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Psychologische Fallstricke des Zeugenbeweises in
Internationalen Handelsschiedsverfahren
(Psychological Pitfalls of Witness Evidence in International
Commercial Arbitration)

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<tr>
<td>AAA</td>
<td>American Arbitration Association</td>
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<tr>
<td>ABA</td>
<td>American Bar Association</td>
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<td>ACCP</td>
<td>Austrian Code of Civil Procedure</td>
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<td>Art.</td>
<td>Article</td>
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<td>CEE</td>
<td>Central and Eastern Europe</td>
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<td>CIS</td>
<td>Commonwealth of Independent States</td>
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<td>DIS</td>
<td>German Institution of Arbitration (Deutsche Institution für Schiedsgerichtsbarkeit)</td>
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<td>et al.</td>
<td>and others (et alii)</td>
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<td>et seq.</td>
<td>and following (et sequens)</td>
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<td>i.e.</td>
<td>that is (id est)</td>
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<td>IBA</td>
<td>International Bar Association</td>
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<tr>
<td>ICC</td>
<td>International Chamber of Commerce</td>
</tr>
<tr>
<td>kph</td>
<td>kilometers per hour</td>
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<tr>
<td>LCIA</td>
<td>London Court of International Arbitration</td>
</tr>
<tr>
<td>OGH</td>
<td>Austrian Supreme Court (Oberster Gerichtshof)</td>
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<td>RAO</td>
<td>Austrian Lawyers’ Act (Rechtsanwaltsordnung)</td>
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<td>RL-BA 1977</td>
<td>Austrian Guidelines for Practicing as Attorney 1977 (Richtlinien für die Ausübung des Rechtsanwaltsberufs 1977)</td>
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<td>Sec.</td>
<td>Section</td>
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<td>SIAC</td>
<td>Singapore International Arbitration</td>
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<td>UNCITRAL</td>
<td>United Nations Commission on International Trade Law</td>
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<td>----------</td>
<td>------------------------------------------------------</td>
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<tr>
<td>VIAC</td>
<td>Vienna International Arbitral Centre</td>
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I. Introduction

1. Arbitration has become the predominant method of dispute resolution in the international commercial community. Its advantages are manifold and highly valued by commercial parties around the globe. Some of the main motives for the decision to subject a dispute to an arbitral tribunal\(^1\), rather than a judge, are the confidentiality of the proceedings, the fact that its costs are often lower, and that decisions tend to be reached faster than in state courts. However, despite its advantages, arbitration is not without flaws.

2. The taking, presentation and evaluation of evidence is one of these key issues in international commercial arbitration. The parties to a dispute develop and present scenarios to convince the tribunal of their version of the truth, while the tribunal tries to establish the objective truth based on the available evidence.\(^2\)

3. Among the variety of possible means of evidence, the examination of witnesses of fact contains a considerable, yet often ignored, amount of uncertainty. Despite decades of research in the field of human memory psychology and groundbreaking findings, which will be dealt with in detail later on, the majority of practitioners in the legal profession does still not apply the principles of how the human memory perceives, stores and recollects memories. Witnesses’ recollections are exposed to numerous distractions between the witnessed event and the statement. The witness’s memory may be biased, leading to an unintentionally false testimony. The tribunal is confronted with the difficult task to evaluate this evidence.

4. In this thesis, I will first illustrate the development and the sources of witness examination. In the thesis’ main part, I will then provide a detailed analysis of the different psychological effects that cause biased witness statements, highlight their sources and show their possible influence on a witness’s testimony and how such memory corruptions can be avoided.

\(^1\) In the following, ‘tribunal’ refers to ‘arbitral tribunal’

\(^2\) Kröll, 2003, 553.
II. Legal Background

A. Austrian Domestic Law

5. The domestic law of Austria law is silent on the topic of witness evidence, as are the majority of arbitration laws which are based on the UNCITRAL Model Law. The Austrian approach is based on Art. 19 of the Model Law. For the taking of evidence, the general rule of Sec. 594 (1) Austrian Code of Civil Procedure (ACCP) is applicable, which provides that parties are limited solely by the mandatory provisions of the ACCP. These are the fair treatment of the parties, the right to a fair hearing according to Sec. 594 (2) ACCP, as well as Sec. 599 (1) ACCP, which grants the tribunal the power to decide on the admissibility of evidence and the free evaluation of evidence. Aside from these mandatory rules, the parties may chose the applicable law.\(^3\)

6. If the parties do not agree on a procedure for the taking of evidence, the tribunal is entitled to decide on the conduct of the proceedings(Sec. 594 (3) ACCP). The same applies in cases where the parties agree on a set of rules which grants the tribunal the power to make discretionary decisions.\(^4\)

B. Institutional Rules

1. VIAC

7. The Vienna International Arbitral Centre (VIAC) is a division of the Austrian Federal Economic Chamber, established on 1 January 1975. Until recently, it was only entitled to administer cases with international character, which means that at least one of the parties had to have its place of business or its headquarters in a country other than Austria. Following an amendment in 2017, however, it also has the power to administer purely national cases.

\(^3\) Watschinger, 2015, 6.
\(^4\) Watschinger, 2015, 6.
8. The VIAC is well recognized, and, because of Austria’s location between Eastern and Western Europe, parties from CEE and CIS countries frequently choose the VIAC to administer their disputes.

9. Similar to the ACCP, the VIAC Arbitration Rules (Vienna Rules) do not contain any specific provisions dealing with witness evidence. Art. 29 (1) Vienna Rules merely provides that the tribunal has the power to collect evidence on its own initiative. This includes the taking of witness evidence and the questioning of witnesses. However, Art. 29 (1) Vienna Rules does not provide for any specific proceedings regarding the taking of oral evidence.\(^5\)

2. ICC

10. Art. 25 (3) of the ICC Arbitration Rules contains a provision similar to Art. 29 (1) Vienna Rules. According to Art. 25 (3) ICC Rules, the tribunal “may decide to hear witnesses”. The presence of the parties is not mandatory, provided they have been duly summoned in advance.\(^6\)

3. Overview of other Institutional Rules

11. Only the rules of very few arbitral institutions are more specific than the Vienna Rules or the ICC Rules. The UNCITRAL Rules (Art. 27 et seq.), LCIA Rules (Art. 20), AAA Commercial Arbitration Rules (Art. 34) and the Swiss Rules (Art. 24 et seq.) contain provisions regulating concrete and specific details of the witness evidence in the proceedings.\(^7\) These details will be referred to in this thesis to the extent they are relevant.

C. IBA Rules on the Taking of Evidence

12. The taking of evidence in international commercial arbitration is, by and large, tailor-made for each individual case. Nevertheless, since the 1990s, efforts have been made to create a uniform set of rules which provides law practitioners with

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\(^5\) Schumacher, 2011, 86.
\(^6\) Art. 25 (3), ICC Arbitration Rules.
\(^7\) Schumacher, 2011, 86.
the possibility to predict some basic principles of the taking of evidence in every arbitration procedure. The result of these efforts are the 1999 IBA Rules on the Taking of Evidence in International Arbitration.8

13. The IBA Rules were revised in 2010. However, the changes were primarily of linguistic nature and did not bring relevant changes for the topic at hand.

14. The primary objective of the IBA Rules is to provide principles and guidelines for arbitration proceedings for parties from different legal backgrounds and cultures. The principles contained in these rules reflect legal approaches from different legal systems, mainly common law and civil law, and are intended to bring these different systems closer together.9

1. Relevant Principles for Witness Evidence

15. The IBA Rules contain two relevant provisions that deal with the topic of witness examination in international arbitration: Art. 4 and Art. 8.

a) Art. 4

16. This provision sets out principles for witness evidence prior to the oral hearings. The strong influence of the common law system is particularly apparent in Art. 4 (2) and (3) IBA Rules:

2. Any person may present evidence as a witness, including a Party or a Party’s officer, employee or other representative.

3. It shall not be improper for a Party, its officers, employees, legal advisors or other representatives to interview its witnesses or potential witnesses and to discuss their prospective testimony with them.

8 Born, 2014, 2210.
9 Eberl, 2015, 118.
17. The IBA Rules do not distinguish between an external witness and a party witness, as would be the case in the civil law system. Furthermore, Art. 4 (3) explicitly allows the parties to prepare the testimony of their witnesses prior to the hearing. Under the Austrian rules governing the profession of lawyers (especially under Sec. 9, 10 (2) RAO and Sec. 8 RL-BA 1977), such conduct would be highly questionable in state court proceedings. However, contrary to the US-American procedural law, the IBA Rules do not allow to conduct depositions with witnesses of the counter-party.¹⁰

b) Art. 8

18. Art. 8 IBA Rules contains general guidelines for the evidentiary hearing. Following the flexibility inherent to arbitration proceedings, the details of the conduct of the hearings can be adapted to the needs of each individual case.¹¹

19. Again, the impact of the common law becomes apparent in the fact that the examination of the witnesses according to the IBA Rules is inspired by the cross-examination technique. This becomes clear from Art. 8 (3) (b):

(3) (b) following direct testimony, any other Party may question such witness, in an order to be determined by the Arbitral Tribunal. The Party who initially presented the witness shall subsequently have the opportunity to ask additional questions on the matters raised in the other Parties’ questioning;

20. According to Art. 8 (4), the witness’s direct testimony (or examination-in-chief) can be replaced by a witness statement.¹² In practice, this is usually the case, as this is more cost- and time-efficient than a full examination of the witness by the tribunal. The written witness statement is then considered as examination-in-chief,

¹⁰ Eberl, 2015, 121.
¹¹ Eberl, 2015, 122.
¹² Watschinger, 2015, 83, 119.
the witness merely confirms the correctness of his statement and is subsequently examined by the counter-party.\textsuperscript{13}

21. An important provision of significant practical relevance is Art. 8 (2):

\begin{itemize}
  \item (2) \textit{The Arbitral Tribunal shall at all times have complete control over the Evidentiary Hearing. The Arbitral Tribunal may limit or exclude any question to, answer by or appearance of a witness, if it considers such question, answer or appearance to be irrelevant, immaterial, unreasonably burdensome, duplicative or otherwise covered by a reason for objection set forth in Art. 9.2. Questions to a witness during direct and re-direct testimony may not be unreasonably leading.}
\end{itemize}

22. This provision, derived from the civil law system, grants the tribunal the power to effectively manage the hearing. By exercising this power, the tribunal can ensure the efficiency of the arbitration proceedings by limiting the questions to those which are relevant for establishing the facts of the case.\textsuperscript{14}

2. Relevance for Commercial Arbitration

23. The IBA Rules are not mandatory and are only intended to provide guidelines for arbitration proceedings. Yet they have become a ‘best practice’ in international commercial arbitration and are observed by parties in most proceedings. According to a 2012 study of the Queen Mary, University of London, 60 % of the parties in such arbitration proceedings agree on the application of the IBA Rules.\textsuperscript{15}

24. The reason for this status as ‘best practice’ is clear: the IBA Rules are one of the very few sets of rules in international arbitration that deal with the issue of witness

\textsuperscript{13} Schumacher, 2011, 162
\textsuperscript{14} Commentary on the revised text of the 2010 IBA Rules on the Taking of Evidence in International Arbitration, 2010, 23.
\textsuperscript{15} Watschinger, 2015, 7; Born, 2014, 2212.
evidence, and which provide more detailed provisions than most national laws or institutional rules.¹⁶

25. The IBA Rules have the potential to influence a proceeding in two ways: the parties can either agree on the application of the IBA Rules (as hard law or as soft law), or, which is more common, the tribunal applies the IBA Rules as a guideline for its decisions. To do so is in the tribunals’ discretionary power. Thus the arbitrators can order the parties to proceed in accordance with the IBA Rules. The IBA Rules provide a sensible and predictable set of rules for the taking of evidence, which is beneficial for the efficiency, fairness and equal treatment in arbitration proceedings.¹⁷

D. Powers of the Tribunal to Evaluate Evidence

26. Since commercial arbitration is primarily an adversarial process, controlled by the agreements between the parties, the arbitrators’ powers are in principle limited to the powers laid down in these party agreements and in the applicable procedural laws.¹⁸ Nevertheless, it is undisputed that the arbitrators have the power to conduct the taking of evidence and in particular to freely evaluate the evidence: Practically all national arbitration laws, institutional rules and the IBA Rules explicitly provide the arbitrators with the power of free evaluation of the evidence submitted. Proceedings would be meaningless if the arbitrators did not have this power.

27. The parties should not underestimate the arbitrators’ power to evaluate the presented evidence. Especially if a witness testifies before the tribunal, it is be no means certain that the arbitrators will draw from this evidence the exact conclusion that was intended by the parties presenting the evidence.¹⁹

¹⁶ Schumacher, 2011, 85.
¹⁷ Born, 2014, 2212.
III. Development of Commercial Arbitration and Definition of the Term ‘Witness Examination’

28. Before moving on to the main part of the thesis, it is necessary to define the relevant terms for this topic and to outline the relevant legal provisions.

