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Chapter 4: Cultural Differences in Perceptions of Strong and Weak Arguments

Jos Hornikx

§4.01 INTRODUCTION

The process of arbitration requires human reasoning and decision-making. Parties evaluate the evidence that is available to them and decide how to best present their case. Arbitrators aim to resolve a dispute by weighing the evidence and the legal arguments that are presented by each side. Researchers have underlined the importance of strong evidence in legal deliberations, (1) but what exactly characterizes strong arguments? This chapter addresses this question as a first point. The characteristics of arbitrators, such as age, gender, and cultural background, may affect how arbitrators process arguments. Yet given the aim of arbitration to be an objective and neutral process, it is important to consider how such characteristics may impact the ultimate outcome of a case. This chapter examines the last of these characteristics, namely the role of culture in this decision-making process. More precisely, this chapter reviews the research evidence on how members of different cultures evaluate strong and weak arguments.

Section §4.02 explains how argument strength may be defined on the basis of objective criteria formulated by argumentation scholars. The next question that is addressed is whether lay-people are able to distinguish between high-quality and low-quality arguments: is an argument of higher quality also a more effective argument? For this question, experiments are discussed that compare the effectiveness of high-quality and low-quality evidence for lay-people. Section §4.03 discusses the issue ● of whether people's culture matters for how arguments are evaluated. Section §4.04, more specifically, addresses the central question of this chapter as to whether the strength of an argument is culture dependent. In the final two sections, conclusions are drawn in relation to this question (section §4.05), and implications are discussed for the field of international arbitration (section §4.06).

§4.02 QUALITY AND STRENGTH OF AN ARGUMENT

An important distinction has to be understood in this context, namely between the quality of an argument and the effectiveness of an argument. Questions as to what is a high-quality argument and what is an effective argument have puzzled philosophers, rhetoricians, communications scholars and psychologists for decades or even centuries. (2) However, in terms of the categories themselves, the 'quality' of an argument relates to its intrinsic properties to support a standpoint, with high-quality arguments being relatively successful in supporting a standpoint. On the other hand, the 'effectiveness' of the argument relates to the degree to which an argument actually persuades in practice. Both are elements of the broader term of argument 'strength'.

Many studies have investigated argument strength in relation to the Elaboration Likelihood Model, a dominant persuasion model that is built on the idea that people's capacity and motivation to scrutinize a message affects the outcome of the persuasion process. (3) People who are motivated and capable of scrutinizing a persuasive message are said to follow the 'central route' to persuasion, and are expected to be influenced by the strength of the arguments provided: strong arguments will be more persuasive than weak arguments. People who are not motivated or not capable of scrutinizing are said to follow the 'peripheral route', and are expected not to be affected by argument strength but by the information in the message that they can easily process. For instance, the information that a large number of other people value the effects of a given policy determines the extent to which individuals evaluate that policy positively.

Studies generally demonstrate that argument strength matters when people are using the central route to persuasion in contrast to when taking the peripheral route. (4) The overwhelming evidence of the importance of argument strength for persuasion is in sharp contrast to the insights these studies have generated when it comes to what determines the quality of arguments. Yes, strong arguments matter, but what characteristics determine the quality of arguments? Studies in relation to the Elaboration Likelihood Model have compared effective and ineffective arguments, but have not ● examined what makes for effective arguments. This limitation has been repeatedly underlined in the literature. (5)

Interestingly, philosophers and argumentation theorists have written extensively about precisely this issue: what characteristics determine the quality of arguments? Different theoretical accounts have been formulated to think about the quality of an argument. In broad terms, it seems there is agreement on the idea that the quality of an argument has to do with how the argument relates to the claim it supports, but there is no consensus

about how this relationship translates into criteria by which to assess argument quality. To begin with, there are different conceptions of strength: reasonableness, quality, validity, soundness, effectiveness, persuasiveness, and so forth. These conceptions are rooted in different traditions, which are all settled within the broader field of argumentation theory. (6) Simplifying the matter, two broad, popular, accounts for argument quality are discussed here: the formal perspective and the informal perspective.

