How Video Changes the Conversation

Social Science Research on Communication Over Video and Implications for the Criminal Courtroom

by Lisa Bailey Vavonese, Elizabeth Ling, Rosalie Joy, and Samantha Kobor





Authors

Lisa Bailey Vavonese Elizabeth Ling Rosalie Joy Samantha Kobor¹

Acknowledgments

This document was prepared as part of the TTA provided by the Center for Court Innovation and National Legal Aid and Defender Association under the Bureau of Justice Assistance's (BJA) Sixth Amendment Initiative.

This project is funded by Grant No. 2017-YA-BX-K004 awarded by the Bureau of Justice Assistance. The Bureau of Justice Assistance is a component of the Department of Justice's Office of Justice Programs, which also includes the Bureau of Justice Statistics, the National Institute of Justice, the Office of Juvenile Justice and Delinquency Prevention, the Office for Victims of Crime, and the SMART Office. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

To learn more, e-mail: vavonesl@courtinnovation.org or r.joy@nlada.org

September 2020

Introduction

While some courts have used video conferencing technology for years, the ongoing public health crisis that began in early 2020 necessitated the physical closing of court buildings and the widespread adoption of video in almost every jurisdiction in the country. Numerous decision-makers are now considering video as a permanent fixture in the courtroom. Yet there is very little empirical research on the use and impact of video in courtrooms. One study shows clearly that video produces drastically different outcomes for defendants than in-person court: Shari Diamond's 2010 study on felony bail amounts in Cook County, IL.² Diamond found that in the eight years after Cook County moved from in-person to video initial bail hearings, bail amounts in felony cases increased by an average of 51%, or \$21,000.³ Ten years later, the question still left open by the Cook County study is, why? Why were the outcomes of bail hearings so drastically different over video? This review of social science scholarship on video mediated communication may begin to answer that question.

Effective, accurate, and empathetic communication is crucial in the courtroom. As researcher Martin Remland states emphatically in a 1993 study of non-verbal communication in a New Jersey courtroom, "few contexts depend more on the uses of both spoken and unspoken discourse."⁴ Criminal courts in particular are the venue of weighty decision-making that affects not only defendants' lives but public opinion of and support for our system of government and the rule of law. Social science research from medical and workplace contexts, as well as the courtroom context, shows that communicating over video can alter an interaction, making it more difficult for participants to understand each other, speak up, and relate to each other.⁵

Academic scholarship on video communication suggests that an interaction over video can be analyzed through three different lenses.⁶ One lens is basic processes of conversation: perception, or how others view you when seeing you over video; engagement, meaning your own user experience; and decision-making, meaning the result of the interaction. Another lens is the physical factors influencing those processes that make video different from in-person interaction: nonverbal aspects of communication including eye contact, body language, and tone. A final lens is factors that are personal, interpersonal, or just specific to that interaction, for example, familiarity between the parties, users' language skills and technology skills, and the length of the interaction. These lenses are not siloed or exhaustive; they continuously interact with each other and are all present in every conversation.

This paper will begin by exploring the importance of non-verbal cues to in-person communication and how these non-verbal cues change over video. Next, we examine common personal and interpersonal factors influencing perception and engagement and use a case study to illustrate how altered perception and engagement changed decisionmaking for employers in remote job interviews. Finally, we review the limited number of studies conducted with courtroom actors to demonstrate how the same problems with perception, engagement, and decision-making implicated by video communication in other settings persist and may even be exacerbated in the courtroom context.

A scan of social science research makes clear that the quality of communication in the criminal courtroom can be compromised when conducted over video rather than in-person. Policy makers and criminal justice stakeholders must be hypervigilant when making decisions about video's continued use following the public health crisis. Recent publications offer techniques to mitigate or lessen the technological challenges associated with video, which are especially helpful to jurisdictions that were forced to adopt video due to COVID-19. We do not list them or debate their efficacy here; although we recommend rigorous study of their effectiveness. We also do not address the potential legal and constitutional concerns regarding the use of video that have been discussed by various scholars.⁷ Rather, our intention with this paper is to present social science research to inform the long-term debate about video's role when courts can safely reopen. Ultimately, we urge practitioners and researchers in the field to collaborate on conducting research evaluating the impact of video in criminal courtrooms. Moreover, when it is safe to return to court, we strongly recommend that in-person appearances for all high-stakes criminal court proceedings resume, particularly when an individual's liberty is at risk.