A. Development of Commercial Arbitration as a Method of Dispute Resolution and the Impact of Common Law and Civil Law

1. Development of International Commercial Arbitration

29. The first forms of arbitration-like methods of dispute resolution mechanisms were established almost as soon as man began trading.  

30. For centuries, state courts have been intervening significantly in arbitration proceedings, even by reviewing substantive decisions made by these tribunals. Because of this strong impact of national courts, there were no international laws regulating arbitration proceedings, and the enforcement of awards was dealt with differently from state to state. Moreover, state courts not only considered their national laws, but also possibly relevant political circumstances when reviewing awards.

31. The rise of modern international arbitration began between 1880 and 1910, an era of growing globalization and free trade. However, these first approaches were based on the states’ national laws. The development was slowed down by national courts, who perceived arbitration as a rival and feared competition in commercial matters. States thus wanted to supervise arbitration proceedings as closely as possible. The procedure for the recognition of awards was rigorously regulated in national laws and party autonomy existed only within narrow limits.

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21 Noussia, 2010, 12.
22 Noussia, 2010, 12.
32. Since it took place at different times in different countries, the development of arbitration in England, France, Germany and Austria will be described in more detail in separate sections.

a) **England**

33. As a trading nation, England has a long history of commercial arbitration and arbitration-like proceedings. By the later Middle Ages, merchants began to seek alternatives to the Royal Courts. The merchants' main objective was that their disputes should be decided expeditiously, as they were usually travelling from fair to fair, not staying long enough in one place to wait until the ruling of a Royal Court.

34. The alternative they chose were special tribunals, named the *Courts of the Boroughs, of the Fair and of the Staple*. With their swift decision-making processes, these courts can be considered the forerunners of modern arbitral tribunals. Another 'modern' feature was the nomination of persons as arbitrators who had specific knowledge of a certain trade. It was recognized that these persons were more suitable to hold such a position than other persons.\(^{23}\)

35. In the sixteenth century, following the discovery of the Americas, English state courts gave themselves broader jurisdiction over commercial disputes involving foreign businessmen. This development was criticized by most merchants, as the time-consuming proceedings in state court litigation stood against their desire for expeditious decisions for their disputes.

36. In the following decades, the wishes of the commercial community were partly fulfilled by charters which allowed merchants to settle disputes between themselves, not under the jurisdiction of state courts. In the eighteenth century, another barrier was removed when arbitration was solidly established as an alternative method of dispute resolution. However, the national jurisdiction extensively intervened in arbitration proceedings.

\(^{23}\) Noussia, 2010, 12.
37. The reasons for this were manifold, but the two most important were on the one hand the fact that the courts, as a matter of principle, tried to keep control over all rulings and adjudications as far as possible, and on the other hand financial motives: in arbitration, litigants needed the assistance of the courts, who in turn charged a price for their assistance.24 [Expenses]

38. The next important step for the establishment of arbitration as an independent method of dispute resolution was the Common Law Procedure Act 1854. With this act, provisions for the appointment of arbitrators were introduced and the parties were given the right to consult a state court for a judicial review of a question of law.25 [arbitration]

39. With the Arbitration Act 1889, all practices existing until then were merged into one set of laws. Further Arbitration Acts followed in 1950, 1975, 1979 and 1996, whereby the latter two are especially noteworthy: with the Arbitration Act of 1979, the case stated procedure was abolished and arbitral tribunals became fully independent from state courts. Furthermore, party autonomy was safeguarded and judicial interventions were cut back. With the Arbitration Act 1996, legal principles set out in numerous Arbitration Acts were consolidated and a uniform code of arbitration law was established.26

b) USA

40. The history of arbitration in the United States began with the colonialization of North America in the sixteenth century. Arbitration was the preferred method of dispute resolution in the commercial community, as courts were less effective and efficient.

41. However, arbitration had to face a rising mistrust among leading legal experts in the time around the year 1900. It was feared that arbitration proceedings might not lead to fair results and that successful arbitration could undermine the state court system. Changes took place in 1920, when the State of New York revised its

24 Noussia, 2010, 12.
arbitration law and decided to enforce agreements to arbitrate future disputes. Further steps were taken by the American Bar Association, which drafted a Federal Arbitration Act based on the New York law in 1921.\textsuperscript{27}

42. This draft was reviewed by the American Congress in 1922, which adapted and passed it as federal law in 1925. Today, arbitration is recognized and highly valued throughout the 50 states, and the American Arbitration Association (AAA) is one of the largest arbitration associations in the world.\textsuperscript{28}

43. Nowadays, arbitration in the United States is governed by the Federal Arbitration Act. State court proceedings with regard to domestic arbitration are governed by the law of the state in which the claim was initiated. The majority of the US-states have based their arbitration laws on the Uniform Arbitration Act from 1955 or the Revised Uniform Arbitration Act from 2000.\textsuperscript{29}

c) Germany

44. The German law governing arbitration proceedings was consolidated in 1998 with the German Arbitration Act, which is codified in the German Code of Civil Procedure. The objective of the German legislator was to establish laws which were already accepted as the international standard, and to present Germany as an arbitration-friendly location for the resolution of international commercial disputes. Thus, the German arbitration law is based on the UNCITRAL Model Law on International Commercial Arbitration.\textsuperscript{30}

d) Austria

45. Austria made its first efforts to codify arbitration law already 250 years ago. A comprehensive set of provisions regulating arbitration proceedings was included in the Austrian Code of Civil Procedure from 1895.

\begin{flushleft}
\textsuperscript{27} Noussia, 2010, 13. \\
\textsuperscript{28} dynaled.wordpress.com/. \\
\textsuperscript{29} www.lexology.com/. \\
\textsuperscript{30} Noussia, 2010, 15.
\end{flushleft}
46. The most comprehensive amendments to the Austrian arbitration law entered force on July 1st, 2006. Since then, the Austrian arbitration law is based mainly on the UNCITRAL Model Law and the German arbitration law. This revision made Austria a far more attractive location for the settlement of commercial disputes.\textsuperscript{31}

47. The latest revision of the arbitration law entered force on January 1st, 2014. With the Arbitration Act 2013, the procedure to set aside arbitral awards was significantly shortened. Pursuant to the Arbitration Act 2013, there only one single instance has the authority to set aside an award, instead of the three instances of jurisdiction which were competent according to the previous legislation. This single instance is the Austrian Supreme Court (‘OGH’).

e) Globalization of Commercial Arbitration

48. The internationalization and globalization of commercial arbitration was strongly influenced by the International Chamber of Commerce, known as the ICC, which was established in 1919. Since then it has become the mouthpiece of the international commercial community and is a strong advocate of arbitration as an alternative method of dispute resolution in commercial matters.

49. The development of arbitration for the resolution of international commercial disputes started in 1927 with the Geneva Convention on the Execution of Foreign Arbitral Awards. Even though this convention later failed due to the inefficiency of its provisions, it promoted the willingness of the participating countries to draft an effective mechanism for the enforcement of foreign awards.\textsuperscript{32} A more effective mechanism was established in 1958 with the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards. The New York Convention has 157 member states as of March 6th, 2017, when the convention entered force in Angola.\textsuperscript{33}

50. There are two further noteworthy events that fueled the development of international commercial arbitration: the UNCITRAL Rules and the UNCITRAL

\textsuperscript{31} www.lexology.com/.
\textsuperscript{32} dynaled.wordpress.com/.
\textsuperscript{33} www.uncitral.org/.
Model Law. The UNCITRAL Rules are the result of the demand for neutral arbitration rules, fit for the use in ad hoc arbitration. They were drafted by the United Nations Commission on International Trade Law and entered force in 1976. The UNCITRAL intended to create a set of rules, including procedural rules and a model clause for arbitration that is acceptable to parties in various economic systems and in common law as well as civil law nations. The UNCITRAL Rules were last revised in 2013.34

51. The UNCITRAL Model Law, which was first published by UNCITRAL in 1985 [force], is a set of arbitration rules intended to support states in modernizing and remodeling their national laws on arbitration. It is a consensus of different influences and impacts from several legal systems on the main aspects of international arbitration and deals with all stages of arbitration proceedings. Numerous nations, from both civil law and common law countries, have modified their arbitration laws in order to align them with the UNCITRAL Model Law, including Austria with the Arbitration Act 2006.35 As of 2017, 75 states have aligned their national laws.36

52. Due to the growing number of commercial disputes which are settled by arbitral tribunals instead of state courts, there was also an increase in the number of arbitration institutions. Today, there are numerous institutions seated around the world, all of them with their own arbitration rules. These include the London Court of International Arbitration (LCIA, founded in 1892), the Singapore International Arbitration Center (SIAC, founded in 1991), the German Institution of Arbitration (DIS, founded in 1992), the International Court of Arbitration of the ICC (founded in 1923) and the Vienna International Arbitral Centre (VIAC, founded in 1975).37

2. Impact of Civil Law and Common Law

53. As the name implies, the parties to a dispute in international commercial arbitration often come from different legal backgrounds. Frequently one party is from a civil

34 dynaled.wordpress.com/.
35 www.uncitral.org/.
36 www.uncitral.org/.
37 www.international-arbitration-attorney.com/.
law country and the opposing party from a common law country. Both law traditions have left their marks on international commercial arbitration. The different approaches to the various questions of legal proceedings have given arbitration its current shape.

54. Differences exist especially at the evidentiary stage of the proceedings. In the common law tradition, proceedings are usually commenced with a brief statement of claim. In the subsequent discovery process, the parties to the dispute exchange documents that are relevant for their case, followed by oral hearings and the examination of witnesses. A special feature at this stage is the cross-examination of witnesses, a procedure unknown in most civil law countries.\(^{38}\)

55. Under civil law, proceedings commence with a comprehensive exchange of statements and supporting evidence. Unlike in common law, witness statements are not an integral part of the proceedings. If witnesses are examined, this is done by the judge. The decision of the court is based on the submitted documentary evidence and not on witness depositions (as it is the case in common law proceedings).\(^{39}\)

56. In general, the common law has had a slightly stronger impact on the development of international arbitration. While the impact of civil law is manifested mainly in the written stage of arbitration, common law has strongly influenced the oral stage.\(^{40}\)

57. In an effort to combine the different approaches, the International Bar Association has developed the IBA Rules on the Taking of Evidence in International Arbitration. These Rules, combining the best provisions from both systems, provide a well-balanced framework that is aimed at offering a suitable compromise for parties from both legal traditions.\(^{41}\)

\(^{38}\) Eberl, 2015, 118.
\(^{39}\) Eberl, 2015, 118.
\(^{40}\) www.jamsinternational.com/.
\(^{41}\) Born, 2014, 200.
B. Characteristics of the Witness

58. As a matter of principle, it is necessary to distinguish between witnesses of fact and expert witnesses. The latter do not give testimony on their perception of a certain event. Instead, they give their expert opinion on relevant technical, economic or other issues of a dispute.\(^{42}\)

1. Witness of Fact

59. Witnesses of fact are nominated by the parties to retell the facts relevant for a dispute and to support the submitting parties’ case. Witnesses of fact can either give their testimony during oral hearings or report their factual knowledge in written statements in advance of the hearing, which is more common in international arbitration practice. These statements are usually drafted by the parties’ attorneys and not by the witnesses themselves. The witness merely signs the statement.\(^{43}\)

60. In this context, it is important to point out the difference between the two perceptions of the term ‘witness’ in civil law and in common law. In the common law system, a broad term is used for the definition of the ‘witness’. Since the focus is on the differentiation between personal evidence and fact [real] evidence, the term witness includes not only the witness of fact, but also the party witness and the expert witness.\(^{44}\) By contrast, civil law typically uses a narrow description of the term ‘witness’, i.e. witness of fact.

2. Rights and Obligations of the Witness

a) Obligation to Testify

61. Due to the private character of arbitration proceedings, the arbitral tribunal has no coercive powers. Consequently, it cannot coerce a witness to testify. In principle, witnesses are not obliged to appear or to testify before a tribunal. They give their

\(^{42}\) Eberl, 2015, 92.
\(^{44}\) Schumacher, 2011, 87.
testimony voluntarily. It is advisable to point out this voluntary nature of the testimony to the witness prior to their oral examination [statement].

b) **Obligation to Tell the Truth**

62. The tribunal should remind the witness of the possible legal sanctions for a false statement. If the place of the arbitration is Austria, Sec. 288 of the Austrian Criminal Code, which penalizes false statements before a court, is not applicable to statements given in an arbitral proceeding. However, since the arbitral tribunal might seek the assistance of a state court if it has doubts whether the witness is telling the truth or not, it is important to point out the legal sanctions of a false statement in front of a state court beforehand. Knowing these possible sanctions may motivate the witness to give a truthful statement in the first place.