[A] Formal Perspective on Argument Quality

Central to the formal perspective on argumentation is the form of an argument: the structure of the components that constitute the argument determine the quality. In propositional logic, an argument is valid if the conclusion normatively follows from the premises. Example (1) is an example of the classic *modus ponens* form of argument, and (2) is an illustration:

- (1) *Premise 1:* If A, then B
Premise 2: B
Conclusion: Therefore, B
- (2) *Premise 1:* If a party hands in documents after the deadline, the documents will not be taken into account by the arbitrator
Premise 2: A party hands in documents after the deadline
Conclusion: Therefore, the documents will not be taken into account by the arbitrator

The *modus ponens* is a valid argument. If both premises are true, then the conclusion is necessarily also true. An example of an invalid argument is given in example (3) and applied in example (4)

- (3) *Premise 1:* If A, then B
Premise 2: B
Conclusion: Therefore, A
- (4) *Premise 1:* If a party hands in documents after the deadline, the documents will not be taken into account by the arbitrator

P 78

- *Premise 2:* The documents are not taken into account by the arbitrator
Conclusion: Therefore, the party has handed in their documents after the deadline

This example is called ‘affirming the consequent’, and is considered an invalid argument: the two premises can be true, but the conclusion may nonetheless be false. That is to say, there are other factors that could account for the occurrence of B, such as when the party has provided irrelevant documents.

The invalid form of argument in formal logic is also referred to as a ‘fallacy’. The formal perspective on argument strength has been a popular object of study. Researchers have, for instance, been interested in examining the extent to which ordinary language users correctly assess the validity of these types of argument. (7)

However, the formal perspective has severe limitations when the aim is to understand human reasoning. One limitation is the strict format that is essential: this kind of reasoning is simply inappropriate for most of the reasoning people do. (8) People rarely (if ever) rely upon purely deductive arguments such as *modus ponens* in example 2 in everyday reasoning. Another limitation is that the focus on the form of the argument leads to the undesirable consequence that one can design perfectly valid arguments that – from an ordinary person’s perspective – do not make sense, (9) such as example (5):

- (5) *Premise 1:* If a party hands in documents printed in blue ink, the documents are irrelevant to their position
Premise 2: A party hands in documents printed in blue ink
Conclusion: Therefore: the documents are irrelevant to their position

This argument is formally valid, and so if the premises are true then the conclusion will also be true. However, Premise 1 is nonsense, resulting in a formally valid argument that ‘proves’ its conclusion, even though the conclusion may well be false (i.e., the documents may be highly relevant to the party’s position). As this example demonstrates, then, the formal validity of an argument alone hardly provides a useful evaluation of an argument’s quality.

[B] Informal Perspective on Argument Quality

As much as the formal perspective is concentrated on the form of an argument, the informal perspective to studying argumentation is guided by the content of the argument. In particular, the relationship between the premises is of primary concern. ●
P 79 In (5), the connection between blue ink and the relevance of the submitted documents would be questionable. However, this fact played no role in the evaluation of the quality of the argument from a formal perspective. From the informal perspective on argument quality, however, the invalidity of Premise 1 is important in evaluating the quality of the

entire argument.

Within the perspective of informal logic, the notion of 'argumentation schemes' has been particularly useful for how to think about the content of arguments. (10) Argumentation schemes are 'forms of argument (structures of inference) that represent structures of common types of arguments used in everyday discourse'. (11) Originating from Aristotle's idea of topics (*topoi*), argumentation schemes have been systematically labelled, defined, and classified in the twentieth century. The observation of people's uses of arguments in practice has led to the development of different argumentation schemes, although accounts vary in the number of schemes, and in the specific schemes and subschemes distinguished.

A person may, for instance, argue a case based on an analogy (argument by analogy), based on the consequence of accepting the claim (pragmatic argument), or based on the testimony of an expert (argument by expert opinion). For expert opinion, the argumentation scheme is as follows: (12)

- (6) *Premise 1:* Source E is an expert in subject domain S containing proposition A
Premise 2: E asserts that proposition A (in domain S) is true (false)
Conclusion: A may plausibly be taken to be true (false).

Notably, this argumentation scheme does not lead to an absolute assertion of the truth of the conclusion, as is characteristic of the *modus ponens* form (see example 1). Instead, in a reflection of the 'real world' focus of the informal perspective, the conclusion is merely shown to be 'plausibly' true.

The tradition of argumentation schemes does not only have a descriptive component, aiming at accurately describing argumentative practice. It has also a normative component. As a result, in most classifications so-called critical questions have been formulated that serve as normative criteria for argument quality. A given argument's quality is said to depend on the responses to the critical questions. For the argument by expert opinion, for instance, the critical questions are: (13)

(7)

1. How credible is E as an expert source?
2. Is E an expert in the field that A is in?
3. What did E assert that implies A?
4. Is E personally reliable as a source?
5. Is A consistent with what other experts assert?
6. Is E's assertion based on evidence?

