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# RECOMMENDATIONS FOR VIDEOCONFERENCING



## DIGI-GUARD

Digital communication and safeguarding the parties' rights:  
challenges for European civil procedure

# **RECOMMENDATIONS FOR JUDGES AND COURT STAFF ON ADDRESSING THE PSYCHOLOGICAL ASPECTS OF VIDEOCONFERENCING**

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## **I. Preparatory Activities**

**(1) Training:** Judges and court staff should receive technical training on the videoconferencing platform, including how to troubleshoot common technical problems and how to advise remote participants in case technical problems occur on their side. Furthermore, they should be provided with training on the psychological impacts of videoconferencing, including how to mitigate inherent disadvantages of remote settings (e.g., perceived lack of formality and authority, potential anxiety, perceptual challenges, potential biases, limited availability of non-verbal cues, etc.).

**(2) Technology check:** Before conducting remote hearings or other forms of remote evidence-taking, the videoconferencing platform should be tested by the court staff and/or the judge to identify any potential technical issues. All systems should be fully operational before other participants are invited or approved to join the videoconference. It is crucial to minimise the risk of technical problems, which could negatively impact the participants' motivation to cooperate, their beliefs or biases about the court and legal system, or their levels of anxiety.

**(3) Preliminary briefing:** Judges, court staff, and, most importantly, participants should be provided with clear guidelines on videoconferencing and remote proceedings. Ideally, the guidelines intended for participants would be in writing and attached to the summons or even in the form of an informative video. Guidelines should be detailed and comprehensive. They should cover all relevant details and walk the participant through the experience of videoconferencing (for example, the protocols, the roles of all participants, the purpose of the hearing, how long it is expected to take, who will speak and whom they will address, etc.) to help make the experience more predictable and thus reduce any potential anticipatory anxiety. The guidelines should also prepare a witness for the specifics of videoconferencing by emphasising that the remote proceedings follow the same principles and pursue the same goals as proceedings conducted in person and that participants should make their best effort to retain the quality of their cooperation. The importance of their cooperation should also be emphasised, as connecting to their values and sense of duty could help enhance their intrinsic motivation and result in more effective participation. Participants should be instructed in advance to join the videoconference from a quiet, secure and non-distracting environment, to follow a proper dress code, and to attempt to comply with recommendations under point II. (Environment and setup) where applicable. If guidelines are not provided in advance, a briefing on what to expect and what is required should be carried out at the start of the hearing.

**(4) Test session:** A judge, court staff and participants should all be comfortable using the videoconferencing technology. If needed, a test session should be conducted before the actual hearing to alleviate any anxiety arising from unfamiliarity with such technology, increase confidence, and improve their sense of preparedness.

**(5) Scheduling:** Proceedings should be scheduled with consideration of the specific needs of each participant to reduce any additional stress from an inconvenient schedule, especially if they are located in a different time zone or if they participate remotely due to illness or similar circumstances.

The participants involved in proceedings (senders and receivers of messages) enter the communication process with their own set of physical, cognitive, emotional, motivational particularities and in their current psychological state (psychological context). Channels (i.e. sensory channels) available to participants for expressing and receiving messages (verbal and nonverbal expressions of the participants) are different when communicating with a person face-to-face compared to when they are only seen or heard through the computer screen. Even though the participants in court proceedings might be the

same, the differences in the context and channels available for sending and receiving messages should thus be taken into account when considering communicating through videoconferencing. Argelander (1976) argues that communication processes, impression formation, and other processes that influence communication and relationships between people usually start even before people meet or start talking. Everything can be important: the invitation to the meeting, how long it took the person to reply to their inquiry or get the date of the appointment, if the participants heard something about the other person on the radio, saw them on TV, their gender or age, which part of the city their office is in, etc. Moreover, even impressions and thoughts about other people associated with this person can affect the relationship. While Argelander addressed these issues in the context of psychotherapy, his findings can be applied to other contexts as well. In the court, for example, the experience of a witness with the security guard at the entrance can impact the mood and set the tone for communication with other participants in the court. Furthermore, some aspects simply become unobservable (for example, how a person enters a courtroom, how they walk, sit, etc.) since the remote testimony starts only when the camera is turned on and the transmitting of the information starts.

## **II. Environment and Setup**

**(1) Background:** The setup should reflect the authority and formality of a courtroom by displaying judicial symbols in the background, such as a court seal or flag. This helps reinforce the perceptions of credibility and respect. At the same time, the background should remain neutral, without other unnecessary elements, such as paintings, windows, books, etc., to avoid distractions and maintain focus on participants.

**(2) Lighting:** The room should be well-lit, with the source of light positioned so that everyone's faces are clearly visible and without any shades that would obstruct facial expressions. Proper lighting can increase the sense of connection, reduce negative impressions caused by poor visuals, allow the judge to better observe non-verbal cues that support impression-making and truth detecting, and reduce the discomfort and concerns of other participants that some elements of proceedings might be hidden from them.

**(3) Camera angles and video layout:** The camera should be positioned at eye level and at a close enough range to facilitate a sense of personal engagement and allow for observation of non-verbal behaviours and facial expressions. A person's head and shoulders should be visible in their entirety. At the same time, the distance from the camera should be sufficient to prevent being perceived as threatening. If possible, it should be taken into account that high camera angles tend to increase perceived competence and trustworthiness. Depending on the equipment, it could be beneficial to prevent the participants from watching themselves on screens, as this can be especially distracting and cause them to self-regulate their behaviour.