63. In contrast to the Austrian solution, the Swiss Criminal Code expressly provides in its Art. 309 (a) that a false statement is punishable not only in front of a state court, but also in front of an arbitral tribunal.

64. Sec. 146 and 147 of the Austrian Criminal Code are applicable in front of an arbitral tribunal as well. The provisions establish legal consequences for fraud, which can be committed by giving a false statement in arbitration proceedings.

c) **Rights of the Witness**

65. A topic which often goes unnoticed in commentaries on international commercial arbitration is the protection of the fundamental and constitutional rights of witnesses in arbitral proceedings. Due to their universal character, these rights must be respected in arbitration as well, which is particularly relevant in international arbitration, where the parties are from different legal and cultural backgrounds. Despite the private character of arbitration, the freedom of the parties to agree on certain proceedings ends where the protection of privacy and

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46 Schumacher, 2011, 152.  
47 Art. 309 (a) Swiss Criminal Code.  
human dignity begins, for example privacy rights and family privacy of the witness.\textsuperscript{49}

C. Differentiation between Witness and Party

66. Since the common law perception of the term ‘witness’ is broader than the civil law perception, the differentiation between witness and party is only relevant from a civil law perspective.\textsuperscript{50} and only in those situations where the rules of arbitration, or the instructions of the arbitral tribunal distinguish between witnesses and party witnesses.

1. Admissibility of Party Evidence

67. [proceedings] The principle of ‘\textit{Nemo testis in re sua esse debet}’ (‘no one can be a witness in his own cause’) is valid only in a diluted form in arbitration, as is also the case in most national civil procedure codes. In recent years, another principle has taken over in international arbitration, which is that everyone can be a witness.\textsuperscript{51}

68. This development is reflected by Art. 4 (2) of the IBA Rules on the Taking of Evidence which states that ‘\textit{any person may present evidence as a witness, including a Party or a Party’s officer, employee or other representative}’\textsuperscript{52}, as well as by Art. 27 (2) of the 2010 UNCITRAL Arbitration Rules.\textsuperscript{53}

69. The Swiss Chamber of Commerce also added the sentence ‘\textit{Any person may be a witness or an expert witness in the arbitration}’ to the Swiss Rules with the 2006 amendments.\textsuperscript{54}

2. Arbitral Practice

70. As can be seen from the above-mentioned provisions, it is standard practice in international arbitration that a party can be nominated to testify as well. The

\begin{footnotesize}
\begin{enumerate}
\item Eberl, 2015, 79.
\item Watschinger, 2015, 8.
\item Schumacher, 2011, 88.
\item Art. 4 (2) IBA Rules on the Taking of Evidence.
\item Art. 27 (2) UNCITRAL Arbitration Rules.
\item Schumacher, 2011, 88.
\end{enumerate}
\end{footnotesize}
tribunal does not make a differentiation between a testifying witness or a testifying party. Considering the far-reaching private character of arbitration, any other solution would only be justifiable if a relevant party agreement existed. 55

71. In practice, parties usually rely on witnesses ‘from their own camp’, i.e. employees or other company representatives who may be expected to support of the party’s own case. However, the nomination of such ‘company witnesses’ can be problematic. These witnesses have frequently obtained the knowledge of the facts on which they testify after their occurrence through documents or hearsay. Their testimony might be subjectively true, but objectively these company witnesses merely testify a subjective truth which supports their employer’s position. 56

D. Taking of Evidence ex officio or only upon Request of a Party?

72. In general, and resulting from the far-reaching party autonomy, the taking of evidence in international commercial arbitration is effected upon request of a party and not ex officio. The parties bear the responsibility to provide the tribunal with sufficient evidence for their case. 57

73. Nevertheless, the international arbitration favours an active role of the arbitrators. Despite the principle of party autonomy regarding the taking of evidence, the common understanding is that the tribunal also has the power (some commentators see even a duty) to establish the relevant facts of the case. Consequently, the tribunal is entitled to order the examination of a witness whose deposition might be relevant on its own initiative. 58

74. This trend towards the active arbitrator is reflected in most institutional arbitration rules. Art. 20 ICC Rules states that the tribunal shall determine the facts of the case ‘by all appropriate means’, which includes the taking of oral evidence and the ordering of the parties to provide additional evidence. Similarly, Art. 27 (3)

56 Eberl, 2015, 74.
57 Schumacher, 2011, 95.
58 Schumacher, 2011, 95.
UNCITRAL Rules and Art. 19 (3) AAA Rules give the tribunal the power to order the parties to provide evidence in any stage of the proceedings.\(^\text{59}\)

75. The *active* role is also part of the IBA Rules on the Taking of Evidence. According to Art. 8 (5) IBA Rules, the tribunal has the power to order a party to provide the tribunal with the written or oral testimony of a witness.\(^\text{60}\)

76. The Austrian and German national laws on the taking of evidence in commercial arbitration are silent on the topic, just as the UNCITRAL Model Law, on which both laws are based. However, it is widely recognized that the legislators did not intend to propose an *inactive* role of the arbitrators. *Hausmaninger* states that the arbitrators’ duty to establish the facts of the case is a matter of course. Consequently, the lack of an express provision is not relevant in this regard.\(^\text{61}\)

77. This approach is sensible with respect to an efficient conduct of the proceedings. Arbitration proceedings are adversarial proceedings. Nevertheless, the tribunal should contribute to a more cost- and time-efficient proceeding by means of suggestions to the parties. This is also in the interest of the parties.\(^\text{62}\)

78. This method is especially advisable in proceedings where the parties, and particularly their lawyers, are from a common law country. American-style adversarial proceedings are often characterized by an excess of evidence, while the court does not interfere. This would jeopardize the efficiency of arbitral proceedings; hence, the tribunal should limit the evidence to the relevant facts.\(^\text{63}\)

79. However, the arbitrators’ powers are limited by the requirements to remain impartial and by their duty to treat the parties in an equal and fair manner, as well as by the fact that the tribunal typically does not have enough background

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\(^\text{59}\) Schumacher, 2011, 96.
\(^\text{60}\) Schumacher, 2011, 97.
\(^\text{61}\) Hausmaninger, 2016, Sec. 599.
\(^\text{62}\) Eberl, 2015, 81.
\(^\text{63}\) Eberl, 2015, 81.
knowledge about the dispute to be able to order evidence. In practice, the tribunal calls a witness directly.[decision].64

80. As a best practice to avoid the ordering of unnecessary evidence, the tribunal should consult with the parties and give them the opportunity to comment on the tribunal's initiative to ordering the examination of a witness ex officio.

64 Schumacher, 2011, 95.
IV. Preparation of Witness Evidence

81. In international commercial arbitration, it is common to prepare not only the witness statements, but also to prepare and brief the witnesses for their oral testimony before the tribunal. This is much more frequent than in civil law litigation proceedings. In most continental European countries, the contact with witnesses prior to the proceedings is limited to clarifying whether a witness can contribute facts to the case or not. Extensive preparation of witnesses for their testimony is usually prohibited by laws governing the legal profession, such as Sec. 8 RL-BA 1977 and Sec. 9 and 10 (2) RAO. 65

82. Interestingly, Art. III.5.1.2. of the Code of Ethics for Lawyers of the Belgian Flemish Bar Council contains a specific exception for arbitration proceedings in regard to the permissible contact of lawyers with witnesses. Such contact is prohibited in state court proceedings according to Art. III.5.1.1. of the Code of Ethics.

83. The above described common practice in international arbitration is mainly derived from the proceedings in the common law system, especially the evidentiary proceedings in US-American litigation. The thorough preparation of witnesses for their testimony is an essential component of the US-American lawyer-profession. This practice is often called ‘witness coaching’. 66

84. The described practices are well-established in international commercial arbitration and are frequently followed, even if no party to a dispute is from a common law country. 67

85. In the following sections, the two main stages of preparing a witness will be examined. First, the written witness statements will be dealt with, followed by an analysis of the practice of preparing witnesses for their oral testimony and cross-examination. This is of special importance for the subject of this thesis because it can have a significant psychological influence on the witness and, consequently, on the objectivity of their statements.

65 Schumacher, 2011, 123.
66 Schumacher, 2011, 123.
A. Written Statements

86. A basic feature of arbitration proceedings is the drafting of witness statements prior to the oral hearings. Rule 32.4 of the English Civil Procedure Rules define witness statements as written and signed declarations of a person about the otherwise orally given testimony. The written statement can also be submitted in form of an affidavit. These contain a form of oath by which the witness confirms that the content of their statement is true.68

87. In international commercial arbitration, witness statements can be given in the form of affidavits as well, but this is a rare approach.69 Statements tend to be submitted as written statements that do not contain any form of oath, but an unsworn formular stating that the content of the statement is true. An oath would be difficult to enforce, since arbitral tribunals generally do not have the power to impose coercive measures on a party and, subsequently, on a witness. Neither is an unsworn form mandatory.70

88. In the subsequent sections, an overview will be given of the legal framework surrounding written witness statements, followed by an overview of the use of such statements in arbitration practice.

1. Legal Framework

89. The Austrian law on arbitration proceedings does not directly refer to the issue of written evidence. However, it is undisputed that the procedural principles of oral presentation and immediacy, which dictate that the evidence must be taken in front of the judge in state court proceedings, are not applicable in arbitration proceedings.71

90. By contrast, Sec. 598 ACCP provides that an oral hearing is not mandatory. If the parties do not agree on this subject, the tribunal decides whether an oral hearing will be held, or if the whole proceeding is conducted in writing. If the parties did not

68 Watschinger, 2015, 82.
69 Redfern/Hunter, 2015, 390.
70 Watschinger, 2015, 82.
71 Schumacher, 2011, 134.
exclude the possibility of an oral hearing, which is generally the case, the tribunal must conduct such a hearing upon the request of a party.\textsuperscript{72}

91. The parties can agree on the submission of written witness statements. If they do not agree on this, it is at the tribunal’s discretion to decide whether written witness statements must be submitted or not, as long as the equal treatment of the parties is guaranteed.\textsuperscript{73}

92. The IBA Rules on the Taking of Evidence in International Arbitration deliver a far more direct guideline for the question of admissibility and form of written witness statements. Art. 4 (4) IBA Rules states:

\textit{‘The Arbitral Tribunal may order each Party to submit within a specified time to the Arbitral Tribunal and to the other Parties Witness Statements by each witness on whose testimony it intends to rely, […]’}\textsuperscript{74}

93. Hence, the use of witness statements is clearly admissible under the IBA Rules, and the tribunal can request the parties to submit such written statements. In another step, Art. 4 (5) IBA Rules lists in five subparagraphs the mandatory contents of witness statement (which include name and address of the witness, their relationship with any of the parties, a full and detailed description of the facts and the source, an affirmation of the truth, signature and date).\textsuperscript{75}

2. \textbf{Advantages and Disadvantages of Written Witness Statements}

94. In general, written witness statements can only contribute to the proceedings if their content is relevant for the establishment of the facts of the case. Hence, these statements should facilitate the preparation of the oral hearings, if one were to be held, and shorten the proceedings as a whole. Some characteristics of written witness statements contribute to these goals, others do not. The following

\textsuperscript{72}Sec. 598 ACCP.
\textsuperscript{73}Schumacher, 2011, 134.
\textsuperscript{74}Art. 4 (4) IBA Rules.
\textsuperscript{75}Art. 4 (5) IBA Rules.
sections provide a short overview of the main advantages and disadvantages of written witness statements.\textsuperscript{76}

\textit{a) Advantages}

95. Via the submission of written witness statements each party obtains insight into the other party's evidence-situation. The risk that a witness might give surprising testimony is therefore limited, and it is less likely that a party requests the adjournment of the hearing. Knowing further details of the other party's evidence-situation may also increase the likeliness of a settlement. Moreover, the written witness statements enable the parties to prepare their questions for cross-examination of the opponent's witnesses.\textsuperscript{77}

96. If a witness puts his or her recollection in writing, moreover, the witness is more likely to give an instructive testimony at the oral hearing. By preparing the content of the written witness statement, the witness remembers the facts in advance of his or her oral testimony.\textsuperscript{78}

97. The drafting of the written witness statements requires considerable efforts in terms of time and money for the parties. This can result in a more efficient fact-finding situation, as the parties will do their best in concentrating on the evidence relevant for the case. Thus, the parties might refrain from offering unneeded witnesses for purely tactical reasons.\textsuperscript{79}

