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Remote Hearings in International Arbitration: An Analytical Framework

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Remote hearings are nothing new, but the COVID-19 crisis has forced international arbitration out of its comfort zone. Parties, counsel, and arbitrators must adapt to the new reality of conducting arbitrations in the face of travel restrictions and social distancing measures. One particularly thorny question is whether and to what extent physical hearings that cannot be held due to the above-mentioned restrictions should be postponed, or be held remotely, using modern communication technologies. The present article takes a step back from the immediate crisis and proposes an analytical framework for remote hearings in international arbitration. In the context of the current pandemic and beyond, it provides parties, counsel, and arbitrators with the relevant guidance on assessing whether to hold a hearing remotely, and if so, how to best plan for and organize it. The article also tests the risk of potential challenges to awards based on remote hearings, looking in particular at alleged breaches of the parties' right to be heard and treated equally.

1. INTRODUCTION

'Dans ses écrits un sage Italien
Dit que le mieux est l'ennemi du bien;
Non qu'on ne puisse augmenter en prudence,
En bonté d'âme, en talents, en science;
Cherchons le mieux sur ces chapitres-là;
Partout ailleurs évitons la chimère.
Dans son état heureux qui peut se plaire,
Vivre à sa place, et garder ce qu'il a !'
Voltaire

The proverb 'the best is the enemy of the good' is attributed to Voltaire, the eighteenth century French philosopher. Indeed, he referred to this saying in his poem 'La Bégueule' from 1772, the first lines of which are reproduced above. According to the poem, the saying was from a wise Italian, and indeed, the original seems to be '*Il meglio è l'inimico del bene*'. (1) The proverb is often cited as meaning that 'people are ... unhelpfully discouraged from bringing positive change because what is proposed falls short of ideal' and '[i]f we want to make progress, we should ... seek improvement rather than perfection'. (2)

However, put in context, Voltaire's poem suggests quite the opposite. In 'La Bégueule' Voltaire tells the story of a woman who is perpetually unhappy. According to the opening lines, when it comes to prudence, goodness, talent, or science, one should strive for excellence. Yet, for other matters, one should avoid falling for the illusion of constant improvement. Instead, one should stay put and 'remain at one's place', the value of which is not to be underestimated.

The tension between the two meanings – the one typically attributed to the saying and the other originally intended by Voltaire – is interesting. It highlights two rather opposing human approaches to uncertainty: on the one hand, a proactive approach aiming for improvement and embracing unknown situations even if they are not perfect; on the other hand, a cautious approach avoiding progress for the mere sake of it and at the risk of making matters worse.

In current times of uncertainty due to the COVID-19 pandemic, we are facing many novel issues and often have to choose between being proactive or cautious. International arbitration is no exception. Parties, counsel, and arbitrators have to adapt to the new reality of conducting international arbitration proceedings in the face of travel restrictions and social distancing measures. One particularly thorny question is whether and to what extent physical hearings that cannot be held due to the above-mentioned restrictions should (cautiously) be postponed, or (proactively) be held remotely using modern communication technologies. The assessment of such remote hearings in international arbitration is the topic of this article.

Most steps in an international arbitration are done remotely nowadays. This is true for starting the proceedings by sending the request for arbitration, either electronically (by email or using the institution's dedicated filing platform) or by post; selecting and

confirming the arbitrator(s), possibly after conducting short telephone interviews; holding case management conferences, at the outset and/or mid-stream, between the parties and the tribunal, often organized as telephone or videoconferences rather than as physical meetings; exchanging written submissions via document share platforms; conducting possible telephone or video hearings of (minor) procedural issues (if any); organizing pre-hearing conferences; exchanging post-hearing briefs; holding deliberations between arbitrators, partially, by phone, videoconference or exchange of emails; and finally, signing the award, by exchanging copies thereof or mere signature pages.

Possibly the last 'pieces of the puzzle' that typically remain as physical meetings are hearings, either on the merits or on major procedural issues. But the current COVID-19 pandemic forces international arbitration practitioners to reconsider this point and assess whether those hearings, too, can be held remotely. (3) Depending on its length, the current crisis has the potential of being a real game-changer if international arbitral tribunals, as well as national courts around the globe, become used to holding hearings remotely. Such a paradigm shift might be something that many arbitration users have wanted for some time. (4)

The present article takes a step back from the immediate crisis and proposes an analytical framework for remote hearings in international arbitration. In the context of the current pandemic and beyond, it provides parties, counsel and arbitrators with the relevant guidance on assessing whether to hold a hearing remotely, and if so, how to best plan for and organize it.

Section 2 of the article starts by providing a definition of remote hearings and setting out different types thereof, distinguishing them from other, similar concepts. Section 3 defines the regulatory framework and assesses various national laws and institutional arbitration rules relevant to the question whether a tribunal may hold hearings remotely. The subsequent parts distinguish different possible scenarios depending on whether the parties have found an agreement on the issue of remote hearings (Section 4) or, more importantly in practice, whether the parties are in disagreement on this issue, with one party seeking a remote hearing while the other party opposing it (Section 5). The latter is a delicate issue and the article discusses in detail the tribunal's power to order remote hearings in the absence of the parties' agreement, the relevant test it should apply in that assessment, as well as the factors to consider therefor. Section 6 offers some thoughts on the organization of remote hearings and Section 7 considers the enforceability of, and challenges to, awards that contain decisions based on remote hearings, looking in particular at possible breaches of the parties' right to be heard and to be treated equally. The conclusion in Section 8 contains the article's findings and outlook to possible further research.

2. DEFINITION AND TYPOLOGY OF REMOTE HEARINGS

Remote hearings are understood in this article as hearings that are conducted using communication technology to simultaneously connect participants from two or more locations. This could include communication through telephone or videoconference, or possibly other more futuristic technology such as telepresence. However, unless specifically indicated otherwise, this article mainly focuses on remote hearings using a videoconference link, i.e. 'technology which allows two or more locations to interact simultaneously by two-way video and audio transmission, facilitating communication and personal interaction between these locations'. (5)

Remote hearings are also sometimes called 'virtual hearings'. (6) Virtual has many possible meanings, but in computer science it may be defined as 'not physically present as such but made by software to appear to be so from the point of view of a program or user'. (7) In lay terms it is often understood as something not really or physically existent, (8) such as, for example, the virtual landscape in a computer game. References to 'virtual arbitrators' can sometimes be found in discussions as to whether human decision-makers may be replaced or supported by artificial intelligence. (9) In case of international arbitration hearings conducted in several locations, the participants of the hearing are not virtual, but really exist; they merely interact with each other using communication technologies. To avoid any misconceptions about the physical reality of remote hearings, the terminology of 'virtual hearings' should be avoided or used sparingly.

One also sometimes finds references to the term 'online hearings'. (10) These can be confusing because of overlap with the concepts of online dispute resolution (ODR) and online courts. Online courts and ODR are indeed typically understood as determining cases outside physical courtrooms using computer technology. (11) Often, however, this also means that no hearing (in the sense of a synchronous exchange of arguments or evidence) takes place at all, but rather is replaced by asynchronous forms of interaction. As explained by Richard Susskind in his book on online courts, 'this means that ... participants need [not] be available at the same time for a case to progress' and 'as with email and text messages, those who are involved do not need to be on tap simultaneously – arguments, evidence and decisions can be sent without sender and recipient being physically or virtually together at the same time'. (12) This is quite different from the idea of remote hearings, discussed in this article.

Remote hearings – as defined above – are no new phenomena in international arbitration. Not only are most case management conferences and some procedural hearings conducted remotely, so are merits hearings in certain cases. For instance, remote hearings are often used in expedited and emergency arbitrator proceedings. (13) Moreover, it is not uncommon that certain witnesses or experts testify remotely. (14) A recent survey shows that a large majority of interviewees had used videoconferencing in international arbitration proceedings. (15) Even more strikingly, the International Centre for Settlement of Investment Disputes (ICSID) announced that the majority of its hearings in 2019 were held by videoconference. (16)

Remote hearings are also not limited to international arbitration proceedings. They are equally used in national court proceedings, as discussed below, in particular in the current pandemic. (17) Their use is foreseen in national statutory provisions (18) and international instruments including, for example, the EU Evidence Regulation (19) and the Ibero-American Convention on the Use of Videoconferencing in International Cooperation between Justice Systems. (20) International courts and tribunals, such as the International Criminal Court, have dealt with remote hearings in the past. (21)

In international arbitration, as in other areas, there are several types of remote hearings that need to be distinguished. First, one may distinguish them according to their degree of remoteness. On the one hand, semi-remote hearings use one main venue, and one or several remote venues. (22) For instance, the tribunal might be assembled with the parties in one location, and one or several witnesses or experts might testify before them remotely. Such a set-up is indeed regularly practiced in international arbitration, as mentioned above. On the other hand, in fully remote hearings, all participants are in different locations, with no existing main hearing venue. Fully remote hearings are rarely used in international arbitration so far, (23) but are currently considered in many proceedings in order to deal with COVID-19-related restrictions. Importantly, fully remote hearings not only raise technical challenges due to the increased number of remote locations, but they arguably also entail a difference in nature because of the absence of a 'real hearing room'. (24) It is this type of remote hearings that may indeed be called 'virtual' in the sense that no hearing venue exists, but for the use of computer technology. Due to this difference in nature, fully remote hearings arguably require not only to transplant what is done in physical hearings to a fully remote setting, but to re-think the process more fundamentally.

Second, remote hearings might be distinguished according to the content of the remote part. Remote legal arguments might be assessed differently from remote evidence taking, as discussed below. (25) Moreover, semi-remote hearings might raise different questions depending on which participants are remote. While the hearing of remote witnesses or experts is most common, there might be instances where one or both of the parties (or their legal representatives) participate remotely, or one or both co-arbitrators. As discussed further below, the assessment of remote hearings indeed might depend on who participates remotely. (26)

Third, one may further distinguish as to whether the remote participation concerns the entire hearing or only a part thereof. Importantly, all of the above distinctions may be combined in practice. For instance, one could imagine a hearing for which the evidence taking is mainly done in the physical presence of the experts or witnesses, except for some located too far away, followed sometime later by fully remote closing statements and final tribunal questions. In this combination, different parts of the hearing are conducted physically, semi-remotely, and fully remotely. Whether and to what extent any such type of remote hearings, or combinations thereof, are possible will be discussed in the subsequent sections of this article.

3. REGULATORY FRAMEWORK OF REMOTE HEARINGS

The assessment whether or not remote hearings are possible depends on the applicable regulatory framework, in particular the law of the seat of the arbitration and the chosen arbitration rules, if any. As a starting point, the author is not aware of any national law or arbitration rules that expressly impose or prohibit remote hearings. Rather, if national law or arbitration rules contain specific provisions on remote hearings, they do so in permissive terms, as discussed in section 3.1. Most national laws and arbitration rules do not contain any specific provisions on remote hearings, a scenario which is considered in section 3.2.