Effects Of Non-Verbal Communication On Perception

Communication through non-verbal cues affects how we judge and are judged by others.⁸ While previous attempts to attribute specific percentages of communication to each of these non-verbal cues have been debunked,⁹ recent research about communication both in-person and over video suggests that eye contact, body language (including gestures and facial expressions), and tone of voice affect perception.

1. Eye Contact

A person's gaze—where their eyes are focused and whether they make eye contact with others—is a significant conveyor of "interpersonal information," which many people understand intuitively and use as a tool to judge others. In-person, using frequent eye contact makes participants appear more attentive, friendly, cooperative, confident, mature, and sincere.¹¹ Conversely, those who do not use frequent eye contact "are judged as defensive or evasive."¹² A downcast gaze can also communicate boredom or deception.¹³

Over video, eye contact is not possible.¹⁴ In fact, "most videoconferencing systems make it impossible for participants to make eye contact or even to determine where or at what the other participants are looking."¹⁵ Perhaps more than any other non-verbal cue, eye contact over video has been a research focus because it seems the most difficult in-person aspect to replicate through improved software.¹⁶ As explained by technology researchers David Nguyen and John Canny, the inability to make eye contact over video, also termed gaze error, "is a serious problem because not only are intended cues lost, but also unintended cues may be communicated: downcast eyes, sideways gaze, or gazing 'over someone's head' replaces what should have been direct eye contact."¹⁷

One study of how different camera angles could potentially imitate eye contact between physicians and patients in the telehealth context found that eye gaze angle may adversely affect patients' satisfaction with videoconferencing.¹⁸ A survey of "92% of observers [examining pictures of physicians seen at different camera angles] responded that the difference in the perceived eye contact was important to them as patients."¹⁹ In the educational context, teachers who use frequent eye contact in the classroom have students who are more productive and who learn material at a faster rate than those students who do not have a teacher using eye contact.²⁰ This may be true in part because eye contact has an added value "during communication in bigger groups, when it is used to indicate the next speaker or the receiver of current remarks."²¹

2. Body Language

Compared to other modes of human interaction, like telephone calls, in-person communication contains the greatest number of observable details, including body language, such as posture, hand gestures, and facial expressions, that can help participants better understand what is being said.²²

Body language is also an important component of building trust and empathy between participants,²³ which can affect how one is perceived by others.²⁴ Like eye contact, facial expressions can convey a great deal of information during a communication by signaling attention and interest, disagreement with what another participant is saying, as well as a desire to speak without the need to verbally interject.²⁵

Technical issues with video software can negatively impact communication in obvious ways, an issue that comes up in many studies of video. However, even minor technical issues like a slight lag time between a person moving and the replication of those movements over video can jeopardize the effective use of non-verbal cues. Some movements last microseconds and others last longer and thus are more visible. Because facial expressions and hand gestures are often communicated very quickly, they can be lost through lag.²⁶

If not lost through lag, other gestures may be lost instead because they are simply not visible due to the camera angle at which the participant is viewed. The framing of a person often only shows their body from the shoulders up, and as a result, arm gestures and body posture may not be seen.²⁷ When a person's full upper body and torso are visible to their conversation partner over video, people are better able to understand each other, and the conversation feels more natural.²⁸ However, the facial expressions of a person sitting farther away from the camera in order to display their full upper body may then be less visible to their conversation partner.²⁹

3. Tone

Regardless of user choices like how far one is sitting from the camera, software that is working as designed can still cut off vital communication cues like those expressed through a user's tone of voice. Emotion is often expressed through low and high pitches.³⁰ Over video, these low and high pitches may be lost, because audio design in video technologies tends to focus on middle range frequencies.³¹

Effects of Personal And Interpersonal Factors on Perception and Engagement, and Resulting Impact on Decision-Making

While every participant in a video conversation has access to and, to some extent, control over their eye movement, hand gestures, and tone, other factors that are unique to one participant or to the group as a whole can also impact perception, engagement, and, consequently, decision-making during the conversation. Factors like how familiar a participant is with the technology and with their conversation partner play an important role in the dynamics and outcomes of video interactions.

