

Effects of Videoconferencing on Perception in the Courtroom

by

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## ABSTRACT

A sample of 193 participants viewed one of six variations of an eyewitness giving mock testimony. Each participant viewed testimony, which varied by level of emotion (none, moderate, or high) and frame (waist-up or head only). Participants then rated the witness using the Brodsky Witness Credibility Scale and the Reyson Likability Scale. A set of ANOVA's was performed revealing an effect of emotion level on both credibility and likability. Emotion level was found to influence participant judgments of poise, however, to a lesser degree than judgments of credibility and likability. These results suggest that attorneys may want to avoid the use of videoconferencing with certain types of witnesses where testimony may be highly emotional.

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## CHAPTER 1

### INTRODUCTION

As courtroom technology becomes more advanced, state and federal courtrooms have updated accordingly. Videoconferencing, audio recorded transcription, and flat screen monitors in the jury box are just some of the recent additions to many courtrooms. In 2010 Congress allowed the use of videoconferencing for remote witness testimony and for defendants during certain hearings with their consent, in section 43(a) of the Federal Rules for Civil Procedure (2010). Videoconferencing usually occurs with a defendant or witness appearing through a video monitor from a remote location. Audio information is transmitted to the courtroom via telephone lines, parties on either end are able to see and hear others at the opposite location (Johnson & Wiggins, 2006).

Proponents of videoconferencing point out the expense, time and danger of transporting defendants to and from the courthouse. Remote appearances from a correctional facility eliminate the cost of transporting and providing security for inmates appearing in pretrial hearings (Johnson & Wiggins, 2006). Some courthouses are equipped with videoconferencing from holding cells to courtrooms. Defendants can remain in the holding cell while appearing in court for arraignment and bond hearings. This design also has the potential to ease the fears and anxieties of victims and their families due to the presence of the defendant. In some of these courtrooms, jurors have individual screens in their seats to enable a better view of testimony and evidence.

Opponents of videoconferencing claim the constitutional right of a defendant to due process, right to counsel, and the right to confront witnesses are violated by a remote

appearance. Defense attorneys also express concern over the impact on a defendant's perception of court proceedings and the perception of the defendant by courtroom participants (Johnson & Wiggins, 2006). For example, if appearing remotely from a jailhouse holding cell, will the defendant behave as appropriately as they may when appearing live in a courtroom? Will a judge inadvertently view them more harshly when appearing from a holding cell?

Potential effects are magnified by the lack of standardization of the practice. Some reported procedures include conducting appearances through closed circuit television (CCTV) in the chapel of the jail, while correctional officers operate the video equipment (Terry & Surette, 1986). While the Federal Rules of Criminal Procedure (2010) allow for the use of remote appearances, no procedural requirements are specified.

A recent occurrence brought videoconferencing in the courtroom to the national news when a prank interrupted the trial of George Zimmerman, a Florida man accused of killing an unarmed teen after an alleged altercation. While testifying for the prosecution, a former criminal justice professor of Zimmerman's appeared to the courtroom from Colorado using the online video service Skype. While using the online service, the lawyer's username appeared on the screen, which was being broadcast on national television as part of the trial. Dozens of prank calls began bombarding the lawyer's Skype account, interrupting the testimony to such an extent that the judge was forced to end the questioning. The witness continued the testimony via speakerphone (Huffington Post, 2013).

Previous research on how camera angle and closed-circuit television (CCTV) influence the viewers perception of those on screen will be discussed to exemplify how variations in videotaping method may influence factfinder's perceptions. Next, in order to show the extent to which nonverbal behavior and demeanor can affect how courtroom factfinders perceive a witness, several studies regarding nonverbal behavior and demeanor in the criminal justice system will be discussed. Lie detection will also be discussed in order to show the importance of nonverbal behavior in credibility judgments, which the present study investigates.

## CHAPTER 2

### PREVIOUS RESEARCH

#### **CCTV and Videotaped Interrogations in the Courtroom**

Despite the potential concerns of videoconferencing in the courtroom, there are few empirical studies related to its effects. The lack of an empirically sound protocol for such decisions as, the distance from the camera to the defendant or witness, whether to include a full body view or head only view of the speaker, the presence of the defense attorney in the courtroom or remote location, and other variables could unwittingly affect the judgment of members of the court. Another relatively new technological addition to the courtroom is the videotaped confessions and interrogations.

Unlike videoconferencing, videotaped confessions and interrogations have several years of background research from which to create empirically sound protocols. Roughly one third of law enforcement agencies now videotape police interrogations (Ware, Lassiter, Patterson, & Ransom, 2008). Those in favor of the practice contend that it will reduce the number of false claims of police misconduct and provide a complete record of the interrogation. Studies show however, that camera angle alone can have an effect on the perception of viewers. In a study by Lassiter and Irvine (1986), three cameras were used to videotape a mock police interrogation from three different camera angles. One camera was positioned to show a front view of the suspect from the waist up and the back, (part of the head and one shoulder) of the detective. Another camera was positioned so that the opposite view could be seen, the suspect's back and the detective's front. The

third camera was positioned to provide an equal side view of both the suspect and detective from the waist up. During the video, the detective interrogates the suspect, ultimately eliciting a confession to shoplifting. Participants were then shown one of the three, videotaped confessions and asked in addition to other questions, to indicate the level of coercion used to elicit the confession. Results showed participants rated the videotape as less coercive when the camera was focused primarily on the suspect, more coercive when the camera focused equally on the suspect and detective, and most coercive when the camera focused primarily on the detective. The angle of the camera influenced participant judgments of the voluntariness of a confession, assigning more responsibility to the suspect as the suspect's on screen appearance increased (Ware, et. al., 2008).