**(4) Quality of equipment:** All equipment used by the court should be of high quality to prevent any white noise, disconnections, freezes, lags or other types of disruption. Microphones and speakers should allow the capturing and transmission of all vocal intonations and expressions, which can be important for establishing accurate impressions. Responsible authorities should aim to equip courtrooms with videoconferencing equipment that automatically follows the speaker, both visually (automatically adapting the position of the camera and zooming in) and vocally (automatically turning on and off the microphone of the speaker), as this has proven helpful in reducing distractions. If the equipment is manipulated manually, this should only be done by the staff with proper training. If there are any privacy or other concerns on the side of either the participant (resulting from the fact that they might not be able to see the entire courtroom and all persons present) or the court (if suspecting

that there are other persons present in the participant's vicinity that might impact the reliability or effectiveness of their participation), cameras should allow for repositioning.

**(5) Interpretation:** If interpretation is necessary, the videoconferencing platform and the setup should support the integration of multiple languages and facilitate the involvement of interpreters without them being disruptive to the proceedings.

Although the numbers listed in the literature somewhat vary, it is estimated that 60 to 65 per cent of interpersonal communication is conveyed via nonverbal behaviours (Foley and Gentile 2010, 39; see also Burgoon, Manusov and Guerrero 2022, 4ff.). Many nonverbal behaviours are unconscious and can often be a more authentic reflection of a person's thoughts and emotional state. As stated by Goldenson and Josefowitz (2021), "The remote format inherently changes the setting, and it can also change the observer's visual field and the quality of visually presented information." A person can only observe and interpret the stimuli of the information that the technology (camera, the microphone) is able to capture and transmit, which can be very limited due to the visual field or because technology cannot capture and transmit some information at all. For example, if the observer only sees a person's face or upper body, they might not see that while talking, the person is fidgeting with their hands or feet. In a videoconferencing setting, one is also unable to choose who and what they will observe during testimony. Sometimes, what is displayed on camera might not be the most important or the only relevant information. Someone's reaction to the information might also be important but could be missed if not given a choice over where to direct attention. Furthermore, there are fewer communication (sensory) channels at our disposal when using videoconferencing, which narrows one's perception and ability to perceive (nonverbal) messages. Some senses cannot be used at all, such as smell (olfactory information), which can provide very useful and relevant information about a person's hygiene or the use of alcohol or other substances. These disadvantages are present even if everything else functions properly. The implications are even more critical in the case of technical difficulties, such as poor video quality, voices being distorted through microphones, internet connection issues cutting off voices, microphones picking up distracting background noises and issues with video freezing or losing connection completely. Such issues narrow or change one's perception even further, making it more difficult to receive and decode messages effectively and to form accurate judgements about the message and the person (Tran 2023, 494-495). Wegge (2006, 276) further highlights several disadvantages of videoconferencing: "missing eye contact due to the use of cameras and camera positionings, a temporal delay of signals due to coding, transmission, and decoding of information; a sometimes observable asynchrony of video and audio data; low bandwidths for transmission that restrict video and audio quality; the fade out of some information; and the use of separated rooms" that can all lead to communication problems, for example, distractions from the task, issues regarding effective turn-taking during discussions, problems with continuous grounding signals that indicate understanding and communication readiness of listeners, or difficulties in pointing and referring to objects out of sight. Furthermore, videoconferencing dialogues can often be longer, contain more interruptions and develop less mutual understanding compared to those occurring in person, even compared to those who only use audio communication. Being in different locations while communicating can also result in "we versus them" thinking, which might lead to dysfunctional intergroup behaviour.

Poor lighting, camera angles, and the setting from which a person appears on video may lead to negative perceptions of that person (Turner 2021, 218; Tran 2023, 494). A study by Fauville et al. (2022) showed that gaze and camera angle significantly affect impression formation. Gaze on-camera was positively associated with likeability (attractiveness, competence, extroversion, likeability, trustworthiness), social presence and interpersonal attraction (willingness to cooperate with that person). High camera angles increased interpersonal attraction and decreased threat perceptions compared to low angles. Faces closer to the camera and maintaining a direct gaze were rated as more socially present and threatening than in other positions. Another factor that could potentially impact communication and impression formation is the background of a videoconferencing video. It can be informative and aid a person to represent themselves correctly, but it can also negatively affect the perception of a person or be distracting to the procedure. Rowden and Wallace (2019) addressed and discussed the issue of the environment in which one is communicating. They gathered the opinions of several judges and expert witnesses on videoconferencing from different rooms and with different set-ups and how that was sometimes detrimental to their expert opinion or how sometimes the background could be distracting. For example, the judges noted that if somebody testifying from their office is set up and lit in a certain way to give the impression of authority, of being in command of the situation and looking down on others, that can create a certain impression. In another case, the doctor who treated a victim of assault gave evidence from the hospital lunchroom, all geared up and ready to go into theatre, with people coming in and out getting coffee, and was perceived as being distracted by other people.

The awareness that some (relevant) things are or might be happening outside of one's field of perception (visual field) and not having the ability to choose which stimuli to focus on can be the source of anxiety for participants, who might become more alert, defensive, more conservative, more anxious, frightful or distrusting. Courts have reported wondering or worrying

about videoconferencing witnesses being prompted by another individual outside of the camera's view, consequently resulting in unreliable testimony (Williams 2011, 9). However, proper precautions and measures can help alleviate such concerns. While many judges report that they prefer person-to-person interactions (including, for example, the late Justice Antonin Scalia, as cited by Tran 2023, 492), some also perceive videoconferencing as having the potential to enhance rather than limit the assessment of witness credibility, because “they can see the witness's full faces rather than ‘someone's left ear’ peering from the bench” (Tran 2023, 492).

