

# An Arbitration Center's Perspective: Online Dispute Resolution and the Virtual Hearings: Six Characters in Search of an Author

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1. This text will include the observations I was able to make on 29 June 2021 at the conference held by the Centre for Private Law Research and the Portuguese Arbitration Association on online dispute resolution: the new challenges. The roundtable in which I participated concerned virtual hearings, and I was also asked for the institutional perspective.

The subtitle was suggested to us by the analogy that immediately emerges when looking at the differences between in-person hearings and remote hearings. The relationship between one and the other is like that which exists between the theatre, or stage, and the cinema. But the cinematic space in which remote hearings unfold is curious: the characters observing each other on the screen are, simultaneously, spectators and actors. It is no less true the characters who move on the stage of a live hearing are also, like the actors in Pirandello's play, simultaneously actors and spectators.

2. What immediately strikes one when considering the reaction of the institutions that administer arbitrations is the speed with which they moved. Faced with global restriction on flights, the impossibility of holding hearings in person has become an inevitability. If we think about the typical community put together for each international arbitration, we can immediately perceive a radical difference from that which is commonly constituted in the overwhelming majority of proceedings before the state courts. In an international arbitration of some complexity, the arbitrators are domiciled in different legal areas, the teams of representatives are composed of lawyers from different jurisdictions, legal experts are usually called upon to help the court interpret the substantive rules applicable to the case, which are typically not those of their national law, and if the dispute arises over the performance of a contract, the witnesses often live and work far from the seat of the court. The need for very significant number of procedural actors to come together at the place where the hearing will take place is part of the DNA of international arbitration. The flight bans and the closing of borders, as of March 2020, without any

clue as to when the restrictions would be lifted, created an all-or-nothing situation: either proceedings would be suspended due to the impossibility of holding hearings, or a subrogation of face-to-face hearings would be accepted which, while attempting to maintain the standards of the due process of law, would protect another value inherent to the exercise of the judicial function, namely, the effective achievement of justice through the pronouncement of decisions.

The main arbitration institutions had no doubts: hearings should be allowed to take place without physical presence, otherwise there would be an endless delay in arbitration proceedings. ICC, HKIAC and CAM-CCBC, among others, issued memoranda to encourage the holding of virtual hearings, preventing a standstill in the rendition of decisions that would still be preceded by hearings, and equipped their respective secretariats with means to permit proceedings to move online, with a particular focus on the holding of virtual hearings.

If one of the advantages ascribed to arbitration is speed, and if one of the fundamental considerations in any method of adjudication is the delivery of decisions within a reasonable time, it would be taking an enormous risk, in the face of a public health situation which was known when it was recognised, but the outcome of which was unknown, to create, at the very outset, a tendency to suspend proceedings while awaiting developments. The steps taken by institutions were prudent and courageous. While leaving room for differing decisions, they set out a sense of duty: judgments should continue to be delivered within a reasonable time, which entailed accepting that holding virtual hearings was a good thing.

3. In addition to the arbitration institutions, professionals, in particular arbitrators and lawyers, have also adapted quickly to virtual hearings. If, as recently as 2018<sup>1</sup>, only 30% of arbitrators reported having held hearings in a virtual environment, as early as March 2020 the growth in the number of hearings not conducted face-to-face was exponential<sup>2</sup>.

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1 Queen Mary's University of London, *International Arbitration Survey: The Evolution of International Arbitration*, 2018, <https://arbitration.qmul.ac.uk/research/2018/>, accessed on 22 December 2021.

2 A study conducted between March 2020 and June 2020 by Gary Born, Anneliese Day and Hafez Virjee found that the number of virtual hearings held had nearly tripled with reference to equivalent periods prior to the global pandemic crisis. Born, Day and Virjee, 'Empirical Study of Experiences with Remote Hearings', in *International Arbitration and the COVID19 Revolution* (2020), 137. The empirical data supporting this research can be found at <https://delosdr.org/wp-content/uploads/2021/06/2021.07.08-Remote-Hearings-2020-Survey-Data-Sheet-2021.pdf>, accessed on 22 December 2021.

Nothing in this phenomenon is self-evident. Indeed, it is undeniable that the mode of the hearing is a sensitive issue for the way in which in party representatives and the court perform their respective roles. The hearing is a stage on which each person plays his or her role. The radical change in the environment in which the hearing takes place brings with it the need to adapt the way they play these roles. In seeking to make this idea a little more concrete, clarity was achieved by comparing virtual hearings and in-person hearings, with each person having to play different roles (presiding arbitrator and legal expert).