3.1 National laws and arbitration rules with specific provisions on remote hearings

Few national laws and arbitration rules contain specific provisions on remote hearings. If they do, they merely provide for the possibility of holding hearings remotely, using permissive terms ('may'), without imposing a particular solution.

For instance, article 1072b(4) of the Dutch Civil Procedure Code provides that '[i]nstead of a personal appearance of a witness, an expert or a party, the arbitral tribunal may determine that the relevant person have direct contact with the arbitral tribunal and, insofar as applicable, with others, by electronic means', adding that '[t]he arbitral tribunal shall determine, in consultation with those concerned, which electronic means shall be used to this end and in which manner this shall occur'. (27) Similarly, pursuant to

article 19.2 of the London Court of International Arbitration (LCIA) Rules, '[t]he Arbitral Tribunal shall have the fullest authority under the Arbitration Agreement to establish the conduct of a hearing, including its ... form', specifying that '[a]s to form, a hearing may take place by video or telephone conference or in person (or a combination of all three)'. (28) Rules of other arbitral institutions also contain provisions referring to remote hearings. (29) These national laws and arbitration rules specifically allow that arbitral tribunals may conduct hearings remotely.

Some arbitration rules do not contain express references to hearings by videoconference or other electronic means as alternatives to physical hearings, but refer to the use of technology (30) or the need for expedient or appropriate means to conduct hearings. (31) These may arguably be interpreted as including remote hearings.

A number of arbitration rules contain references to remote hearings, but only in particular circumstances. For example, article 28(4) of the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules provides that witnesses and experts may be heard remotely, but contains no similar provision for other aspects of hearings, such as legal arguments. (32) Other examples are (i) the Rules of the Arbitration Institute of the Stockholm Chamber of Commerce (SCC) which allow case management conferences to be conducted remotely, (33) but contain no similar provisions for hearings; and (ii) the Rules of the International Chamber of Commerce (ICC), which include provisions on remote hearings for case management conferences, (34) emergency arbitrator proceedings (35) and expedited proceedings, (36) but remain silent on remote hearings otherwise. (37)

This has led some to consider whether one could argue, *a contrario*, that remote hearings are not permitted, except in those situations specifically provided for. (38) In other words, because remote hearings are expressly permitted in certain circumstances, they are impliedly prohibited in all others. Following that line of argument, remote hearings would not be possible for legal arguments under the UNCITRAL Rules, and for hearings on the merits in normal (i.e. non-emergency-arbitrator or non-expedited) proceedings under the ICC Rules. This view is unconvincing. It is difficult to conceive why legal arguments could not be heard remotely under the UNCITRAL Rules, if remote testimony by witnesses or experts is allowed. Quite to the contrary, if anything, one could argue that remote witness or expert testimony entails additional difficulties and therefore requires more careful consideration, as discussed below. (39) Moreover, the ICC Rules specifically promote the use of videoconferencing or other alternatives to physical hearings as case management techniques for controlling time and cost. (40) The suggestion that a tribunal would be barred from using those techniques under the ICC Rules is nonsensical.

This leaves, however, the question open as to whether or not arbitral tribunals may resort to remote hearings if the national laws or institutional arbitration rules contain no specific provision on remote hearings.

3.2 National laws and arbitration rules without specific provisions on remote hearings

Most national laws and institutional arbitration rules remain silent on remote hearings. In this case, one may look towards other principles for their guidance, such as the parties' right to a hearing, discussed in section 3.2[a], and the tribunal's broad power to determine procedural matters in the arbitration, set out in section 3.2[b].

3.2[a] Party's Right to a Hearing

A party's right to a hearing is said to be a fundamental principle in international arbitration. (41) Indeed, many national laws and institutional arbitration rules contain provisions to that effect, specifying either that a party may request a hearing, (42) or that the arbitration cannot be conducted on a documents-only basis unless all parties agree. (43) Other national laws and institutional arbitration rules leave the question whether or not to hold a hearing to the tribunal. (44)

If it is established that a party has the right to a hearing, the question remains whether this necessarily means a physical hearing. Some authors have expressed the view that, under certain national law, remote hearings do not meet the threshold requirements for a 'hearing'. (45) This view seems to be based on the assumption that hearings must be oral (principle of orality) and allow for a simultaneous exchange of arguments or evidence (principle of immediacy). (46)

However, it remains unexplained why a remote hearing would not meet these requirements, even assuming they apply to international arbitration proceedings. First, arguments are made orally during physical hearings as well as in remote hearings, with the mere difference that the latter uses communication technologies to transmit the audio and/or video. Second, in both physical and remote hearings, the exchange of arguments or evidence is done simultaneously: the parties, counsel, witnesses, experts and arbitrators are able to discuss and relate points in a live mode. The above-mentioned principles of orality and immediacy therefore do not suffice to explain why remote hearings should be treated differently from physical hearings. Of course, there are differences between the two types of hearings that warrant careful consideration, as discussed below. (47) However, it is unfounded to allege that remote hearings are

prohibited merely on the basis of a party's right to a hearing.

A particular illustration is found in article 25(2) of the ICC Rules, which provides that '[a]fter studying the written submissions of the parties and all documents relied upon, the arbitral tribunal shall hear the parties together in person if any of them so requests or, failing such a request, it may of its own motion decide to hear them'. The reference in article 25(2) to a hearing 'together' and 'in person' could be read as prohibiting anything but physical hearings. However, other linguistic versions of the ICC Rules do not contain the 'in person' language; rather, they simply require that parties should be heard orally (48) and allowed an adversarial exchange of arguments. (49) The ICC has made it clear in its recent *COVID-19 Guidance Note* that these requirements can be met by remote hearings. (50) 'In person' in article 25(2) of the ICC Rules is therefore best understood as referring to a hearing where the various participants are exchanging arguments or evidence live with each other (i.e. in between persons) – irrespective of whether this is done in a physical meeting or remotely.

In essence, a hearing consists of an oral and synchronous exchange of arguments or evidence – as opposed to the written and asynchronous exchange of arguments or evidence in the parties' briefs. As long as a remote hearing allows for the exchange to be oral and synchronous, it seems difficult to argue that it is not a hearing. To be clear, the foregoing does not mean that remote hearings are suitable in every single case. As discussed below, a careful assessment is required. (51) Importantly, though, the mere right to a hearing does not exclude in and of itself the possibility to hold the hearing remotely.

3.2[b] Tribunal's Broad Power Concerning Procedural Conduct

If the relevant national law or institutional arbitration rules do not contain any particular provision on remote hearings, the fall-back solution is to refer to the tribunal's broad power to organize procedural matters. National arbitral laws typically provide that, absent any agreement by the parties, the arbitral tribunal may 'conduct the arbitration in such manner as it considers appropriate' (52) and 'decide all procedural and evidential matters' (53) or 'determine [the procedure] to the extent necessary, either directly or by reference to a statute or to rules of arbitration'. (54) Institutional arbitration rules contain similar provisions regarding the tribunal's power to organize the proceedings generally, and evidence taking more specifically. (55)

Absent any agreement or provision to the contrary, the tribunal's broad power to conduct the proceedings as it considers appropriate also encompasses the organization of any hearing, including its time, venue, length, and other modalities. (56) Accordingly, the question whether a hearing should be held physically or remotely is for the arbitral tribunal to decide, absent any provision to the contrary.

In sum, irrespective of whether the applicable national laws or arbitration rules contain specific provisions on remote hearings or not, the tribunal will have to make a decision: in case of a specific provision on remote hearings, the tribunal must assess whether to use the specific power granted that it 'may' hold hearings remotely; in the absence of a specific provision, the tribunal will have to exercise its general broad power on the organization and conduct of the proceedings.

In either case, the tribunal's power to decide on remote hearings is not without limits. Among other things, the tribunal's power is limited by the parties' agreement, as set out in Section 4 below, and the parties' right to be heard and treated equally, as discussed in sections 5 and 7.

4. REMOTE HEARINGS IN CASE OF THE PARTIES' AGREEMENT

This section addresses situations in which the parties agree on whether or not to hold a remote hearing. Typically, these situations raise few issues in practice because the tribunal will typically follow the parties' agreement. The principle that the tribunal should abide by the parties' agreement on procedural issues is set forth in many national laws and arbitral institutional rules. (57) Nevertheless, there are some – hopefully rare – scenarios that require further inquiry.

First, let us assume that the parties agree not to hold a remote hearing. In this case, could the tribunal still go ahead and hold a hearing remotely? Absent specific circumstances, it is difficult to see how the tribunal could ignore the parties' agreement to hold the hearing physically in-person. Possibly, one might argue that the parties' insistence on a physical hearing might significantly delay the arbitration (especially in the current pandemic of undetermined length) and thus clash with the tribunal's obligation to conduct the proceedings expeditiously and efficiently. (58) Nonetheless, if the delay is due to the parties' agreement on conducting the arbitration in a certain manner (e.g. a physical hearing), upholding party autonomy seems more important than insisting on expeditiousness. This situation is not dissimilar to those in which parties agree on a (too) lengthy procedural timetable. (59) The tribunal might encourage the parties to reconsider but, ultimately, and absent specific circumstances, cannot conduct the arbitration against the parties' agreement.

Second, the converse situation is when the parties agree to hold a remote hearing. If,

however, the tribunal is reluctant to organize a remote hearing, can it refuse to do so? In some cases, tribunals have reportedly expressed reluctance to hold remote hearings because of its (or the presiding arbitrator's) unwillingness to deal with the technological challenges involved. Such a situation is most unfortunate, particularly since the technological challenges can typically be resolved, if adequately planned for, as discussed below. (60) The tribunal should follow the parties' agreed procedure, as just mentioned, but in practice the parties will have little choice when facing real resistance from the tribunal – other than appointing different arbitrators in the future.

The situation might be slightly different if the tribunal's reluctance is not because of its lack of tech-savviness, but due to other concerns including, for instance, the enforceability of any future award. Some arbitration rules contain a provision on the tribunal's obligation to render an enforceable award. (61) However, as discussed below, the risk of non-enforcement of, or challenges to, awards based on remote hearings is low, absent specific circumstances. (62) In any event, the parties, by agreeing on a certain procedure, take the risk of the non-enforceability of any award based thereon. The tribunal might want to draw the parties' attention to its enforceability concerns, if any, but in case of a clear agreement by the parties on remote hearings, the tribunal should, in principle, proceed accordingly.

In both scenarios above the parties have agreed as to whether or not to hold a remote hearing. In practice, more relevant and complicated is the opposite scenario in which no such party agreement exists, as discussed hereafter.