Videoconferencing platforms usually allow participants to see themselves on screen while communicating. Researchers report that stimuli such as mirrors, cameras, the presence of an audience, pictures, or recordings of one's voice are known to produce heightened self-awareness (being the object of one's own attention) (Morin 2011, 809). Increased self-awareness can lead to a person being more critical of themselves, emotional states they are experiencing at the moment can become more visible, and if they are not satisfied with their current performance, they might want to adjust their behaviour so that it better matches their standards and societal norms (Wegge 2006, 279). Not only the presence but the positioning and the size of the window displaying a picture or video of a participant in a videoconference might also be relevant. A study done by Wegge (2006) measured how well people performed in a mock oral exam using videoconferencing. Their performance was affected by their trait-anxiety (highly anxious individuals achieved lower scores than less anxious individuals), but also the size of their picture being displayed while they were questioned. Wege concluded that a person's behaviour (performance) can be affected by the size of their image in a videoconference. Other authors also reported on this phenomenon: small mirrors generate an awareness of more private aspects of the self, whereas large mirrors and audiences induce public self-scrutiny (Morin 2011, 809).

### **III. Managing proceedings**

**(1) Introductions:** Videoconference should begin with a formal introduction and an overview of what to expect, allowing participants to familiarise themselves with the situation and reduce initial anxiety. A judge should make sure to check whether participants have any questions or concerns and whether they are ready to begin.

**(2) Communication:** Communication should be adapted to account for the particularities of videoconferencing. The formality and authority of court proceedings can be reinforced by addressing participants by their formal titles and roles. A judge should make a special effort to engage with remote participants, for example, by regularly checking if they have any questions or need clarifications. They should acknowledge that participants might feel uncomfortable with videoconferencing, thus validating their feelings and establishing a supportive environment. It is advisable to look directly into the camera when addressing participants, as simulated eye contact can increase the feelings of connection. Open and relaxed body language (e.g., slightly leaning forward) can encourage participants to be more forthcoming and cooperative. Such a considerate approach can alleviate their anxiety, ensure they feel heard and included, help them stay engaged, and reduce Zoom fatigue. A protocol should be implemented and communicated to the participants on the proper turn-taking to avoid talking over one another or disrupting other speakers, as this can be confusing and stressful in a videoconferencing setting. It is very important to use a structured approach to questioning and allow sufficient time for participants to respond properly, thus making it easier to assess credibility while also reducing anxiety for participants who might otherwise feel pressured. If there is a possibility of slight delays in video transmission, this should be taken into account, and participants should be allowed sufficient time to finish their thoughts to prevent misunderstandings and ensure that observable nonverbal cues are accurately perceived. If translation is needed, interpreters should also be given enough time to complete their task effectively.

**(3) Incorporating breaks:** Videoconferences should be planned in a way that allows for sufficient breaks, especially during longer hearings, to prevent fatigue and allow participants time to recover emotionally, as remote testifying can increase feelings of stress and anxiety.

**(4) Protecting confidentiality:** Participants should be reassured that the platform used for remote hearing has been properly secured, and they should be explained what measures are in place to protect their privacy, which can reduce anxiety related to personal security. Waiting rooms or manual approvals should be utilised to allow participants to join videoconference only when the court is ready, thus maintaining control over who is present. Any evidence shared during proceedings must be securely transferred using proper encryption. Screen sharing should be avoided, unless necessary, to prevent unauthorised and improper collection of sensitive data. Proceedings should only be recorded and stored in accordance with the applicable legislation and by an authorised person. Participants should be warned against recording, taking photos or screen capturing.

**(5) Feedback:** After the videoconference, participants should be given the option to provide feedback on their experience. This could help identify areas that need improvement and, at the same time, give participants the impression that their cooperation is appreciated. Positive impressions and beliefs about courts and the judicial system might make them feel more comfortable using the system again.

People form impressions of each other all the time, whether consciously or implicitly, and make decisions based on those impressions (Uleman 1999). Impression formation is a set of processes in which an individual collects and combines information about another to form a global impression of that person. The process is ongoing and can be impacted by anything; something as simple as the firmness of a handshake or what a person is wearing can have a tremendous impact on someone's impression and the assumptions they make about the person (see, for example, Chaplin et al. 2000). For example, research has shown that people who employ slow rates of speech are viewed as more calm, composed, trustworthy, and honest by evaluators in comparison to those who utilise rapidly paced speech. Speech patterns may also affect the perception of someone's confidence (Cramer, Brodsky and DeCoster 2009, 64). Direct eye contact and smiling are associated with characteristics such as intelligence, good leadership, and caring (Kilgo, Boutler and Coleman 2018). Court proceedings represent a social situation where how and what kind of impressions are being made is really important. The research results suggest that a person's perceived characteristics can impact judicial decision-making. The testimony of witnesses who are seen as more confident is considered to be more accurate and believable (Luus and Wells 1994). Furthermore, a certain amount of evidence can be found in support of the hypothesis that the more a subject likes the source of a persuasive message, the more they will change their belief toward the position the source is advocating (McGuire 1969). The testimonies of likeable witnesses seem more impactful than those of dislikable witnesses. They are also viewed as more truthful and credible (Garcia and Griffitt 1978). These findings also seem to apply to the testimonies of expert witnesses (see, for example, Brodsky et al. 2009).