98. From the point of view of the tribunal, written witness statements have beneficial effects as well. They allow for more efficient proceedings; the tribunal can decide that no oral hearing is necessary (unless ….) or it can prepare the oral hearing with the information provided in the witness statements more effectively. Moreover, on a provisional basis, the tribunal can determine the relevance and scope of the offered evidence in advance. The questioning of important witnesses

\textsuperscript{76} Schumacher, 2011, 135.
\textsuperscript{77} Waincymer, 2012, 898.
\textsuperscript{78} Schumacher, 2011, 137.
\textsuperscript{79} Schumacher, 2011, 137.
can be much more effective if the tribunal is already aware of what the witness knows and does not know.\textsuperscript{80}

99. In addition, the oral hearing itself can be shortened, as the examination-in-chief is usually replaced by the written witness statements. The hearing can thus commence directly with the cross-examination.\textsuperscript{81}

\textit{b) Disadvantages}

100. It is generally known that written witness statements are usually not drafted by the fact witnesses themselves. A team of lawyers interviews the witness and drafts the statement subsequently. In extreme cases, all the witness does is sign the document. This leads to a one-sided representation of the events, which is harmful to the credibility of the witness.\textsuperscript{82}

101. As mentioned under \textit{a)}, the drafting of the written witness statements requires significant expenses in terms of time and money. This circumstance per se is, of course, not in the interest of the parties to an arbitration.\textsuperscript{83}

102. If the tribunal or the parties decide that an oral hearing will not be held, the immediacy of the taking of evidence is jeopardized. The arbitrators have no opportunity to monitor the witnesses and their behavior, which often reveals more information than the witness intends. This piece of evidence is lost if the tribunal can only rely on the written statements.\textsuperscript{84}

103. But even if an oral hearing is held and the witnesses are examined, they usually tend to testify in line with their written witness statements. Any spontaneity, which is just as relevant as the oral testimony, as described in the previous paragraph, is thereby reduced or lost.\textsuperscript{85}

\textsuperscript{80} Born, 2014, 2260; Waincymer, 2012, 898.
\textsuperscript{81} Konrad/Schwarz, 2009, 492.
\textsuperscript{82} Born, 2014, 2258-2259; Konrad/Schwarz, 2009, 494.
\textsuperscript{83} Schumacher, 2011, 139.
\textsuperscript{84} Waincymer, 2012, 899.
\textsuperscript{85} Watschinger, 2015, 83.
3. Who Drafts these Statements?

104. As has been noted, the written witness statements are commonly drafted by the party’s counsel. This fact regularly raises doubt as to whether the content of these statements is truthful or not. Therefore, the relevant question is not whether a witness drafted their statement with or without the assistance of a lawyer, but to what extent the witness contributed to the draft at all.

105. One possibility is that the witnesses themselves write a first draft. This draft is then reviewed and amended by the counsel. However, this approach is usually not preferred by lawyers, as it is less efficient than other methods. It is more common that the counsel interviews the witness first and notes the witness’s statements in a protocol. Subsequently, the witness has the chance to review this protocol, suggest amendments and corrections and sign the finished witness statement to confirm that it reflects their perceptions.

106. The most far-reaching involvement of counsel is given when the complete statement is drafted solely by the lawyer, and, only after completion, the document is presented to the witness to make amendments.

107. Despite the, occasionally, problematic involvement of counsel, it is not advisable to allow the witness to draft the statement by himself or herself. A legal layman usually does not have the required set of skills to draft the statement in a manner that assists the tribunal in its assessment of the facts of the case. The witness may use a style of language, phrases and presentation that results in an outcome not intended by the party. Moreover, the statement potentially lacks focus, depth and structure, much to the party’s disadvantage.

86 Born, 2014, 2259.
87 Watschinger, 2015, 85.
88 Watschinger, 2015, 85.
89 Born, 2014, 2259.
4. Interim conclusion: Usefulness of the written witness statement

108. Indisputably, written witness statements are used in most arbitration proceedings, even though there is no standard procedure regarding written witness statements in international commercial arbitration practice. Therefore, inexperienced lawyers in civil law countries, where the use of written witness statements is not common in litigation, express doubts as to this method of presenting evidence.91

109. Yet the advantages of the efficiency of the proceedings have long prevailed over continental European skepticism. Proceedings can be expedited and money can be saved by avoiding the necessity of an oral hearing.92

110. The fact that the written witness statements are in most cases drafted by counsel is ambiguous. Nonetheless, a precise, well-structured document that is limited to the essential facts offers valuable support to the tribunal.93

B. Preparing the Witness for the Oral Hearing

111. As I have already referred to in IV) A) 3) oben, witness preparation is common in the tradition of US-American litigation as well as in international commercial arbitration. This process is unusual for litigation in most civil law jurisdictions, where the law often prohibits the preparation of a witness for their testimony. This significant difference between the world’s two main legal systems raises questions as to whether the preparation of a witness by a party or its counsel is admissible, and if so, to what extent.94

112. The following sections provide a quick overview of the provisions of Austrian law which govern the admissibility of witness preparation, its US-American equivalents, and some relevant methods of witness preparation.

91 Born, 2014, 2258.
92 Kröll, 2003, 571.
93 Waincymer, 2012, 899.
94 Redfern/Hunter, 2015, 391.
1. Legal Issues Regarding the Contact with and Preparation of Witnesses

113. In the adversarial system, it is indispensable to prepare and ‘coach’ the witnesses. By preparing the witnesses for the oral hearing, and particularly for his or her cross-examination, counsel train witnesses to endure the psychological pressure they experience at the oral hearing, which might trigger unintended testimonies.\(^{95}\)

114. Supporters of the practice of witness preparation often highlight that it would be unfair to allow an experienced legal practitioner to cross-examine an unprepared person, who is not familiar with the procedure. To balance this inequality, it is necessary to give the witness some expert guidance in advance. On the other hand, opponents of the practice argue that the testimony of a ‘coached’ witness is no longer the person’s real testimony.\(^{96}\)

115. This notwithstanding, through US-litigation practice, the practice of witness preparation has found its way into international commercial arbitration and is now an integral part of such proceedings: it may even be seen as negligent if a lawyer would fail to prepare the witness.\(^{97}\)

116. However, as the preparation of witnesses is not common and sometimes prohibited by law in several, mainly civil law, countries, there is some controversy regarding the extent to which the preparation should be allowed.\(^{98}\)

117. The following sections provide a quick comparison between the Austrian legislation regarding witness preparation and its US-American counterpart.

   a) Austrian Law

118. Under Austrian law, it is generally impermissible to have contact with a witness prior to the oral hearing, and lawyers must adhere to the professional rules for lawyers practicing in Austria.

\(^{95}\) Watschinger, 2015, 121.
\(^{96}\) Waincymer, 2012, 908.
\(^{97}\) Konrad/Schwarz, 2009, 499.
\(^{98}\) Watschinger, 2015, 122.
119. According to Sec. 1 RL-BA 1977, lawyers are bound by these rules during any professional practice. The rules apply also to arbitration proceedings. Sec. 8 RL-BA 1977 states:

‘The contact with witnesses prior to and during pending proceedings is admissible; however, any form of undue influence must be avoided.’

120. ‘Undue influence’ is understood as any attempt of a steering influence (“unzulässige Beeinflussung”) on the witness. However, there is a fine line between a steering influence and a conduct which would not fall under the prohibition rules. A lawyer may contact a witness prior to his or her testimony and question him or her about the relevant facts of the case. The lawyer may also make inquiries about the concrete subject of their testimony. If the purpose of such a conversion is only to gather information, the counsel does not violate the professional rules. Yet, as soon as the lawyer exerts some kind of influence on the testimony of the witness, the lawyer violates the professional rules and may face disciplinary measures.

121. The question as to how to interpret and apply these rules in international arbitration proceedings is a frequent topic of discussion among legal scholars. Watschinger argues that influence is inadmissible if the attorney conducts a behavior that likely causes the witness to testify differently from their actual perceptions. Moreover, it is inadmissible to take such actions during the procedure that might deceive the court or other persons involved in the taking of evidence, provided that counsel knew about this danger or could not have been unaware of it.

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100 Sec. 8 RL-BA 1977.
102 Watschinger, 2015, 187.
b) US-American law

122. It is important to rectify the common misconception that the US-American legal system would allow any kind of witness coaching. Counsel does not have the right to coach the witness at their will. Art. 1.2 (d) of the ABA Model Rules of Professional Conduct, a set of model rules from 1983 on which the majority of the professional rules of the individual US-states are based, discourage counsel from knowingly supporting a witness’s criminal actions, or from advising the witness on such actions. Furthermore, counsel is not allowed to knowingly support a witness’s false testimony and to deliberately submit false evidence.¹⁰³

123. Nonetheless, the possible scope of interpretation of the ABA Model Rules is broad, and the line between counsel’s duty to properly prepare the witness and prohibited interference is vague. For example, it is acknowledge to distinguish between ‘courtroom truth’ and ‘objective truth’. While lying is illegal, it is admissible to present the ‘objective truth’ in a way which is favorable to the client. Moreover, in 1979, the Disciplinary Committee of the District of Columbia held that counsel’s right to interfere is far-reaching, which means that it is even permissible to modify the wording of the witness’s testimony, as long as counsel does not know that the testimony is not true.¹⁰⁴

c) Institutional Rules and IBA Rules

124. Most institutional rules are silent on the subject of admissibility of witness preparation. Only the LCIA Rules in Art. 20 (5), the SIAC Rules in Art. 25 (5) and the Swiss Rules in Art. 25 (2) contain express provisions regarding this topic. However, these provisions are limited to the mere admissibility of contact with the witness prior to their testimony. They are silent on further details.¹⁰⁵

125. Like the institutional rules, the IBA Rules contain an express provision that clarifies that a party or its officers or counsel are allowed to interview their witnesses, and

¹⁰³ Watschinger, 2015, 122.
¹⁰⁴ Watschinger, 2015, 123-124.
to discuss the witnesses’ deposition. However, the IBA Rules also lack further details on this subject.\textsuperscript{106}

d) The IBA Guidelines on Party Representation in International Arbitration

126. As has become clear from the above sections, the differing approaches in some jurisdictions regarding the preparation of witnesses may cause issues in international arbitration proceedings. To tackle these issues, the IBA Council adopted the Guidelines on Party Representation in 2013. This non-mandatory set of provisions is intended to provide party representatives with tools to tackle the issues and to avoid further disputes. It is worth clarifying that the term ‘Representatives’ includes not only the parties’ legal representatives, but any person who acts on behalf of a party.\textsuperscript{107}

127. Just as the IBA Rules on the Taking of Evidence, the Guidelines are applicable if the parties agree on the application or if the tribunal determines that the Guidelines are to be applied (if it has the power to make such a decision).\textsuperscript{108}

128. Guidelines 18 to 25, dealing with the admissibility of communication between the representatives and the parties’ witnesses, are of particular relevance for the topic of this thesis. Guidelines 20 and 21 expressly state that a representative is allowed to assist a witness during the preparation of witness statements and the preparation of the witness’s oral testimony:

\begin{quote}
20. A Party Representative may assist Witnesses in the preparation of Witness Statements and Experts in the preparation of Expert Reports.

21. A Party Representative should seek to ensure that a Witness Statement reflects the Witness’s own account of relevant facts, events and circumstances.
\end{quote}

\textsuperscript{106} Waincymer, 2012, 907.
\textsuperscript{107} www.nortonrosefulbright.com/
\textsuperscript{108} www.nortonrosefulbright.com/
129. Guideline 23 clarifies that a representative “[…] should not invite or encourage a Witness to give false evidence.”

130. Furthermore, Guideline 24 provides that it is permissible for the representative to meet and interact with the witness during the presentation of their testimony.

24. A Party Representative may, consistent with the principle that the evidence given should reflect the Witness’s own account of relevant facts, events or circumstances, or the Expert’s own analysis or opinion, meet or interact with Witnesses and Experts in order to discuss and prepare their prospective testimony.