5. REMOTE HEARINGS IN THE ABSENCE OF THE PARTIES' AGREEMENT

This section of the article deals with cases – raising delicate questions in practice – in which one party requests a remote hearing while another opposes the request and insists on a physical hearing. In this situation, the arbitral tribunal has to balance important, and possibly opposing, considerations: on the one hand, the parties' right to be heard and treated equally, which is enshrined in many national laws and institutional arbitration rules (63); on the other hand, the tribunal's obligation to conduct the proceedings in an efficient and expeditious way. (64)

Concretely, the tribunal will have to assess first whether it may decide to conduct a remote hearing over the opposition of one party. This question is discussed in section 5.1. Assuming that the tribunal finds that it has such power to conduct a hearing over the opposition of a party, it must determine the relevant test it should apply to exercise this power, and in particular the factors it should take into account in this context (as discussed in section 5.2).

5.1 Tribunal's power to order remote hearings in the absence of the parties' agreement

Two opposing views can be found regarding the question whether, in principle, a tribunal has the power to conduct a remote hearing if one party opposes such request.

On the one hand, some authors state that a remote hearing is possible only if all parties agree. (65) This view is typically based on the principle that a party has a right to request a hearing. As detailed above, such principle is found in some national laws and institutional arbitration rules. (66) However, as also detailed above, the party's principled right for a hearing does not entail that the hearing is necessarily held with participants being physically present. As long as there is an oral and synchronous exchange of arguments or evidence, the threshold requirements for a hearing are met. (67)

Even article 25(2) of the ICC Rules, which in its English version provides that 'the arbitral tribunal shall hear the parties together in person if any of them so requests' does not bar the use of remote hearings in the absence of the parties' agreement. Read in the context of the other linguistic versions of article 25(2), which do not contain the 'in person' reference, it becomes clear that article 25(2) in fact requires an oral and synchronous exchange of arguments or evidence – which can be done remotely. (68) Indeed, the recent ICC *COVID-19 Guidance Note* contemplates remote hearings '[i]f the parties agree, or the tribunal [so] determines', which implies the possibility to proceed with remote hearings in the absence of the parties' agreement. (69)

On the other hand, and quite to the opposite, some suggest that arbitral tribunals would have 'carte blanche' when it comes to determining remote hearings. (70) It is true that tribunals have broad power to determine the appropriate procedure in an arbitration and that this power includes deciding on remote hearings, as discussed above. (71) Yet, it is incorrect to suggest that this faculty amounts to providing the tribunal with unrestricted power or 'carte blanche'. Rather, the tribunal needs to assess carefully all the circumstances to determine whether a remote hearing is appropriate in the specific case. The tribunal must be mindful of the parties' right to be heard and be treated equally, so as to render an enforceable award, as discussed below in section 7.

In sum, therefore, rather than following any of the above-mentioned extreme approaches – either suggesting that tribunals may never conduct remote hearings over the opposition of a party, or to the contrary have 'carte blanche' in doing so – arbitral

tribunals typically have the power of ordering a remote hearing over the opposition of one party, but the exercise of that power requires careful consideration. The next section discusses how tribunals should go about exercising their power to order a remote hearing in the absence of the parties' agreement.

5.2 Relevant test for the tribunal to order remote hearings in the absence of the parties' agreement

In assessing the test tribunals should apply when deciding on a remote hearing in the absence of the parties' agreement, the first important question is which party bears the onus of proof: is it for the party applying for the remote hearing to show why it is warranted or, to the contrary, is it for the party resisting the remote hearing to establish why it would be improper in the circumstances? This question has been debated in various jurisdictions when it comes to remote hearings in national courts proceedings, as set out in section 5.2[a]. While these principles in national court proceedings are not applicable as such in international arbitration, they shed some light on the appropriate solution for arbitral tribunals to adopt, discussed in section 5.2[b].

5.2[a] Onus on the Party Applying for Remote Hearings v. Onus on the Party Resisting Remote Hearings

As mentioned in Section 2, remote hearings are not specific to international arbitration. (72) Quite to the contrary, in many jurisdictions around the world, national courts conduct hearings remotely – have so done in the past and do so even more often in the current pandemic. (73) In this context, courts have to determine the test they apply as to whether a remote hearing should proceed and in particular which party should bear the onus of proof, i.e. the party applying for the remote hearing or the party resisting it.

In some jurisdictions, the answer is found in the applicable statutory provision. For instance, in the United States, the Federal Rules of Civil Procedure provide that 'the court may permit testimony in open court by contemporaneous transmission from a different location' but only '[f]or good cause in compelling circumstances and with appropriate safeguards'. (74) The onus of showing 'compelling circumstances' is thus on the party applying for remote hearings. (75)

In other jurisdictions, for instance in Australia, the statutory provisions remain silent as to the test the court should apply, but simply provide it with the power to conduct remote hearings. (76) Case law therefore discusses the appropriate test. In some cases, Australian courts have applied a stringent test, imposing on the party applying for the remote hearing the onus of proving why it would be necessary. (77) These cases seem based on the idea that physical hearings are the 'ordinary procedure', i.e. the standard, and remote hearings the exception. (78) International tribunals, (79) as well as courts in other jurisdictions, (80) have followed that trend.

There are, however, other cases in which Australian courts have applied a more liberal test allowing remote hearings 'in the absence of considerable impediment'. (81) Under this approach, it is for the party resisting the remote hearing to show that such 'considerable impediment' exists. (82) Or, as one Australia court put it:

a substantial case needs to be made out to warrant the Court declining to make an order for evidence to be taken by video link, especially where evidence is adduced from various witnesses. (83)

Some cases have tried to reconcile the two opposing views described above. For instance, in *Australian Competition and Consumer Commission v. StoresOnline International Inc.*, the court noted that 'the choice in every case cannot be determined solely by reference to general principles', concluding that 'the exercise of the discretion as to what is appropriate in a particular case will involve a balancing exercise as to what will best serve the administration of justice consistently with maintaining justice between the parties'. (84) A balancing exercise has also been applied in other cases, assessing 'whether the convenience of the witness in not attending in person is outweighed by considerations of fairness to the opposite party in the manner in which the trial will be conducted'. (85)

This intermediate solution whereby the court does not require either side to show a good cause for or against the conduct of remote hearings, but balances various factors, is also enshrined in statutory provisions in some jurisdictions, including Canada (86) and Singapore. (87) It is this solution which seems most suitable to be transposed to international arbitration, as discussed in the next section.

5.2[b] Overall Balancing Exercise

Regarding the test arbitral tribunals should apply when deciding on a remote hearing in the absence of the parties' agreement, one could imagine solutions similar to those adopted in national courts, set out in the previous section. Arbitral tribunals could either require that the party seeking a remote hearing show good cause thereof or, to the contrary, put the burden on the party resisting a remote hearing to establish why the hearing cannot be conducted remotely. (88) However, national arbitration laws or institutional rules do not provide for either such solution. Therefore, adopting the

intermediate solution of an overall balancing test is best-suited and in line with the broad power granted to arbitral tribunals in determining whether a hearing may be conducted remotely. (89) In this overall balancing exercise, tribunals need to compare the potential benefits resulting from a remote hearing with the potential prejudice to any party resulting therefrom.

This balancing exercise must involve careful consideration of all circumstances of the case. There are, however, a number of factors arbitral tribunals may typically consider in the context of this multi-factorial approach. They are discussed in the next subsections and include: (a) the reason for the remote hearing; (b) the content of the planned hearing; (c) the envisaged technical framework for the remote hearing; and (d) the timing and costs comparing between a remote hearing and a physical one. This is no exhaustive list and, depending on the specific circumstances, the listed factors might not always have the same relevance and weight in each case. In discussing the various factors, reference will be made to case law from jurisdictions around the world relating to remote hearings in national court proceedings. Again, whilst these solutions are not applicable – or sometimes not even transposable – to international arbitration, they may serve as possible illustrations.

5.2[b][i] Reasons for the Remote Hearing

A good starting point for the assessment of a remote hearing is an inquiry into its reason. In times of the COVID-19 pandemic, the reason for remote hearings is obviously related to imposed travel restrictions and social distancing measures. However, thinking beyond the current pandemic, a variety of possible reasons is conceivable, ranging from certain participants not being able to attend physically due to professional inconvenience (e.g. important business meeting) or more critical causes (e.g. medical condition) to other altruistic reasons (e.g. decreasing carbon footprint). Generally speaking, the stronger the impediment, the heavier this factor will weigh in the overall assessment.

Typically, the reasons for his or her absence is an important factor to consider if a witness or expert is sought to testify remotely. (90) For instance, in the so-called Indus Waters Kishenganga Arbitration between Pakistan and India, the tribunal found that it needed to be satisfied, among other things, that ‘there is good reason, by virtue of the nature of the expert’s duties at the time of examination, for excusing the expert’s physical presence during the hearing’. (91) Similarly, in *Compañía de Aguas del Aconquija S.A., Vivendi Universal v. Republic of Argentina*, the tribunal refused a request to hear an expert remotely because no good reason was given why the expert could not attend in person. (92)

Relatedly, tribunals might also inquire whether at the time when the witness’ or expert’s testimony was initially offered, the reasons for his or her absence was already known to the party presenting him or her; and whether such party has taken any appropriate steps to try to ensure the witness’ or expert’s physical presence at the hearing. (93)

5.2[b][ii] Content of the Planned Hearing

The content of the planned hearing is also an important factor in considering whether it may be conducted remotely. For instance, legal arguments are said to be done more easily in a remote fashion than taking of evidence. (94) This seems somewhat contradicted by the fact that arbitral tribunals have – for decades now – successfully conducted some witness and evidence taking remotely. (95)

(i) *Legal arguments* A 2006 survey with US federal court judges confirms their satisfaction with legal arguments being presented remotely. (96) Having interviewed judges and their clerks who use videoconferencing for oral arguments, the authors of the survey found that the users were overall satisfied and that the benefits of remote hearings (including scheduling flexibility, time and cost savings) outweighed possible downsides (including technical problems). (97) The judges noted that the quality of their experience was the same as in physical hearings: they had the same understanding of the case and its underlying legal issues. (98) Most judges also stated that they asked as many questions (99) and did not miss the physical interaction. (100)

Interestingly, the more experienced a judge was with videoconferencing, the less likely he or she was to find the physical absence to be an issue. These results seem to indicate that experience with remote hearings is an important factor in how they are perceived, and that concerns with remote hearings are typically expressed by those having less experience with them. In international arbitration, an increased use of remote hearings, due to the current COVID-19 pandemic, might thus have a game-changing effect, with more and more arbitrators (and national court judges) getting the relevant experience to conduct hearings remotely to their satisfaction.

(ii) *Witness and expert testimony* If the planned hearing entails some form of witness or expert testimony, the debate typically turns around the question whether their cross-examination can efficiently be conducted in a remote fashion. The cross-examining party typically argues that remote cross-examination is not as effective as one where the witness or expert is physically present, often referring to one of the following arguments.