P 80

Under the informal perspective, then, the quality of the argument in (6) is not something that can be derived merely from examining (6), but instead will vary depending on how the answers to the questions in (7) vary, from one factual situation to another. The argument with the highest quality is the argument that satisfied all critical questions.

[C] Are High-Quality Arguments Also Stronger Arguments?

Both the formal and informal perspectives allow for an evaluation of the quality of an argument. For the formal perspective this is a simple binary evaluation, focused on whether or not the formal structure of the argument is valid. For the informal perspective, with its use of argumentation schemes, the quality of an argument is assessed through the critical questions associated with the specific type of argument.

Argumentation studies, in particular from the point of view of the discipline of communication studies, have tested whether high-quality arguments are also more effective in increasing claim acceptance than low-quality arguments, with high-quality arguments under the informal perspective being those that satisfy the critical questions to a larger extent than low-quality arguments. In this line of research, the focus has been on the content of the data presented in arguments. Central is the notion of evidence, 'data (facts or opinions) presented as proof for an assertion'. (14) The study of persuasive evidence has focused on the extent to which types of data affect people's adherence to factual claims that describe (future) events, such as 'Listening to classical music helps students to absorb a lot of knowledge in a short period of time.'

Four types of evidence have been compared in empirical research: (15) (i) anecdotal evidence based on one case, (ii) statistical evidence based on a large number of cases – to a lesser degree, (iii) causal evidence based on an explanation, and (iv) expert evidence based on expert testimony. Table 4.1 gives an example of the four types of evidence for the claim regarding classical music:

Table 4.1 Four Types of Evidence(16)

Anecdotal Evidence	The 16-year-old Martijn Mulder from The Hague has been able to absorb a lot of knowledge in a short period of time, since he regularly listened to classical music. ●
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P 81

Causal Evidence	Classical music stimulates the recognition of repeating patterns and complicated structures, so that analytic thought is developed, and a lot of knowledge can be absorbed.
Expert Evidence	Professor Dr Wildschut, a specialist in the field of music studies at the University of Maastricht, underscores that students can absorb a lot of knowledge in a short period of time by listening to classical music.
Statistical Evidence	The results of a study among 322 Dutch students showed that 75% of them had absorbed a lot of knowledge in a short period of time by listening to classical music.

The effect of variations in the quality of a given type of evidence on the actual strength of evidence has been examined in a number of studies (some of these studies will also be presented in section §4.04 because of their cross-cultural focus). One of the first studies to examine how lay-people respond to differences in the quality of evidence was the second experiment reported in Hornikx and Hoeken. (17) In that study, participants were given twenty different claims about topics for which they were expected not to have particular attitudes (either negative or positive towards the claim). Each of these claims was supported by evidence that varied in type (expert or statistical evidence) and quality (low- or high-quality). The quality of expert evidence was dependent on whether or not the field of expertise of the source corresponded to the claim's topic. In the example in Table 4.1, for instance, the field of music studies is relevant to the claim, but a field such as biology would not. The quality of statistical evidence was also evaluated on the basis of the sample size reported. Again, taking Table 4.1 as an example, that size could be said to be high in the case of 322 students, and it would be low in the case of forty-six students. The participants read each claim with supporting evidence, and judged the probability of the claim alone on a 5-point scale from 'very improbable' to 'very probable'. For the Dutch participants in the study, claim acceptance was higher after high-quality than after low-quality evidence, indicating that the norms for the quality of evidence of arguments matter.

In a similar vein, the impact of the quality of anecdotal evidence on its effectiveness has also been examined. Hoeken and Hustinx (18) manipulated the quality of anecdotal evidence in terms of the similarity between the case presented in the anecdotal evidence and the case presented in the claim. The claim about classical music is aimed at an unidentified audience, but claims may also be directed at particular persons or groups. The level of similarity between the person in the evidence and in the claim is an important criterion for the quality of anecdotal evidence. For instance, if the claim were about the American legal situation, the evidence would be of higher quality if the legal case in that evidence was an American rather than a Swedish case. Hoeken and Hustinx showed that high-quality anecdotal evidence was more persuasive than low-quality anecdotal evidence.

Two other studies have made comparisons between low- and high-quality evidence, where different norms were examined for a given type of evidence. (19) Across the two studies, which were similar in design, a total of sixteen comparisons were made between high- and low-quality evidence. In twelve of the sixteen cases, claims supported by high-quality evidence were more persuasive than when they were supported by low-quality evidence.

