good viewing condition, for an eyewitness would be an event where there was a significant portion of time the offender was in view of the eyewitness, during the day, and the offender was not wearing anything to obstruct their face such as a hat or hood. In this condition, the eyewitness may have a stronger memory for what the suspect looked like and be more accurate in picking them from a lineup.

## Appendix D:

### Jury Instruction Transcripts

#### **Standard Jury Instructions**

Reasonable doubt is doubt based upon reason and common sense, and may arise from careful and impartial consideration of all the evidence, a conflict in the evidence, or from a lack of evidence. Proof beyond a reasonable doubt is proof of such a convincing character that a reasonable person, after careful consideration, would not hesitate to rely and act upon that proof in life's most important decisions. Proof beyond a reasonable doubt is proof that leaves you firmly convinced of the defendant's guilt.

If you have a reasonable doubt, you should find the defendant not guilty. If you have no reasonable doubt, you should find the defendant guilty. It is up to you to decide what evidence is reliable. You should use your common sense in deciding, which is the best evidence, and which evidence should not be relied upon in considering your verdict. You may find some of the evidence is not reliable or less reliable than other evidence. You should consider how the witness acted as well as what they said. Some things you should consider are: Did the witness seem to have an opportunity to see and know the things about which the witness testified? Did the witness seem to have an accurate memory? You may rely on your own conclusions about the witness. A juror may believe or disbelieve all or any part of the evidence or the testimony of any witness.

**Enhanced Jury Instructions:**

A reasonable doubt may arise from careful and impartial consideration of all the evidence, a conflict in the evidence, or from a lack of evidence. If you have a reasonable doubt, you should find the defendant not guilty. If you have no reasonable doubt, you should find the defendant guilty. It is up to you to decide what evidence is reliable. You should use your common sense in deciding, which is the best evidence, and which evidence should not be relied upon in considering your verdict. You may find some of the evidence is not reliable or less reliable than other evidence. Some things you should consider are: Did the witness seem to have an opportunity to see and know the things about which the witness testified? Did the witness seem to have an accurate memory?

It is your job to determine whether the eyewitness's identification of the defendant is reliable and believable, or whether it is based on a mistake or for any reason is not worthy of belief. Human memory is not foolproof. Research has shown that memory is not like a video recording that an eyewitness can simply replay when recalling the crime. Memory is far more complex. It is an active, ongoing, reconstructive process. In other words, each time an eyewitness recalls a crime the eyewitness has to reconstruct his or her memory of what happened. In reconstructing the crime, the eyewitness may unknowingly draw on other memories and information that he or she knows in trying to recreate the crime.

Eyewitness identification in criminal cases is very different from recognizing one's friends and acquaintances. We are very good at recognizing familiar faces. Repeated exposures to the faces, plus the context of the encounter, can serve to make recognition of familiar faces very reliable. Recognition of once-seen faces, however, is a very different matter. Good memory for a face is not accomplished instantaneously. Faces are complex stimuli and a single

exposure to a face may be insufficient to encode the features of a face in a way that will allow us to recognize that person later. Although nothing may appear more convincing than an eyewitness who is completely confident that he or she has made an accurate identification, you must carefully evaluate eyewitness evidence. An eyewitness may be mistaken even when the eyewitness is testifying honestly and in good faith.

Eyewitness factors during the crime can affect eyewitness's accuracy. The presence of a weapon can lead to weapon focus; this occurs because of the tendency to focus on the weapon, directing attention away from the criminal's face. The presence of a weapon can also lead to high stress levels, which can reduce the ability to remember specific details of an event. A hat or a hood can also decrease accuracy because it can conceal the criminal's hair and facial shape, which can be helpful cues in identifying a person. The length of the crime, or duration, also can impact the eyewitness' accuracy. The more time an eyewitness has to observe the person committing the crime, the more likely the identification will be accurate.

Further, distance between the eyewitness and the person committing a crime can have an influence on the identification; in general, the greater the distance, the higher the risk of an incorrect identification. Crimes that occur at night, or in poor lighting, can increase the risk of a mistaken identification. Lastly, research shows that eyewitness confidence is not always a reliable indicator of accuracy when it comes to identifications; a highly confident eyewitness can still make an incorrect identification, due to the factors described.

Given the fallibility and potential eyewitness factors described, it is up to you to decide whether the conditions of the crime potentially increase or decrease the accuracy of the eyewitness' confidence and identification.

Appendix E:  
Confidence Scale

Translate the eyewitness's verbal expression of confidence into a number.

0                      20                      40                      60                      80                      100

*Not at all certain*

*Completely certain*





Rate the following eyewitness factors on how they contribute to identification:

Poor lighting

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

Weapon present

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

Short duration of crime

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

Short distance from suspect

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

Suspect wearing a hoodie/mask

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

Good vision

-4	-3	-2	-1	0	1	2	3	4
Leads to False Identification				Neutral	Leads to Accurate Identification			

## Manipulation Check

The suspect had a weapon\_\_\_\_\_ True/False

The lighting was good at the time of the crime \_\_\_\_\_ True/False

The eyewitness reported having 20/20 vision\_\_\_\_\_ True/False

The suspect was reported wearing a hoodie \_\_\_\_\_ True/False

The duration of the crime was 2 minutes. \_\_\_\_\_ True/False

The eyewitness was moderately confident. \_\_\_\_\_ True/False

The eyewitness witnessed a car break-in. \_\_\_\_\_ True/False

## Participant Characteristics

Please provide the following information. All information collected will be kept anonymous and confidential.

1. What is your age in years? \_\_\_\_\_
2. Gender (check all that apply):  Man  Woman   
 Queer  Nonbinary  Other (please specify) \_\_\_\_\_
3. Do you identify as trans (your gender does not correspond to the sex you were assigned at birth):  
 Yes  No
4. Race (check the best response for you):  American Indian/Alaskan Native  
 Asian/Pacific Islander  Black/African American  White  North African/Middle Eastern  
 Mixed race)  Other (please specify) \_\_\_\_\_
5. Ethnicity (check one):  Hispanic/Latinx  White/non-Hispanic  
 Other (please specify) \_\_\_\_\_
6. Sexual identity (check all that apply):  Gay  Lesbian  Straight  Bisexual  
 Queer  Questioning  Pansexual  Asexual  Prefer no label  
 Other (please specify) \_\_\_\_\_
7. What is your highest educational level? (check one):  
 Informal Education  Trade School or Other Education (specify) \_\_\_\_\_  
 Less than high school  Some high school  High school diploma/GED  Associates degree  
 Bachelor's degree  Master's degree  Doctoral degree (including MD, JD)
8. With which, if any, political party or affiliation do you identify? (check one):  
 Republican  Democratic  Libertarian  Independent  Green Party  
 None  Other (please specify): \_\_\_\_\_
9. With what, if any, religious or spiritual affiliation do you most identify (check all that apply):  
 Jewish  Catholic  Protestant  Methodist  Baptist  Christian (other)  
 Muslim  Buddhist  Atheist  Agnostic  Polytheist  
 Other (please specify): \_\_\_\_\_
10. Are you currently, or have you ever been, a member of the US military? (check one):  
 Yes, current service member  Yes, veteran  No
11. Are you a U.S. Citizen? (circle one): Yes No
12. If you are not a U.S. citizen, how long have you lived in the U.S.? (in years)