First, it would arguably be more difficult to assess remotely the credibility of a witness or expert, in particular because of the loss of non-verbal cues and the inability to scrutinize

the person's demeanor. For instance, in a national context, courts sometimes refer to the "chemistry" in oral interchanges in a courtroom, whether between a judge and counsel (or other representative) or between cross-examiner and witness', (101) and state that technical difficulties 'are considerable and markedly interfere with the giving of the evidence and, particularly, with cross-examination', in particular 'the difficulty of assessing a witness where evidence is given by video link'. (102) As stated by the Singapore International Court in 2018:

Whilst many meetings in the business world now take place by video conference, as did many of the Case Management Conferences in this case, courts and international tribunals still attach importance to being able to see and assess the demeanour of the witness as part of the assessment of the credibility of the witness' evidence. Equally, there is a degree of disadvantage for a party in carrying out cross-examination of a witness by video link, compared to the witness being present in court. (103)

However, save specific circumstances, none of the above-mentioned points are entirely convincing and cannot be counterbalanced by appropriate technological solutions. Non-verbal cues such as body-language can be picked up in remote hearings if it includes some form of video-transmission and if multiple cameras allow to see both a frame of the witness as a whole and a frame of his or her face/torso. (104) Provided the quality of transmission is good and the remote set-up appropriate, including large screens, the tribunal's ability to see and hear the testifying person is often better than in a physical hearing room. The audio volume can be adjusted to the needs of each individual participant and, in some settings, allow participants to remotely control cameras and zoom-in, if needed. Remote hearings therefore not only meet the said Anglo-Saxon predilection for 'seeing the witness', they are often more satisfactory in this regard. As Wendy Miles, Q.C. put it in a recent conference, 'if you cannot see the whites of the witness' eyes, get a bigger screen'. (105)

Moreover, in case of a recording of the remote hearing, the tribunal is not only able to see and hear the witness at the time of the testimony, but also later, for instance during deliberations. Being able to view again a specific moment of a recorded testimony might be more helpful than just re-reading a certain passage in a transcript.

Courts around the world are aligned with this view that remote cross-examination can be done efficiently, stressing in the context of national court proceedings that no disadvantage exists for the cross-examiner because of the virtual remoteness. (106) In some instance, the potential prejudice might not be on the cross-examiner's side, but for the party presenting the witness or expert. (107) In most cases, as some courts state, '[t]he witness can be closely observed and most if not all of the visual and verbal cues that could be seen if the individual was physically present can be observed on the screen', (108) others go as far as noting that facial expressions can be seen much clearer than in physical encounters. (109)

As early as 2001, a Canadian court downplayed the alleged risks of remote testimony, while warning against the overstated usefulness of the witness' demeanor and body language:

In my experience, a trial judge can see, hear and evaluate a witness' testimony very well, assuming the video-conference arrangements are good. Seeing the witness, full face on in colour and live in a conference facility is arguably as good or better than seeing the same witness obliquely from one side as is the case in our traditional courtrooms ... I often wonder whether too much isn't made of the possible ability to assess the credibility of a witness from the way a witness appears while giving evidence. Doubtless there are "body language" clues which, if properly interpreted, may add to the totality of one's human judgment as to the credibility of an account given by a witness. The danger lies in misinterpreting such "body language," taking nervousness for uncertainty or insincerity, for example, or shyness and hesitation for doubt. An apparent boldness or assertiveness may be mistaken for candour and knowledge while it may merely be a developed technique designed for persuasion. Much more important is how the substance of a witness' evidence coincides logically, or naturally, with what appears beyond dispute, either from proven facts or deduced likelihood. I am not at all certain that much weight can or should be placed on the advantage a trier of fact will derive from having a witness live and in person in the witness box as opposed to on a good quality, decent sized colour monitor in a video-conference. While perhaps a presumption of some benefit goes to the live, in person appearance, it is arguable that some witnesses may perform more capably and feel under less pressure in a local video-conference with fewer strangers present and no journeying to be done. (110)

All in all, the fears surrounding the alleged prejudice to the cross-examining party and the tribunal's supposed inability to assess the credibility of a witness or expert in a remote hearing seem overblown.

Second, the cross-examining party might also express concerns that a remotely heard

witness or expert might be coached or otherwise unduly influenced. (111) In many remote hearings, though, it is common practice to send a representative from, or designated by, the cross-examining party to sit with the person who testifies to ensure that he or she is free from any outside influence. Even without any physical presence of a person with the testifying witness or expert – which might be expensive or impossible, for instance in the current pandemic – technological solutions exist. They range from specific applications that ensure a 360-degree view of the testifying person’s venue, to the use of simpler schemes, such as multiple cameras, or even just asking the person to turn the camera around the room. Whilst these mechanisms have proven useful in remote hearings to exclude any unwanted physical presence with the testifying person, the tribunal should also be mindful that the witness or expert often has several screens in front of him and her, which could theoretically also be used for coaching. Nevertheless, this risk should not be overstated. It requires highly dishonest behavior on the side of the party and testifying person, which the tribunal is likely to notice and thus risks to backfire, i.e. destroy the credibility of the witness or expert.

Third, some are of the view that remote hearings do not ensure the same gravitas and solemn nature as physical hearings. The witness is therefore less likely to ‘remain conscious of the nature and solemnity of the occasion and of his or her obligations’. (112) This argument might have some truth in the context of national courts, which often use symbols of authority, such as the judges’ attire (including robes and wigs) and architectural cues (including judicial canopies, coat of arms, courts’ elevated benches). (113) The same is not true for international arbitration proceedings which typically lack any of these aspects. Entering an arbitration hearing room, apart from the seating plan, there is no visual distinction between parties, counsel, witnesses, experts, and arbitrators, who all wear similar business attire. Moreover, one might even question whether testifying remotely and in a more relaxed atmosphere might not improve a witness’ testimony. In a physical hearing or court room, the witness might be stressed and thus confused. Also, he or she testifies under the eyes of the counsel and party who presented the witness, which might lead to conscious or unconscious interference – something that is absent for remote testimony.

For all the above reasons, concerns typically voiced against remote witness and expert testimony should not be seen as unsurmountable hurdles. However, this is not to say that cross-examining witnesses or experts remotely is a ‘walk in the park’. At a minimum, remote hearings, in particular those involving remote witness or expert testimony, require careful and in-depth preparation. It is also true that remote communication technologies – in particular if they are not working properly – might sometimes exacerbate differences of language and culture, with a risk of frustrating the cross-examiner. For instance, it might be unclear whether the witness’ or expert’s delay in answering questions is due to his or her evasiveness or to technological issues and delay in signal.

Therefore, in assessing whether to conduct a remote hearing involving witness or expert testimony, careful consideration should be given to the technological set-up (and limitations thereof) and specific circumstances of the case. The importance of the relevant witness or expert and the planned length of his or her cross-examination are factors for arbitral tribunals to consider. (114) Moreover, other specific features, such as the need for interpretation, witness sequestration and conferencing, are all to be taken into account. Often, however, possible technical solutions exist, some of which are discussed in Section 6 below. (115)

Ultimately, it is vain to argue whether remote witness and expert testimony is the same as, or better/worse than, in-person testimony. It is different and therefore requires different preparation, planning, and organization. It would be wrong for parties, counsel and arbitrators to just ‘plug’ what is done in physical hearings into situations where witnesses or experts are heard remotely.

5.2[b][iii] Technical Framework for the Remote Hearing

Choices regarding the technical framework, such as for instance the platform used, are important aspects when organizing remote hearings, as detailed below in section 6. Some features, however, need already to be taken into account at the earlier stage, when the tribunal decides, in principle, whether or not to proceed with a remote hearing.

To begin, the tribunal needs to be satisfied that all remote participants have a sufficiently good Internet connection and hardware set-up. Whilst this cannot be taken for granted in the context of national court proceedings, (116) the issue should be less acute in international arbitration proceedings. With sufficient lead-time and funds, the right set-up can typically be organized, using professional help.

Moreover, the tribunal may want to assess in advance how many remote connections are needed, from which locations and in which time zones. The higher the number of connections, the more likely it is that technological or practical issues occur (e.g. finding a convenient hearing time for all participants), which need to be accounted for. The need for interpreters is also one of the factors tribunal may take into account when deciding whether a hearing should proceed remotely. Whilst there are solutions, discussed below, interpretation adds complexity to the organization of remote hearings, which tribunals may want to take into consideration. (117)

The Singapore International Commercial Court has gone as far as to test the remote set-up *before* deciding whether it was sufficiently satisfied with the quality in order to proceed with a remote hearing. (118) Testing rounds are an important part of any remote hearing, as discussed below. However, tribunals in international arbitration typically decide first whether or not to proceed with a remote hearing and then test the set-up, and not the other way around. In case of doubt, and if sufficient lead-time exists, an arbitral tribunal may consider conducting a testing phase before deciding on whether or not to conduct a hearing remotely, even though this solution might add further costs.

5.2[b][iv] Timing and Costs of Physical Hearing Compared to Remote Hearing

International arbitration proceedings are often criticized as being too long and costly. (119) Arbitral institutions, and other stakeholders, have tried for a long time to drive down length and costs, with mixed results. (120) Remote hearings might prove to be helpful in controlling time and costs related to international arbitration proceedings. Therefore, comparing the timing and costs of a physical hearing and those for a remote hearing might be one of the factors an arbitral tribunal should take into consideration when deciding which hearing type to choose.

Holding a physical hearing often entails a longer timeframe. In the current COVID-19 pandemic, this is obvious, since hearings planned physically have to be postponed, unless they proceed remotely. In this context, tribunals need to take into account this potential delay (and any possible adverse consequences for either party) when deciding whether or not to proceed remotely. But even beyond the pandemic, remote hearings will typically avoid delay due, for instance, to the unavailability of a certain witness or experts. More generally, remote hearings often are easier to schedule since they do not involve any (or less) travel for its participants.

Costs are another factor. In national court proceedings, the set-up of a videoconference may sometimes be more expensive than organizing a physical hearing. In international arbitration proceedings, the same is unlikely to be true. Given the costs involved in a physical hearing (e.g. venue location costs, international airfares, and accommodation expenses), a remote hearing will typically be significantly less expensive. However, one should not underestimate the costs involved in some remote set-ups, in particular if they include top-end platforms and possibly hardware rentals. Much will depend on the choice of the platform and other parameters of the actual organization of the remote hearing, as discussed in the next part of the paper.

6. PLANNING AND ORGANIZATION OF REMOTE HEARINGS

Guidelines, practice notes, and other soft law instrument on remote hearings have proliferated, in particular in recent times of the COVID-19 pandemic. Arbitral institutions (121) and other arbitral bodies (122) have issued them, as have law firms and arbitration practitioners. (123) They range from general practical tips on how to conduct remote hearing and draft procedural orders, (124) to specific guides for certain platforms (125) or certain regions. (126) Some are not specific to international arbitration but contain helpful guidance, nonetheless. (127)

The purpose of this article is not to review these soft law instruments in detail, nor to give a comprehensive analysis how to best plan for or organize a remote hearing. Rather, the following sections will highlight some important issues regarding: (a) the planning for remote hearings before or at the outset of the proceedings; and (b) the organization of remote hearings during the arbitration.