In conclusion, the available evidence supports a conclusion that when people are given claims with evidence that varies in quality, they are generally capable of distinguishing strong and weak arguments. This conclusion is complicated from the perspective of arbitration, as this capability has been shown to decrease when claim and evidence are embedded in a longer, more natural text, as is most likely to be the case in an arbitration dispute. In Hoeken and Hustinx, the difference between high and low quality was not observed when the claim and the supporting evidence were part of a longer text. (20) In a recent study, it was examined whether the position of the supplementary text mattered. (21) The study replicated the earlier result that argument quality did not matter when the longer text ended with the supplementary text, but also revealed that argument quality did matter when the longer text ended with the claim and the evidence. Consequently, arbitrators are more likely to be able to evaluate accurately the quality of an argument when the argument is clearly presented (or repeated) at the end of the text.

§4.03 DOES CULTURE AFFECT ARGUMENTATION?

Particularly in the context of international arbitration, in which both parties and arbitrators may come from a range of cultural backgrounds, the question of the impact of culture on the effectiveness of an argument is important. Notably, however, the dominant approach to studying argument quality is normative: normative criteria determine the quality of an argument. This means that quality is independent of the receiver of the argument and his characteristics. By accepting the importance of normative criteria, however, the potential role of the cultural background of the receiver is by definition denied in argumentation. (22) Lloyd and Mercier both argue that it is the focus of the

logical approach to studying argumentation in particular that has contributed to a neglect of interest in the role of culture in argumentation. (23)

This neglect is also apparent in the field of persuasive evidence. Almost all studies on the persuasiveness of evidence types have been conducted with American participants. However, from the beginning of this field of study, researchers have questioned '[w]hether other cultures with different expectations for forms of proof would reflect the same outcomes'. (24) An important distinction that is typically made when it comes to culture and argumentation is the comparison between Greek (Western) and Chinese (Eastern) reasoning. (25) Nisbett and his colleagues (26) have argued that there exist sharp differences in thinking processes in the two cultural groups including processes related to argumentation. According to their framework of Western and Eastern systems of thought, 'Westerners' prefer analytic reasoning, and are believed to 'focus on attributes of the object to assign it to categories, and a preference for using rules about the categories to explain and predict the object's behavior'. (27) 'Easterners', influenced by Taoism and located in Asia, are believed to prefer holistic thinking, a type of thinking that involves 'an orientation to the context or field as a whole, including attention to relationships between a focal object and the field, and a preference for explaining and predicting events on the basis of such relationships'. (28)

Empirical support for this framework is more prominent for a domain such as perception than for argumentation. (29) The evidence that cultural differences exist between Easterners and Westerners in argumentation is scarce. In fact, Mercier, (30) when discussing the universality of argumentation reasoning, is not convinced that the systems of thought perspective can build a strong case for cultural differences in argumentation between the East and the West, although more recently, both Lloyd and Mercier have argued that all humans reason in fundamentally the same ways, but that ● some less fundamental variations may occur across cultures. (31) Lloyd points to important cross-cultural similarities; for instance, that a number of different types of argument, including the *modus ponens* argument, were referred to as well as in ancient Greek as in Chinese works on philosophy. (32) Mercier, after reviewing literature in the area of culture and argumentation, also notes similarities across cultures, and concludes: 'These similarities are sufficient to support cognitive science's claim of universal argumentative abilities, but they leave plenty of room for variation.' (33) According to Mercier, this variation is mainly related to differences in the values that are collectively prioritized in a given culture. (34) As section §4.04 will show, differences in cultural values have been taken as a point of departure to study potential cultural differences in the evaluation of high-quality and low-quality arguments.

P 84

§4.04 THE INFLUENCE OF CULTURE ON THE EVALUATION OF ARGUMENT QUALITY

The main goal of this chapter is to examine whether members of different cultures evaluate the quality of arguments differently. This question of cultural variability of argument evaluations has been largely under examined. There are different aims of cross-cultural research. Van de Vijver and Leung (35) note that one aim is the generalization of earlier effects: by showing a given phenomenon in another culture, the generality of the phenomenon can be supported. Another, opposing, aim may be the exploration of cultural differences. In this second case, researchers expect or suggest that earlier findings may not hold in other cultures. Here, it is essential to have a solid theoretical or empirical basis. In the studies on culture and argument evaluation presented below, this basis is generally the idea that cultures differ in the values that are important to them.