4. Since it is impossible to make these reflections in comprehensive terms on the iconography and symbolism associated with the delivery of justice, which is less visible in an arbitral tribunal than in a state court - suffice it to recall the typical layout of the courtroom, with the judge on a high level, the dress code and accoutrements that immediately identify and distinguish the various actors involved in the proceedings, the ritual language used in communication between lawyers, actors and the judge - even so, there are differences when the court hearing takes place in a virtual environment.

In face-to-face hearings, held by arbitral tribunals, there are practices in the spatial layout which, by marking the place belong to each person, have a bearing, for example, on the body language of the lawyers acting for the parties when, for instance, examining witnesses or experts, and observation of the representatives of the opposing party when it is their turn to conduct the questioning. The arbitrators too, typically seated where they have a view of the different movements taking place, have had to adapt the way they exercise their powers, how they communicate with the representatives and with each other. This is particularly true for the presiding arbitrator when he has to intervene to ensure orderly proceedings and in his direct communications with his fellow arbitrators.

5. The computer screen puts everyone on the same level, visually very close, but without the proximity that allows for direct communication and for roles to be played in the way to which the various actors were accustomed. Broken and poor connections, even if momentary and rare<sup>3</sup>, break up the flow of the spoken word in questioning and in the provision of clarifications. Viewing side by side, on a flat screen, a document and

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3 As also reported by Born, Day and Virjee, identifying that the number of reported cases in which there were instability or difficulties in communications during virtual hearings was small and, moreover, their occurrence was felt to be irrelevant. Born, Day and Virjee, 'Empirical Study of Experiences with Remote Hearings', in *International Arbitration and the COVID19 Revolution* (2020), 137.

the procedural actor giving evidence entails a change in the way one pays attention to two activities that demand it simultaneously. Brains used to function in a three-dimensional space have had to adapt to "do the same" in a two-dimensional space.

"Doing the same thing" - that is, the attempt to replicate the conditions in which, in person, the same activities would take place, working to the same purpose and obtaining the same results - does not mean, as has been claimed, that the two environments are interchangeable. This non-equivalence is perhaps most apparent in the particularly severe fatigue occasioned by long online meetings, a subject already explored by scientists<sup>4</sup>.

One of the reasons given for this phenomenon has to do with the effort made to convert an image, which is perceived as amputated, into one that is captured in face-to-face interaction. We are not concerned here with the process of apprehension of images as far as the neuronal mechanisms activated by the processing of technologically mediated information are concerned. However, the relational function of image is indeed of special interest for the purpose of this article.

6. The intuition that the evaluative observation of the other is permeable to the way in which his image is represented to us is, in fact, confirmed by specialist research, which points out that the interaction between individuals and between these and the environment is systematically interpreted by the other person - the observer - through the attribution of meaning to gestures, actions and activities<sup>5</sup>.

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4 See, for example, Bailenson, 'Nonverbal Overload: a Theoretical Argument for the Causes of Zoom Fatigue' (2021) 2-1 *Technology, Mind, Behaviour*, 1, available at <https://tmb.apaopen.org/pub/nonverbal-overload/release/2>, accessed on 22 December 2021. In this study, the Author explores four possible causes for the fatigue felt by frequent users of videoconferencing platforms: the visual effort required to seize small and often very detailed images, the overload of the brain areas that allow the decoding of non-verbal forms of communication which, in that context, are more difficult to perceive, the constant confrontation with oneself (in the Author's expression, the subjection to an "all day mirror") and the constraints on mobility imposed by the need to remain visible to the other participants in a setting where the camera position is selective and limited. See, also, Nadler, 'Understanding "Zoom fatigue": Theorizing spatial Dynamics as third skins in computer-mediated communications' (2020) 58 *Computers and Composition*, 1, available at <https://www.sciencedirect.com/science/article/pii/S8755461520300748>, accessed on 22 December 2021, and the sources cited therein.

5 On the relationship between this motor tripartition of human behaviour and the mental processes which, because they are represented by movement, reveal these mental processes to others, cf. Cartmill, Beilock and Goldin-Meadow, 'A word in the hand: action, gesture and mental representation in humans and non-human

These movements, however, are only marginally captured by the instruments that allow communication at a distance - we may point, for instance, to the two-dimensional nature and small size of the image transmitted. On the other hand, mediation by an artificial means of capturing and transmitting images results in a greater degree of abstraction, with immediate consequences for the perception of the object - human or otherwise - represented<sup>6</sup>.