Research suggests that people who collaborate and communicate face-to-face are perceived as more likable and more intelligent compared to when they collaborate and communicate with each other over video. This could be a consequence of the attenuation of visual signals, particularly eye-to-eye contact in a videoconferencing setting, which has been shown to be important in impression formation (Fullwood 2007). Similarly, studies on the effect of video interviewing in a job selection process suggest that the method one uses – face-to-face versus online interview – could significantly impact the perception of both the candidate and the employer and the outcome of the selection process. Job seekers (participants in a study) who were interviewed remotely evaluated the interviewer as being less pleasant, trustworthy, competent, and attractive, while the “employers” gave applicants lower ratings of affect (likeability) and lower overall interview scores. The remotely interviewed candidates were also less likely to be recommended and selected for the position. Applicants reported that they felt they could have presented themselves better and shared more vital and relevant information about their skills and competencies if they could have done the interview face-to-face rather than through video. They also perceived their remote interviews as less procedurally just, probably because the outcomes of remote interviews were less favourable than face-to-face interviews (Sears et al. 2013). Videoconferencing might thus lead to a less favourable perception of a person and also result in different decisions than it would in the case of in-person communication. Diamond found that felony bail amounts in Cook County (Illinois) increased by an average of 51% in the eight years after they were moved



from in-person to video initial bail hearings (Diamon et al. 2010; see also Vavonese et al. 2020; for how the impressions of the judge might be affected in a videoconferencing setting, see above).

Some people might be naturally better or more comfortable in front of the camera or have more experience with technology than others (e.g., they might be very active on social media, create many videos and frequently engage with people in this way). Their ability to make a connection and leave a more favourable impression on people on the other side of the conversation is most likely greater than that of someone with little or no experience engaging with a camera (for example, older people). Communicating via videoconferencing could thus be perceived effectively as a learned skill where speaking into the camera versus looking at the monitor to see the person with whom they are conversing makes a difference (Bellone 2013, 31). It is important to emphasise that the ability and ease with which a person engages with participants on the other side through technology is not relevant only for lay participants, such as the parties or witnesses, but also for the judge and other professionals in proceedings. If they are uncomfortable or new to this kind of communication, they will probably also need some time, experience or some guidelines or instructions to learn how to make better eye contact, to make connections and optimal impressions on people on the other side, to be able to be as assertive, as effective and have as much control over the procedure as they would have or they do have when presiding taking part in a regular court proceeding. A study done by Rowden and Wallace (2019) examined the environmental factors and interviewed expert witnesses who gave their testimonies remotely through videoconferencing. The data suggests that using audiovisual links could compromise the performance of the expert and affect how the expert felt their testimony was received in the courtroom. They attributed these difficulties in performing well in the remote setting to the quality of technology but also to the fact that videoconference is a different communication experience in which they felt they were unable to use their body language, rely on their gestures, or interact with their exhibits to explain complex concepts to other participants of the procedure. It was also more difficult to consider how they were perceived, if they were understood, or if additional explanation was needed. In short, they found it more difficult to communicate their findings effectively through videoconferencing.

Videoconferencing might ease some of the pressure of a courtroom environment, which could result in people being more engaged and able to express themselves. Being overwhelmed with emotion or going into a state of detachment or passive acceptance might result in a person not being able to communicate effectively, which could, in turn, undermine the truth-finding function of the trial itself. On the other hand, while courtroom environments and procedures can be anxiety-provoking, “the very ceremony of trial and the presence of the factfinder may exert a powerful force for truth-telling” (Kutz 2022, 297). The way the courts and courtrooms are designed, the presence of many symbols of judicial authority (e.g., the robes, wigs, flags and other emblems) and the procedures taking place from the moment one steps into the court (e.g., going through security, leaving some belongings behind, etc.) have a psychological effect on a person. They are meant to evoke respect, they signal that the legal event is not an everyday event, and they signify the authority of the judge to make important, possibly life-changing decisions for some people on behalf of the community (for more about the importance of judicial symbols, see Kessler 1962). How the judge appears to other court participants, how judicial rituals operate and how the technological and spatial architecture that underpins the distributed courtroom works are all vitally important in presenting the judge as authoritative and the court as legitimate (Rowden and Wallace 2018, 505). In a videoconferencing setting, the judge has less direct control over the management of the distributed courtroom and the production of their image compared to the “regular” courtroom proceedings, which might affect the perception and reception of the judge’s image and possibly even judicial systems. This effect on the judge’s image has important implications for two particular aspects of the judicial role: their management of the courtroom and their capacity to embody and project the court’s authority (Rowden and Wallace 2018, 510).

#### **IV. Participants’ psychological state and wellbeing**

**(1) Preparations for videoconference:** Participants should be provided with guidelines on how to prepare for videoconferencing in advance (see I. Preparatory Activities). They should be advised to dress formally, as they would for in-person court proceedings, which can reinforce the formality and authority of the court setting and remind the participants of the seriousness and importance of their participation. They should be educated on how to set up their space and equipment to achieve the best results with their testimony. Their environment should be set up in a way that is comfortable, with appropriate lighting and temperature, but without any distractions. The camera should be positioned at a comfortable distance to avoid feeling overly scrutinised. Participants should be instructed to turn off any unrelated electronic devices and limit background noises to maintain their focus on the proceedings. In the case of bothersome background noise interference, they might be





requested to use headphones to ensure better sound quality. They should be encouraged to look straight into the camera when speaking to simulate eye contact, as this promotes personal connection and conveys sincerity and competence. They should minimise self-view as much as possible to prevent heightened self-awareness, which can lead to distraction and self-regulation. Sitting upright, speaking clearly, and using natural gestures can provide additional non-verbal signals that make the participant appear more trustworthy and enhance their perceived credibility.

(2) Supportive environment: Participants should find a quiet and private space from which to participate, as being in a familiar and controlled environment can reduce stress and allow them to focus on the proceedings. In the case of vulnerable participants (for example, victims of aggression or children), they might be allowed to have a trusted person nearby for emotional support (although preferably off-camera and without them being distracting). As one of the advantages of videoconferencing is a chance to avoid being in the same room as the aggressor, it should be organised in a way that utilises these options and promotes privacy, which can reduce the effects of secondary victimisation.