P 85

Values are essential principles in human activity. They affect what we believe and what actions we take. (36) Individuals have the same set of values, but differ in their rankings of these values. For one person, freedom is a more important value than adventure, and for another, adventure is preferred over freedom. Putting these individual variations aside, studies have also demonstrated that groups of individuals – at the level of cultures – also differ in their value priorities. (37) One example is that ● independence is relatively more important in the American culture, whereas interdependence is relatively more highly prioritized in the South-Korean culture. (38) Values play an essential role in distinguishing cultures, which are defined as 'collective programming of the mind that distinguishes the members of one group or category of people from another'. (39) In his much cited work, Hofstede distinguishes five dimensions of values: individualism-collectivism (about the relationship between the individual and the group), high-low uncertainty avoidance (about the tolerance of uncertainty), large-small power distance (about the acceptance of power inequality), masculinity-femininity (about gender roles), and long-term versus short-term orientation.

In the handful of studies that examined how argument quality is evaluated across cultures, the value dimensions were usually the starting point of the examination. In a few studies, Hornikx empirically investigated the persuasiveness of high-quality and low-quality expert evidence in France and the Netherlands on the basis of the power distance dimension. Hofstede defines power distance as 'The extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.' (40) In large-power distance cultures, such as France, people

accept and expect that some individuals have more power than others; in small-power distance cultures, such as the Dutch, an equal distribution of power is important. One of the domains in which power inequalities become apparent is in the notion of expertise (of professors, teachers, etc.).

France and the Netherlands share a large number of similarities as two Northwest European nations; they also differ sharply in their power distance. Hornikx and Hoeken (41) therefore expected that expert evidence, which relies on the testimony of a knowledgeable source, is relatively more persuasive in the French than in the Dutch culture. Their participants rated twenty claims supported by one of the four types of evidence. Confirming their original hypothesis, Hornikx and Hoeken found that among the four types of evidence, expert evidence was relatively more effective in France than in the Netherlands: in France, it was more capable of affecting the degree to which participants accepted claims.

More central to this chapter, Hornikx and Hoeken (42) also examined the persuasiveness of expert evidence of higher and of lower quality in both nations. The quality was dependent on the relevance of the expert's field of expertise for the claim that the expert supported. In (8), psychiatry is relevant to fear of flying; in (9), politics is not:

(8) Professor Chevalier, a specialist in the field of *psychiatry* at the University of Toulouse, underscores that fear of flying decreases as a consequence of taking part in a balloon flight.

P 86

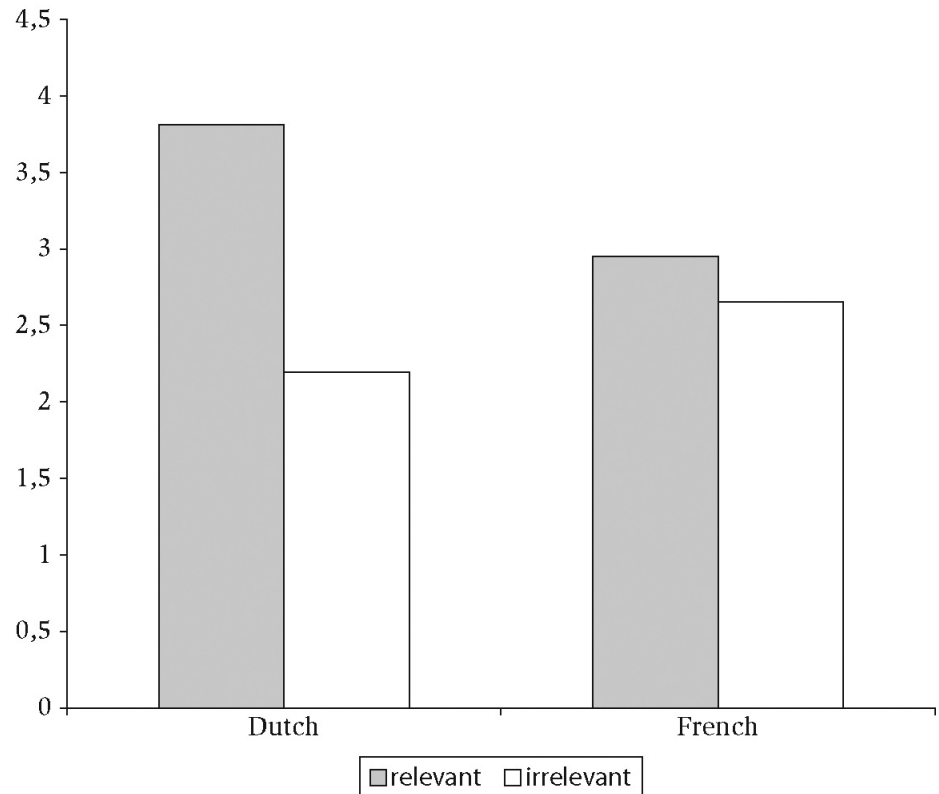
(9) Professor Chevalier, a specialist in the field of *politics* at the University of Toulouse, underscores that fear of flying decreases as a consequence of taking part in a balloon flight.