7. Another relevant issue is related to the relevance of the levels of symbolic interaction<sup>7</sup>, which are also fed by the perception of alterity. We are not dealing here with the symbology associated with the performance of certain functions or activities, but with the symbolic communication between individuals, which presupposes from the outset a common *framework* for attributing meaning to the interactions themselves, to the activities performed, to the environment in which they take place and to the subject who is either their protagonist or spectator. However, both the construction and consolidation of this common key to understanding are hindered by the aridity of the setting of the interaction, above all if they result in the abstraction of the *other person* - because the persons seeking to relate to each other are poorly represented, on both sides. It is therefore understood that the experience of another level of interaction, of which the digital realm is perceived as a degraded version, stimulates a creative

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primates' (2012) *Philosophical Transactions of the Royal Society B: Biological Sciences*, 129, available at <https://royalsocietypublishing.org/doi/10.1098/rstb.2011.0162>, consulted on 22 December 2021; Corbalis, 'Language as gesture' (2009) 28-5 *Human movement Science*, 556, available at <https://www.sciencedirect.com/science/article/pii/S0167945709000645?via%3Dihub>, consulted on 22 December 2021; Novack and Goldin-Meadow, 'Gesture as representational action: A paper about function' (2017) 24-3 *Psychonomic Bulletin & Review*, 652, available at <https://link.springer.com/article/10.3758%2F013423-016-1145-z>, accessed on 22 December 2021.

6 Regarding the relation established between the levels of mental representation of an object and the observer's perception of what is being observed (namely as to the attribution to the human being observed of states of mind and as to moral judgements, which are directly conditioned by the degree of abstraction of its image before the observer), cf. Merritt, Jenkins and Kingstone, 'The Medusa effect reveals levels of mind perception in pictures' (2021) 118-32 *Proceedings of the National Academy of Sciences*, 1, available at <https://www.pnas.org/content/pnas/118/32/e2106640118.full.pdf>, accessed on 22 December 2021.

7 For a brief description of the theories of symbolic interaction, with reference to their fundamental Authors, cf. Carter and Fuller, 'Symbols, meaning, and action: The past, present, and future of symbolic interactionism' (2016) 64-6 *Current Sociology Review*, 931, available at <https://journals.sagepub.com/doi/full/10.1177/0011392116638396>, accessed on 22 December 2021.

effort of reconstitution which is demanding, exhausting and incomplete. It is not a question here of measuring the efficiency of remote communication for the performance of specific tasks and functions, but it should not be ignored that the substantial change in the environment in which they are carried out corresponds to major psycho-cognitive changes which necessarily have repercussions for them.

8. The conduct of hearings in a virtual environment has also faced criticisms arising from the understanding of the principles and legal rules. The most significant - because potentially fatal, entailing, in the worst case scenario, annulment of the decisions rendered - relate to the situation that would result from an alleged violation of the principle of due process of law, due to diminished procedural guarantees.

In this context, the precedents that could be drawn from rulings issued by the European Court of Human Rights and the swift intervention of state courts is thought to have had a reassuring effect on the arbitration community. When assessing the delivery of justice, one should never lose sight of the context in which it is delivered. Judges, embedded in a hierarchy, are accustomed from the beginning of their careers to having their decisions scrutinised, overturned and replaced by decisions of courts to which they are hierarchically subordinate. The environment in which arbitrators carry out justice is entirely different. In fact, even though an appeal against an arbitration award may be envisaged, there is no hierarchy between the *iudex ad quem* and the *iudex a quo*. On the other hand, scrutiny of the legality of arbitral awards is very rare, because contractual provision is seldom made for the possibility of appeal against the arbitral award. This is the context in which arbitrators had to decide what to do as of March 2020: suspend the proceedings for lack of agreement of the parties regarding the scheduling of virtual hearings or face the risk of applications for annulment of the awards they would render<sup>8</sup>.