(3) Supportive communication: A judge and court staff should use empathetic language and offer reassurance when needed, which can help alleviate anxiety and improve motivation to participate in proceedings to the best of one's abilities. If a participant becomes visibly distressed or anxious, that should be acknowledged and addressed as soon and as calmly as possible. It is advisable to check in on participants when appropriate, for example, by asking them if they need any clarifications or a break. Breaks should be scheduled, especially during longer hearings, to reduce fatigue, which might be worse in videoconferencing than in-person proceedings, and allow participants to regain focus and manage anxiety.

(4) Addressing cultural differences: Challenges related to videoconferencing can be exacerbated in cross-border proceedings, with participants from different cultural backgrounds and with different language skills. A judge should be aware of possible cultural differences that may affect non-verbal signals (for example, culturally specific ways to shake heads when agreeing or disagreeing) and increase the participant's anxiety. Furthermore, a participant might hold various beliefs about another country's court proceedings and judicial system that could hinder their ability to testify, which should be considered, respected, and addressed as well as possible. If interpretation is needed, it should not distract the participant's testimony, nor should the participant feel that something is left out or lost in translation.

(5) Technology-related anxiety: Participants should be reassured that videoconferencing is conducted in a safe online environment and that proper measures are implemented to address potential technological issues. It should be emphasised that if technical problems occur (e.g., lost connection), participants will not suffer any negative consequences or be judged negatively, even if the reason for the issue occurred on their side of the connection. Knowing that technical issues are a regular occurrence and accounted for can reduce their anxiety. If necessary, a test session should be carried out before the actual proceedings to allow the participant to address any concerns.

The quality of testimony and cooperation depends on the participant's willingness to engage and share information with other participants in court proceedings (Goldenson and Josefowitz 2010, 92). Research suggests that intrinsic motivation leads to deeper engagement (Csikszentmihalyi 1990), higher quality work and more persistence in the face of challenges than extrinsic motivation (Deci and Ryan 2000). The person's level of cooperation depends on several external and internal motivators, as well as on the obstacles or costs of engaging in that behaviour (financial, time, psychological, etc.). The complexity of the issue is reflected in the lack of empirical research on witness motivation, as the researchers gathered

most of the available data from witnesses of mass crimes who testified in international war crime courts. The most frequently identified motivations for testifying were fulfilling a moral duty, seeking retributive justice (accountability, punishment), reducing psychological pain (by telling their story and being heard and understood by others), confronting the accused (to gain information and informing them of the pain and harm they inflicted), and, lastly, obtaining material benefits (Stepakoff et al. 2014, 5). While not a regular practice in court proceedings, it may be useful for the court to inquire in the early phases of a witness's involvement about their motivations for testifying and how the possibility of a remote testimony would impact their willingness and ability to testify effectively. For example, if their primary motivation is to see the accused in custody, and the witness is expected to testify via video link, support workers could advocate for the option of giving evidence in the courtroom instead (Stepakoff et al. 2014, 26). The decision whether to cooperate or not (motivation) and to what extent will depend on external factors but also on someone's internal concepts, beliefs, and prejudices. While it is sometimes very difficult to predict and understand why someone behaves a certain way, some of the more important influences and motivators of behaviour include one's values, needs, and cognitive and metacognitive models of themselves, other people and the world. In the case of participants in court proceedings, concepts and beliefs about legal systems, legal procedures, lawyers and judges, beliefs and prejudice about the ethnicity or gender of people involved, their ability to speak eloquently, of being treated fairly, etc., could all be relevant. In the case of videoconferencing, beliefs about videoconferencing and technology in general could also be important. It is thus important that participants within the judicial system trust the system and have positive beliefs about it, otherwise they might not be motivated enough to cooperate. In the case of intercultural proceedings, the beliefs and prejudices about the other country involved, its citizens, government, etc., are also important, and the smallest factors, such as which court is the one that issued the summons and which court is in charge of case management, could make a difference in how a person responds. Research suggests that interacting with someone from a different cultural background can lead to feelings of uncertainty or discomfort in communication (Logan, Steel and Hunt 2014, 40; MacIntyre et al. 2002; Neuliep and Ryan 1998), as well as anxiety due to unfamiliarity with the cultural norms and expectations. The higher anxiety that is experienced by an individual, regardless of how anxiety-provoking a situation is, the less willing that person will be to engage in intercultural communication (Logan, Steel and Hunt 2014, 49). If the levels of anxiety and uncertainty are too high, people will avoid intercultural communication (for more on the so-called Anxiety Uncertainty Management (AUM) theory, see Gudykunst 2005). Ethnocentrism, which can be conceptualised as a preference for one's own cultural standing or values, appears to be related to anxiety and uncertainty in intercultural communication and is also associated with lower levels of willingness to engage in intercultural communication (Lin and Rancer, 2003). (Lin and Rancer 2003; Lin, Rancer and Trimbilas 2005; Logan, Steel and Hunt 2014, 40). When using videoconference in court proceedings with cross-border elements, a witness is still in an intercultural situation, but at least a part of the experience is led or mediated by a member or members of their culture, someone who speaks their language and shares their cultural norms, customs and knowledge. They may also be located in an environment that is more familiar and closer to home instead of being in a foreign country and surrounded by foreign people, making the experience at least a bit more predictable and less anxiety-provoking.