In several follow-up studies, Lassiter, Beers, Geers, Handley, Munhall, and Weiland (2002), addressed several possible solutions to the camera perspective bias. In a series of four studies, Lassiter, et al. found that warning participants of the potential camera angle bias, allowing a deliberation period, directing participants to focus solely on content of the confession, and providing a longer case-based confession did not mitigate the effects of the camera angle. It was found that the most neutral practice is to film the interrogation providing the suspect and detective equal visibility on screen.

A pair of studies conducted by Ware, et. al. (2008) demonstrated the effect of visual attention as a mediator of the camera perspective bias. The study replicated the design of Lassiter and Irvine (1986) while adding electrooculography (eye tracking) as a measure of visual attention. Participants focused predominately on the most visually

salient individual, lending support to illusory causation (McArthur, 1980) as the cause of the camera perspective bias. In illusory causation, as visual prominence increases, a person may be attributed as having a larger influence on a situation or outcome, due simply to the increase in salience (Ware, et. al., 2008).

Further research into perceptions of videotaped individuals indicates that viewing a person on screen versus live, affects how they are perceived by observers. Landström and Granhag (2010) found that children giving courtroom testimony via CCTV were judged more negatively than children appearing live when adults were asked to answer questions regarding the child's appearance credibility, and likability. The reason for this difference in perception is attributed to the vividness effect (Nisbett & Ross, 1980). Testimonies that are emotionally interesting, image provoking, and proximate in a sensory and temporal-spatial context are considered to be vivid. This type of testimony is perceived as more credible, is paid more attention, and is better remembered than non-vivid testimony (Bell & Loftus, 1985). Live testimonies are perceived more vividly than CCTV testimonies due to the spatial proximity of the live witness.

Lending further support to the vividness effect is a 2005 study by Landström, Granhag and Hartwig. Participants observed witnesses of a mock accident being interviewed about the event either live or in person. Half of the witnesses were instructed by investigators to tell the truth about what they saw, while the second half was instructed to lie about the event. Observers then rated the witnesses based on the veracity of their statements, memory of the statement, and appearance of the witness. Observers rated the live witnesses as being more eloquent and more pleasant than videotaped witnesses,

despite both live and video observers viewing the same witness. However, groups did not differ on lie detection accuracy or memory of the statement (Landström, Granhag, & Hartwig, 2005). A meta-analysis of computer-mediated versus face-to-face interaction (Baltes, Dickson, Sherman, Bauer, & LaGanke, 2002) revealed that computer-mediated group interaction results in reduced decision making effectiveness, lower group member satisfaction and an increase in time taken to complete the task when compared to face-to-face groups. In a study conducted by Credé and Sniezek (2003), face-to-face groups reported higher levels of confidence in their decision than videoconferencing groups, when faced with a task. The lack of physical proximity in videoconferencing possibly eliminates important social cues and context that are readily available in face-to-face interactions.

### **Demeanor and Nonverbal Behavior**

Social cues and demeanor are another aspect of courtroom videoconferencing that have the potential to influence a judge or jury. Will a witness display the same nonverbal behavior when appearing from a remote location that they would when physically in the courtroom? In the case of an emotionally charged testimony, such as from an eyewitness, will emotion be lost or possibly magnified by appearing on a monitor? Research shows that defendant demeanor can influence a judge's decisions during hearings. An observational analysis measured the correlation between defendant demeanor and bond decisions (Bock & Frazier, 1984). 204 cases were evaluated for seriousness of offense, juvenile record (the number of contacts with local police), and courtroom demeanor (measured by an observer). The cases were then analyzed looking for the combination of

offence, juvenile record, and courtroom demeanor that resulted in the defendant being released on their recognizance. The analysis found the highest correlation between defendant demeanor and a decision to release on recognizance in misdemeanor cases, while the highest correlation of offense and release on recognizance was found in the respectful demeanor condition. These results indicate that a defendant's demeanor has an impact on a judge's decision-making process and evaluation of the defendant's threat to the community (Bock & Frazier, 1984).

Research on defendant emotion in the courtroom has produced evidence that emotional display, particularly sadness and distress, can affect sentencing outcomes (Heath, 2009). Stronger emotional displays by defendants during courtroom testimony result in a lower number of guilty verdicts and shorter sentences when a guilty verdict was found. Path analysis of these results indicated the increase in emotion also increased participant's perception of defendant honesty (Heath, Grannemann, & Peacock, 2004). Research has found that people have expectations for other's emotional displays, violating these expectations can lead to decreased credibility (Heath, 2009).

A similar model regarding nonverbal behavior suggests that nonverbal expectancy violations cause an increase in awareness of the communicator's behavior. Evaluation of the violation as either positive or negative (violation valence) depends on characteristics of the observer and communicator as well as the social relationship between the two. Continual eye contact, often interpreted as a nonverbal expectancy violation, may be viewed positively when the source is viewed positively such as a friend or family member and negatively when the violator is not a desirable communication partner such

as a stranger (Burgoon & Hale, 1988). Intensity of emotion as well as a lack of emotion can contribute to expectancy violations (Warner & Shields, 2009). Expectancy violations have also been found to affect character judgments as well. A study by Warner and Shields (2009) showed participant's ratings of emotional appropriateness corresponded to personality judgments. An individual who showed too little emotion was judged to be less approachable and likable while an individual showing too much emotion was thought to be a more volatile personality. When testifying remotely, it is possible that the nonverbal behavior that might be expected could be lost, leading to more negative character judgments.