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8 The impact of the fear felt by members of an arbitral college and sole arbitrators of their decisions being reviewed has also been studied. Indeed, it has been noted that arbitral colleges and sole arbitrators are particularly sensitive to pressure from parties' representatives, often in the form of threats to initiate proceedings to have arbitral awards set aside (cf. Kopecky and Pernt, 'A Bid for Strong Arbitrators' (2016) *Kluwer Arbitration Blog*, available at <https://www.google.com/search?q=A+Bid+for+Strong+Arbitrators&coq=A+Bid+for+Strong+Arbitrators&aqs=chrome..69i57j69i64l3j69i60l3.896j0j4&sourceId=chrome&ie=UTF-8>, accessed on 22 December 2021, Gerbay, 'Due Process Paranoia' (2016) *Kluwer Arbitration Blog*, available at <http://arbitrationblog.kluwerarbitration.com/2016/06/06/due-process-paranoia/>, accessed on 22 December 2021 and Burgos, 'The Fear of The Sole Arbitrator' (2018) *Kluwer Arbitration Blog*, available at <http://arbitrationblog.kluwerarbitration.com/2018/08>

If we look at the survey conducted by Queen Mary's University of London in 2018, we realise how shortly before the pandemic broke out, the majority of respondents responded that "due process paranoia" was a reality in arbitration proceedings, undermining court decisions and destructive of the effectiveness and speed of arbitration<sup>9</sup>. It is understandable,

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/07/the-fear-of-the-sole-arbitrator/, accessed on 22 December 2021). There are also reasons of a psychological and behavioural nature which justify the permeability of arbitral decision-makers to these behaviours. Particularly relevant in this context is prospect theory which, in the field of cognitive and behavioural psychology, seeks to explain the process of self-determination in the face of environments of risk and uncertainty. Cross-referencing the above observations with this dimension of this analysis, see the study by Metsch and Gerbay, 'Prospect Theory and due process paranoia: what behavioral models say about arbitrators' assessment of risk and uncertainty' (2020) 36-2 *Arbitration International*, 233, available at <https://academic.oup.com/arbitration/article/36/2/233/5857622?login=true>, accessed on 22 December 2022. In this paper, the Authors propose that uncertainty as to i) the review of arbitral decisions and ii) the outcome of such review results in the impossibility of formulating probabilistic judgements and that iii) decision makers are permanently aware of these factors and the outcome of their combined existence. On the other hand, in a utilitarian assessment - that is, concerning the individual preferences of the decision-makers and the degree of satisfaction provided by the events pertaining to the decision-making activity - the annulment of a decision is felt as a significant loss, whereas the non-annulment/execution of the decision is felt as a marginal gain. The arbitrator's perception tends, therefore, to be that i) there is a high probability of a small gain and ii) a small probability of a large loss. However, because loss tends to be given greater emotional importance than gain, it will be typical for decision-makers to decide in such a way that reduces the probability of occurrence of the outcome perceived as adverse, even though this would always be much less likely. On the other hand, the probability of occurrence of one and another outcome are not evaluated in a linear fashion: precisely because the utility of the gain is perceived as less relevant than the "negative utility" that the loss represents. If the possibility of loss is perceived as a risk, the conduct of the decision-maker will seek to avert that outcome: the decision-maker will do everything so that he feels that the probability of occurrence of an outcome that he perceives as especially undesirable decreases.

- 9 According to the study by researchers at Queen Mary's University of London, *International Arbitration Survey: The Evolution of International Arbitration*, 2018, <https://arbitration.qmul.ac.uk/research/2018/>, accessed on 22 December 2021, due process paranoia is perceived as one of the main reasons for the decrease in efficiency in arbitration proceedings. On the relationship between speed of decision, economic efficiency and due process paranoia, cf. Metsch and Gerbay, 'Prospect Theory and due process paranoia: what behavioural models say about arbitrators' assessment of risk and uncertainty' (2020) 36-2 *Arbitration International*, 233 (239 and 240) and Menon, 'Dispelling Due Process Paranoia: Fairness, Efficiency and the Rule of Law' (2021) 17-1 *Asian International Arbitration Journal*, 1, available at

however, that arbitrators feared scheduling virtual hearings without the parties' consensus; this was a practice not only rare in arbitration but very uncommon, in March 2020, in state courts. Hearing one witness or another using means of remote communication was not infrequent; however, hearings were rarely held in a virtual environment, without face-to-face contact between judges and lawyers.