1. Factors Influencing Perception: Familiarity with Participants, Length of Interaction, Forming Relationships

Empathy is easier to generate between people who know each other and during longer interactions; thus, strangers are already at a disadvantage for empathetic communication whether speaking in person or over video.³² Further, because interpersonal connections may take longer to grow over computer-mediated modes of communication like video,³³ strangers are at the greatest disadvantage when speaking over video calls that are short in length.

Research psychologist Chris Fullwood's 2007 study of impression formation in-person and over video found that individuals who were unfamiliar with each other before the experiment perceived their partners more favorably—more likable and more intelligent—in faceto-face communication rather than video mediated communication.³⁴ The study posits that this difference in impression formation may be in part because video mediated communication can interfere with the gazing process; as discussed more fully above, gazing is important for impression formation but may not be possible due to how video technology is set-up.³⁵

Another study of remote employees at Google found that even the teams there– the users perhaps best suited of any group of persons to navigate the complexities of video communication—consider face-to-face meetings in addition to frequent video meetings essential to effective collaboration and communication.³⁶ In particular, participants described initial in-person meetings as more effective than video at establishing new working relationships, as well as sustaining them.³⁷ Employees also described "deteriorate[d]" experiences when the number of participants over video increased, because participants had a harder time seeing facial expressions, reading body language, and identifying speakers.³⁸

2. Factors Influencing Engagement: Familiarity with Technology, Language Skills, Viewing Oneself While familiarity with one's conversation partner is a factor in both in-person and video communication, familiarity with technology only applies to video, and seems to primarily affect engagement, or user experience. A Dutch study of teams answering trivia questions over video initially found noticeable differences between the in-person and video groups.³⁹ Groups communicating over video had more interruptions where the same person who was speaking kept talking after being interrupted, took fewer turns than groups meeting in-person, and were less satisfied with their experience than groups meeting in-person.⁴⁰ However, the researchers observed that differences between video groups and in-person groups decreased over time, suggesting that with more time and experience, people may be able to adapt to challenges and limitations associated with video.⁴¹

One aspect of video affecting engagement that all participants encounter regardless of their familiarity with the technology is the ability to watch oneself during the conversation. A 2017 study observing individuals working together over video to complete a task found that viewing oneself leads to a reduction in both individual satisfaction with the process and team performance, as measured by comparing each team's solution against the optimal solution for the task.⁴² The effect of viewing oneself causes self-consciousness similar to test anxiety in that looking at one's own appearance while being evaluated takes away precious limited "cognitive space" that would otherwise be spent on completing the task at hand.⁴³

Perhaps the clearest example of how personal factors can affect engagement is language skills. Non-native language speakers often speak less, fail to request clarification, and exhibit symptoms of anxiety due to the increased stress associated with speaking in another language.⁴⁴ In a study of multiparty conversations over video with majority native speakers, communication science researchers found that discussions "can move forward rapidly while non-native speakers are left behind."⁴⁵ Native speakers may attribute non-native speakers' low level of apparent engagement in the conversation—fewer spoken words, less looking into the camera—to factors like shyness, disinterest, or untrustworthiness, rather than language difficulties.⁴⁶ Researchers also found that non-native speakers were aware that they spoke less and looked down more due to the stress of finding the right words in a secondary language, factors that native speakers discounted.⁴⁷