In this instance as well cross-cultural differences were observed: Dutch participants were found to be sensitive to evidence quality: high-quality expert evidence was more persuasive than low-quality expert evidence. For the French participants, however, low-quality expert evidence was as persuasive as high-quality expert evidence. That is, the mere fact that the professor was an expert of some form was sufficient for French participants to find the expert evidence persuasive, even when the evidence related to a different field than the one in which the expert was an expert. On the other hand, for Dutch participants the expert's evidence was only persuasive when it related directly to the field in which the expert was an expert.

Why were the French participants, and not the Dutch participants, insensitive to the quality variations of expert evidence? An answer to this question may be localized in the area of education and culture. In large-power distance cultures, such as France, education is teacher-centred: students are not expected to criticize their teachers; in small-power distance cultures, such as the Netherlands, education is student-centred, which (amongst others) means that students are free to interact with their teachers. (43) The finding in Hornikx and Hoeken (44) that the French were insensitive to the expertise domain of the expert evidence may have such a cultural-educational explanation. This explanation was put to a test in another study. (45) In that study, Dutch and French participants judged the expertise of eight different experts, who all supported a particular claim. Half of the experts had a field of expertise relevant to the claim, half of them had a field that was irrelevant. A final distinction was made between experts' status: professor or teacher. For each participant, their self-reported obedience was measured with items such as 'The real keys to the "good life" are obedience, discipline, and sticking to the straight and narrow.' The results showed that the Dutch perceptions of expertise were largely affected by the relevance of the field of expertise: the expert was found to have much more knowledge when his field was relevant than when it was irrelevant. This pattern was also observed for the French, but the effect was dramatically smaller (see Figure 4.1).

P 87

Figure 4.1 Dutch and French Expertise Perceptions of Experts with Relevant and Irrelevant Field of Expertise (46)



Given that the difference in expertise perception between relevant and irrelevant fields is smaller for the French than for the Dutch, the next question was to ask whether this smaller difference could be attributed to the participants' self-reported obedience. It was shown that the French self-reported obedience was higher than that of the Dutch, and – more importantly – that the higher the self-reported obedience the smaller the difference between the relevant and the irrelevant fields of expertise. That is, it was statistically demonstrated by means of a mediation analysis that the step from nationality to the difference between relevant and irrelevant fields of expertise is partially explained by the difference in obedience. This result supports the idea that it is the cultural-educational system that accounts for the cultural difference in the sensitivity for expert evidence quality in Hornikx and Hoeken. (47)

In Hornikx and Hoeken (48) cultural sensitivity to statistical evidence was also examined, although it was not guided by expectations based on cultural values. Similar to the results for expert evidence, the French participants were insensitive to quality variations of statistical evidence, whereas the Dutch participants were sensitive to these variations: high-quality statistical evidence was more effective than low-quality statistical evidence. In another study, there were specific expectations when it comes to statistical evidence. In Hornikx and Ter Haar, (49) namely, Dutch and German evaluations of high-quality and low-quality expert and statistical evidence were examined. According to Hofstede, Germany and the Netherlands differ in the importance they attach to values related to the value dimension of uncertainty avoidance, which is '[t]he extent to which the members of a culture feel threatened by uncertain and unknown situations'. (50) The German culture has a higher uncertainty avoidance than the Dutch culture. According to Hornikx and Ter Haar, (51) the use of evidence that supports a novel claim reduces uncertainty about claim acceptance. The higher the quality of the evidence, the easier it should be to resolve uncertainty avoidance. Therefore, it was expected that Germans would mark a larger difference between high-quality and low-quality evidence than the Dutch. Participants judged similar claims as in the experiments discussed above. Claims were supported by expert or statistical evidence of high or low quality.

The first study showed that, for expert evidence, the effect of quality on claim acceptance was identical for Dutch and Germans. For statistical evidence, however, the high-quality variant was more persuasive than the low-quality variant for Dutch, but not for Germans. A second study was conducted to examine whether this non-effect was reliable. In that study with Germans only, the research evidence indicated, again, that they were insensitive to the quality of statistical evidence. It remains unknown why this is the case. The second experiment included a test to assess whether the German participants were able to understand that larger numbers are needed for generalization to the population rather than smaller numbers. As they (unsurprisingly) demonstrated being able to understand this principle, the insensitivity to the quality of statistical evidence cannot be attributed to this principle.