131. The final section of the IBA Guidelines ensure that the tribunal has some leverage to enforce these provisions. Guidelines 26 and 27 stipulate remedies for misconduct of a party representative. Possible remedies include the admonishment of representatives and the consideration of the misconduct in the apportionment of costs. However, this list is not exhaustive.109

e) Summary

132. The differences between the Austrian law and the US-American regulations are not as considerable as one might expect prima facie. The ‘cultural gap’ which is cited very often does not exist to the extent expected by many legal practitioners. Both jurisdictions prohibit the deliberate causation of a false statement of the witness.110

133. This is also well recognized in international commercial arbitration. Moreover, any misconduct would have negative impacts on the party’s position in the procedure,
as a tribunal with experienced arbitrators tends to recognize false and fabricated testimonies.\textsuperscript{111}

134. In international commercial arbitration, where lawyers from different countries represent the parties, professional rules from several countries collide. In legal literature dealing with this issue, most authors take the position that the problem should be resolved either by the creation of conflict-of-law rules or by creating international uniform law.\textsuperscript{112}

135. However, since neither the conflict-of-law rules nor international uniform law exist at present (with the exemption of the non-mandatory IBA Guidelines on Party Representation), parties should address this issue at the beginning of the proceedings. Otherwise, the principle of equality of the parties might be breached, as counsel from a civil-law country might have a tactical disadvantage if they are hesitant to prepare their witness, due to ethical or professional rules applicable to litigation proceedings in their country.\textsuperscript{113}

\textsuperscript{111} Redfern/Hunter, 2015, 392.
\textsuperscript{112} Watschinger, 2015, 199-200.
\textsuperscript{113} Konrad/Schwarz, 2009, 501.
V. Psychological Pitfalls of Witness Evidence

A. History and Development of Memory Psychology Regarding Witness Examination

136. Psychologists and specialists who study human memory have shown that people’s recollections are fallible and can be influenced and altered by internal as well as external influences. In the past century, considerable efforts have been made to uncover the functioning and the error susceptibility of our memory. Researchers have demonstrated the unreliability and fallibility of human memory. These findings are of substantial relevance for the examination of witnesses and the value of their statements.

137. To date, the only area of law that has valued the results of a century of research on the human memory in an adequate manner is criminal law. In civil law as well as in civil dispute resolution, the role of memory psychology and the results of respective studies are not yet sufficiently understood, let alone practically applied by the majority of legal professionals who work in these fields.

138. This chapter will first highlight the key aspects of the findings by Elizabeth Loftus, a leading scientist in the field of human memory, and outline the impact of these findings on witness examination in criminal law proceedings. Subsequently, different methods of witness examination used in commercial arbitration will be presented, before the main topic of this thesis is discussed: the possible distorting effects on a witness’s memory, with a focus on the misinformation effect and the memory conformity.

1. Scientific Findings by Elizabeth Loftus

139. To a significant extent, our knowledge about the functioning of the human memory is based on the work of the American psychologist Elizabeth Loftus. In numerous studies and experiments, Loftus has conducted groundbreaking research on several memory-related phenomena, such as the misinformation effect and the creation of false memories.
140. **Loftus** began researching the field of memory distortion in the early 1970s. One of her first experiments on the relevance of eyewitness testimony was the “automobile destruction” experiment in 1974. Test subjects were shown images from a car accident, followed by several questions about the accident. Depending on the wording of these questions, the test subjects gave significantly varying answers regarding the speed of the involved cars. The details and the results of this study, and their relevance for arbitration proceedings will be discussed in detail on page 40.\(^{114}\)

141. Since then, **Loftus** has conducted further experiments on the fallibility of the human memory and possible distorting effects. The most prominent is the ‘Lost in the Mall’ experiment from 1995, in which a false memory of getting lost in a mall as a child was implanted in the test subject’s memories. Again, this study will be dealt with in more detail on page 46.

### 2. Impact on Criminal Law

142. In 1974, **Loftus** published an article on the connections between psychological findings and a witness testimony in a murder trial. This was the starting point for **Loftus’s** career as a psychological expert in criminal law proceedings and as a consultant for lawyers. Since then, **Loftus** has given expert testimony in several hundred cases, involving infamous ones such as the O.J. Simpson trial and the Bosnian War trials in The Hague.\(^{115}\)

### B. Different Methods of Witness Examination

143. Different methods of witness examination can alter the distorting effects described in the following Sec. C. It is thus necessary to provide the reader with an overview of the most common methods of witness examination used in international commercial arbitration before moving on to the main part of this thesis.

\(^{114}\) Newman/Garry, 2013, 112.  
\(^{115}\) www.fabbs.org/.
1. **Tribunal-Led Examination**

144. The examination of a witness by the members of a tribunal is a method derived from the continental European civil law tradition. Witness examination in litigation is conducted by the judge. Only after the judge has examined a witness can the parties examine the witness. However, the sole purpose of their questions is the clarification or completion of certain points in issue.\(^\text{116}\)

145. This method of witness examination requires thorough preparation of all the relevant material by the tribunal, as the case may be. Furthermore, it is advisable that the arbitrators have sufficient experience and knowledge regarding the conduct of an examination. This is perhaps one of the main drawbacks of a tribunal-led examination: in most cases, the arbitrators do not have the same level of knowledge about the case in dispute as, for example, the lawyers representing the parties.\(^\text{117}\)

146. These negative effects can be limited to a certain extent by allowing the representatives of the parties to ask questions at an appropriate stage of the proceedings. The arbitrators can thus compensate a possible lack of specific knowledge, by gaining the detailed knowledge of counsels.

147. The advantage of this method of witness examination is the tribunal’s independence and impartiality. The arbitrators (should) have no personal interest in the outcome of the case. They do not have to be concerned about answers that might be detrimental to the position of any party. As a consequence, an examination that is conducted by arbitrators is often more focused on evidence with high relevance for the (issues of the) case.\(^\text{118}\)

2. **Party-Led Examination**

148. The counterpart to tribunal-led examination is the party-led examination, a typical feature of the common law system. In comparison to the civil law tradition, the

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\(^{116}\) Schumacher, 2011, 158.
\(^{117}\) Staughton, 1989, 353.
\(^{118}\) Schumacher, 2011, 166.
judge in an Anglo-American litigation is merely an ‘impartial referee’ whose task is to keep the balance between counsel. The judge does not lead the examination in the same manner as, for example, an Austrian judge would (‘Prozessleitungsbefugnis’).\textsuperscript{119}

149. As mentioned above, counsel tends to have a deeper knowledge of certain specifics of the case than the tribunal. By representing and preparing their party, counsel is personally involved in the case. Additionally, they are in constant contact with their clients and witnesses, which enables them to conduct a far more detailed examination of the witnesses than the arbitrators could, especially in cases involving complex technical matters.\textsuperscript{120}

150. Party-led examination usually starts with the examination of the witness by the party who nominated this witness (examination-in-chief), followed by an examination by the opposing party to test the presented evidence (cross-examination).\textsuperscript{121}

151. In international commercial arbitration practice, the witness examination usually follows the Anglo-American model, where the witness statement replaces the examination-in-chief. During the oral hearing the parties start directly with the cross-examination.

\begin{itemize}
\item \textit{a) Examination-in-Chief}
\end{itemize}

152. During examination-in-chief, the party’s counsel, in ‘co-operation’ with the witness, tries to convince the tribunal of the facts of the case presented by the party. The counsel often leads the witness through a compelling story.\textsuperscript{122}

153. However, in international commercial arbitration, the parties usually agree in advance that the examination-in-chief is replaced by the witness statement which

\begin{flushleft}
\textsuperscript{119} Schumacher, 2011, 158. \\
\textsuperscript{120} Schumacher, 2011, 167. \\
\textsuperscript{121} Kröll, 2003, 555. \\
\textsuperscript{122} Konrad/Schwarz, 2009, 495.
\end{flushleft}
the party has submitted. In such a case, the proceedings of the oral hearing can start directly with cross-examination.\textsuperscript{123}

\textit{b) Cross-Examination}

154. Cross examination has been applied since the days of the trial of Socrates in ancient Greece. It has evolved into the key feature of common law trials.\textsuperscript{124} Even though cross-examination is usually not permitted in civil law jurisdictions, it has found its way into international commercial arbitration, where it is now the norm, even if the dispute is exclusively between continental European parties.\textsuperscript{125}

155. However, the procedure of cross-examination in international commercial arbitration differs from the procedure used in US litigation. In the latter, the main purpose of cross-examining a witness is to destroy his or her credibility and to convince the judge or a jury that the witness is not trustworthy. Counsel often use an aggressive approach and leading and/or closed questions to (mis)guide the witness into the desired direction. Combined with the formal setting of a trial, witnesses can be intimidated and put under high psychological pressure. This is often criticized, especially by civil law lawyers, since the purpose of an evidentiary hearing should be to evince important evidence and not to intimidate the witness.\textsuperscript{126}

156. This situation leads to another characteristic of common law trials unknown (and often illegal) in civil law jurisdictions: the preparation of witnesses for the cross-examination (\textit{witness coaching}), as was discussed in detail in Sec. IV. In international commercial arbitration, counsel usually adopts a less theatrical approach for cross-examining the opposing party’s witness. An aggressive style in cross-examination could even be counterproductive for counsel and consequently for their client. Challenging the veracity and credibility of a witness in such a style would be considered inappropriate by many arbitrators.\textsuperscript{127}

\textsuperscript{123} Geisinger/Ducret, 2013, 96.
\textsuperscript{124} Underwood, 1997, 114-115.
\textsuperscript{125} Schumacher, 2011, 161.
\textsuperscript{126} Bhatia, 2011, 22-24.
\textsuperscript{127} Waincymer, 2012, 917.
157. The reasons for this are manifold: the main reason is that the stakeholders in an arbitration are all trained legal practitioners; they can come from diverse legal backgrounds and jurisdictions. Cross-examination in international commercial arbitration is often more focused on establishing the legally relevant facts of the dispute, rather than the examination of a witness’s credibility.\textsuperscript{128}

158. As mentioned above, the parties can agree to replace the examination-in-chief by submitting a written witness statement. In this case, the oral examination can start directly with the cross-examination. This can lead to more time- and cost-efficient arbitration proceedings, since the expensive oral hearing can be shortened.\textsuperscript{129}

3. Witness Conferencing

159. Since the procedural norms which regulate the evidentiary hearing in international commercial arbitration proceedings can be freely agreed on by the parties (as most features of an arbitration proceeding), new methods of witness examination were developed that differ from state court litigation. The most prominent example is witness conferencing, which was first described by Wolfgang Peter in 2002.\textsuperscript{130} Additionally, the IBA Rules on the Taking of Evidence expressly provide for witness conferencing.\textsuperscript{131}

160. The key characteristic of witness conferencing is the simultaneous presence of all witnesses. The examination can feature fact witnesses, expert witnesses or even fact and expert witnesses at the same time. An indispensable prerequisite for the successful employment of this method of witness examination is that the tribunal, especially the chairman, acts as a managerial arbitrator, similar to the judge in a civil law litigation.\textsuperscript{132}

161. As all witnesses sit at a table together, it is vital that the tribunal acts with assertiveness. Otherwise, and especially if the fact witnesses are not familiar with this method of witness examination, disciplinary problems may arise and obstruct

\textsuperscript{128} Schumacher, 2011, 163.  
\textsuperscript{129} Schwarz/Konrad, 2009, 492.  
\textsuperscript{130} Peter, 2002, 48.  
\textsuperscript{131} Art. 8 (3) (f) IBA Rules.  
\textsuperscript{132} Schumacher, 2011, 171.
the taking of evidence. An unmoderated and unguided witness conference may deal at great length with facts that are irrelevant for the case, and arguments may become personal or aggressive.\textsuperscript{133} Ideally, the conference proceedings are structured/conducted like a well-organized, constructive discussion.

162. Witness conferencing has advantages for cost- and time-efficient arbitration proceedings, as the costs of the oral hearing can be reduced by examining all witnesses simultaneously.\textsuperscript{134} It is particularly useful in complex technical matters, and if many witnesses are to be examined regarding only one topic of the case.\textsuperscript{135}

163. However, a major disadvantage and crucial problem for the outcome of an arbitration proceeding is the potential memory conformity between witnesses. The effect itself will be described in detail in Sec. V. C. 2.

164. In practice, parties are often skeptical of witness conferencing, as the tribunal, rather than the parties, is in a managerial position. Therefore, witness conferencing is sometimes combined with the possibility for the parties to cross-examine a witness after or during the conference. Thereby, the parties keep some of their influence on the examination of the witnesses.\textsuperscript{136}


c. Distorting Effects on Human Memory

165. Despite considerable efforts of psychologists and numerous significant studies in the field of human memory, many legal professionals remain unaware of the fallibility of our memory and how our memory works in general. Loftus’s work led to increasing awareness of the issue of corrupted memories in criminal law; however, in civil law, including international arbitration, by and large Loftus’s studies have yet to be incorporated.\textsuperscript{137}

166. Witness statements and oral testimonies are often interpreted under the premise that the witness’s memory has not changed in the time between the occurrence of

\textsuperscript{133} Harbst, 2015, 161.
\textsuperscript{134} Schumacher, 2011, 171.
\textsuperscript{135} Schumacher, 2011, 171.
\textsuperscript{136} Harbst, 2015, 161.
\textsuperscript{137} Cartwright-Finch, 2017, 199.
the event and the reproduction of the memory. Yet human memory is exposed to an endless flood of information every day, and the original memory can be, and regularly is, altered by every new bit of information. As a result, there are significant issues regarding the reliability of a witness’s recollections.¹³⁸

167. In the following sections, I will examine two important effects which distorts the ability of humans to form objectively true recollections: the misinformation effect and the effect of memory conformity between co-witnesses.