6.1 Planning for remote hearings before or at the outset of the arbitration

In the COVID-19 pandemic, the discussion has focused understandably on the most urgent issue, i.e. how to find alternatives for hearings that were planned as physical meetings. Beyond the immediate crisis, parties, counsel, and arbitrators might want to consider the possibility of remote hearings at earlier stages, including during the negotiation of dispute resolution clauses or at the first case management conference in the arbitration. In-house counsel have been vocal in discussions on remote hearings that users should avoid falling back into the old habit of physical hearings. (128)

Not much thought has been given so far on how to deal with the possibility of remote hearings in drafting dispute resolution clauses. If parties are keen, as some in-house lawyers state, to avoid hearings, and in particular physical hearings, they may consider adding language regarding remote hearings in their arbitration agreements. It does not seem advisable to exclude physical hearings altogether, but the possibility of remote hearings could be considered in various ways.

First, parties might clarify that the arbitral tribunal has the power to conduct a hearing remotely, even over the opposition of one party. Whilst such power exists anyway under most national laws and arbitration rules, as discussed above, (129) a clarification in the arbitration agreement has the advantage of cutting short any possible discussion on the issue. One of the following sample clauses could be inserted in the arbitration agreement:

The Arbitral Tribunal shall have the power to establish the conduct of a

hearing, including whether it may take place physically or remotely (including by video or telephone conference) or a combination thereof.

At a request of a Party or on its own motion, the Arbitral Tribunal, after having heard the Parties, may decide to conduct a hearing either physically or remotely (including by video or telephone conference) or a combination thereof.

Second, parties could go further and incentivize the arbitral tribunal to hold remote hearings where possible. This could be achieved by shifting the burden of proof to the party resisting remote hearings. As discussed above, in the context of national court proceedings, some jurisdictions allow remote hearings 'in the absence of considerable impediment' or require the party resisting them to establish why a physical hearing would be needed. (130) In addition to the above-mentioned sample clauses, parties could include the following text in their arbitration agreement:

The Arbitral Tribunal should consider conducting hearings remotely where possible and unless there are good reasons why a physical hearing is necessary, taking into account all circumstances of the case.

Even where parties have not included these or similar clauses in their arbitration agreement, tribunals may discuss the possibility of remote hearings at the outset of the arbitration. They could invite the parties to comment on including language, similar to the sample clauses above, in a first procedural order which sets out the procedural framework of the arbitration. During the COVID-19 pandemic discussing the prospect of remote hearings during the first case management conference seems inevitable, but even beyond the current crisis, such a discussion would prove useful.

Whether or not a first procedural order contains language on the possibility of a remote hearing, it may also be sensible to discuss this topic again mid-way through the arbitration, e.g. after the parties have exchanged their written submissions. For instance, the possibility of a remote hearing might be discussed during a mid-stream case management conference. In any event, if a remote hearing is going to take place, its planning should ideally begin early, and before the typical pre-hearing conference, as discussed in the next section.

6.2 Organization of remote hearings

Once it has been decided that a hearing will proceed remotely, the tribunal and the parties should start preparations therefor with as much lead-time as possible.

This includes, first and foremost, a discussion about, and determination of, the platform to be used for the remote hearing. Much depends on the specific circumstances of the case (e.g. whether the hearing is semi-remote or fully remote; location and number of the remote connections, etc.) and there is no one-size-fits-all solution. The range of possibilities is broad: from publicly available free platforms to arbitration-specific providers offering tailor-made solutions, including by some arbitral institutions and hearing centers. This article is not the place to compare the technical differences of various options, which change rapidly. (131)

When making the choice of the relevant platform, parties and tribunals should not only look at the technical set-up, but also consider data security and privacy issues. (132) Certain platforms that have been described as the 'go-to solution' for international arbitration proceedings (133) have at the same time been reported to face serious security issues. (134) At a minimum, parties and arbitral tribunal should discuss these issues, considering two related but distinct aspects. On the one hand is data security (or cybersecurity), i.e. the question how to ensure that unauthorized third parties cannot gain access to the remote hearing. Cybersecurity has been discussed for some time in international arbitration, and the organization of remote hearings is not the only weak link. (135) Platforms that guarantee end-to-end encryption are encouraged, as is, at a bare minimum, password protection. On the other hand is data privacy or confidentiality, i.e. the question whether the remote hearing provider or any other involved third party which stores, transmits, or otherwise has access to data during the remote hearing might (mis)use it outside the arbitral proceedings. (136) Some videoconferencing platforms' general terms and conditions grant the provider ownership rights over the data transmitted during the videoconference. The provider may therefore sell or otherwise use the data, which for confidential arbitration proceedings is problematic, of course. Overall, the conclusion from the ICC *Commission Report on Information Technology in International Arbitration*, dating back to 2017, seems still relevant today in the context of remote hearings:

Despite the potential seriousness of these issues [i.e. confidentiality and data security], some IT users seem unconcerned, or perhaps too willing to opt for convenience over security. (137)

Once the choice of the remote hearing provider has been made, there are still numerous issues the tribunal and the parties need to consider in advance of the remote hearing. They are best discussed at one (or possibly several) specific case management

conference(s), followed by directions in procedural orders. Several of the above-mentioned soft law instruments contain practical tips thereon. (138) Whilst the following list is not exhaustive, these procedural orders should typically include, other than the usual hearing directions, provisions on:

- the technical set-up of any remote venues, including the required system specification (e.g. connectivity) and equipment (e.g. number and positioning of screens, microphones, cameras, etc.);
- the use of technical assistants or administrators, including remotely if necessary, and the need for training sessions for participants;
- the preparation and use of hearing bundles, electronic by preference, including which documents, if any, should be physically present in any remote location and how electronic documents are shared during the remote hearing;
- the date of circulation of a list of attendees, including a seating plan, and the procedure to remotely verify their presence;
- the hearing agenda, considering in particular shorter sitting days to accommodate potential time zone differences between participants;
- the procedure to deal with technical difficulties during the remote hearing (e.g. connectivity issues), including channels of communication, how parties may inform the tribunal thereof and ways the tribunal may stop the proceedings if difficulties persist;
- the requirements of online speaking etiquette (e.g. who mutes/unmutes microphones and how to ask for permission to speak);
- the use of virtual break-out rooms for participants to confer privately amongst themselves (e.g. each party's representatives, or members of the arbitral tribunal);
- the (im-)permissibility of communication or interaction between witnesses/experts and party representatives before, during, and after their testimony, including the need for, and means of, virtual sequestration;
- the determination of persons, if any, permitted to be with the testifying witness/expert (e.g. representatives from the cross-examining party or both parties) and other means to prevent impermissible witness coaching (e.g. rotating camera view);
- the need for interpretation, if any, including when it will be needed, in which form (i.e. simultaneous or consequential) and where the interpreter(s) will be located (i.e. with the tribunal, with the testifying person, or in a separate remote location);
- the use of demonstratives, if any, and how they will be shared during the remote hearing;
- the use of real-time transcripts, if any, and how they will be shared during the remote hearing;
- the recording of the remote hearing, if any, including how it will be distributed; and
- the determination who will bear the costs of the remote set-up, pending the arbitral tribunal's decision on the final allocation of costs.

In advance of the remote hearing, it is appropriate to conduct several testing sessions. These should typically include one well in advance of the hearing (to ensure that there are no compatibility issues with the various soft and hardware systems used) and one shortly before the remote hearing is to begin (e.g. 24 hours before).

If well planned and organized, according to the steps outlined above, the remote hearing should not create any unforeseen issues. In particular, if technical issues occur, the tribunal will be in a position to deal with them according to the pre-established procedures. Nonetheless, effective case management skills on the part of the presiding arbitrator, before and during the remote hearing, will typically prove even more crucial than for physical hearings.

7. ENFORCEABILITY AND CHALLENGE OF AWARDS BASED ON REMOTE HEARINGS

The ultimate test for any remote hearing is whether the resulting award withstands a challenge in recognition/enforcement or set aside proceedings. This test seems to have been positive so far: to the best knowledge of the author, there is no reported case which has refused an award's recognition/enforcement or set it aside on the basis that a hearing was conducted remotely.

This is not to say that parties, in the future, will not try to challenge awards on this basis. The most likely grounds of challenge in this regard will be the parties' right to be heard and treated equally (sometimes referred to together as 'due process' standard), (139) such as set out for instance in Article V(1)(b) of the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, Articles 34(2)(a)(ii) and 36(1)(a)(ii) of the UNCITRAL Model Law, and in similar provisions in national arbitration statutes. (140)

Before looking at the right to be heard and the right to equal treatment in more detail in the following sections, a general remark applies to both grounds. They are amongst the

most frequently invoked grounds in particular under the New York Convention, but they are rarely successful and only so in the most egregious cases. (141) A party arguing that an award breaches the parties' right to be heard and treated equally because it is based on a remote hearing, will therefore typically have to meet a high threshold.

7.1 Breach of the parties' right to be heard

A party seeking to set aside an award or resist its recognition/enforcement because a hearing was conducted remotely will likely present one of the following arguments to assert that it lacked the opportunity to present its case in a meaningful manner.

First, the party might argue that the award breaches its right to be heard since it had a right to a physical hearing. Such an argument would typically be based on provisions in national law or institutional arbitration rules granting the party the right to a hearing, and their interpretation that this necessarily means a right to a physical hearing. (142) However, such an interpretation is unconvincing, as discussed above, and a remote hearing, being an oral and synchronous exchange of arguments or evidence, typically meets the required test for a hearing. (143)

Second, a party might argue that its right to be heard was breached because it could not effectively present its arguments or evidence in a remote hearing. Typically, the party might argue that its remote oral submissions or testimony of witnesses or experts was not as effective as in a physical hearing. However, absent any specific circumstances, these arguments seem insufficient. As discussed above, both legal arguments and witness/expert testimony can be presented efficiently in remote hearings. (144) In particular, fears that it would be more difficult to assess remotely the credibility of a witness or expert are overblown. (145) Courts around the world have generally expressed their satisfaction with remote witness/expert testimony, noting that they could assess the testimony as well as (or maybe even better) than in physical hearings and that no disadvantage existed for the cross-examining party. (146)

Case law from various jurisdictions around the world confirms that remote hearings in and of themselves do not constitute a breach of the parties' right to be heard. (147) For instance, in *China National Building Material Investment v. BNK International*, a US court dealt with a party's objection to the enforcement of an arbitral award, among other things, on the basis of Article V(1)(b) of the New York Convention. (148) The party argued in particular that the arbitral proceedings were 'fundamentally unfair' because one of its witnesses suffered from a medical condition and could not attend the hearing. (149) The court noted that the arbitral tribunal had offered to hear the witness remotely via videoconferencing, but the party insisted on a physical hearing. (150) In those circumstances, the courts found no breach of Article V(1)(b) of the New York Convention, stressing that 'Mr Chang failed to personally appear – either in person, via videoconferencing, or through his Hong Kong attorneys – at a hearing at which every reasonable accommodation was made for him, and he did so at his own peril'. (151) Had the court found that the remote hearing of a witness was in and of itself a breach of the party's right to be heard, it would not have listed it as a possible alternative to a physical hearing.