The case of Michael Crowe demonstrates the extent to which demeanor can affect an investigation. Michael, a fourteen-year-old boy, was questioned after his twelve-year-old sister's murder. According to reports from the media, police found Michael to be inappropriately unemotional, leading to prolonged interrogations resulting in a false confession. DNA tests later revealed blood at the scene to belong to a transient, Richard Tuite. Charges against Michael were dropped and Tuite was eventually convicted of the murder (Heath, 2009). Another example is the case of Jeffrey Deskovic, a sixteen-year-old boy who became a suspect in a classmate's murder. Police became suspicious of Jeffrey when he displayed what they believed to be an overly emotional response to the murder. After an interrogation led to an alleged confession, prosecutors pursued the case despite a DNA analysis of crime scene evidence eliminating Jeffrey as a source. After spending fifteen years in prison, Jeffrey's conviction was overturned (Heath, 2009).

Research into the effects of demeanor on police investigations reveals that demeanor does significantly affect police decisions (Miller, Miller, & Barnes, 2007)

The potential impression a defendant will make on a jury is a primary consideration for defense attorneys when deciding whether or not to allow their client to testify on their own behalf, often opting to avoid having their client testify. Attorneys are most likely to keep their client from testifying on their own behalf when the prosecution's evidence is weak (Hendry, Shaffer, & Peacock, 1989); the implication being that poor self-presentation could disrupt an otherwise winnable case. Hendrey, Shaffer, and Peacock (1989) found evidence to support defense council's instincts. Evidence strength (either strong, balanced or weak) was varied with defendant demeanor (anxious or calm). Participants were given the task of deciding the outcome of a university disciplinary hearing. Each were given a transcript of three witness testimonies of varying degrees of strength, as well as a three minute long videotaped testimony of the defendant responding to questions either in an anxious (fidgeting, gaze aversion, hesitant answers) or calm manner. Participants who viewed the weak evidence vs. anxious demeanor condition rated the evidence against the defendant as being stronger than those who viewed the calm demeanor condition. This same pattern was found to be true of verdict decisions; anxious demeanor resulted in higher conviction rates only in the weak evidence condition, while demeanor had no significant effect on verdict outcomes in the strong and balanced conditions (Hendry, Shaffer, Peacock, 1989). The results provide empirical support for defense attorney's resistance to allow clients to testify on their own behalf, poor self-presentation may indeed damage a possible acquittal.

Demeanor has the ability to shape a credibility judgment as well, an important aspect of witness testimony. Credibility assessment has become the subject of Supreme Court review. In *R v. Marquard* (1993), the Canadian Supreme Court ruled that the credibility of a witness is common sense and that its determination is within the scope of the layperson (Porter & Brinke, 2009). Despite judicial decisions, research shows laypeople, police officers, as well as judges perform lie detection tasks at about fifty-percent, often relying on false stereotypes (Bond & DePaulo, 2006; Vrij, 2000, 2004). In *R. v. Jaharianha* (2001) a judge described two witnesses as being deceptive based on “classic signs of discomfort when questioned,” referring to gaze aversion, evasiveness, and signs of deception in their story (Porter & Brinke, 2009). These beliefs about deceptive behavior are commonplace despite research showing the opposite behaviors to be more accurate (Vrij, 2000). A 2006 survey of twenty Canadian judges (Porter & Brinke, 2009) revealed many held these common misconceptions such as, dishonest stories contain more details and untruthful witnesses avert their gaze and show an increase in body movements. The data collected from this survey were also varied suggesting no clear pattern or strategy for lie detection (Porter & Brinke, 2009). A study conducted by Miller, Miller, & Barnes (2007) showed defendants are two and a half times more likely to be admitted to drug court (a court specializing in rehabilitation of drug users) when displaying favorable behavior. The authors suggest this finding could cause a systematic bias wherein those most in need of treatment may be denied due to courtroom demeanor.

This reliance on stereotypical deceptive behavior could result in a systematic bias within the judicial system against cultures and groups. Police officers and judges relying on gaze aversion as an indication of deception could be interpreting individuals as deceptive from cultural groups who avoid eye contact with authority figures as a sign of respect (Porter & Brinke, 2009). Police officers tend to score chance levels on deception detection tasks, and rely primarily on stereotypical deceptive behavior. This suggests that detectives are relying on the same inaccurate means of detecting lies as the layperson. Despite an accuracy rate of around chance, detectives rated their confidence in the decision as high (Vrij, 2004). The afore mentioned research shows the complexity of lie detection and it's vulnerability to stereotypes and perception. Therefore it is possible that the introduction of a video camera and screen as the means of communication between a defendant or witness and members of the courtroom could affect perceptions of those involved in the trial.

Videoconferencing has the potential to influence the opinion of a judge or jury by removing the social aspect of face-to-face communication, such as eye contact. The Interpersonal Deception Theory (Buller & Burgoon, 1996; Burgoon & Buller, 1994) describes five factors that influence deceptive behavior and detection in non-interactive and interactive communications. The factors described are (a) goal of the sender (active communicator) (b) communication skills (c) influence of each communicator on the other (such as behavior matching) (d) feedback received from the other communicator and (e) interpersonal dynamics. Interactive communication, meaning face-to-face communication, involves social processes used to increase efficiency of the conversation,

minimize discomfort, and foster positive relationships (Burgoon, Buller, White, Afifi, & Buslig, 1999). Conversational involvement also includes receiving feedback from other communicators, which often influences the continued behavior of the individual sending the communication. Positive feedback will encourage the sender to continue communicating in the same manner, while negative feedback causes the sender to adjust or correct their communication (Burgoon, et al., 1999).