1. Misinformation Effect

a) Definition

168. Our memory is constantly exposed to information from endless sources, each bearing the potential to alter our memory of an event. These interferences might derive from experiences we had already made when the event in question occurred (proactive interferences), or from experiences made thereafter (retroactive interferences). The misinformation effect describes the phenomenon that witnesses observe an event and change their memory by information received after the event.¹³⁹

169. In their 1974 study, Elizabeth Loftus and John Palmer showed that even a subtle change in the wording of a conversation after an event can change the witness’s memory, and lead to a false recollection. Test subjects watched a video of a car accident. Afterwards, the test subjects were divided into several groups and were asked a number of questions, including their estimate of the speed of the vehicles involved in the accident. The wording of the question was, ‘About how fast were the cars going when they hit each other?’ However, the word hit was replaced with a similar, yet different word for each group: smashed, collided, bumped and contacted. This small alteration in the question resulted in different recollections regarding the estimate of the speed of the cars, starting at 49.6 kph for the word

¹³⁸ Cairns, 2016, 10.
¹³⁹ Cartwright-Finch, 2017, 207.
‘contacted’, while the test group with the word ‘smashed’ made a speed estimate of 65.7 kph.\textsuperscript{140}

170. At this stage of the experiment, no false information was given to the subjects, but the mere use of a specific word led to very different estimates, and thus also to corrupted memories. Knowing and using this fact might alter the testimony of witnesses simply by using the right words to bias them into the ‘right’ direction.\textsuperscript{141}

171. Loftus and Palmer went one step further and invited several test subjects to a second round of questions seven days after the subjects had watched the video of the accident. This second time they were asked, ‘Did you see any broken glass?’ Even though there was no broken glass at all at the scene of the accident, 16 out of 50 of the subjects who had been questioned with the word ‘smashed’ remembered broken glass, while only seven out of 50 from the ‘hit’ group recalled seeing broken glass.\textsuperscript{142}

172. In another study from 1975, a group of subjects were shown a short film, displaying eight students who aggressively interrupted a lecture. The subjects were then divided into two groups. The first group was asked, ‘Was the leader of the four demonstrators who entered the classroom a male?’, while the second group was asked, ‘Was the leader of the twelve demonstrators who entered the classroom a male?’ Seven days after these questions, the subjects were asked, ‘How many demonstrators did you see entering the classroom?’ The answers ranged from four to six by the subjects who were asked about the four demonstrators, to eight to nine by the subjects who were asked about the twelve demonstrators.\textsuperscript{143}

173. It is important to note that the test subjects’ answers were genuine. None of the test subjects deliberately lied. Consequently, the results of these studies clearly show that misleading questions can significantly alter a witness’s memory. In these studies, the time that had elapsed between the event and the questions was

\textsuperscript{140} Landau, 2010, 20.  
\textsuperscript{141} Cartwright-Finch, 2017, 208.  
\textsuperscript{142} Landau, 2010, 21.  
\textsuperscript{143} Landau, 2010, 20.
barely a week. In international arbitration, witnesses usually testify to events that happened several months or even years ago. Time is clearly relevant in this regard, as will be shown in detail further below.

b) Sources of Misinformation

174. Human memory is not created in one single step, but the result of several influences that alter and restructure memory over time. Landau has proposed to separate the concept of memory into three stages: the perception of information, the storage of information and the retrieval of information.¹⁴⁴

175. At each stage, memory can be affected by external influences, such as simple words (shown above), as well as internal influences which derive from the witnesses themselves. A memory can thus be objectively wrong, even though the witness is convinced that he or she is telling the truth.¹⁴⁵

176. However, truth is not an absolute concept, but rather a subjective conception of certain events. Subjectivity impacts the creation of memory at the first stage, the perception of information. Information is acquired by actively participating in the making of a memory. Humans usually try to perceive information in a way that makes sense for them and is in line with their past experiences of how events unfold. These ‘memory schemas’ are used in all day-to-day interactions, and thus apply to all repetitive actions.¹⁴⁶

177. These schemas are necessary as they reduce the amount of energy and time we must invest to process our daily lives. However, they have an important downside when it comes to remembering specific events. If an event is not outside the norms of a memory schema, humans usually do not pay as much attention as they would if the event was outside the norm (since the event unfolds in the way the witness is used to). Unusual events are much better memorized than frequent and repetitive events.¹⁴⁷

¹⁴⁵ Zaragoza/Belli/Payment, 2013, 38.
¹⁴⁷ Landau, 2010, 16.
178. Consequently, information that might be important in later arbitration proceedings might never be obtained in the first place. And even if the information was perceived, if it is not characterized as important and ‘worth remembering’ by the witness, this information will not be stored in the long-term memory but replaced by new information seconds after it was obtained. 148

179. However, even if the information has found its way into the second stage, the long-term memory, it still does not represent the actual events. Each memory is merely an individual interpretation of a witnessed event. The human mind interacts with the reality and subsequently forms a memory. Objective truth is thus mixed with the witness’s personal experience and ‘memory schemas’ before it is stored. 149

180. At this stage, the factor time is of crucial importance. If similar events are experienced repeatedly over a longer period, these memories will fade, blur and become indistinguishable. An example is the daily commute to work. After some time, it will be impossible to attribute certain events to certain days. In 1978, Loftus, Miller & Burns demonstrated that information from a witnessed event blend with misleading information received immediately after this event. In this study, the test subjects first watched a short clip. In a next step, they received misleading information shortly prior to being interviewed. The subjects were more likely to trust this more recent information than their blurry original memory. 150

181. However, if an unusual event occurs on one of these daily commutes, for example a flat tire, this experience can be associated with a specific part of the road or the emotions experienced on that day. These circumstances support the memorizing of events and individuals are often able to remember the event itself and the exact day of the event, even after several years have passed. 151

182. The third and last stage is the retrieval of information. Research has shown that information is not stored as one single piece. Instead, every retrieval of a specific memory is, in a way, a new composition of this memory. This opens up the

149 Landau, 2010, 16.
151 Landau, 2010, 16.
possibility of forming a false memory every time a recollection is reassembled and retrieved. Nevertheless, to the individual witness, this memory appears to be genuine, since the brain reassembles the information in a manner that is in line with the witness’s personal past experiences.¹⁵²

c) Flashbulb Memories

183. Every now and then, we experience events which have far-reaching consequences and lead to an outburst of emotion. These memories appear to be extremely vivid and we are very confident that we will remember details and able to answer the question, ‘Where were you when …?’ These vivid and detailed memories are called ‘flashbulb memories’, named by Brown and Kulik in 1977. They concluded that emotion-laden experiences are accurately stored in our memory, including the vivid details of the day the event happened.¹⁵³

184. However, results of subsequent studies show a different picture. In a study published in 1992 by Neisser and Harsch, people were interviewed about their experience of learning about the Challenger explosion in 1986. They were asked where they had been when hearing about the news. The first interview was conducted only one day after the accident, the second interview 30 months later.¹⁵⁴

185. The results contradicted Brown and Kulik’s conclusions: Only seven percent of the subjects gave consistent answers, and even those did not completely match the answers given one day after the accident. 25 percent of the interviewees remembered entirely different circumstances.¹⁵⁵

186. These results were confirmed in numerous subsequent studies. Despite being convinced that their recollection of emotion-laden experiences was accurate, only

¹⁵³ Newman/Garry, 2013, 117.
¹⁵⁴ Newman/Garry, 2013, 117.
¹⁵⁵ Newman/Garry, 2013, 117.
a fraction of the test subjects in all these studies could give consistent answers after a longer period of time.\textsuperscript{156}

187. Because of the vividness and richness of detail of flashbulb memories, humans have far greater confidence in this type of recollections than they would have in other, everyday memories. Nonetheless, the accuracy of these trusted memories is not immune to the decline caused by time. In fact, their accuracy declines at a similar rate as the accuracy of everyday memories. In everyday life, these memory flaws are usually insignificant. However, in multi-million Euro commercial arbitration proceedings, a witness convinced of their false recollections can cause serious harm.\textsuperscript{157}

d) Post-Event Information Effects

188. Post-information effects are also known to create misinformation. These factors may also affect the magnitude of this psychological effect.\textsuperscript{158}

- As has been noted, the time which elapses between a witnessed event and the exposure to misinformation is decisive for the magnitude of the misinformation effect. The more time has elapsed, the more the witness’s memory is susceptible to memory corruption.

- Social factors also influence the susceptibility of the memory. Hence, if the source of the misinformation lacks credibility, the witness is less likely to adopt the misinformation provided by this source. For example, after a car accident, witnesses are much more inclined to believe the information received from a policeman than the information provided by the driver of the vehicle involved in the accident.

- The more often misinformation is repeated, the more likely the witness is to alter their original memory, and to accept the distorted memory as the original memory. Studies have shown that it does not matter whether the

\textsuperscript{156} Tversky/Marsh, 2000, 3.
\textsuperscript{157} Newman/Garry, 2013, 117.
\textsuperscript{158} Cartwright-Finch, 2017, 210-211.
misinformation is repeated it’s the source of the misinformation, or by the witness themselves.

- Another factor which influences the magnitude of the misinformation effect is the age of the witness. The reason for this is the age-related memory degradation of the human brain. However, the effect usually only occurs in persons older than 65 years.

e) Creation of False Memories

189. The studies and scientific findings concerning the memory effect were all based on the assumption that the subjects were not participants in the witnessed events, but mere bystanders. Moreover, the misinformation provided to the test subjects was, in most cases, of a visual nature, such as the broken glass or the speed of a car.

190. These circumstances are a significant limitation to the applicability of the findings to international commercial arbitration. In these proceedings, testimony is usually given by persons who were actively involved in the events in question, such as meetings and discussions. In an attempt to test the limits, researchers introduced an extension to the misinformation effect: false memories, an extreme example of the misinformation effect.159

191. At its core, the concept of false memories defines the situation that a person is provided with misinformation of an event that in fact never happened. In studies, test subjects were successfully made to believe that fictional events had happened, and that they have a memory of these events. The subjects adopted those false, yet detailed, memories and, in some cases, could not distinguish between the made-up memories and real-life events.160

192. Several methodologies to implant false memories have been developed. In one of the first studies in this field of psychology, Loftus and Pickrell developed the ‘lost-in-the-mall’ technique (1995) to create false memories of events. Test subjects were given four descriptions of childhood experiences to review. Three of those

160 Cartwright-Finch, 2017, 212.
were real. The fourth was fictional, describing an event where the test subject got lost in a shopping mall when they were five years old.  

193. Two interviews were conducted within two weeks. Initially, all test subjects were skeptical and could not remember any details of the event that they had got lost at all. After these two weeks, however, a quarter of the test subjects started to ‘remember’ the experience. They did not only confirm the description given to them, but also gave the scientists further details about that day, for example, how they had felt when they were lost and found again. They even added parts to the story that were not included in the initial description.  

194. The results of this experiment were confirmed by subsequent studies, in which the false memory consisted of experiences such as animal attacks, taking a hot air balloon ride, or spilling drinks at a wedding. Overall, an average of 30 to 36 percent of test subjects in 20 similar studies fully or at least partially remembered false events given to them.  

195. Critics of these techniques of memory implantation have noted that events such as getting lost in a mall or being attacked by an animal are too plausible and common to draw conclusions for other, uncommon and implausible experiences. The ‘memories’ of these events can simply be memories from other, similar experiences.  

196. To test these limits, Braun, Ellis and Loftus developed a study in 2002, where they examined whether persons could also be made believe implausible and even impossible events. The adult test subjects, who had all been to Disneyland in their childhood, were shown fake advertisements for Disneyland. These advertisements featured an image of Bugs Bunny, and it was suggested that the test subject had shaken hands with the cartoon character. The subjects were then told to imagine this specific experience. At the end of the study, they were asked numerous questions regarding their visit to Disneyland, including whether or not they remember meeting Bugs Bunny and shaking hands with him. At first glance, this

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161 Newman/Garry, 2013, 118.  
162 Cartwright-Finch, 2017, 212.  
experience does not seem to be implausible. However, Bugs Bunny is not a cartoon character invented and owned by Walt Disney, but by Warner Brothers. It is thus impossible to meet Bugs Bunny at a Disneyland. Nevertheless, part of the test subjects remembered shaking hands with Bugs Bunny. Hence, they made up a false memory.\textsuperscript{164}

197. This study shows the role imagination plays in memory psychology. If a ‘witness’ imagines an experience, even if it is fictional, it increases their confidence that the event is genuine.