Similarly, in 2016, another US court confirmed that remote hearings in and of themselves are no issue under Article V(1)(b) of the New York Convention. In *Research and Development Center v. Ep International*, a party resisted enforcement of an award on the basis that it was not physically present at the hearing. (152) In this context, the court noted that '[w]hen a party asserts that its physical presence at arbitration is prevented, it is generally unable to prevail on such a defense if there are available alternative means of presenting its case'. (153) In the case at hand, the applicant had not demonstrated that it was unable to present its case before the arbitral tribunal because the relevant institutional arbitration rules specifically allowed party appearance by videoconference – something the application had failed to request, according to the court. (154) This makes clear that participation by videoconference would have satisfied the parties' right to be heard (as did the mere possibility to be able to request it). (155)

Further comfort might also be found in case law from some jurisdictions that an arbitral tribunal's decision not to hold a hearing *at all* does not qualify automatically as a breach of the parties' right to be heard. (156) If the absence of a hearing may be found in compliance with the parties' right to be heard, so may, *a fortiori*, a hearing that allows the parties to present their case, albeit remotely. The same goes for case law that the tribunal is not obliged to grant certain means of witness examination, such as cross-examination. (157) If a tribunal's refusal of cross-examination does not automatically violate the parties' right to present their case, remote cross-examination may even less constitute such a violation.

However, despite the principle that a remote hearing in and of itself does not breach the parties' right to be heard, there might be instances where such a breach does occur. For example, if technical issues arise and the tribunal proceeds nonetheless, this might affect the parties' opportunity to present their case in a meaningful manner. This is why it is important, as mentioned above, to include this in the advance planning of remote hearings and foresee procedures how to deal with potential difficulties, including providing for channels of communication that parties may use to inform the tribunal of

technical issues, and ways the tribunal may stop the proceedings if these difficulties persist. (158)

The occurrence of technical and other difficulties during a remote hearing was at the heart of a 2016 Australian case. (159) In *Sino Dragon Trading v. Noble Resources International*, the court dismissed an application to set aside an award even though the applicant had argued, among other things, that the remote testimony of its witness was affected by numerous technical and other difficulties. The award listed quite a few issues that arose during the remote testimony, citing in particular the fact that (i) the planned videoconferencing tool did not work and evidence was given by Skype instead; (ii) a 'split format' needed to be adopted, i.e. the video was transmitted via the computer, while a separate telephone link was used for the sound; (iii) the witness had not been given any of the relevant documents and therefore could not be directed to them during cross-examination; (iv) the interpreter was not qualified and eventually had to be replaced; and (v) it appeared that someone unknown was present in the room with the witness during his testimony. (160) As a result, the tribunal noted in the award the 'highly unusual circumstances' and the fact that 'the examination and cross-examination of Mr Li was carried out in a way that was quite unsatisfactory'. (161)

As an initial remark, this case serves as an illustration of some of the things that can go (terribly) wrong in a remote hearing. However, in case of careful planning and organization following the steps discussed above, these issues are typically avoidable. (162) Importantly, despite the numerous problems with the remote testimony, the Australian court did not set aside the award. It noted that 'the mode of evidence by telephone or video conference, although less than ideal compared with a witness being physically present, does not in and of itself produce "real unfairness" or "real practical injustice."' (163) Regarding the technical and other issues, the court noted that the applicant had insisted that its witness be heard by video link (over the objections of the other side) and was partly responsible for some of the issues that occurred. (164) The court further noted that the testimony, despite the difficulties, had been taken into consideration by the arbitral tribunal, (165) and that the party most affected by the issues was the cross-examining party and not the party presenting the witness. (166)

One may speculate whether the court might have decided differently absent many of the case's peculiar circumstances, e.g. had the applicant for the set aside not been the party who insisted on its witness being heard remotely and who was partly responsible for the issues therewith. It remains that despite those issues, the court upheld the award. It also clearly noted that, in and of itself, a remote hearing was not a breach of the parties' right to be heard or treated equally. (167)

Moreover, one should not forget that the parties' right to be heard might sometimes be affected in the converse situation, i.e. if a remote hearing is refused. In particular in the circumstances of the COVID-19 pandemic, refusing a remote hearing might significantly postpone the resolution of the case, potentially for an undetermined timeframe. This delay might harm one of the parties in such a way that its right to present its case in a meaningful manner might be affected. (168)

Irrespective of whether the alleged ground for a violation is the conduct of a remote hearing or, to the contrary, its refusal, the threshold for a violation of the parties' right to be heard is high. There is some debate as to whether the parties' right to be heard under the New York Convention should be defined in reference to national law (e.g. the *lex arbitri* or the law of the enforcement forum) or international standards. (169) In any event, however, even those jurisdictions applying national law recognize that purely domestic standards must be applied with some adaptation. Thus, what could be a violation of the parties' right to be heard under domestic law is not necessarily a violation of Article V(1)(b) of the New York Convention. (170) Accordingly, even if a given domestic law might require a physical hearing, such a requirement is not applicable as such in international arbitration. (171)

This being said, national court practice might still be relevant in the current discussion. In the course of the COVID-19 pandemic, many national courts had to innovate and move towards remote hearings. (172) If national courts therefore consider remote hearings as sufficient guarantees for procedural rights in a national context, it will be difficult for the same courts to hold that remote hearings in international arbitration violate the parties' right to be heard.

Finally, even where a breach of the parties' right to be heard occurred, this does not automatically lead to the non-enforcement of the award under the New York Convention. Rather, some national courts require a causal nexus between the breach and the outcome of the arbitration. In other words, a violation of the right to be heard leads to the refusal of award recognition/enforcement only if the award would have likely been decided differently had the procedural irregularity not occurred. (173) In the case of remote hearings, this might not be easy to establish.

7.2 Breach of the parties' right to be treated equally

In addition to the right to be heard, some national laws also refer to the parties' right to be treated equally. (174) Even though Article V(1)(b) of the New York Convention does not include a specific reference, the right of equal treatment is considered to be part of this

provision's standard. (175) It is a relative and comparative test, meaning that one party should not be treated less favorably than others in the arbitration. (176) Indeed, the principle requires that the parties be treated equally, but not identically. (177) However, if there is no difference in treatment, it will be difficult to argue that equality has not been respected.

Therefore, in a fully remote hearing, in which all the parties (as well as their witnesses and experts) participate remotely, their right to be treated equally typically is not violated, absent specific circumstances. Such specific circumstances may occur if one party is affected by technological issues, but not the other. In the peculiar case of *Sino Dragon Trading Ltd. v. Noble Resources International Pte. Ltd.*, discussed above, the Australian court found no breach even though serious issues occurred during one party's witness evidence. (178) However, if the issues are significant and affect one side more than the other, the equality of conditions under which the parties present their case may be disturbed.

A difference in treatment could also be a potential ground to challenge an award, if one party is suspected to have coached its witnesses or experts. The other party might argue that this distorted the conditions under which testimony is heard. These issues are best avoided by following the preparation and planning steps, set out above, including tribunal directions on the impermissibility of communication or interaction between witnesses/experts and party representatives before, during, and after their testimony, and specific means to prevent impermissible witness coaching, such as rotating camera views. (179) In any event, the tribunal is well-advised at the end of any remote testimony to confirm with all parties that they have no concerns about the conditions under which the testimony took place.

Finally, the parties' right to be treated equally is relevant for semi-remote hearings, in which one side (or its witnesses and experts) participates remotely, but not the other. According to the CI Arb *Guidance Note on Remote Dispute Resolution Proceedings*, unless the parties agree otherwise, '[i]n the interests of equality, it is preferable that if one party must appear to the tribunal remotely, both parties should do so'. (180) However, in many instances, a semi-remote hearing might precisely be necessary because one party (or often its witness or expert) is unable to be physically present. The mere fact that some part of the hearing is conducted remotely does not seem in and of itself a breach of the parties' right to be treated equally. This is so for the same reasons as those discussed above, showing that there is no breach of the right to be heard. (181)

8. CONCLUSION

The COVID-19 crisis has forced international arbitration out of its comfort zone. Parties, counsel, and arbitrators need to assess whether, and if so how, to proceed with planned hearings. Whereas many other steps in arbitration proceedings are already being conducted remotely, hearings could be seen as the 'last bastion' of requiring physical meetings. This has changed with the current pandemic. Whether the change is here to stay, however, remains to be seen.

Taking a step back from the immediate crisis and proposing an analytical framework for remote hearings in international arbitration beyond COVID-19, this article leads to the following findings:

- As discussed in Section 2, it is important to distinguish between different types of remote hearings. For instance, fully remote hearings, in which every participant is in a different location, raise additional questions compared to semi-remote ones, in which a main venue is connected to one or several remote venues. Moreover, remote legal arguments might require a different analysis from remote evidence taking. In the post-COVID-19 world, hearings might combine these different forms, with some parts of a hearing being held semi-remotely or fully remotely and others with physical meetings.
- For all possible forms of remote hearings, parties and tribunals must assess the relevant regulatory framework, including in particular the law of the seat of the arbitration and the arbitration rules, if any. As set out in Section 3, some national laws or arbitration rules contain specific provisions on remote hearings in permissive terms, expressly allowing the tribunal to hold hearings remotely. Others do not contain specific provisions, and remote hearings will therefore be assessed against the backdrop of other provisions, such as the parties' right to a hearing and the tribunal's broad power to determine procedural matters. This article finds that arbitral tribunals typically have the power to decide on remote hearings – either as granted under a specific rule, or as part of the tribunals' general broad power to conduct the arbitral proceedings as they deem appropriate.
- However, the tribunal's power to decide on remote hearings is not without limits. Section 4 discusses one important limit: the parties' agreement. If the parties agree on a certain conduct (i.e. to hold a remote hearing or not), absent specific circumstances, arbitral tribunals should follow the parties' agreement.
- Section 5 deals with the opposite situation, i.e. where one party requests a remote hearing while the other insists on a physical hearing. This situation raises delicate questions and arbitral tribunals have to balance the parties' right to be heard and

treated equally with its obligation to conduct the proceedings in an efficient and expeditious manner. The finding of this article is that arbitral tribunals typically have the power of ordering remote hearings over the opposition of one party, but the exercise of that power requires careful consideration. This balancing exercise must contain a multi-factorial approach, including, for instance, assessing the reason for, and content of, the remote hearing, as well its envisaged technical framework. The envisaged timing for the hearing and any potential delay if it is held physically, and a comparison between the costs for a remote hearing and a physical one might also be relevant. Among other things, the article addresses concerns often raised in the context of remote witness and expert testimony, namely, the alleged prejudice to the cross-examining party and the tribunal's supposed inability to assess the credibility of a remote witness or expert. This article finds that these fears are often overblown and typically can be counterbalanced by appropriate technological solutions.