The psychological state of a witness impacts how well they can testify, so it is necessary to be mindful of possible sources of anxiety in court proceedings and whether videoconferencing might enhance or relieve anxious and fearful responses in a witness. People show less stress in familiar than in unfamiliar settings (Nathanson and Saywitz 2003, 71), and not being familiar with a situation or being unable to predict the next steps often elicits anxiety (Neuliep and Ryan 1998; Logan, Steel and Hunt 2014). Anticipatory anxiety is characterised as an unpleasant psychological state in response to feelings of uncertainty and stress concerning the performance of a task. There is a negative relationship between anticipatory anxiety and performance. Physiological responses to anticipatory anxiety include increased heart rate, breathing rate, muscle tension and sweating (Streetman et al. 2022, 1349-1350). Anticipatory anxiety can also elicit cognitive and behavioural responses, such as avoidance and negative self-talk, going into a state of feeling helpless or powerless (Seligman and Csikszentmihalyi 2014; see also Clemente and Padilla-Racero 2020), or it can even negatively affect motor skills (Streetman et al. 2022, 1350). People who are anxious and preoccupied performed more poorly on a test measuring eyewitness accuracy, and their perception and recall of significant information is worse than that of less anxious and self-focused individuals (Siegel and Loftus 1978). Anxious witnesses can also be perceived as less credible and less truthful. In extreme cases, such as the case of sexually abused children, the fear and trauma associated with a child's testimony in front of the defendant may cause psychological injury to the child and overwhelm them to the extent that prevents effective testimony (for more, see Thoman 2013, 243). Repeated exposure to an event (i.e., familiarisation) can reduce anxiety; even if it does not, familiarisation still enhances performance (Streetman et al., 2022). Some authors suggest that if justice system users knew how the legal process works, that could help avoid some of these problems, especially going into a state of (learned) helplessness (Seligman and Csikszentmihalyi 2014; see also Clemente and Padilla-Racero 2020). Videoconferencing has the potential to minimise the effect of some of the sources of anxiety mentioned above. It enables a witness to testify in a more "intimate" environment, in a smaller, more private setting, which could reduce the feelings of anxiousness and uneasiness and enhance the witness's performance. If they have to take part in proceedings abroad, in a foreign country, in a foreign courtroom, without speaking the language of proceedings, their anxiety might be even greater than if they could testify from their own country, which can be done via videoconferencing. On the other hand, although videoconferencing could be very useful in eliminating or reducing some of the sources of anxiety and thus making witness



testimony more efficient, it could also have the opposite effect. Some people might be unfamiliar or uncomfortable using videoconferencing technology, especially if they do not regularly use the internet, social platforms, video chat, etc. (for example, elderly or individuals from less developed countries). Not everyone has the same access to the necessary technology or skills needed to use it. Being unfamiliar with this element of communication might once again increase anxiety and affect the person's testimony. Another issue might arise if someone is too familiar with the platforms. Some individuals are very specific about the type of platform they are willing to use to communicate and may raise excessive concerns about the policies and security features of different companies, including wondering whether a video call can be transmitted, hacked, recorded or listened to. Their beliefs about what could happen affect their willingness to communicate and share information on different platforms. Sometimes, small changes, such as the testimony being recorded or not or the platform used to make the video call, can make a big difference in what a person is willing to share. This should not be overlooked by the courts, which should be prepared to address any such concerns if raised.

Researchers found that testifying can be more than just emotionally draining; it can be harmful to a person's mental health. Though the researchers have mostly focused on how being a part of court proceedings affects the victims in criminal proceedings, findings suggest that secondary victimisation is a process relevant to civil proceedings as well. For example, the injured party might face the same challenges when claiming damages from the offender, and child custody disputes are a good example of the difficulty of distinguishing the victim from the aggressor (for more, see Clemente and Padilla-Racero 2020, 866). Procedures within the legal system can sometimes clash with the needs of the victims who are trying to move on from the conflict or abuse and heal mentally. While some individuals may value the opportunity to tell their stories in a broad public forum, others may prefer to keep silent or to self-disclose only in private settings or smaller, local contexts (Stepakoff S et al. 2014, 9). However, the legal process might require them to testify publicly, which can cause them to relive their trauma, especially when challenging their opponent's claims. The feeling of helplessness and the fear of re-victimization can trigger severe anxiety or depression. The emotional toll can lead to victims feeling misunderstood and even blaming themselves for the crime. Societal stigma can worsen the situation even further, with victims not receiving the compassion and support they deserve and might even be viewed with suspicion. This can lead to social isolation and increase the risk of future victimisation, creating a cycle of vulnerability. Victims of an offence thus often become victims of the justice system and endure negative experiences that are a product of the system itself. This is called secondary victimisation and has been defined as the distress suffered by a victim of an offence due to the negative psychological, social, legal and financial impact of being processed by the justice system (as summarised by Clemente and Padilla-Racero 2020). If using videoconferencing could prevent or minimise secondary victimisation (for example, by minimising the contact between the injured party and the offender or avoiding public exposure of a vulnerable witness), or if it could speed up the process and bring closure and relief to participants faster, that is something that should be considered.

## **V. Troubleshooting**

**(1) Support:** A dedicated support team should be available and present to provide immediate assistance in case of any technical problems. While not always preventable, any interruption in the transmission should be kept as short as possible. Being interrupted frequently can disrupt the witness's testimony and engagement and thus negatively affect their emotional continuity. If technical difficulties continue (e.g., connectivity issues, software malfunctions, etc.) and cannot be definitively solved, the judge should consider whether postponing the hearing would be less damaging to the reliability of the testimony.

**(2) Contingency plan:** A protocol should be established on how to respond in the event of lost connection or other connectivity issues to resume proceedings with minimal disruption and communicated to all participants in advance. It is advisable to collect phone numbers or other contact information so that communication can continue even if videoconferencing is temporarily unavailable and participants can be kept in the loop. A judge should remain calm and empathetic. While the issue is being resolved, they should attempt to reassure participants and alleviate any additional stress and frustration they might feel about being misinterpreted.