198. Not only descriptions of childhood events can create false memories. In the ‘hot air balloon’ experiment from \textit{Wade et al.} (2002), a variation of the above described experiment featuring Bugs Bunny, childhood photographs were used instead of oral communication. Again, three of four photos were genuine, which the researchers had been provided with by the test subjects’ relatives. The fourth photo was fake, depicting the test subject in a hot air balloon with a member of their family. During three interviews, the test subjects tried to recall the experience – half of them had been ‘successful’ by the end of the third interview, remembering at least some details of the balloon ride that had never happened.\textsuperscript{165}

199. All of these studies and experiments evidence that the human memory is not only susceptible to misinformation in relation to real events, but also to entirely false memories.

200. But how do these false memories find their way into a human’s mind? Psychologists agree that belief and plausibility are promoters of growth for such memories. Yet, as has been shown in the previous sections, belief and plausibility are malleable. They can be created and solidified [manifested] by the imagination of an individual. Once the belief that an event has happened is established, it is much more likely to be found plausible, and vice versa. False memory, then, is the result of a source monitoring error. A person confuses details of false descriptions and photographs with related but genuine images and thoughts that come to the

\textsuperscript{165} Cartwright-Finch, 2017, 214; Newman/Garry, 2013, 120.
person’s mind when reviewing falsified material. These doctored sources of imagination are then perceived as a real experience.\textsuperscript{166}

\textit{f) Relevance for Determining the Truth}

201. In the majority of the studies dealing with the implementation of false memories, a credible source was used for the forged descriptions and photographs, mostly family members. It is not unreasonable to conclude that a test subject is more likely to accept the false memory as genuine if it involves persons who are a credible source of information to the subject. The applicability to arbitration proceedings might be limited in this instance.

202. More important with regard to witness testimony in international commercial arbitration is the effect of repetition. If a false experience is presented to a person as a real experience, they will often repeatedly try to recall the experience. By elaborating on the purportedly forgotten experience, semantic and perceptual details are added, often stemming from real experiences. Consequently, the feeling of familiarity is fueled, and the false memory appears to be real.\textsuperscript{167}

203. The factor of time is again decisive for the magnitude of the impact of the false memory. Events, whether real or false, that happened some time ago are more likely to be accepted as genuine. Hence, false memories that allegedly happened in the past are more difficult to differentiate from real experiences.\textsuperscript{168}

2. Memory Conformity between Witnesses

204. Apart from the misinformation effect and the related phenomenon of false memories, the psychological effect of memory conformity is of relevance as well for the establishment of the objective truth in arbitration proceedings.

\textsuperscript{166} Newman/Garry, 2013, 121.
\textsuperscript{167} Newman/Garry, 2013, 122; Zaragoza/Belli/Payment, 2013, 46.
\textsuperscript{168} Newman/Garry, 2013, 122.
a) **Definition and Scientific Studies**

205. Memory conformity between witnesses of an event is a form of the post-event information effect. The contact between two or more witnesses of an event, and the exchange of personal observations made by each witness, operate as retrospective interferences. But while the memory conformity effect is primarily known from criminal law, it is relevant in all proceedings as soon as witnesses give their testimony.\(^{169}\)

206. The memory conformity effect is common in everyday life, but usually goes unnoticed by the people involved. A significant fraction of our daily conversations with other people, such as colleagues at work or clients, revolves around experiences. In cases where both conversation partners made such an experience jointly, both inherently bring their personal interpretations of the experience into the conversation.\(^{170}\)

207. As mentioned above, the creation of a memory starts with the perception of information. Every individual perceives information differently and may draw different conclusions than the person standing next to them. In a subsequent conversation about the jointly experienced event, discrepancies between the two distinct observations can arise. If one of the conversation partners provides objectively false information, the result can be that, ultimately, the second witness aligns his or her memory with the misinformation, leading to the creation of an altered and false memory. The frequency and likelihood of the desire to discuss experiences with a co-witness are generally increased for events of particular significance.\(^{171}\)

208. The earliest studies in this field of psychology were conducted in the 1990s. In 1994, *Luus* and *Wells* showed pairs of test subjects a mock crime scene and then interviewed and tested them separately on their recollections. The subjects were asked to identify the supposed crime suspect out of several choices and rate their confidence in their choice. The test subjects’ confidence decreased when the

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\(^{169}\) Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 36.


researchers informed them that the second test subject had made a different choice, and, conversely, it increased when they were told that the second participant had made the same choice.\textsuperscript{172}

209. Betz, Skowronski and Ostrom confirmed the findings of Luus and Wells in another study in 1996. Test subjects were given a short narrative to read and were afterwards asked to answer some questions. In the next step, the researchers informed the subjects about the hypothetical answers provided by other participants, which were either consistent or inconsistent with the information in the narrative. After hearing these answers, a substantial proportion of the subjects who heard inconsistent answers chose to alter their original answer to align them with what other participants purportedly said.\textsuperscript{173}

210. A feature shared by these two early studies is that the ‘social presence’ (i.e. a response given by another subject) was not provided by real-life interaction, but by the researchers in an experimental setting. The test subjects did not receive the answers from the other participants, but they were told by the researchers how someone else had answered. Consequently, these studies were only a first step, but not representative for real-life interactions and their influence on the human memory.\textsuperscript{174}

211. To eliminate this deficit, Gabbert \textit{et al.} introduced a “confederate” in their experiments. These confederates were usually actors who played the role of a participant, with the test subjects not knowing that the confederates had in fact been instructed by the experimenters. At the interview stage of the experiment, the confederate and a test subject were interviewed in the same room, meaning that the test subject heard the answers given by the confederate immediately prior to providing their own answers. The results of the study showed that the test subjects were inclined to adjust their answers to the answers given by the confederate.\textsuperscript{175}

\begin{flushleft}
\textsuperscript{172} Cartwright-Finch, 2017, 215.
\textsuperscript{173} Gabbert/Memon/Allan, 2003, 534.
\textsuperscript{174} Cartwright-Finch, 2017, 215.
\textsuperscript{175} Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 37.
\end{flushleft}
212. In all these studies, the test subject had to respond to the questions in public. In such a setting, it is hard to tell whether the subject matched their answers because the responses of the hypothetical other participant or the confederate had in fact changed their memory of the event, or whether they changed it to socially conform.\textsuperscript{176}

213. In 2001, \textit{Roediger} and colleagues developed an experiment to enable a differentiation between genuine memory alteration and pure social conformity. In this study, a pair of participants, one of them a confederate, contemplated detailed photographs of several household scenes together. Afterwards, they were given a collaborative memory test, which asked them to recollect twelve items from each household scene, with the confederate and the test subject each reporting six items aloud. To add misinformation to the experiment, the confederate reported several items that were not present in the photographs. In a final step, the test subject was interviewed and tested in private, where it was asked to recall as many objects from the household scene as possible. The test subject named several items of the misleading information provided by the confederate in the private test as well. This effect of memory alteration was referred to by the researchers as the ‘social contagion’ of memory.\textsuperscript{177}

214. This experiment, however, still had a drawback: the test subjects were given the misinformation deliberately. In a natural scenario, the misinformation is provided by other witnesses who truly believe in the accuracy and genuineness of their memory.\textsuperscript{178}

215. To create such a natural setting, \textit{Gabbert} and colleagues showed pairs of test subjects (no confederates) a video clip. Each subject watched the clip separately, and they were told that they were watching the exact same video clip, when, in fact, each clip presented the same scene from a different angle. The actor in the clip committed a criminal act (stealing money from a purse in a library). However, this act was only visible from one angle. Consequently, one of the two participants

\textsuperscript{176} Cartwright-Finch, 2017, 216.
\textsuperscript{177} Cartwright-Finch, 2017, 216.
\textsuperscript{178} Cartwright-Finch, 2017, 216.
was unable to witness the theft. The participants were then divided in an experimental group and a control group. The latter were not allowed to discuss their observations with other participants, whereas the members of the experimental group were explicitly told to do so.

216. The participants were then asked to complete a privately reported recollection test. The researchers found that 71 percent of the participants who had been involved in discussions with other test subjects remembered details from the clip that had not been visible in the clip they had seen. The experiences of their co-participants were partly adopted as personal memories. Moreover, six out of ten participants who had not seen the act of the theft made wrong attributions of guilt, based on the discussions with witnesses who had seen the criminal act. This effect was subsequently described as ‘memory conformity’.\textsuperscript{179}

\textit{b) Relevant Factors}

217. Having established the scientific groundwork of memory conformity, the question of which factors influence the likeliness and magnitude of this psychological effect remains.

218. Five factors are of particular relevance: the relationship between the co-witnesses, the confidence in one’s own memory and the reported confidence of the co-witness in their memory, the perceived expertise of the co-witness, their credibility, and source misattributions.

- In two studies, one conducted by French, Garry and Mori in 2007, the other by Hope, Ost, Gabbert, Healey and Lenton in 2008, the impact of relationships between witnesses was analyzed. Both research teams came to the conclusion that the likeliness and magnitude of witness conformity is significantly increased if the co-witness is an acquaintance of the first witness. Moreover, in a real-life event, people who already knew each other are also more likely to discuss their shared experience. Conversely, in cases where the two witnesses were strangers, the first witness was much

\textsuperscript{179} Cartwright-Finch, 2017, 217; Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 37.
less inclined to believe, let alone adopt the new information. The witness is even more susceptible to memory conformity if the witnesses are in a romantic relationship. A relationship between two witnesses can thus have negative consequences on the accuracy of a witness’s testimony.\textsuperscript{180}

- The greater the confidence of a witness in their own memory, the less likely it is that this witness’s memory is corrupted by the memory conformity effect. In other words, high confidence protects a witness from memory corruption through another witness’s report. Conversely, if the witness’s confidence in their own memory is low, but the co-witness appears to be very confident about their respective memory, the likeliness of an alteration of the first witness’s memory is increased. This effect was demonstrated by Schneider and Watkins in 1996.\textsuperscript{181}

- The tendency to conform with the co-witness can also be influenced by each witnesses’ perception regarding their relative knowledge of the experience made (the perceived expertise). In 2007, Gabbert, Memon and Wright showed a number of drawings to pairs of test subjects. The subjects were made believe that these drawings were identical, when, in fact, they featured slight differences. Subsequently, the participants were told that one of them had had the chance to view the images for twice as long as the other participant, even though the actual viewing time was identical. During the recollection test, the participants who thought they had had less time to assimilate the information were more inclined to conform to the other participant’s memory. Hence, witnesses who believe their memory is of less quality than the memory of their co-witness are more likely to be influenced by the memory conformity effect.\textsuperscript{182}

- As has been pointed out above regarding the misinformation effect, the credibility of the information source is another factor influencing the magnitude and likeliness of memory conformity. For example, Kwong See,

\begin{itemize}
    \item \textsuperscript{180} Cartwright-Finch, 2017, 218; Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 39.
    \item \textsuperscript{181} Cartwright-Finch, 2017, 218.
    \item \textsuperscript{182} Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 39.
\end{itemize}
Hoffman and Wood found in their 2001 study that participants were less influenced by the report of a fictitious older woman than by the report of a fictitious young woman. In the experiment, the test subjects were shown several images of an act of theft. Afterwards, they read a short narrative describing the act of theft. One group of participants was told the narrative had been written by an 82-year-old woman, while the second group thought their narrative had been written by a 28-year-old woman. In fact, both narratives were identical. In a final recollection test, the second group showed more intrusion errors than the first group, as they took the narrative supposedly written by a young woman to be credible. The first group, on the other hand, did not recall the misinformation from the narrative to the same extent, as the testimony of an 82-year-old woman seemed less credible for them.183

- The final explanation is the so-called source misattribution, meaning that a witness misattributes a memory from one source, such as a discussion with a co-witness, to another source, most likely the witnessed event itself. As a result, the witness falsely, but not deliberately, reports the misattributed co-witness’s memory as if it were their own memory, creating a false memory. Such errors of source misattribution are more likely to occur if an overlap in the memory characteristics from distinct sources exists. This is the case, for example, for most discussions in the aftermath of an event, as these discussions usually happen within a short period after the event (temporal overlap). Additionally, the co-witnesses will talk about what they both just witnessed, causing a content overlap, and the discussion will most likely take place on the spot of the event, causing an environmental overlap. These overlaps can cause the brain to misattribute the source of an information. However, due to the overlaps, and as the event itself is regularly easier to recall than the source of an information, witnesses attribute a co-witness’s memory to their personal memory.184

184 Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 41.
Along with their studies, researchers also tried to find possibilities to mitigate the effects of memory conformity. However, the tools to mitigate these effects are limited. The only way to completely prevent memory conformity from happening is by not giving the witnesses the chance to discuss their experiences, which is impossible. Experiments indicate that not even warnings can completely prevent the effects of memory conformity, they can only mitigate its magnitude and likeliness.\textsuperscript{185}

The effect of warnings largely depends on the timing of the warning in relation to the misinformation. In 2009, Bodner, Musch and Azad found that warnings given at the time of the perception of information, for example while or prior to watching a clip, effectively reduced the rate of false memory in the subsequent recollection test.\textsuperscript{186} However, this setting is typical for laboratory experiments. In real life, no warnings are given prior to an accident.