Nonverbal behavior in addition influences interpersonal communication, behaviors such as gaze, forward lean, gestures, and proximity are some of the components of nonverbal communication. Interpersonal Deception Theory posits that an increase in conversational involvement will increase credibility judgments due to the social cues and dynamics mentioned above. Burgoon, et al., (1999) did indeed find evidence in support of this theory. Interviewers asked to judge the credibility of an interviewee, rated more interactive individuals as being more honest and having more character than less interactive individuals. These results coincide with the findings of similar studies, observers are as accurate and sometimes more accurate lie detectors than those acting as interrogators (Buller, Strzyzewski, & Hunsaker, 1991; Granhag & Stromwall, 2001).

Contrary to these findings, a study conducted by Hartwig, Granhag, Stromwall, & Vrij (2004) however, found no difference in lie detection accuracy between police officers acting as observers or interrogators. The authors offer two possible explanations for the discrepancy. Previous studies used students as interrogators instead of police officers who may be well trained in the dual task of interrogation and lie detection,

lightening the cognitive load. Another possibility is the interrogation techniques utilized by the police officers may have failed to elicit behavioral changes in the mock suspect (Hartwig, et al., 2004).

### **Present Study**

Interrogations are just one way in which nonverbal behavior and emotional display of suspects and defendants have the potential to influence the judgment of those involved in the criminal justice system. As of yet there is no research investigating the possible variations of videoconferencing in courtrooms, for example how much of the witness is visible on screen or the type of witness that is testifying. The present study aims to investigate the possible influences of emotion and frame (what is visible on the screen) on perceptions of a remote witness. A waist-up frame and a head only frame will be utilized in the study as a waist-up view is typically what those present in a courtroom are able to see of a live witness or defendant and a head only frame is typically what is being used in remote videoconferencing. Additionally, a witness may show varying degrees of emotion depending on the length of time between the crime and trial, the relationship to the crime or victim, or for unforeseen reasons. Different types of witnesses (e.g. victim, expert, character) may testify via videoconference for different reasons, such as to shield a victim from further trauma (Landstrom and Granhag, 2010), due to the financial hardship travel and loss of work would cause to the witness, or inclement weather (Johnson & Wiggins, 2006). The result is a wide variety of emotional display and nonverbal behavior appearing through the video monitor with unknown effects. To

investigate these effects, the present study will utilize three levels of emotion, low, moderate, and high in relation to the videoconferencing frame.

## CHAPTER 3

### Method

#### Hypotheses

*Hypothesis 1.* In line with previous research (Warner & Shields, 2009) participants viewing mock testimony in the no emotion and high emotion conditions will rate the eyewitness as less credible and less likable than in the moderate emotion condition.

*Hypothesis 3.* The head only frame will magnify the effects of emotion. Specifically the moderate emotion condition will be rated more positively in the head only frame than in the waist-up frame.

#### Participants

A total of 193 participants, were recruited using Amazon's Mechanical Turk, 53.4 percent males, with an age range from 20 to 68. 6.7 percent of participants identified as African American, 13.5 percent as Asian/Pacific Islander, 70.5 percent as Caucasian, and 5.7 percent as Hispanic. 11.4 percent reported their highest level of education as high school or below, 36.3 reported having some college, 40.9 reported having a Bachelor's degree, and 10.4 reported having a graduate degree. Informed consent was given on the first page of the survey by agreeing to continue with the survey. Participants were paid \$2.00 for their participation.

## **Materials and Procedure**

This study utilized a 2 (Frame: head only vs. waist-up) X 3 (Emotion Level: no emotion vs. moderate emotion vs. high emotion) design. Each participant was randomly assigned to one of six conditions. All participants read an informed consent page where consent was given by continuing the survey. All participants read a crime summary based on an actual murder case where an eyewitness testified in court about the murder of a close friend. Participants then viewed one of six versions of videotaped testimony. The six conditions were created using six videos of the same eyewitness testimony, given by a professional actress. In order to obtain the most natural and realistic affect possible, the actress was given little instruction on specific movements and nonverbal behavior (Heath, 2009), except to show no emotion in the “no emotion” condition and to produce tears in the “high emotion” condition. In order to maintain the most consistency possible, three versions (no emotion, moderate emotion, and high emotion) were recorded. Videos were then edited to create one waist-up version and one head only version of each. This resulted in the waist-up and head only videos of each emotion level being exactly the same testimony. The actress was instructed to dress as she would for a court appearance. The background of the video was a solid gray wall with nothing else visible. In order to remove the presence of an attorney as a possible variable, the actress read the attorney’s questions from a projector and then responded. Attorney questions appeared on the screen below the witness.

On completion of the video, participants were given a thirty-two-question survey, rating the eyewitness on credibility, likability, and poise. The survey utilized the Brodsky

Witness Credibility Scale, which includes questions measuring credibility, trust, and demeanor of the witness such as “please rate the witness on the following items on a 1-10 scale: accurate / inaccurate, believable/ non-believable, and trustworthy / untrustworthy.”