4. How Perception and Engagement Over Video Led to Altered Decision-Making: Case Study of Video Job Interviews

A 2013 study by researchers at U.S. and Canada business schools made findings related to perception, engagement, and decision-making in one experiment comparing in-person and video job interviews. Perceptions by both applicants and employers were more negative when applicants were interviewed over video. Applicants had significantly less favorable evaluations of their interviewer (on measures of personableness, trustworthiness, competence, and physical appearance), while employers gave applicants lower ratings of affect (likeability) and lower overall interview scores.⁴⁸ Applicants' engagement was also impacted: they felt video interviews offered them less of a chance to perform and gave employers less information that would help them select the best candidate. Ultimately, applicants who interviewed over video were less likely to be hired.⁴⁹ Importantly, and in part because of the outcomes of the interviews, video applicants perceived their remote interviews as being less procedurally just.50

Courtroom Studies: Observing Video Court Through All Three Lenses

More empirical research is needed to determine how the mental processes of experienced decision-makers, like employers interviewing job applicants or judges in a courtroom, change when they make decisions over video.⁵¹ As discussed above, the Cook County study showed a direct correlation between use of video and harsher decision-making. Some factors identified by Diamond that made the video bail hearings in Cook County a poor environment for decision-making may not be relevant today in all jurisdictions. For instance, the grainy quality and black-and-white video presentation is unlikely to still be in use in 2020.52 But the nature of decision-making in the courtroom remains the same. As the following studies attest, introducing video to the courtroom means nearly all courtroom actors will expend energy dealing with technical issues, confirming identities, and managing impressions. And while typical courtroom actors, who already benefit from their existing relationships to one another, may have more time to become accustomed to the process, defendants certainly will not.

1. Judges

How judges experience video court is critical to this discussion as they are the impartial decision-makers in the courtroom. Judges are relied upon to take in new information and, in the context of criminal proceedings like initial appearances or arraignments, make decisions very quickly. Australian researchers Emma Rowden and Anne Wallace found when observing judges over a three year period that "fundamental judicial tasks, such as monitoring participant [behavior], exercising control over proceedings, ensuring a fair trial, facilitating witness testimony and conveying and demonstrating communityheld values, are transformed when performed" over video.⁵³ The 2018 study indicates judges have an increased cognitive load when presiding over video court.⁵⁴ Appearing over video, judges were less confident in their ability and the perception of their ability to maintain control over the courtroom, expressing concern about witness intimidation and other factors that may influence a witness's truthfulness.⁵⁵

2. Defendants

Although there is research about patients' satisfaction with telehealth visits, few studies have been conducted on defendants' satisfaction with video. Recognizing this need, researchers from Texas Tech University designed a study to determine how video impacts attorney-client communication during consultations.⁵⁶ The study found no significant difference between in-person and video, with "defendants' ratings of working alliance, trust in their attorneys, procedural fairness, [and] satisfaction with attorney services" being relatively the same in both groups.⁵⁷ However, the study has significant limitations that affect how widely its findings can be applied. The study included only public defenders that were associated with the University, some being attorneys-in-training, and the study's sample size was smaller than expected because some defendants and attorneys withdrew due to various legal outcomes like nonattendance and dismissal of charges as well as technical issues.⁵⁸ Most importantly, defendants' ratings were "only collected prior to

defendants' case dispositions," meaning that when rating their experience with their attorney, they were not able to take into account the outcome of their case.⁵⁹

A 2004 study of Chicago immigration courts examined defendants' actual experiences in video court and found that defendants face more hurdles and receive worse outcomes when they are immigrants.⁶⁰ The Chicago study reflects many of the same findings and concerns as Helenai He's 2017 study on language bias discussed above.⁶¹ Remote immigrants often face issues with technology, access to their attorney, and language interpretation, and are more likely to experience these problems if they do not speak English.⁶² In fact, "70% of non-English speakers experienced at least one problem related to videoconferencing during their hearing, and almost 50% received removal orders (as opposed to 21% for English-speakers)."63 Further, 86% of non-English speaking Latinos compared to 46% of English-speaking Latinos were ordered removed.64