9. This is why the immediate intervention by state courts having to rule on the conformity of proceedings where virtual hearings were held with the principle of due process of law was so important. In this context, reference should be made to the decision of 23 July 2020 of the Austrian Supreme Court<sup>10</sup>, rendered a few months after face-to-face hearings had become impossible. The Supreme Court was faced with an application to annul an arbitral award, rendered in a case where the hearing had been conducted online against the express wish of one of the parties. The Supreme Court upheld the arbitral award, in the face of the various grounds invoked for violation of due process of law. As to these, let us note: if, the holding of hearings in person were in fact a guarantee inherent to the due process of law, a decision to schedule virtual hearings would be unlawful even with the agreement of the parties; the core of the fundamental guarantees is non-negotiable.

The Austrian Supreme Court's decision may have had a major impact because within weeks of the commencement of travel restrictions and the scheduling of online hearings, arbitral tribunals had a strong precedent that such hearings were admissible, and the awards were upheld on the grounds that fundamental procedural guarantees were not violated. Over time, the position that the parties' agreement did not have a decisive influence on the scheduling of online hearings was consolidated, and a

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<https://kluwerlawonline.com/journalarticle/Asian+International+Arbitration+Journal/17.1/AIAJ2021001>, accessed on 23 December 2021.

10 This decision can be consulted at

[https://www.ris.bka.gv.at/Dokumente/Justiz/JJT\\_20200723\\_OGH0002\\_0180NC00003\\_20S0000\\_000/JJT\\_20200723\\_OGH0002\\_0180NC00003\\_20S0000\\_000.pdf](https://www.ris.bka.gv.at/Dokumente/Justiz/JJT_20200723_OGH0002_0180NC00003_20S0000_000/JJT_20200723_OGH0002_0180NC00003_20S0000_000.pdf), accessed on 23 December 2021. For a brief description of its contents, cf. Scherer et al., 'In a "First" Worldwide, Austrian Supreme Court Confirms Arbitral Tribunal's Power to Hold Remote Hearings Over One Party's Objection and Rejects due Process Concerns' (2021) *Kluwer Arbitration Blog*, 24 October 2021, available at <http://arbitrationblog.kluwerarbitration.com/2020/10/24/in-a-first-worldwide-austrian-supreme-court-confirms-arbitral-tribunals-power-to-hold-remote-hearings-over-one-partys-objection-and-rejects-due-process-concerns/>, accessed on 23 December 2021.



decision to adopt this mode of production of evidence was regarded as exercise of the court's powers of management.

Confirming this interpretation of the principle of due process, on 30 June 2021, the European Commission for the Efficiency of Justice approved the 'Guidelines on videoconferencing in judicial proceedings' (CEPEJ (2021) 4REV4)<sup>11</sup>. Although this instrument is not directly applicable to hearings in arbitration proceedings, it provides an official framework ordering the guarantees entailed in the principle of due process: this does not exclude, inevitably, the holding of virtual hearings, but these should be conducted in such a way as to provide similar levels of protection for adversarial process to those that apply to in-person hearings.

**10.** This last point offers a convenient bridge to a set of instruments that have been produced in response to the concerns of those who have pointed to pitfalls in virtual hearings.

One problematic area, when viewed strictly in relation to hearings - leaving aside all the potential issues of intrusion and hacking by third parties into the information in the case file, such as that found in the statements of claim, in the statements of defence, the accompanying documents, the procedural orders and in the communications between arbitrators - is that of their security.

In March 2020 there were already international instruments dealing with this problem. Perhaps the most significant at that time was the 'Seoul Protocol on Video Conference in International Arbitration'. On 18 March 2020 a press release was issued from which we may highlight the following:

Given the global nature of international arbitration, witnesses are often required to travel great distances to provide testimony during a hearing. When such witnesses are unable to attend in person, the parties and the Tribunal are often left in the difficult position of determining how much weight to afford certain evidence (including, for example, witness statements). However, with the advent of new powerful technologies, parties are increasingly turning to remote video conferencing as a solution to this problem.

Every new technology brings with it certain risks and video conferencing is no exception. When utilizing this option, a tribunal must consider how to effectively, safely and fairly use video conferencing to best serve the interests of the arbitration. To this end, the Seoul Protocol on

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11 These can be found at <https://rm.coe.int/cepej-2021-4-guidelines-videoconference-en/1680a2c2f4>, accessed on 22 December 2021.