The second portion of the survey included the Reyson Likability Scale, which includes questions measuring how much the participant finds the witness likable, approachable, and similar to themselves. Questions included such items as “this person is approachable, strongly agree-strongly disagree, I would like this person as a roommate, strongly agree-strongly disagree.”

## CHAPTER 4

### **Analysis and Results**

In order to determine if the variables of credibility, likability and poise appear as separate variables within the data, a principle axis factor analysis was performed using promax rotation scale items. The analysis yielded three factors explaining 55.30% of the total variance in the set of variables. The first factor was labeled credibility due to the high loadings of questions such as, “please rate the witness on the following scale: honest/not honest, reliable/not reliable, and truthful/not truthful.” Factor 2 was labeled likability due to high loadings of questions such as, “please rate the witness on the following scale: kind/unkind, friendly/unfriendly, and pleasant/unpleasant.” Factor 3 was labeled as poise due to high loadings of questions such as, “please rate the witness on the following scale: shaken/poised, relaxed/tense, and well-spoken/not well-spoken.”

Variables from the Reyson Likability Scale were recoded by multiplying the five-point scale by two in order to match the 10-point Brodsky Witness Credibility Scale. Three composite variables were then created based on the factor analysis and Chronbach’s Alpha was calculated, credibility  $\alpha = .96$ , likability  $\alpha = .91$ , and poise  $\alpha = .53$ .

A 2 x 3 ANOVA was performed revealing a main effect of emotion level on credibility,  $F(180) = 3.95, p = .021, \eta^2 = .043$ , while revealing no main effect of frame on credibility  $F(180) = 1.42, p = .474, \eta^2 = .003$ . However, no significant interaction was found between emotion level and frame on credibility,  $M = 4.24, F(180) = 1.60, p = .22, \eta^2 = .02$ .

A second 2 x 3 ANOVA was performed revealing a main effect of emotion on likability,  $F(187) = 3.93, p = .021, \eta^2 = .041$  and no main effect of frame on likability  $F(187) = 1.67, p = .200, \eta^2 = .01$ . Analysis revealed no significant interaction between emotion level and frame on likability  $M = 3.25, F(187) = 2.00, p = .142, \eta^2 = .021$

A third 2 x 3 ANOVA was performed which revealed a marginal main effect of emotion on the variable poise,  $F(188) = 2.85, p = .06, \eta^2 = .030$  and no main effect of frame on poise  $F(188) = .01, p = .93, \eta^2 = .00$ . No significant interaction between frame and emotion on poise was found  $M = 1.50, F(188) = 1.07, p = .350, \eta^2 = .012$ .

Table 2. Variable Means of Main Effects

Emotion	Credibility		Likability		Poise	
	Head	Waist-Up	Head	Waist-Up	Head	Waist-Up
Low	3.78	4.26	3.60	4.36	5.27	5.09
Moderate	4.59	4.16	4.02	3.89	5.74	5.61
High	3.30	4.10	3.36	3.46	5.18	5.54

Figures 1,2, and 3 indicate that in the head only frame condition, moderate emotion level was viewed as the most positive level in all three factors. While in the waist-up frame condition, this was only the case for the poise factor.

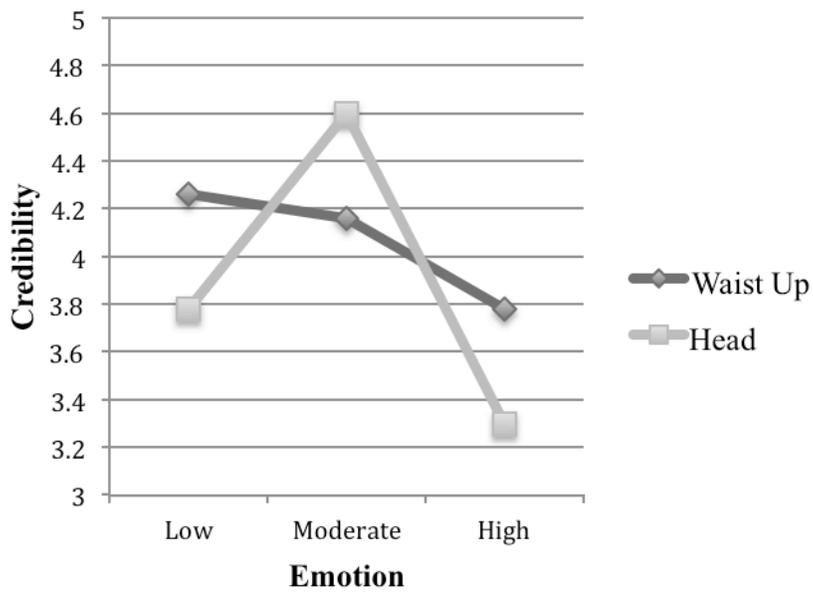


Figure 1. Line plot depicting a 2 (frame) x 3 (emotion level) ANOVA on the dependent variable Credibility. No significant interaction was found.