Technical issues can change our perception, but they can also impact the psychological state of a person and, by that, the testimony and perception of testimony. Being interrupted frequently, either when communicating face-to-face or with the help of video technology, can make it more difficult for a person to express themselves fully and correctly. The emotional aspect of the story might not be expressed at all, or a person might stay at a more cognitive and intellectual level when testifying, which might be useful in some cases but might not be beneficial in others and could result in a person being distrusted, disbelieved, or misperceived. For example, a witness thoroughly describing an event that made them feel sad or fearful is reliving the event and the emotions accompanying it. They are congruent in their communication; what is being said verbally matches the nonverbal information. Other participants in court proceedings follow and are engaged in the testimony. If the camera then freezes and live transmission stops, the testimony will be different when it continues than if that interruption had not happened. The witness might be less emotional, less vulnerable, or even annoyed or angry that they must repeat themselves. The length and frequency of these interruptions might be relevant as well. Zaki, Bolger and Ochsner (2009) examined the neural and sensorimotor basis for empathy and found that empathic accuracy increases when the person perceiving the information has reliable access to both auditory and visual information. The risk of not having reliable access to relevant information is greater when using videoconferencing compared to live court proceedings (see also Goldenson and Josefowitz 2010, 92). Technical issues can occur, and even if they do not, one of the issues of online communication is that it is not entirely synchronous (Wiederhold 2020, 437). Even the smallest lags in time can impact people's interactions and possibly also their empathic accuracy. These micro asynchronicities that are happening during video calls also contribute to a phenomenon called "Zoom fatigue" – videoconferencing seems to be cognitively more demanding than in-person communication. The Zoom fatigue supposedly occurs because our brain has to work harder in order to sync and correct the delays happening in video and audio information that we are receiving with the help of technology. Furthermore, face-to-face communication is not really just face-to-face; people take in signals from others' whole bodies to understand what they have to say. As most videoconferences frame only a person's face, thus eliminating access to many of these nonverbal cues, it can be difficult to tell if others on the call still follow and understand what is being said. Finally, human brains can register having a person's enlarged face in one's space and prolonged eye contact as threatening (Wiederhold 2020, 437). Despite its name, Zoom fatigue is not limited to a specific type of software used for videoconferencing and could thus also represent a potential disadvantage of court proceedings. If higher cognitive load is required to follow events on video, following virtual court proceedings could also be more difficult than following in-person courtroom proceedings (see also Tran 2023, 494).

## References

- Argelander H (1976) *The Initial Interview in Psychotherapy*. Human Sciences Press, New York.
- Bellone ET (2013) Private Attorney-Client Communications and the Effect of Videoconferencing in the Courtroom. *Journal of International Commercial Law and Technology*, 8(1):24-48.
- Brodsky SL et al (2009) Credibility in the courtroom: how likeable should an expert witness be?. *The journal of the American Academy of Psychiatry and the Law*, 37(4):525-532.
- Burgoon JK, Manusov V, Guerrero LK (2022) *Nonverbal Communication*, 2nd edn. Routledge, New York and London.
- Chaplin et al (2000) Handshaking, gender, personality, and first impressions. *Journal of personality and social psychology*, 79(1):110-117. <https://doi.org/10.1037/0022-3514.79.1.110>.
- Clemente M, Padilla-Racero D (2020) The effects of the justice system on mental health. *Psychiatry, Psychology and Law*, 27(5):865-879. <https://doi.org/10.1080/13218719.2020.1751327>.
- Cramer RJ, Brodsky SL, DeCoster J (2009) Expert witness confidence and juror personality: their impact on credibility and persuasion in the courtroom. *The journal of the American Academy of Psychiatry and the Law*, 37(1):63-74.
- Csikszentmihalyi M (1990) *Flow: The Psychology of Optimal Experience*. Harper & Row, New York.
- Deci EL, Ryan RM (2000) The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4):227-268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01).
- Diamond SS et al (2010) Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions. *The Journal of Criminal Law and Criminology*, 100(3):869-902.
- Fauville G, Queiroz ACM, Luo M et al (2022) Impression Formation from Video Conference Screenshots: The Role of Gaze, Camera Distance, and Angle. *Technology, Mind, and Behavior*, 3(1). <https://doi.org/10.1037/tmb00000055>.
- Foley GN, Gentile JP (2010) Nonverbal communication in psychotherapy. *Psychiatry (Edgmont)*, 7(6):38-44.