Another study by Paterson and colleagues, also from 2009, emphasizes the importance of the timing: in their experiment, pairs of test subjects individually watched a video clip depicting a mock crime, with one clip slightly differing from the other. The pairs then discussed their experiences. One week later, half of the test subjects were warned that they had potentially been exposed to misinformation. The participants were then individually tested about their recollections of the video clip watched a week before. 28 percent of the participants who had been warned about misinformation reported at least some items of misinformation, compared to 32 percent of participants who had not been given a warning. The warning did not lead to a significant reduction of the memory-conformity effect.\textsuperscript{187}

Most likely, the reason for this insignificant difference is due to the fact that people forget the source of an information much quicker than the information itself.\textsuperscript{188}

\textsuperscript{185} Paterson (2009), see para. 217; Bodner, Musch and Azad (2009), see para. 216.
\textsuperscript{186} Cartwright-Finch, 2017, 219.
\textsuperscript{187} Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 41.
\textsuperscript{188} Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 41.
c) Relevance for Determining the Truth

223. Even though the vast majority of research conducted in the field of memory conformity was carried out for criminal law, it is nonetheless important for civil law and international commercial arbitration. Witnesses of a crime regularly discuss their personal impressions of a crime, but so do businessmen after meetings and calls with clients, lawyers, colleagues at work, their legal counsel or other individuals who were present during these meetings.\(^\text{189}\)

224. In a study conducted by Paterson and Kemp in 2006, 86 percent of the witnesses of a crime admitted to discussing their experiences with a co-witness. Furthermore, a US-American survey has shown that more than 50 percent of people who had witnessed a crime subsequently discussed the event with another witness, even though the police encouraged them not to do so to prevent memory contamination. Thereby, investigators and judges may be inclined to attribute a wrong weight to the consistencies between witness testimonies.\(^\text{190}\)

225. However, if witnesses to a crime discuss their experiences with co-witnesses despite being explicitly told not to, it can be safely assumed that in the world of law and business, discussions in the aftermath of an event are just as common. To discuss meetings and similar events is even more likely in the world of business than after a criminal event. There is usually no similar moral or emotional barrier, and no police officer orders the participants of such a meeting to avoid talking to each other.

3. Application to International Commercial Arbitration, Possible Mitigation and Possible Best Practice for the Examination of Witnesses

a) Application to International Commercial Arbitration

226. As the preceding sections of this thesis have shown, there are numerous possibilities for retrospective interferences which cause the misinformation effect or memory conformity. Even though the vast majority of experiments in this field of

\(^{189}\) Cartwright-Finch, 2017, 214.
\(^{190}\) Gabbert/Wright/Memon/Skagerberg/Jamieson, 2012, 37; Cartwright-Finch, 2017, 216.
psychology was conducted with regard to criminal law, the findings are nevertheless relevant for all legal disciplines which deal with witness evidence, including international commercial arbitration.

227. During the four stages of preparation of witness evidence (initial investigation, focused investigation, preparation of the witness statement, preparation for the oral hearing) a witness’s memory can be influenced by misinformation and consequently be altered at numerous occasions and for numerous reasons.  

228. At the first stage, the initial investigation into the case, the witness may be interviewed by in-house legal teams. Usually, these teams already have an agenda and an idea of the answers they expect to hear. Thus, they formulate their questions in a manner that supports their position, containing assumptions and presuppositions about certain facts. These can distort the witness’s memory, all the more because it is likely that these interviews take place several months or years after the event in question. As has been proven in a series of psychological studies, time is the most relevant factor when it comes to the magnitude and likeliness of the misinformation effect.

229. The same risk of misleading interferences is ubiquitous during the second stage, i.e. interviews undertaken by a legal counsel during the initial and the focused investigation. The questions of an experienced counsel are even more likely to be aligned with the party’s case theory. Consequently, these questions are not neutral, and they may alter the witness’s responses. Moreover, interviewers often tend to jump in and suggest answers if the interviewee does not give a prompt response. Thus, the witness’s response might not be genuine.

230. During these interviews, another important factor comes into play: most witnesses view counsel as credible sources of information. Counsel is more familiar with other evidence surrounding the event in question, and as legal professionals, they

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191 Cartwright-Finch, 2017, 222.
192 Cartwright-Finch, 2017, 222.
are seen as reliable. This perceived credibility increases the likeliness and magnitude that information provided by counsel corrupts the witness’s memory.\textsuperscript{193}

231. Over the course of the interviews, it is likely that the witness is exposed to the same (items of) misinformation repeatedly, and they might themselves repeat the misinformation. As was shown in this thesis, the repetition of misinformation is of relevance when it comes the alteration of memories.\textsuperscript{194}

232. At the third stage, the preparation of a written witness statement, the memory conformity effect becomes relevant. While preparing the written statements, the witness might be asked to read other documents, such as statements of fact or other witness statements. As has been shown, a narrative drafted by a co-witness increases the chance of memory conformity. Due to social (or economical) pressure, the witness might change their version to align it with other witnesses’ statements.\textsuperscript{195}

233. Memory conformity is a constant threat during all three stages. It is natural for witnesses to have discussions about their experiences with colleagues and potential co-witnesses, even more so if their experiences are under scrutiny.\textsuperscript{196}

234. The danger of memory distortions is greatest during stage four, the preparation of the witness’s oral testimony. At this point, potential misinformation has been repeatedly recalled by the witness and the most time has elapsed since the relevant event has happened.\textsuperscript{197}

\textbf{b) Possibilities to Mitigate the Effects}

235. The starting point for any mitigation measure should be the better education of legal professionals regarding the unreliability of the human memory and of the potential effects of retrospective interferences. In general, most people only have a rudimentary understanding of the functioning of human memory. Tackling this

\textsuperscript{193} Cartwright-Finch, 2017, 223.
\textsuperscript{194} Cartwright-Finch, 2017, 223.
\textsuperscript{195} Cartwright-Finch, 2017, 223.
\textsuperscript{196} Cartwright-Finch, 2017, 224.
\textsuperscript{197} Cartwright-Finch, 2017, 223.
issue among the legal professionals would certainly improve the value of witness evidence as this would also mitigate the threat that counsel, due to their perceived credibility, are a source of interference. But this can only be a starting point.\textsuperscript{198}

236. As has been made clear on several occasions in this thesis, time is of the utmost importance. To limit the negative effects which time has on the accuracy of human memory, it is advisable to interview a witness as soon as possible after the relevant event. However, this advice might be of a theoretical nature, since commercial disputes usually do not arise after days, but months or even years after an event.

237. The best chance to mitigate the effects of retrospective interferences is during the witness interviews. Their conduct can be improved to limit the distortions of the witness’s memory and the accuracy of the received information.\textsuperscript{199}

238. In a first step, counsel should identify sources of information that could potentially disturb the witness’s memory. For example, it is of relevance who else has interviewed the witness, what the witness has read, and whether the witness has discussed their experiences with a co-witness or not.

239. Before commencing the interview, the counsel should provide clear and accurate instructions regarding the witness’s responses, such as reminding the witness that memory is never complete and that, ‘I do not know.’, can be a valid answer. Moreover, the witness should only report memories which they actually recall. If speculations or assumptions are made, or if the source of information is not the witness themselves (but a co-witness, for example), the witness should indicate this circumstance.

240. To avoid interferences, counsel should avoid providing help in case the witness does not give a prompt response. Additionally, the questions should be formulated using a neutral language and any inadvertent assumptions should be avoided. As the 1974 experiment by \textit{Loftus} and \textit{Palmer} has shown, a small alteration in a

\textsuperscript{198} Cartwright-Finch, 2017, 224.
\textsuperscript{199} Cartwright-Finch, 2017, 225.
question (‘hit’ compared to ‘contacted’, see oben on page 40) can significantly influence the witness’s answer.200

241. Finally, if possible, the witness statement should be drafted in isolation. To avoid being influenced, the witness should not read other submissions or witness statements until their statement is finished.201

242. For the arbitral tribunal, the following advice could be useful:

- The tribunal should specifically ask the witness with whom he or she has prepared the witness statement, and what the sources of her information have been.
- At the start of the witness examination, when the witness is admonished to say the truth, the tribunal should also explain carefully that it is legitimate and natural if the witness cannot remember a certain fact, especially after many years.
- Questions of counsel as to the preparation of the witness statement and possible contacts between counsel and witness and, importantly, the witness and other witnesses, should be allowed to a greater extent as this is customary today.
- The witness should be protected from any kind of intimidation, e.g., through the alleged status or respectability of one party or one source of information.
- The tribunal should be conduct the examination as soon as possible, since time is the most relevant factor regarding the distortion of memory.

c) Possible Best Practice

243. A future best practice for the examination of witnesses should be based on a symbiosis of the two main methods described oben, tribunal-led and party-led

201 Cartwright-Finch, 2017, 226.
examination. Depending on the circumstances of each individual dispute, one method may prevail over the other.\textsuperscript{202}

244. A promising alternative is the modified version of the tribunal-led examination as proposed by \textit{Schneider} in 2011, called the ‘tribunal-first approach’. The witnesses should be questioned by the members of the tribunal, as they have the most objective perspective of all parties concerned in the arbitration proceedings. This approach ensures that the witness is not used as a tool for the interests of a party. Instead, they can contribute to the fair conclusion of the case. However, the advantages of the party-led examination are maintained in \textit{Schneider’s} approach: the counsels should assist the tribunal during the examination of the witnesses, especially by providing their knowledge of the details of the case, which is usually superior to the arbitrators’ knowledge.\textsuperscript{203}

245. If the parties of an arbitration proceeding do not follow this proposition, there are nevertheless other important recommendations in order to ensure that the case is dealt with in a time- and cost-efficient manner, and that the truth can be ascertained:

- The tribunal should take an active part in the proceeding. The main objective is to avoid time-consuming examinations of irrelevant questions. While it is essential to allow counsel to establish and maintain their questioning strategy, the tribunal should step in and ask questions if the examinations drift into verbosity.\textsuperscript{204} A valuable tool for the tribunal is the determination of time limits for the witness examination, which is already common practice.\textsuperscript{205}

- If witness statements are intended to replace the examination-in-chief, the examination should nevertheless start with a short direct examination (‘warm-up’) by the party that nominated the witness (and/or a ‘warm-up’ by

\textsuperscript{202} Schumacher, 2015, 168.
\textsuperscript{203} Schneider, 2011, 3.
\textsuperscript{204} Schumacher, 2011, 169.
\textsuperscript{205} Lew/Mistelis/Kröll, 2003, 574.
the tribunal) in order to avoid that the witness is immediately confronted with the opposing party's counsel.\textsuperscript{206}

- The style in a cross-examination should not be inspired by the style in Anglo-American examinations, but be productive and professional. Closed and leading questions should be replaced by less manipulative questions that help to lay bare the actual knowledge of the witness.\textsuperscript{207} The IBA Rules provide in their Art. 8 ‘Questions to a witness during direct and re-direct testimony may not be unreasonably leading’. This provision is only meant for a party’s own witnesses but can be extended to the opponent's cross-examination.\textsuperscript{208}

\textsuperscript{206} Schumacher, 2011, 169-170.
\textsuperscript{207} Schneider, 2011, 1.
\textsuperscript{208} Art. 8 (2) sentence 3 IBA Rules.
VI. Conclusion

246. In international arbitration, the awards are frequently based on the evidence provided by witnesses of fact. Despite the importance of written statements and oral evidence, the majority of legal professionals know little about the functioning of the human memory, corrupting interferences and their consequences for the accuracy and validity of witness evidence.

247. Starting with the first experiments by Elizabeth Loftus in the 1970s, numerous studies have substantially enhanced our understanding of human memory. Concurrently, researchers gained insight into the possible interferences that can lead to memory distortion. These significant advances in memory research have yet to find their way into the taking of witness evidence in international arbitration. The impacts of retrospective effects, such as the misinformation effect, false memories and memory conformity, are mostly unknown. Instead, memory is widely perceived as a closed and uniform system that is not significantly exposed to negative interferences.

248. In the opinion of the author, it is indispensable for the arbitration community to rethink the value of an unaltered and genuine witness statement or testimony, combined with an effort to improve the understanding of human memory, interferences and their possible effects. This would increase the quality of awards and, eventually, promote the justice that should be made through awards and decisions.
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