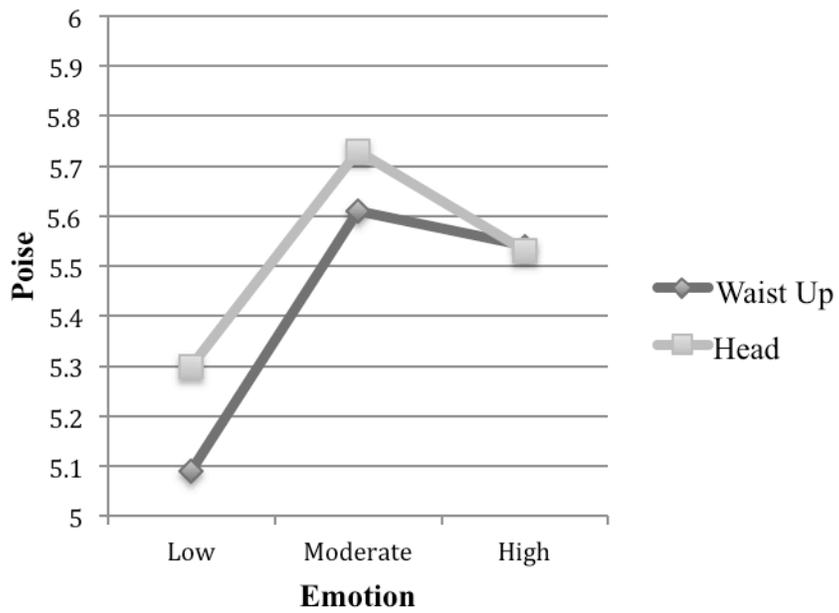


Figure 2. Line plot depicting a 2 (frame) x 3 (emotion level) ANOVA on the dependent variable Poise. No significant interaction was found.

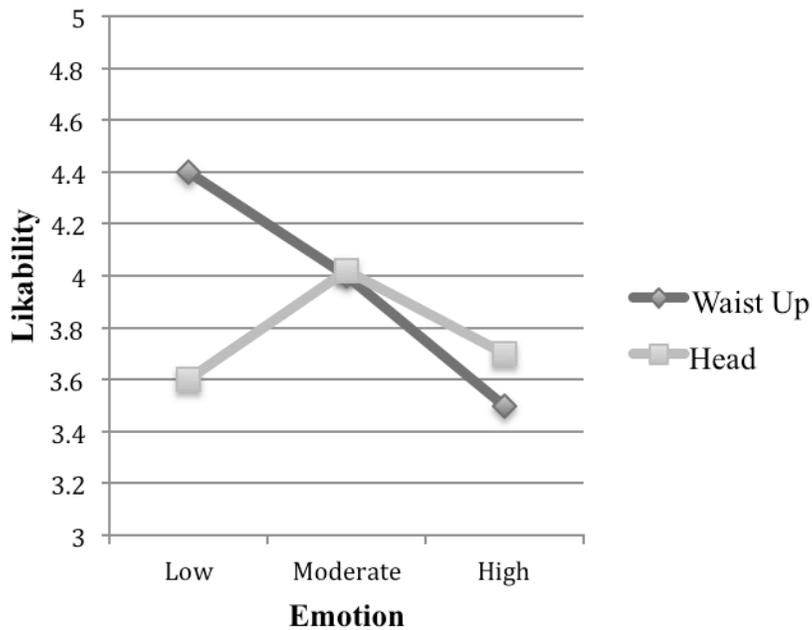


Figure 3. Line plot depicting a 2 (frame) x 3 (emotion level) ANOVA on the dependent variable Likability. No significant interaction was found.

To investigate further, a planned contrast was conducted comparing moderate emotion to low and high emotion combined within each frame. In the waist-up frame moderate emotion was not found to be significant,  $p = .96$  and  $M = 3.89$ . However, low and high emotion were found to be significant  $p = .01$  and  $M = 3.91$ . The head only frame revealed a reversal of these findings, where moderate emotion was found to be marginally significant  $p = .06$  and  $M = 4.02$ . Low and high emotion combined were no longer significant  $p = .46$  and  $M = 3.48$ .

## CHAPTER 5

### **Discussion**

The aim of the present study was to investigate how the frame or onscreen view (waist-up vs. head only) of a witness and the level of emotion of a witness (none, moderate, high) affect how they are perceived by courtroom factfinders. In line with hypothesis 1, results showed participants tended to rate the witness as most credible, likable, and poised in the moderate emotion condition. It is possible that when the witness shows no emotion or high emotion, the expectancy violation leads to lower ratings of credibility, likability, and poise. As in the study by Warner and Shields (2009) the witness may be expected to have more control over their emotions, thus leading to a judgment of a volatile personality and therefore less likable, credible, and poised. A follow-up study would be necessary to determine how participants expect a witness to behave emotionally in order to determine if expectancy violation is the reason for this difference.

As of now there is no standardization for remote testimony or remote appearances by witnesses or defendants. The research on courtroom technology has shown that even subtle changes in camera angle can affect the judgments of jurors (Lassiter & Irvine, 1986). Although no main effects were found in relation to the frame on which the witness appeared, there do appear to be differences in how frame influences perception. The head only frame appeared to magnify participant judgments, especially in regard to credibility ratings, making the difference in no emotion/high emotion and moderate emotion ratings

more pronounced. More research into the effects of video appearances in the courtroom is warranted with particular attention to developing a standard procedure.

### **Limitations**

In a courtroom setting there is likely to be a stronger motivation to judge witnesses accurately due to the seriousness of potential consequences. An increase in motivation could potentially impact the results and is a limitation of the present study. This study was conducted entirely online with no in-person interaction between experimenter and participant, which limits the control the experimenter has over the environment in which the study is conducted. Participants were not asked about their jury eligibility, it is possible that some participants belong to groups that are not jury eligible which could potentially affect their answers to study questions.