3. Witnesses

Unlike defendants, witnesses appearing over video are not subject to a decision like a removal order. Perceptions of their performance, however, can still influence outcomes. In a 2001 study of child witnesses, mock jurors viewed the testimony of child witnesses in a courtroom setting or over one-way, closed circuit video ("CCTV"), and then deliberated over the verdict of the case. Some child witnesses were instructed to lie in their testimony and others were instructed to tell the truth.⁶⁵ Results showed that jurors were less likely to vote to convict after viewing children testify via CCTV, potentially because they viewed child witnesses testifying over video as less credible.⁶⁶ "Children testifying via CCTV were seen as significantly less accurate, believable, consistent, confident, able to testify based on fact not fantasy, attractive, and intelligent."⁶⁷ Yet, jurors could not tell the difference between child witnesses who were lying, as instructed, and those who were telling the truth, indicating that their perceptions were not necessarily accurate.⁶⁸

While the child witness study is about how other people perceived the witness, Rowden and Wallace's 2019 study interviewing expert witnesses discusses how witnesses perceive their own performance. Trials with expert witnesses testifying may make up a small portion of criminal court proceedings, but the study demonstrates that when court actors are prompted to consider how others perceive them, important differences between performance in-person and over video may come to light. Expert witnesses as a group require greater use of body language than many people using video, relying on gestures not only to interact with their exhibits and explain complex concepts, but also relying on the nonverbal cues of the judge and jury to determine if they are being adequately understood.⁶⁹ Rowden and Wallace found that testifying over video compromises expert witnesses' ability to complete both these tasks.⁷⁰ Expert witnesses interviewed after testifying over video also felt that the quality of the video technology significantly affected their ability to communicate their evidence.⁷¹ In particular, they were concerned that appearing from their own homes instead of a courtroom contributed to their being perceived as less legitimate, effective and authoritative as experts.72

Conclusion

As the country continues to grapple with the effects of the public health crisis, video court is now a fact of life-and potentially will remain one-for many judges, prosecutors, defense attorneys, and defendants. Other recent publications offer techniques to mitigate or lessen the technological challenges associated with video, which may be particularly helpful to jurisdictions that did not use video prior to COVID-19. We do not list them or debate their efficacy here; although we recommend their study for effectiveness. Absent is robust research documenting how the switch from in-person to video in the courtroom context affects perceptions and engagement, and the resulting impacts on decision-making. Nor is there an understanding of how defendants experience video court, whether they believe the process to be fair and transparent, or how video affects the public's trust in the system. For thousands of defendants, the decisions and outcomes of these proceedings will remain on their permanent record and have lasting effects far beyond the life of their case. The academic scholarship on video communication in other contexts offer important insights and sound an alarm: the ability of video to achieve the same level of effective communication as in-person interactions is not possible. The widespread use of video in criminal courts across the country was borne out of necessity during the pandemic. The permanent use of video should not proceed without rigorous, in-depth research on how video may alter courtroom experiences and case outcomes. When the public health crisis subsides, we strongly recommend a return to in-person appearances for all high-stakes criminal court proceedings.

Endnotes

- The Center for Court Innovation would like to thank Samantha Kobor, a legal intern during summer 2020, who conducted extensive research and writing on this topic that laid the foundation for this document.
- Shari Seidman Diamond, Locke E. Bowman, Manyee Wong, & Matthew M. Patton, "Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions," *Journal of Criminal Law & Criminology* 100, no.3 (2010): 869–902.
- 3. Ibid, 892.
- Martin S. Remland, "The Importance of Nonverbal Communication in the Courtroom," Paper presented at the Annual Meeting of the Eastern Communication Association, New Haven, CT (April 29-May 2, 1993): 4.
- 5. Similar research on differences between in-person and video communication has been conducted in educational settings and is discussed in one of the studies discussed *infra* (Gemmell at footnote 20). However, this paper does not utilize studies conducted in the educational context, due in part to significant differences between the educational and courtroom contexts, like the adult-child dynamic.
- 6. Dr. Lindsay Long, Ph.D., a human factors scientist from *Exponent*, was an excellent resource to the authors. Her insights on the framework of a video interaction helped inform the organization of this paper.
- See generally, Camille Gourdet et al., "Court Appearances in Criminal Proceedings Through Telepresence" RAND (2020); Anne Bowen Poulin, "Criminal Justice and Videoconferencing Technology: The Remote Defendant." Tulane Law Review 78, no. 4 (March 2004): 1089-1168; Meaghan Annett, "To Be Physically Present or Not to Be Physically Present: The Use of Videoconferences during Felony Proceedings," Boston College Law Review 60 (December 2, 2019): 165–79.
- See, e.g., Remland, "Nonverbal Communication"; Steve Whittaker, "Theories and Methods in Mediated Communication," in Handbook of Discourse Processes, ed. A. C. Graesser, M. A. Gernsbacher, & S. R. Goldman (Lawrence