Video Conferencing in International Arbitration (the “Seoul Protocol”) was introduced at the 7th Asia Pacific ADR Conference, held in Seoul, Korea on 5-6 November 2018. (...). As international arbitration becomes increasingly globalized, and as the technology underlying video conferencing becomes increasingly powerful and sophisticated, it is reasonable to conclude that practitioners may increasingly turn to video conferencing when witnesses are unavailable for in-person examination. To this end, it is in the interest of the arbitration community to develop a sensible and clear protocol of best practices to ensure that such conferencing is effective, fair and efficient.

As the Introduction states, ‘(t)his Protocol on Video Conferencing in International Arbitration (Protocol) is intended to serve as a guide to best practice for planning, testing and conducting video conferences in international arbitration’. The Protocol then sets out a set of procedural and technical rules designed to ensure secure communication; although intended for the testimony of witnesses who, for various reasons, are to testify using remote means of communication, many of the provisions may be applied in full to the hearing considered as a whole<sup>12</sup>.

11. Another issue that presented obstacles to the conduct of virtual hearings was the alleged shortfall in information available to the court due to the loss of immediacy, as typically understood at that time. The court would have no way of gauging the consistency of the witness’ or expert’s testimony because it would be difficult to assess their body language. Only through direct contact with the deponent would the court be able to tell whether he or she was telling the truth. On this point, empirical studies have shown that any interpretation that the decision-maker may wish to make as to the reliability of a statement from the expressions used by the witness, his body language or the way he looks at his interlocutor (and the interlocutor he chooses to observe while speaking) is fallible<sup>13</sup>.

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12 Another instrument that tackles cybersecurity issues is ICCA ‘Protocol on cybersecurity in International Arbitration’ (2020), available at [https://www.cpradr.org/resource-center/protocols-guidelines/icca-nyc-bar-cybersecurity/\\_res/id=Attachments/index=0/ICCA-NYC%20Bar-CPR%20Cybersecurity%20Protocol%20for%20International%20Arbitration%20-%20Print%20Version.pdf](https://www.cpradr.org/resource-center/protocols-guidelines/icca-nyc-bar-cybersecurity/_res/id=Attachments/index=0/ICCA-NYC%20Bar-CPR%20Cybersecurity%20Protocol%20for%20International%20Arbitration%20-%20Print%20Version.pdf) and accessed on 22 December 2021.

13 De Paulo et al., ‘Cues to deception’ (2003) 129 *Psychological Bulletin* 74, available at [https://www.researchgate.net/publication/10927264\\_Cues\\_to\\_Deception](https://www.researchgate.net/publication/10927264_Cues_to_Deception), accessed on 22 December 2021; Vrij, Hartwig and Granhag, ‘Reading Lies: Non-verbal Communication and Deception’ (2019) *Annual Review of Psychology*, 295, available at <https://www.annualreviews.org/doi/abs/10.1146/annurev-psych-010418-103135>, accessed on 22 December 2021.

At the same time, there is a fear that witnesses - or experts - who are absent from the courtroom may be receiving instructions from their lawyers or a third party as to how they should answer questions. This risk, which is specific to testimony given by remote means of communication and when the witness is being examined in real time, can be avoided, for example, by using two cameras to show the witness and the entire setting in which he or she testifies.

12. As a community, we do not yet know what will endure from these months of experimentation. Whilst, on the one hand, there is great pressure to return to the practices in place prior to March 2020, on the other hand, the advantages of hearings conducted using remote means of communication have been understood. Cost savings, ease of scheduling and gains in efficiency have to be weighed up against the relative impersonality of online hearings, glitches in communications and the problems of individuals participating in different time zones. It is likely that the future will bring a symbiosis between the two forms of producing evidence, with the parties, their representatives and the courts adopting the form that each specific case requires. Virtual hearings are not the same as in-person hearings, nor do they serve as a substitute; they are something else. It is human to seek analogies, inferring from the familiar to the new, and the resulting disruption will take time to dissipate. But the answers concerning the virtues of online hearings will emerge by themselves and in this specific context.

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Regarding the reliability of human perception and the operative notion of perception as regards decision-making processes, cf. Lupyan, 'How Reliable is Perception?' (2017) 45-1 *Philosophical Topics*, 81, available at [https://www.pdcnet.org/philtopics/content/philtopics\\_2017\\_0045\\_0001\\_0081\\_0106](https://www.pdcnet.org/philtopics/content/philtopics_2017_0045_0001_0081_0106), consulted on 23 December 2021.

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