### **Future Directions**

The setting in which remote testimony takes place could potentially impact the court's perception of the witness or defendant. A defendant appearing from a correctional facility may be pre-judged as a criminal due to the surroundings. In addition, the setting could affect the defendant's behavior. A defendant could be more inclined to behave well in a courtroom setting. This in turn could affect a judge or jury's perception of the defendant. Additionally, the presence of the attorney conducting the questioning of a remote witness or defendant (in the courtroom or in the remote location) may have a potential impact on factfinder's judgments. An attorney questioning a remote witness or defendant while in the courtroom may provide factfinders with a more vivid experience.

However, an attorney appearing remotely alongside a witness may elicit important social cues from the witness due to the face-to-face social interaction.

### **Conclusion**

The present study reveals a need for more in depth research into the use of videoconferencing in courtrooms. Both emotion and frame have been shown to influence the perceptions of participants. Due to the larger difference in ratings in the head only condition, it is recommended that a waist-up view be standard for videoconferencing witnesses. The waist-up view was shown to be less volatile in participant judgments, which could be less risky for an attorney. The decision to allow a witness to testify remotely should possibly be made with the type of testimony (emotional or unemotional) in mind. A witness who is likely to display a moderate level of emotion may be viewed more positively over videoconferencing than a witness who is likely to display no emotion or high emotion. However, more research into this new use of technology is necessary in order to create a standard practice, which provides the most benefits with the least amount of bias.

## References

- Baltes, B. B., Dickson, M. W., Sherman, M. P., Bauer, C. C., & LaGanke, J. S. (2002). Computer-mediated communication and group decision-making: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 87(1), 156-179.
- Bell, B. E., & Loftus, E. F. (1985). Vivid persuasion in the courtroom. *Journal of Personality Assessment*, 49(6), 659-664. doi:10.1207/s15327752jpa4906\_16
- Bock, E. W., & Frazier, C. E. (1984). The combined effects of offense and demeanor on bond decisions: Basis of official typifications. *The Journal of social psychology*.
- Bond Jr, C. F., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and social psychology Review*, 10(3), 214-234. doi:10.1207/s15327957pspr1003\_2
- Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: An outcome measure for expert witness research. *Behavioral sciences & the law*, 28(6), 892-907. doi: 10.1002/bsl.917
- Buller, D. B., Strzyzewski, K. D., & Hunsaker, F. G. (1991). Interpersonal deception: II. The inferiority of conversational participants as deception detectors. *Communications Monographs*, 58(1), 25-40. doi:10.1080/03637759109376212
- Burgoon, J. K., Buller, D. B., White, C. H., Afifi, W., & Buslig, A. L. (1999). The role of conversational involvement in deceptive interpersonal interactions. *Personality and Social Psychology Bulletin*, 25(6), 669-686. doi:10.1177/0146167299025006003
- Burgoon, J. K., & Hale, J. L. (1988). Nonverbal expectancy violations: Model elaboration and application to immediacy behaviors. *Communications Monographs*, 55(1), 58-79. doi:10.1080/03637758809376158
- Credé, M., & Snizek, J. A. (2003). Group judgment processes and outcomes in video-conferencing versus face-to-face groups. *International journal of human-computer studies*, 59(6), 875-897.
- Federal Rules of Civil Procedure, § 43(a), 2010.  
<http://www.uscourts.gov/uscourts/RulesAndPolicies/rules/2010%20Rules/Civil%20Procedure.pdf>
- Goodman, G. S., Tobey, A. E., Batterman-Faunce, J. M., Orcutt, H., Thomas, S., Shapiro, C., & Sachsenmaier, T. (1998). Face-to-face confrontation: Effects of closed-circuit technology on children's eyewitness testimony and jurors' decisions. *Law and Human Behavior*, 22(2), 165-203. doi: 10.1023/A:1025742119977

- Granhag, P. A., & Strömwall, L. A. (2001). Deception detection: Interrogators' and observers' decoding of consecutive statements. *The Journal of Psychology: Interdisciplinary and Applied*, 135(6), 603-620. doi:10.1080/00223980109603723
- Hartwig, M., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2004). Police officers' lie detection accuracy: Interrogating freely versus observing video. *Police Quarterly*, 7(4), 429-456. doi:10.1177/1098611104264748
- Heath, W. P. (2009). Arresting and convicting the innocent: the potential role of an "inappropriate" emotional display in the accused. *Behavioral sciences & the law*, 27(3), 313-332. doi:10.1002/bsl.864
- Hendry, S. H., Shaffer, D. R., & Peacock, D. (1989). On testifying in one's own behalf: Interactive effects of evidential strength and defendant's testimonial demeanor on mock jurors' decisions. *Journal of Applied Psychology*, 74(4), 539. doi:10.1037/0021-9010.74.4.539
- Johnson, M. T., & Wiggins, E. C. (2006). Videoconferencing in criminal proceedings: Legal and empirical issues and directions for research. *Law & Policy*, 28(2), 211-227. doi:10.1111/j.1467-9930.2006.00224.x
- Landström, S., & Granhag, P. A. (2010). In-court versus out-of-court testimonies: Children's experiences and adults' assessments. *Applied Cognitive Psychology*, 24(7), 941-955. doi:10.1002/acp.1606
- Landström, S., Granhag, P. A., & Hartwig, M. (2005). Witnesses appearing live versus on video: Effects on observers' perception, veracity assessments and memory. *Applied Cognitive Psychology*, 19(7), 913-933. doi:10.1002/acp.1131
- Lassiter, G. D. (2002). Illusory causation in the courtroom. *Current Directions in Psychological Science*, 11(6), 204-208. doi:10.1111/1467-8721.00201
- Lassiter, G. D., Beers, M. J., Geers, A. L., Handley, I. M., Munhall, P. J., & Weiland, P. E. (2002). Further evidence of a robust point-of-view bias in videotaped confessions. *Current Psychology*, 21(3), 265-288. doi:10.1007/s12144-002-1018-7
- Lassiter, G. D., & Irvine, A. A. (1986). Videotaped Confessions: The impact of camera point of view on judgments of coercion. *Journal of Applied Social Psychology*, 16(3), 268-276. doi:10.1111/j.1559-1816.1986.tb01139.x
- McArthur, L. Z. (1980). Illusory Causation and Illusory Correlation Two Epistemological Accounts. *Personality and Social Psychology Bulletin*, 6(4), 507-519. doi:10.1177/014616728064003