- The findings of the previous sections emphasize the importance of careful planning and organization of remote hearings, which are the subject of section 6. Existing soft law instruments on remote hearings mainly focus on the actual set-up of remote hearings, but this article shows that the planning thereof may start much earlier. This includes considering specific language regarding remote hearings in the parties' arbitration agreements or the tribunal's first procedural order.
- Finally, Section 7 tests whether awards based on remote hearings withstand potential challenges in recognition/enforcement or set aside proceedings. Detailed analysis of existing case law from jurisdictions around the world shows no reported cases in which such challenges were successful. The article discusses the most likely grounds for challenges, namely, the parties' right to be heard and treated equally. It concludes that, absent specific circumstances, remote hearings in and of themselves do not violate any of these principles.

The assessment of remote hearings is a delicate issue and the analytical framework proposed in this article seeks to help parties, counsel, and tribunals in making this assessment. In the current COVID-10 pandemic and beyond, the choice between holding a remote hearing, possibly over the opposition of one party, or postponing it, illustrates the two opposing approaches set out in the introduction, exemplified by the diverging interpretations of Voltaire's poem. Are we proactively striving for novelty, without fear of possible imperfections, or do we take a cautious approach, stressing both the benefits of the status quo and the risks of too radical a change?

In Voltaire's poem, the discontent woman eventually returns to her husband and lives a happy life, but not without taking a secret lover. Leaving aside questions of morality, and pushing the interpretation of the poem to its limits, it shows that solutions cannot be found by imposing a principled approach, but are better if they are specific to each individual case, taking into account all relevant circumstances. In any event, the fact that many arbitral tribunals, as well as national courts, are growing their experiences with remote hearings is an opportunity that should not be underestimated. It allows users of international arbitrations – parties, counsel, and arbitrators alike – to increase their toolbox and find the best-suited solution for any given case.

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- 79) *Islamic Republic of Pakistan v. Republic of India (Indus Waters Kishenganga Arbitration)*, Partial Award, PCA Case No. 2011–01 (18 Feb. 2013), in *Indus Waters Arbitration (Pakistan v. India): Record of Proceedings 2010–2013*, 10 PCA Series 81–376, para. 3 (2014).
- 80) See e.g. Hong Kong: *Re Chow Kam Fai, ex parte Rambas Marketing Co. LLC* [2004] 1 H.K.L.R.D. 161 at 174, para. 28 (H.K. Court of First Instance).
- 81) *Tetra Pak Marketing Pty. Ltd. v. Musashi Pty. Ltd.* [2000] F.C.A. 1261, para. 25 (Federal Court of Australia).
- 82) See also Hong Kong: *Sun Legend Investments Ltd. v. Ho Yuk Wah* [2008] 4 H.K.L.R.D. 239, at 243, para. 6 (H.K. Court of First Instance).
- 83) *Versace v. Monte* [2001] F.C.A. 1454, para. 16 (Federal Court of Australia). See also *McDonald v. Commissioner of Taxation* [2000] F.C.A. 577, paras 21–22 (Federal Court of Australia).
- 84) *Australian Competition & Consumer Commission v. StoresOnline Int’l Inc.* [2009] F.C.A. 717, para. 14 (Federal Court of Australia).
- 85) *Moyette Pty. Ltd. v. Foundation Healthcare Ltd.* [2003] F.C.A. 116, para. 10 (Federal Court of Australia). See also *Stuke v. ROST Capital Group Pty. Ltd.* [2012] F.C.A. 1097, para. 23 (Federal Court of Australia); *Kirby v. Centro Properties Ltd.* [2012] F.C.A. 60, para. 11 (Federal Court of Australia); *Australian Securities & Investments Commission v. Rich* [2004] N.S.W.s. C. 467, para. 43 (New South Wales Supreme Court). Compare *Capic v. Ford Motor Co. of Australia Ltd. (Adjournment)* [2020] F.C.A. 486, paras 7–8 (Federal Court of Australia).
- 86) Canada Rules of Civil Procedure, rule 1.08(3).
- 87) Singapore Evidence Act, s. 62A(2).
- 88) In this latter sense, see e.g. Rainey & Sharma, *supra* n. 3, point 1.
- 89) See *supra* s. 3.2[b].
- 90) For national court proceedings, see e.g. Canada Rules of Civil Procedure, rule 1.08(5) (e); Singapore Evidence Act, s. 62A(2)(a). See also *Zigiranyirazo*, *supra* n. 21, para. 31.
- 91) *Pakistan v. India*, *supra* n. 79, para. 3.
- 92) *Vivendi Universal v. Republic of Argentina*, Award, ICSID Case No. ARB/97/3, para. 2.7.16 (20 Aug. 2007).
- 93) *Pakistan v. India*, *supra* n. 79, para. 3. In national courts, see e.g. Singapore: *Sonica Industries Ltd. v. Fu Yu Manufacturing Ltd.* [1999] 3 s. L.R.(R.) 119, paras 10–20 (Singapore Court of Appeal).
- 94) See e.g. Foester, *supra* n. 3, at 4–5.
- 95) See e.g. *Murphy Exploration & Production Co. Int’l*, *supra* n. 14, para. 26; s. D. Myers, *Inc.*, *supra* n. 14, para. 76; *Paushok*, *supra* n. 14, para. 61; *Fraport A.G. Frankfurt Airport Services Worldwide*, *supra* n. 14, para. 43; *EDF (Services) Ltd.*, *supra* n. 14, para. 38; *SGS Société Générale de Surveillance S.A.*, *supra* n. 14, para. 23.
- 96) Meghan Dunn & Rebecca Norwick, *Report of a Survey of Videoconferencing in the Courts of Appeal*, Federal Judicial Center, (2006).
- 97) *Ibid.* at 1, 8–12.
- 98) *Ibid.* at 12.
- 99) *Ibid.* at 12.

- 100) *Ibid.* at 10.
- 101) *Campaign Master (UK) Ltd.*, *supra* n. 77, para. 77.
- 102) *Dorajay Pty. Ltd. v. Aristocrat Leisure Ltd.* [2007] F.C.A. 1502, para. 7 (Federal Court of Australia). See also e.g. *Hanson-Young v. Leyonhjelm* (No. 3) [2019] F.C.A. 645, para. 2 (Federal Court of Australia). See further, *Zigiranyirazo*, *supra* n. 21, para. 32.
- 103) *Bachmeer Capital Ltd. v. Ong Chih Ching* [2018] S.G.H.C.(I.) 01 Suit No. 2 of 2017 (Summons No. 2 of 2018), para. 18 (Singapore International Commercial Court).
- 104) In comparison, audio-only telephone hearings might in this respect indeed be less efficient, see e.g. *Pakistan v. India*, *supra* n. 79, para. 5.
- 105) SCC, Webinar: 'Online Hearings When the Parties Cannot Agree' (29 Apr. 2020), <https://sccinstitute.com/about-the-scc/news/2020/now-available-recordings-from-scc-s-online-seminars...>
- 106) Australia: see e.g. *ICI Australia Ltd. v. Commissioner of Taxation* (29 May 1992, unreported), cited in *Tetra Pak Marketing Pty. Ltd.*, *supra* n. 81, para. 22; *Commissioner of Taxation v. Grbich, Y.F.R* [1993] F.C.A. 516, paras 5–6 (Federal Court of Australia); *Rich*, *supra* n. 85, para. 28. Canada: see e.g. *Pack All Manufacturing Inc. v. Triad Plastics Inc.*, [2001] O.J. No. 5882, para. 6 (Ontario Superior Court of Justice); *Chandra v. CBC*, 2015 O.N.s. C. 5385, para. 20 (Ontario Superior Court of Justice); *Wright v. Wasilewski*, 2001 CanLII 28026 (Ontario Superior Court of Justice); *Davies v. Corp. of the Municipality of Clarington*, 2015 O.N.s. C. 7353, paras 23–35 (Ontario Superior Court of Justice). United Kingdom: see e.g. *Polanski v. Conde Nast Publications Ltd.*, [2005] All E.R. (D.) 139 (Feb.), para. 14 (citing the experience of the trial judges). United States: see e.g. *DynaSteel Corp.*, *supra* n. 75, at *2. Compare in the even stricter context of (international) criminal proceedings, *Prosecutor v. Mucic & Landzo*, Decision on the Motion to Allow Witnesses K, L and M to Give Their Testimony by Means of Video Link Conference, para. 15 (International Criminal Tribunal for Former Yugoslavia, 28 May 1997).
- 107) See e.g. *Polanski*, *supra* n. 106, para. 13.
- 108) *Chandra*, *supra* n. 106, para. 20.
- 109) *Capic*, *supra* n. 85, para. 19.
- 110) *Pack All Manufacturing Inc.*, *supra* n. 106, para. 6.
- 111) See e.g. *Capic*, *supra* n. 85, para. 16.
- 112) *Campaign Master (UK) Ltd.*, *supra* n. 77, para. 78. See also *Capic*, *supra* n. 85, para. 19.
- 113) On the image of judges using videoconference more generally, see Emma Rowden & Anne Wallace, *Remote Judging: The Impact of Video Links on the Image and the Role of the Judge*, 14 Intl. J. L. Context 504–524, (2018); Emma Rowden & Anne Wallace, *Performing Expertise: The Design of Audiovisual Links and the Construction of the Remote Expert Witness in Court*, 28 Soc. & Legal Studies 698–718 (2019). See also Emma Rowden et al., *Gateways to Justice: Design and Operational Guidelines for Remote Participation in Court Proceedings* (2013).
- 114) See e.g. Canada Rules of Civil Procedure, rule 1.08(5)(b).
- 115) See *infra* s. 6.
- 116) See e.g. *Capic*, *supra* n. 85, paras 10–11, 17. See also Menon, *supra* n. 6, at 167–190 (noting that the so-called cyber-divide can be an important issue when considering the use of technology in national courts).
- 117) See *infra* s. 6.
- 118) *Bachmeer Capital Ltd.*, *supra* n. 103, paras 11–12.
- 119) See e.g. Queen Mary Survey, *The Evolution of International Arbitration*, *supra* n. 4, at 5; Queen Mary School of International Arbitration Survey, *Driving Efficiency in International Construction Disputes 3* (2019); Mohamed A. Wahab, *Costs in International Arbitration: Navigating through the Devil's Sea, in Evolution and Adaptation: The Future of International Arbitration*, 465–503 (Jean Kalicki & Mohamed Rouf eds, ICCA Congress Series 2019).
- 120) See e.g. the ICC as one example of many others: ICC Rules, App. IV on Case Management Techniques; ICC, *Commission Report: Decisions on Costs in International Arbitration* (2015).
- 121) See e.g. American Arbitration Association (AAA)-ICDR, *Virtual Hearing Guide for Arbitrators and Parties*; Delos, *Checklist on Holding Arbitration and Mediation Hearings in Times of COVID-19* (20 Mar. 2020); HKIAC, *Precautionary Measures in response to COVID-19* (26 Mar. 2020); ICC, *Guidance Note*, *supra* n. 50; ICSID, *supra* n. 16; KCAB, *supra* n. 22.
- 122) See e.g. Africa Arbitration Academy, *Protocol on Virtual Hearings in Africa* (Apr. 2020); American Chamber (AmCham)-Peru Virtual Arbitration Guide (May 2020); Chartered Institute of Arbitrators (CI Arb), *Guidance Note on Remote Dispute Resolution Proceedings* (2020).
- 123) See authorities cited *supra* n. 3.
- 124) See e.g. AAA-ICDR, *Model Order and Procedures for a Virtual Hearing via Videoconference*; Richard F. Ziegler, *Draft Procedural Order to Govern Virtual Arbitration Proceedings*, TDM (9 Apr. 2020).
- 125) See e.g. AAA-ICDR, *Virtual Hearing Guide*, *supra* n. 121; Stephanie Cohen, *Draft Zoom Hearing Procedural Order*, TDM (10 Apr. 2020).
- 126) Africa Arbitration Academy, *supra* n. 122.