In the studies presented in this section, the comparisons were made in Western nations that are all categorized under the heading of Greek analytical thinking style. Only one study examined argument evaluations in Eastern cultures. Hornikx and De Best (52)

conducted an experiment in India with material similar to the studies discussed above. Their first aim was to explore the persuasiveness of statistical, anecdotal, expert, and causal evidence. Their second aim was to examine whether Indians were sensitive to evidence of which the quality varied according to Western norms for argumentation schemes. Two comparisons were made: between high-quality and low-quality expert evidence, and between statistical and anecdotal evidence. When statistical evidence supports a claim, the argument by generalization is formed: the numerical evidence of a large number of cases is supposed to increase acceptance of the claim about a phenomenon for a population. When anecdotal evidence is used to support the same claim, the identical argumentation by generalization is in play. However, the quality of anecdotal evidence is, by definition, low: one or a few cases in ● the anecdotal evidence are not a sufficient number of cases to warrant generalization to the claim. From a normative point of view, therefore, statistical evidence should be more persuasive than anecdotal evidence.

P 89

The results of Hornikx and De Best (53) show that, for both evidence quality comparisons that were made, the Indian participants were sensitive to quality variations: high-quality expert evidence was more persuasive than low-quality expert evidence, and statistical evidence was more persuasive than anecdotal evidence. Finally, the cross-cultural comparison between statistical and anecdotal evidence was also reported in Hornikx and Hoeken. (54) For both the Dutch and French participants, statistical evidence was observed to be more persuasive than anecdotal evidence. After this review of studies on argument quality in different cultures, the next paragraph aims to draw conclusions.

§4.05 CONCLUSIONS ON CULTURAL DIFFERENCES IN ARGUMENT QUALITY PERCEPTIONS

In human reasoning, people aim to use arguments that have the potential to persuade their audience. An argument that respects quality criteria does not guarantee that the argument will be effective: audience characteristics, topic, and context all play a role. Therefore, it is important that studies test the actual persuasiveness of arguments that are supposed to be of high or low quality. In recent years, these kinds of studies have been published, reporting that people are generally sensitive to quality criteria: high-quality arguments are more persuasive than low-quality arguments. (55) These results can be considered as checks of the ecological validity of the quality criteria: not only are the criteria theoretically relevant, they also matter in everyday reasoning. There are, however, limitations to the conclusion that high-quality arguments are more persuasive than low-quality arguments.

[A] Limitations

First, the finding that argument quality often predicts argumentative success is mainly found in studies examining short texts that consist of nothing more than a claim with supporting evidence. In large, more natural texts, the impact of argument quality on persuasiveness decreases. (56) Second, the results are obtained for claims that were not personally relevant to the receivers. This means that people are likely to have processed the evidence in a relatively objective way. In everyday reasoning, however, people are biased in how they select and interpret evidence for claims for which they already hold specific beliefs. From studies on motivated reasoning, namely, it is known ● that people tend to select information that is congruent with their existing belief, (57) and that they evaluate information positively if it confirms that belief and negatively if it discredits it. (58) In the third and last place, the finding that high-quality arguments are more persuasive than low-quality arguments has not been observed across different cultures. The review of empirical studies in section §4.04 showed both cultural similarities and differences. Sometimes, the similarities are striking. One example is the study conducted in the Indian culture. (59) Although that culture has a different tradition in thinking and reasoning than in Western cultures where most of the argumentation studies have been conducted, results were similar as obtained in other Western studies. Sometimes, the differences are remarkable, namely when sharp differences were observed between close European countries: France – the Netherlands, (60) and Germany – the Netherlands. (61) These differences are striking from the point of view of the analytic versus holistic thinking paradigm. (62) With their identical Greek roots of thinking style, the European nations' differences in the perception of high-quality and low-quality arguments are rather unexpected.

P 90

The mixed results in the studies that were reviewed – both cultural differences and similarities were reported – are not at odds with recent reviews that conclude that human reasoning is a universal process but that variation from culture to culture exists. (63) It should be noted, however, that the results are limited in terms of the number of studies, and in the number of cultures or continents observed. More cross-cultural comparisons would enable drawing firmer conclusions about how culture may affect the evaluation of argument quality.