- Miller, J. M., Miller, H. V., & Barnes, J. C. (2007). The effect of demeanor on drug court admission. *Criminal Justice Policy Review*, 18(3), 246-259. doi:10.1177/0887403407301451
- Nisbett, R. & Ross, L., (1980). Human inference: Strategies and shortcomings social judgments. Englewood Cliffs, NJ: Prentice-Hall.
- Orcutt, H. K., Goodman, G. S., Tobey, A. E., Batterman-Faunce, J. M., & Thomas, S. (2001). Detecting deception in children's testimony: Factfinders' abilities to reach the truth in open court and closed-circuit trials. *Law and Human Behavior*, 25(4), 339-372.
- Porter, S., & Brinke, L. (2009). Dangerous decisions: A theoretical framework for understanding how judges assess credibility in the courtroom. *Legal and Criminological Psychology*, 14(1), 119-134. doi:10.1348/135532508X281520
- Reysen, S. (2005). Construction of a new scale: The Reysen likability scale. *Social Behavior and Personality: an international journal*, 33(2), 201-208. doi: 10.2224/sbp.2005.33.2.201
- Snyder, C. J., Lassiter, G. D., Lindberg, M. J., & Pinegar, S. K. (2009). Videotaped interrogations and confessions: does a dual-camera approach yield unbiased and accurate evaluations?. *Behavioral sciences & the law*, 27(3), 451-466. doi:10.1002/bsl.875
- Terry III, W. C., & Surette, R. (1986). Media Technology and the Courts: The Case of Closed Circuit Video Arraignments in Miami, Florida. *Crim. Just. Rev.*, 11, 31.
- Vrij, A. (2004). Why professionals fail to catch liars and how they can improve. *Legal and criminological psychology*, 9(2), 159-181. doi:10.1348/1355325041719356
- Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice*. Wiley.
- Vrij, A. (1993). Credibility judgments of detectives: The impact of nonverbal behavior, social skills, and physical characteristics on impression formation. *The Journal of social psychology*, 133(5), 601-610. doi:10.1080/00224545.1993.9713915
- Ware, L. J., Lassiter, G. D., Patterson, S. M., & Ransom, M. R. (2008). Camera perspective bias in videotaped confessions: Evidence that visual attention is a mediator. *Journal of Experimental Psychology: Applied*, 14(2), 192. doi: 10.1037/1076-898X.14.2.192

Warner, L. R., & Shields, S. A. (2009). Judgements of others' emotional appropriateness are multidimensional. *Cognition and Emotion*, 23(5), 876-888.  
doi:10.1080/02699930802212365

Wiggins, E. C. (2006). The courtroom of the future is here: Introduction to emerging technologies in the legal system. *Law & Policy*, 28(2), 182-191.  
doi: 10.1111/j.1467-9930.2006.00222.x

Wilson, T. D., & Gilbert, D. T. (2005). Affective forecasting knowing what to want. *Current Directions in Psychological Science*, 14(3), 131-134. doi:10.1111/j.0963-7214.2005.00355.x

**APPENDIX A**  
**SCALES USED**



Unpleasant

Pleasant

1                    2       3       4       5       6       7       8       9       10

Untrustworthy

Trustworthy

1            2       3       4       5       6       7       8       9       10

Untruthful

Truthful

1                    2       3       4       5       6       7       8       9       10

Undependable

Dependable

1            2       3       4       5       6       7       8       9       10

Dishonest

Honest

1            2       3       4       5       6       7       8       9       10

Unreliable

Reliable

1            2       3       4       5       6       7       8       9       10

Not

Confident

Confident

1            2       3       4       5       6       7       8       9       10



Uneducated

Educated

1      2      3      4      5      6      7      8      9      10

Unwise

Wise

Likability Scale

Circle the answer you most agree with:

This person is knowledgeable:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is friendly:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is warm:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is likable:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is approachable:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

I would ask this person for advice:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

I would like this person as a coworker:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

I would like this person as a roommate:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

I would like to be friends with this person:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is physically attractive:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

This person is similar to me:

Strongly Disagree      Disagree      Neutral      Agree      Strongly Agree

**APPENDIX B**  
**CRIME SUMMARY**

The Crime:

A man was shot and killed in an early-morning attempted carjacking. Michael Anderson, 31, was in the parking lot of his apartment complex when a man approached him at his car with a gun and attempted to take the vehicle. Anderson was then shot several times in front of a close friend. After arriving at the scene, police officers observed a man in the parking lot holding a gun. When the man began to run, police then opened fire on the suspect who was shot and taken into custody. Christopher Thomas now stands trial for 1<sup>st</sup> degree murder.

You will now hear testimony from Michael Anderson's friend who witnessed the murder. Following the testimony you will be asked to answer some questions related to the testimony.