Erlbaum Associates Publishers, 2003), 243-286; David Nguyen and John Canny, "More than face-to-face: Empathy effects of video framing." Proceedings of the *SIGCHI Conference on Human Factors in Computing Systems* (2009) 423-432.

- 9. Psychology research from 1950s and 1960s breaks down communication into a 55/38/7 model where "55% of communication is body language, 38% is the tone of voice, and 7% is the actual words spoken." But this oft-cited number only applies to very specific situations and thus is no longer considered accurate in communication science. Jeff Thompson, "Is Nonverbal Communication a Numbers Game?" *Psychology Today*, September 30, 2011, https://www.psychologytoday.com/us/blog/beyond-words/201109/isnonverbal-communication-numbers-game.
- 10. Whittaker, "Theories and Methods in Mediated Communication," 266.
- Jim Gemmell et al., "Gaze awareness for Video-Conferencing: A Software Approach," IEEE Multimedia 7, no. 4 (Oct.-Dec. 2000): 26 – 35, 26.
- 12. Whittaker, "Theories and methods in mediated communication," 266.
- 13. Nguyen & Canny, "More than face-to-face," 424.
- Petr Slovak, "Effect of Videoconferencing Environments on Perception of Communication," Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 1, no.1, Article 8 (2007).
- 15. Gemmell, "Gaze awareness," 26.
- 16. See, Ibid and Nguyen & Canny, "More than face-to-face," 424.
- 17. Nguyen & Canny, "More than face-to-face," 424. Nguyen and Canny conclude that for systems that preserve both eye gaze and upper body cues (video frame that includes full torso), there is no deficit in communication effectiveness compared to face-to-face. However, study limitations include one-on-one meetings using Multiview systems.
- Tony Tam et al, "Perception of Eye Contact in Video Teleconsultation," Journal of Telemedicine & Telecare 13, no. 1 (2007): 35–39.
- 19. Ibid, 35.
- 20. Gemmell, "Gaze awareness," 27.
- 21. Slovák, "Effect of Videoconferencing Environments."

22. Ibid.

- 23. Nguyen & Canny, "More than face-to-face," 424.
- 24. Phillip A. Powell & Jennifer Roberts, "Situational Determinants of Cognitive, Affective, and Compassionate Empathy in Naturalistic Digital Interactions," *Computers in Human Behavior* 68 (207): 137–48, 145.
- 25. Slovák, "Effect of Videoconferencing Environments."
- 26. Ibid.
- 27. Nguyen & Canny, "More than face-to-face," 431.
- 28. Ibid, 425.
- 29. See, e.g., Demetrios Karis, Daniel Wildman, & Amir Mané, "Improving Remote Collaboration with Video Conferencing and Video Portals," *Human-Computer Interaction* 31, no. 1 (2016): 1–58, 19.
- 30. Robin Davis et. al., "Research on Videoconferencing at Post- Arraignment Release Hearings: Phase I Final Report," ICF International, (2017), 5-6.
- 31. Ibid, 5-6.
- 32. Powell, "Situational Determinants," 145.
- 33. Ibid.
- 34. Chris Fullwood, "The Effect of Mediation on Impression Formation: A Comparison of Face-to-Face and Video-Mediated Conditions," Applied Ergonomics 38, no. 3 (2007): 267–73, 270.
- 35. Ibid, 271.
- 36. Karis, "Improving Remote Collaboration," 25.
- 37. Ibid.
- 38. Ibid, 19.
- 39. Rick van der Kleij, Jan Maarten Schraagen, Peter Werkhoven, & Carsten K. W. De Dreu, "How Conversations Change Over Time in Face-to-Face and Video-Mediated Communication," Small Group Research 40, no. 4 (2009): 355–81.
- 40. Ibid, 370-71.
- 41. Ibid, 372.
- 42. Martin D. Hassell & John L. Cotton, "Some Things Are Better Left Unseen: Toward More Effective Communication and Team Performance in Video-Mediated Interactions," Computers in Human Behavior 73 (2017): 200–208,