- Garcia LT, Griffitt W (1978) Impact of testimonial evidence as a function of witness characteristics. *Bulletin of the Psychonomic Society*, 11(1):37-40. <https://doi.org/10.3758/BF03336759>.
- Goldenson J, Josefowitz N (2021) Remote Forensic Psychological Assessment in Civil Cases: Considerations for Experts Assessing Harms from Early Life Abuse. *Psychol Inj Law* 14(2):89-103. <https://doi.org/10.1007/s12207-021-09404-2>.
- Gudykunst WB (2005) An anxiety/uncertainty management (AUM) theory of effective communication: Making the mesh of the net finer. In: Gudykunst WB (ed) *Theorizing about intercultural communication*. Sage, Thousand Oaks, CA, p. 281-322.
- Kessler RA (1962) The Psychological Effects of The Judicial Robe. *American Imago*, 19(1):35–66.
- Kilgo DK, Boutler TR, Coleman R (2018) Face Value: Linking Nonverbal Cues to Character Traits in Impression Formation of Politicians. *International Journal of Communication*, 12:4205-4228.
- Lin Y, Rancer AS (2003) Ethnocentrism, intercultural communication apprehension, intercultural willingness-to-communicate, and intentions to participate in an intercultural dialogue program: Testing a proposed model. *Communication Research Reports*, 20(1):62-72. <https://doi.org/10.1080/08824090309388800>.
- Lin Y, Rancer AS, Trimbilas O (2005) Ethnocentrism and intercultural-willingness-to-communicate: A cross-cultural comparison between Romanian and US American College Students. *Journal of Intercultural Communication*, 34:138-151.
- Logan S, Steel Z, Hunt C (2014) Investigating the Effect of Anxiety, Uncertainty and Ethnocentrism on Willingness to Interact in an Intercultural Communication. *Journal of Cross-Cultural Psychology* 46(1):39-52. <https://doi.org/10.1177/0022022114555762>.
- MacIntyre PD et al (2002) Sex and Age Effects on Willingness to Communicate, Anxiety, Perceived Competence, and L2 Motivation Among Junior High School French Immersion Students. *Language Learning*, 52(3):537-564. <https://doi.org/10.1111/1467-9922.00194>.
- McGuire WJ (1969) The nature of attitudes and attitude change. In Lindzey G, Aronson E (eds) *The Handbook of Social Psychology*, Vol. 3, 2nd edn. Addison-Wesley, Massachusetts, p. 136-314.
- Morin A (2011) Self-Awareness Part 1: Definition, Measures, Effects, Functions, and Antecedents. *Social and Personality Psychology Compass* 5(10):807-823. <https://doi.org/10.1111/j.1751-9004.2011.00387.x>.
- Nathanson R, Saywitz KJ (2003) The Effects of the Courtroom Context on Children's Memory and Anxiety. *The Journal of Psychiatry & Law*, 31(1):67-98. <https://doi.org/10.1177/009318530303100105>.
- Neuliep JW, Ryan DJ (1998) The influence of intercultural communication apprehension and socio-communicative orientation on uncertainty reduction during initial cross-cultural interaction. *Communication Quarterly*, 46(1):88-99. <https://doi.org/10.1080/01463379809370086>.
- Reese RJ et al (2016) The effects of telepsychology format on empathic accuracy and the therapeutic alliance: An analogue counselling session. *Counselling and Psychotherapy Research*, 16(4):256-265. <https://doi.org/10.1002/capr.12092>.
- Rowden E, Wallace A (2018). Remote judging: the impact of video links on the image and the role of the judge. *International Journal of Law in Context*, 14(4):504-524. <https://doi.org/10.1017/s1744552318000216>.
- Rowden E, Wallace A (2019) Performing Expertise: The Design of Audiovisual Links and the Construction of the Remote Expert Witness in Court. *Social & Legal Studies*, 28(5): 698-718. <https://doi.org/10.1177/0964663918802991>.
- Sears J et al (2013) A comparative assessment of videoconference and face-to-face employment interviews. In: Robles F (ed) *Management Decision*, 51(8):1733–1752. <https://doi.org/10.1108/md-09-2012-0642>.
- Siegel JM, Loftus EF (1978) Impact of anxiety and life stress upon eyewitness testimony. *Bulletin of the Psychonomic Society*, 12(6):479-480. <https://doi.org/10.3758/bf03329743>.
- Stepakoff S et al (2014) Why Testify? Witnesses' Motivations for Giving Evidence in a War Crimes Tribunal in Sierra Leone. *International Journal of Transitional Justice*, 8(3):426-451. <https://doi.org/10.1093/ijtj/iju019>.
- Streetman AE et al (2022) Anticipatory Anxiety, Familiarization, and Performance: Finding the Sweet Spot to Optimize High-Quality Data Collection and Minimize Subject Burden. *European Journal of Investigation in Health, Psychology and Education*, 12(9):1349-1357. <https://doi.org/10.3390/ejihpe12090094>.
- Thoman DH (2013) Testifying Minors: Pre-Trial Strategies to Reduce Anxiety in Child Witnesses. *Nevada Law Journal*, 14(1):236-267.
- Tran D (2023) Is witness credibility on virtual courtroom procedures impaired or enhanced for adults or children?. *Southern California Interdisciplinary Law Journal*, 32(2):491-[vi].
- Turner JI (2021) Remote Criminal Justice. *Texas Tech Law Review*, 53:197-271.

Uleman J (1999) Spontaneous versus intentional inferences in impression formation. In: Chaiken S, Trope Y (eds) *Dual-process theories in social psychology*. Guilford Press, New York, p. 141-160.

Vavonese LB (2020) *How Video Changes the Conversation: Social Science Research on Communication Over Video and Implications for the Criminal Courtroom*. [https://www.innovatingjustice.org/sites/default/files/media/documents/2020-11/Monograph\\_RemoteJustice\\_11192020.pdf](https://www.innovatingjustice.org/sites/default/files/media/documents/2020-11/Monograph_RemoteJustice_11192020.pdf). Accessed 25 Sept 2024.

Wegge J (2006) Communication via videoconference: Emotional and cognitive consequences of affective personality dispositions, seeing one's own picture, and disturbing events. *Human-Computer Interaction*, 21(3):273-318. [https://doi.org/10.1207/s15327051hci2103\\_1](https://doi.org/10.1207/s15327051hci2103_1).

Wiederhold BK (2020) Connecting Through Technology During the Coronavirus Disease 2019 Pandemic: Avoiding "Zoom Fatigue". *Cyberpsychology, behavior and social networking*, 23(7):437-438. <https://doi.org/10.1089/cyber.2020.29188.bkw>.

Williams RA (2011) Videoconferencing: Not Foreign Language to International Courts. *Oklahoma Journal of Law and Technology*, 7:1-23.

Zaki J, Bolger N, Ochsner, K (2009) Unpacking the informational bases of empathic accuracy. *Emotion*, 9(4):478-487. <https://doi.org/10.1037/a0016551>.