Still, the current set of studies already raises a fundamental question: do people from various cultures differ in their sensitivity to quality norms, or do they have other norms for quality altogether? The results from the cross-cultural studies reviewed indicate that lay-people sometimes demonstrate different reactions to evidence with varying levels of

quality. It is justified to conclude that they are differentially sensitive to norms for evidence quality. The reason behind this insensitivity may go in two directions. First, people from two cultures agree on the set of criteria associated to the quality of a type of evidence, but they differ in the degree to which they apply these criteria to their evaluation of that evidence. Why people from different cultures would vary in this differential application is unknown.

Second, people from different cultures may not agree on the set of criteria determining the quality of evidence. As a result, they only show sensitivity to evidence quality manipulation if that manipulation is based on a criterion that is relevant to them. For example, an explanation for the French insensitivity to expert evidence quality may be located in the inapplicability of 'relevant field of expertise' for the quality of expert evidence. French people may also hold other criteria for the quality of expert evidence than those used in the experiment. The current state of knowledge does not allow confirming or disconfirming this second explanation.

It would be helpful if the literature were to identify specific sets of quality criteria associated to different argumentation schemes depending on the cultural origin of the classification of argumentation schemes. This is not the case. There is variation in the origin of classifications; some originate from Canada, (64) for instance, while others were developed by researchers from the Netherlands (65) or Austria. (66) However, the number of classifications is low, the number of countries involved is limited, and the classifications cannot be considered independent. Therefore, more research is needed to uncover reasons for cultural differences in sensitivity to evidence quality variations. One approach may consist of having lay-people from different cultures generate arguments themselves that they consider strong or weak for a given claim. This may provide insights into the underlying quality criteria they hold.

§4.06 APPLICATIONS OF THE REVIEWED LITERATURE TO INTERNATIONAL ARBITRATION

This chapter aimed to offer insights into lay-people's sensitivity to the quality of arguments in general and to the role of the lay-people's cultural background in this sensitivity specifically. The studies reviewed have limitations for a direct application of the results to the field of international arbitration: the studies are focused on written texts, and they are cross-cultural rather than intercultural. These limitations are discussed below.

The empirical research on culture and argument quality has measured lay-people's judgments of arguments on the basis of written claims. Lay-people read a claim and a supporting argument, and are then invited to assess the degree to which they accept the claim. This setting excludes the potential influence of a number of factors that are associated with the process of argumentation, such as the characteristics of the speaker and audience, the way in which the argument is presented, and the moment of the presentation of the argument in a discussion. In discussions, indeed, the characteristics of the person who puts forward the claim affect the outcome of the persuasion process. (67) The speaker's credibility and expertise may be taken into account when a person assesses the merits of the arguments put forward. Particularly when a person processes a persuasive message from the 'peripheral' route to persuasion, (68) these characteristics are influential: the claim is better accepted when the speaker is more credible and/or more expert. As this chapter has demonstrated, who counts as an expert may be culture dependent. In the legal domain, another relevant question may be whether a witness is considered as a reliable source (i.e., an expert in a given domain) or as a less reliable person. (69) This question becomes particularly relevant if culture is added in the mix: whereas a witness may be considered an unreliable person to a party from culture X, that witness may be considered an expert by a party from culture Y.

A second limitation of the current results for applications to the field of international arbitration lies in the fact that the studies on culture and argumentation are cross-cultural in nature. That is, the sensitivity to argument quality variations was assessed with participants from different cultural backgrounds. The insights generated are cross-cultural in nature. In the practice of international arbitration, the cultural component – arbitrators and parties may have different cultural backgrounds – is intercultural. The observation that people from varying cultures make other evaluations of arguments with different levels of quality is one thing; an interaction between speakers and listeners who do not have the same cultural background is another. Are they aware of their own culture characteristics and of the characteristics of the other? Does one of them tend to adapt to the other? Do they speak a lingua franca in the discussion (usually: English), or does one of them speak his own language, or do they both speak their own language (70)? Do they manage to (implicitly) agree on how turn taking is regulated? People cannot be seen as pure representatives of their native culture; an intercultural contact is a personal contact in the first place. These people may share beliefs and demographic characteristics, and may also differ in cultural terms, but it cannot be predicted beforehand how any of these characteristics may affect the discussion – if they do.

Culture may affect people's evaluations of arguments that differ in quality in short written texts. It is an empirical question as to how people from different cultures respond

to arguments that are put forward in discussions in general, let alone in the context of international arbitration. This chapter aimed to demonstrate that culture may affect argument evaluations. If it raises awareness among academics and practitioners in the domain of international arbitration, it has served its purpose.

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