204-5.

- 43. Ibid, 201.
- 44. Helenai He et al., "Why Did They Do That?: Exploring Attribution Mismatches Between Native and Non-Native Speakers Using Videoconferencing," Proceedings of The 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (February 2017): 297–309.
- 45. Ibid, 298.
- 46. Ibid.
- 47. Ibid, 304.
- Fernando Robles et al., "A comparative assessment of videoconference and face-to-face employment interviews," *Management Decision* 51, no. 8 (2013): 1733–1752.
- 49. Ibid.
- 50. Ibid.
- 51. See generally, Min Kyung Lee, Nathaniel Fruchter, & Laura Dabbish, "Making Decisions From a Distance: The Impact of Technological Mediation on Riskiness and Dehumanization," In Proceedings of the ACM Conference on Computer Supported Cooperative Work and Social Computing (2015),1576-1589. A 2015 study by Lee examines decision-making by non-expert, inexperienced decisionmakers, using a hypothetical medical context where participants played the role of either patient or doctor. Lee posited that a lack of physical presence in video can create a psychological distance which makes it easier for some decision-makers to impose more dangerous or painful consequences on others they perceive as emoting less.
- 52. Diamond, "Efficiency and Cost," 884.
- 53. Emma Rowden & Anne Wallace, "Remote Judging: The Impact of Video Links on the Image and the Role of the Judge," International Journal of Law in Context 14, no. 4 (2018): 504–24, 505.
- 54. Ibid, 514.
- 55. Ibid, 512.
- 56. Brendan R. McDonald, Robert D. Morgan, & Patrick S. Metze, "The Attorney-Client Working Relationship: A Comparison of in-Person versus

Videoconferencing Modalities," *Psychology, Public Policy, and Law* 22, no. 2 (2016): 200–210.

- 57. Ibid, 206.
- 58. Ibid, 207.
- 59. Ibid.
- 60."Videoconferencing in Removal Hearings: A Case Study of the Chicago Immigration Court," The Legal Assistance Foundation of Metropolitan Chicago and Chicago Appleseed Fund for Justice (2005): 1-106.
- 61. He, "Why Did They Do That."
- 62."Videoconferencing in Removal Hearings," 5, 42, 44-45.
- 63. Ibid, 8.
- 64. Ibid.
- 65. Holly K. Orcutt et al., "Detecting Deception in Children's Testimony: Factfinders' Abilities to Reach the Truth in Open Court and Closed-Circuit Trials," Law and Human Behavior 25, no. 4(2001): 339–72.
- 66. Ibid, 365-66.
- 67. Ibid, 366.
- 68. Ibid, 365.
- 69. Emma Rowden & Anne Wallace, "Performing Expertise: The Design of Audiovisual Links and the Construction of the Remote Expert Witness in Court," Social & Legal Studies 28, no. 5 (2019): 698–718, 700.
- 70. Ibid, 706.
- 71. Ibid.
- 72. Ibid, 709. See also, Ibid, 701 for initial description of privileged status of expert witnesses; Ibid, 712, "The enunciations of experts are taken as serious truth claims precisely because they come from authorized speakers who are placed in a position of privilege by methods of ascertaining and evaluating expertise."

Center for Court Innovation

520 Eighth Avenue New York, NY 10018 p. 646.386.3100 courtinnovation.org