- 127) See e.g. EU, *Final Report Informal Working Group on Cross-border Videoconferencing* (2014); EU Council, *Recommendations Promoting the Use of and Sharing of Best Practices on Cross-Border Videoconferencing in the Area of Justice in the Member States and at EU Level*, 2015/C 250/01 (2015); Federal Courts of Australia, *Guide to Videoconferencing in Court Proceedings* (Oct. 2016); Hague Conference on Private International Law, *supra* n. 5.
- 128) See e.g. SCC Webinar, *supra* n. 105.
- 129) See *supra* s. 5.2.
- 130) See *supra* s. 5.2[a].
- 131) For a comparison, see e.g. Wikipedia, *Comparison of Web Conferencing Software*, https://en.wikipedia.org/wiki/Comparison_of_web_conferencing_software.
- 132) See CI Arb, *supra* n. 122, s. 1.5.
- 133) Rainey & Sharma, *supra* n. 3, point 6.
- 134) See e.g. Bill Marczak & John Scott-Railton, *Move Fast and Roll Your Own Crypto: A Quick Look at the Confidentiality of Zoom Meetings*, Citizen Lab (3 Apr. 2020); Maria Ponnezhath & Shubham Kalia, *Zoom Sued for Overstating, not Disclosing Privacy, Security Flaws*, Reuters (8 Apr. 2020).
- 135) See e.g. International Council for Commercial Arbitration (ICCA), New York City Bar Association & International Institute for Conflict Prevention & Resolution Working Group, *Cybersecurity Protocol for International Arbitration* (2020).
- 136) See e.g. ICC, *Guidance Note*, *supra* n. 50, Annex II, point III.
- 137) ICC, *Commission Report: Information Technology in International Arbitration* 15 (2017).
- 138) See e.g. ICC, *Guidance Note*, *supra* n. 50, Annex I.
- 139) It has rightly been pointed out that the term 'due process' has a specific meaning in some national legal systems and is therefore best avoided in the context of international arbitration. See Born, *supra* n. 41, at 3494.
- 140) See e.g. Belgian Judicial Code, Arts 1717(3)(a)(ii), 1721(1)(a)(ii); English Arbitration Act, s. 103(2)(c); French CPC, Art. 1520(4); Hong Kong Arbitration Ordinance, Ch. 609, Part 10, division 2, s. 89(2)(c); Indian Arbitration and Conciliation Act, Art. 48(1)(b); Japanese Arbitration Act, Art. 45(2)(iii)-(iv); Malaysian Arbitration Act, Art. 39(1)(a)(iii); Singapore International Arbitration Act, Ch. 143A, Art. 31(2)(c).
- 141) See Maxi Scherer, *Commentary on Article V(1)(b)*, in *New York Convention, Article-by-Article Commentary* para. 130 (Reinmar Wolff ed., 2d ed., Beck, Hart & Nomos 2019).
- 142) See *supra* s. 3.2[a].
- 143) See *supra* s. 3.2[a].
- 144) See *supra* s. 5.2[b][ii].
- 145) See *supra* s. 5.2[b][ii].
- 146) See *supra* s. 5.2[b][ii].
- 147) Compare *Hanaro Shipping v. Cofftea Trading* [2015] EWHC 4293 (Comm), para. 16 (English High Court) (application to continue an anti-suit injunction on the basis of an arbitration agreement, noting the possibility of remote evidence); LCIA Court Decision on Challenge to Arbitrator in Reference No. 122039, paras 44–47 (10 Oct. 2009), in LCIA, *Challenge Decision Database* (dealing with a proposed testimony by video link).
- 148) *China National Building Material Investment Co., Ltd. (P.R. China) v. BNK Int'l LLC (US)* (W.D. Tex. 2009), in *Yearbook of Commercial Arbitration*, vol. 35, 507–509 (Albert Jan van den Berg ed., Wolters Kluwer 2010).
- 149) *Ibid.* para. 19 et seq.
- 150) *Ibid.* paras 21–22.
- 151) *Ibid.* para. 25.
- 152) *Research & Development Center 'Teploenergetika,' LLC, v. Ep Int'l, LLC*, 182 F.Supp.3d 556 (E.D. Va. 2016).
- 153) *Ibid.* at 566, referring to *Rive v. Briggs of Cancun, Inc.*, 82 Fed.Appx. 359, 364 (5th Cir. 2003); *Empresa Constructora Contex Limitada v. Iseki, Inc.*, 106 F.Supp.2d 1020, 1026 (S. D. Cal. 2000).
- 154) *Ibid.* at 570.
- 155) See also for a participation by telephone, *China National Building Material Investment*, *supra* n. 148, at *7.
- 156) See e.g. England: *O'Donoghue v. Enterprise Inns plc* [2008] EWHC 2273 (Ch), para. 43 (English High Court); Hong Kong: *Kenworth Engineering v. Nishimatsu Construction Co. Ltd.* [2004] H.K.C.U. 593 (H.K. Court of First Instance, 2004); Italy: *Ca. It. Re. v. Ed. S.r.l.* (Naples Court of Appeal, First Section, 3 Apr. 2009); Switzerland: BGE 117 II 346, para. E. 1b/aa; BGE 142 III 360, para. E. 4.1.1. But see Austria: Case No. 7 Ob 111/10i (Austrian Supreme Court, 30 June 2010); China: *Taiwan Huaching Plastic Industry Ltd. v. Yantai Economic & Technological Development Zone Plastic Ltd.* (2002) Er Zhong Min Te Ding No. 06244, Application for Annulment of the Arbitration Award [2002] No. 0039 Rendered by CIETAC in Beijing (Beijing No.2 Intermediary People's Court 2002). Compare England: *Lorand Shipping Ltd. v. Davof Trading (Africa) B.V. (Ocean Glory)* [2014] EWHC 3521 (Comm), para. 25 (English High Court).
- 157) See references cited in Scherer, *Article V(1)(b)*, *supra* n. 141, para. 176.
- 158) See *supra* s. 6.2.
- 159) *Sino Dragon Trading Ltd. v. Noble Resources Int'l Pte. Ltd.* [2016] F.C.A. 1131 (Federal Court of Australia).
- 160) *Ibid.* para. 148.

- 161) *Ibid.* para. 148.
- 162) *See supra* s. 6.2.
- 163) *Sino Dragon Trading Ltd., supra* n. 159, para. 154.
- 164) *Ibid.* paras 161–162.
- 165) *Ibid.* para. 163.
- 166) *Ibid.* paras 164–165 (noting further that the applicant’s counsel had, at the end of the hearing, expressed its satisfaction with the way the testimony occurred).
- 167) *Ibid.* paras 154, 160.
- 168) Compare Singapore: *Coal & Oil Co. LLC v. GHCL Ltd.* [2015] S.G.H.C. 65, para. 73 (Singapore High Court) and *PT Central Investindo v. Franciscus Wongso* [2014] S.G.H.C. 190, para. 68 (Singapore High Court) (both discussing whether any delay in rendering the award is a sign of tribunal bias).
- 169) *See e.g.* Scherer, *Article V(1)(b)*, *supra* n. 141, paras 136–141 (and references cited there).
- 170) On this point further, *see ibid.* para. 140 (and references there).
- 171) For instance, in some jurisdictions the so-called principle of immediacy applies, whereby the judge should obtain an ‘immediate’ impression of evidence in an oral hearing (*see e.g.* Austrian Civil Procedure Code, s. 320; Brazilian Civil Procedure Code, Art. 453; Bolivian Code of Civil Procedure, Art. 5(1); Colombian General Procedure Code, Art. 60; Peruvian Preliminary Title of the Code of Civil Procedure, Art. 5). Irrespective of whether or not this requires a physical hearing, the principle of immediacy does not apply, as such, in international arbitration. *See e.g.* Franz Schwarz & Helmut Ortner, *The Arbitration Procedure – Procedural Ordre Public and the Internationalization of Public Policy in Arbitration*, in *Austrian Arbitration Yearbook 2008* 133, 210 (Christian Klausegger et al. eds, Beck, Munich & Manz 2008). On remote hearings in the national context more generally, *see* Tjaša Ivanc, *Theoretical Background of Using Information Technology in Evidence Taking*, in *Dimensions of Evidence in European Civil Procedure* 265 et seq. (Vesna Rijavec et al. ed., Kluwer 2016).
- 172) On national court practice, *see e.g.*, <https://remotecourts.org/>.
- 173) *See e.g.* Scherer, *Article V(1)(b)*, *supra* n. 141, paras 142–144 (and references cited there, including those arguing to do away with the causality requirement).
- 174) *See e.g.* Brazilian Arbitration Law, Art. 21(2); French CPC, Art. 1510; Spanish Arbitration Act, Art. 24(1); Swiss International Private Law Act, Art. 182(3); Turkish International Arbitration Law, Art. 8; UNCITRAL Model Law, Art. 18.
- 175) *See e.g.* Scherer, *Article V(1)(b)*, *supra* n. 141, paras 170–171 (and references cited there).
- 176) *Ibid.*
- 177) *Ibid.*
- 178) *See supra* s. 7.1.
- 179) *See supra* s. 6.2.
- 180) CI Arb, *supra* n. 122, Art. 1.6.
- 181) *See supra* s. 7.1.

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